



**INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH (ICSSR)
MINISTRY OF EDUCATION, GOVT. OF INDIA**

**SPONSORED TWO-WEEKS CAPACITY BUILDING PROGRAM (CBP) FOR
YOUNG SOCIAL SCIENCE FACULTY**

**ACADEMIC REPORT ON TRANS-DISCIPLINARY
SOCIAL SCIENCE RESEARCH:
TOWARDS ATMANIRBHAR BHARAT**



Compiled by

Prof. Arun Kumar Chakraborty (Course Director)

Dr. Anamika Das & Dr. Barnali Roy Choudhury (Co-Course Director(s))

December 4 - 15, 2023

Organized by

Department of Library & Information Science,

School of Professional Studies

NETAJI SUBHAS OPEN UNIVERSITY

DD-26, Sector-I, Salt Lake, Kolkata – 700064



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Title:

Academic Report on Trans-disciplinary Social Science Research: Towards Atmanirbhar Bharat

Sponsored:

Two-weeks Capacity Building Program (CBP) for Young Social Science Faculty on “Trans-disciplinary Social Science Research: Towards Atmanirbhar Bharat”
Indian Council of Social Science Research (ICSSR), Ministry of Education, Govt. of India, New Delhi

Organised by:

Department of Library & Information Sciences (DLIS), School of Professional Studies (SPS), NSOU Kolkata- 700064

Published by:

Netaji Subhas Open University (NSOU), Kolkata
DD-26, Salt Lake, Sector-1, Kolkata-700064

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December 2023

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Design & Printed by:

LASERWORLD
P4A, CIT Road, Kolkata-700 014
Phone: 98311 61961

Printed in India

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Young Social Science Faculty Members and Their Role in Achieving *Atmanirbhar Bharat*

Basheerhamad Shadrach

Director, Commonwealth Educational Media Centre for Asia

Email: bshadrach[at]col[dot]org

Dear Professor Indrajit Lahiri, Professor Ami Upadhyay, Ms Melinda Pavek, Professor Anirban Ghosh, Professor Arun Kumar Chakraborty, Dr Anamika Das, and Dr Barnali Roy Chowdhury,

I wish to congratulate Professor Chakraborty for taking the initiative to nurture the young minds and to prepare them for a national cause. Often, as young faculty members, we look up to someone to draw inspiration. Here is an inspirational leader who wishes to see these young people develop interest in continuous professional development and reach greater heights, especially in nation building.

I bring greetings from the Commonwealth Educational Media Centre for Asia (CEMCA), the only regional centre of Commonwealth of Learning (COL)! The Heads of Governments of the Commonwealth who met in Okanagan, Vancouver in 1987, had the vision to create a global, rather a Commonwealth, institution solely dedicated to promoting quality education and skills through open and distance learning. Since then, hosted by the Canadian government, COL exists as an intergovernmental body under the umbrella of the Commonwealth. Its regional centre in Delhi was established in the first decade of COL at the behest of the Indian government that wished to see an Asian regional centre established in India. Since the mid- 1990s, CEMCA has existed as an intergovernmental body based out of Delhi!

CEMCA and Netaji Subhas Open University (NSOU) have been long standing partners in efforts to bring quality education and skills to millions of people in the state of West Bengal. Similarly, in partnership with other Open Universities (OU) such as the Babasaheb Ambedkar Open University in Ahmedabad, headed by Professor Upadhyay, we support Open Education, Affordable Education and Quality Education amongst the people of the Commonwealth. CEMCA works with each of the 33 OUs and almost all of the dual mode universities around the Commonwealth. India is gifted with 18 such OUs, the most for any nation in the world. India also enjoys the distinction of having the largest number of individuals pursuing education through Open and Distance mode. It is phenomenal that a huge load of Indian education is taken up by the OUs and in a user-friendly and affordable manner. It is also heartening to know that each of these 18 OUs are becoming extremely agile and adaptive to the recent technological developments, providing the best learning experience for everyone who walks through the OU system. We commend the NSOU, BAOU and other universities for the important role they play.

The idea of nurturing young minds to trans-disciplinary research to achieve *Atmanirbhar Bharat* is quite unique. Again, thanks to NSOU, we have this programme, supported by the Indian Council for Social Science Research, where 30 young people have been brought together to explore these concepts, and more so, the role of research in achieving a self-reliant India.

The idea of self-reliance, although existed perhaps since the beginning of mankind, became popular with the essay written by an American transcendentalist Philosopher, Ralph Waldo Emerson who interestingly highlighted that every human being should avoid conformity and false consistency and follow one's own instincts and ideas.

"A foolish consistency is the hobgoblin of little minds, adored by little statesmen and philosophers and divines."

The above became a famous quote; not only that, it initiated the thought process – Learning and forgetting and learning again! Taking the idea further, the philosophers who arrived later, explained that individuals are not expected to endure life alone. They are surrounded by 'helps and aids' of all kinds, supporting, sustaining, and journeying with them!

The idea of self-reliant India, *Atmanirbhar Bharat*, as explained by Prime Minister Modi, is an umbrella concept for India to become more efficient, competitive, and resilient. All ministries and departments in Indian government, since then, took the concept seriously and have started to work towards *Atmanirbhar Bharat*. The Ministry of Education, Government of India, pronounced its National Education Policy 2020 (NEP 2020) with an aim to establish the Indian Education System as second to none with equitable access to the highest quality education for all learners, regardless of their social and economic background or status, by 2040. This is where the OUs and NSOU play an important role!

In the last century, the idea of *Atmanirbhar Bharat* was tried out by various personalities very successfully. Gandhiji started the first political self-reliance movement and Netaji Subhas Bose is credited with initiating the first military-oriented self-reliance movement! We also witnessed the Bombay Plan for economic self-reliance by JRD Tata, G D Birla and A Dalal. While some of these succeeded; surely, Gandhiji's self-reliance based on non-cooperation and non-violence movement succeeded, but we have not been able to attain economic freedom for a long time, resulting in dependency for food and raw material!

Professor Swaminathan on one hand and Professor Varghese Kurian, on the other, demonstrated self-reliance through their Green and White Revolutions. The Green Revolution which depended upon the hard-working Punjab farmers turned India into a breadbasket from a begging bowl, later relied heavily on skills, training, visitation and communication. And the latest version of the Green Revolution in the form of Evergreen Revolution relied upon people's knowledge and power as the basis for self-reliance, leading to productivity in perpetuity without causing ecological harm in an inclusive manner – pro-poor, pro-women, and pro-nature. The essence of Sustainable Development!

You can see the vision of Swaminathan relying upon skills, knowledge, and public action for self-reliance! He bridged the gap between public policy and social action; and science and society. He also ensured that non-academic stakeholders such as the farmers become the mainstay in implementing governmental programmes, thereby combining scientific knowledge with traditional wisdom!

As we march towards the next phase of Indian journey into self-reliance, I would call upon the social scientists to take research seriously, especially in ensuring that the research is not conducted in silo or for only moving the scientific spiral of knowledge, but one that transcends beyond one's own individual self to one that, as the philosophers and thinkers, who arrived after Emerson, put it.

Taking the idea further, these philosophers explained that individuals are not expected to endure life alone. They are surrounded by 'helps and aids' of all kinds, supporting, sustaining, and journeying with them! So, the idea of transdisciplinary research is to go beyond social science to get to understand philosophy, religion, languages, science, technology, fine arts, literature, history, geography and so on! In the event of India, the help comes from within. In each one's understanding of the other, and appreciation of others' efforts as much as one's own.

The idea of cultivating collaborative thinking and multi- and trans-disciplinary thinking alone can take India into the next phase of *Atmanirbhar Bharat Abhiyan*!

Ladies and Gentlemen, thank you for your attention!



Dr. Basheerhamad Shadrach

Director

Commonwealth Educational Media Centre for Asia

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Professor B. Shadrach is currently serving the Commonwealth Educational Media Centre for Asia (CEMCA) as its Director. CEMCA is the regional centre of Commonwealth of Learning (COL), Canada and is an intergovernmental organisation in the status of United Nations Agencies, recognized by the Indian government that hosts the centre in New Delhi. In this position, he oversees programmes that enhance quality learning and access to education and skill development in Asia. He is also identified as an expert by the Global Partnership of Artificial Intelligence (GPAI) in work programmes related to the Future of Work and AI in Education.

Previously, he has been a consultant to UNESCO-UNEVOC for Building Innovation and Learning in TVET (BILT) program with support from the German Federal Institute for Vocational Education and Training (BIBB) and the German Federal Ministry of Education and Research (BMBF).

In his career since 1986, he has managed ICT4D and lifelong learning programs in over forty nations around the world. He has also served in senior management positions at the British Council, Transparency International, Germany and OneWorld International, UK. He helped the Bill & Melinda Gates Foundation to establish the Indian Public Library Movement and the International Network of Emerging Library Innovators program in South Asia. He was also the Asia Coordinator of Sir Tim-Berners-Lee's World Wide Web Foundation for its Alliance for Affordable Internet program. He served as the Global Chief Executive of Telecentre.org Foundation in the Philippines and as Ottawa-appointed Senior Program Officer of International Development Research Centre, Canada, managing ICT4D research grants in Asia.

Having launched India's first-ever news indexing system, xpres in 1991 while serving the Indian Express Newspaper group, and thereafter, the first-ever development Portal, *indev* in 1999, he launched the first-ever global Anti-Corruption Portal, *CORIS* at the International Anti-Corruption Conference in Seoul in 2003 and Transparency International's Intranet, ChapterZone, as the knowledge management platform for TI's national chapters in 92 countries in the same year.

While managing the Building Communication Opportunity Alliance in Asia, in 2004, Dr Shadrach launched *EkDuniya anEk Awaaz*, a unique Community Radio initiative, and a multi-stakeholder alliance of over 600 organisations that advocated for achieving the MDGs in South Asia. He supported the launch of South Asia's *Wada Na Thodo* campaign together with UN's MDG campaign partners while also managing the *Open Knowledge Network* in Asia on behalf of G8's DOTFORCE. In the year 2005, with support from Cisco and British Telecom, he launched *Lifelines India*, the nation's first-ever NGO-led 24X7 Farmers' call centre. Between 2003 and 2005, he was the global coordinator of the 'Grassroots Caucus' at both the legs of the World Summit on the Information Society in Geneva and Tunis. Under the chairmanship of Professor M S Swaminathan, as the Executive Secretary, he launched *Mission 2007: Every Village a Knowledge Centre* initiative which paved the way for establishing over 100,000 Common Service Centres in India. He helped to spread its adoption in many nations around the world.

As the global head, telecentre.org Academy, in 2009, he developed a unique training ecosystem for equipping grassroots-level knowledge workers. After successfully establishing the Global Telecentre.org Foundation in Manila in 2010, with support from the ITU, in 2011, he launched the world-wide *Telecentre Women: Digital Literacy Campaign* which successfully trained over 1 million women in digital entrepreneurship.

In 2015, he launched the Indian Public Library Movement in partnership with BMGF and NASSCOM Foundation and the South Asian INELI program in 2017 in partnership with M S Swaminathan Research Foundation. As Skills Advisor at the Commonwealth of Learning, in 2019-20, in collaboration with Udemy, Coursera and Google, he imparted job-ready skills among 200,000 people in Asia, Africa, Caribbean and the Pacific during the COVID-19 Pandemic to help them re-enter the labour market.

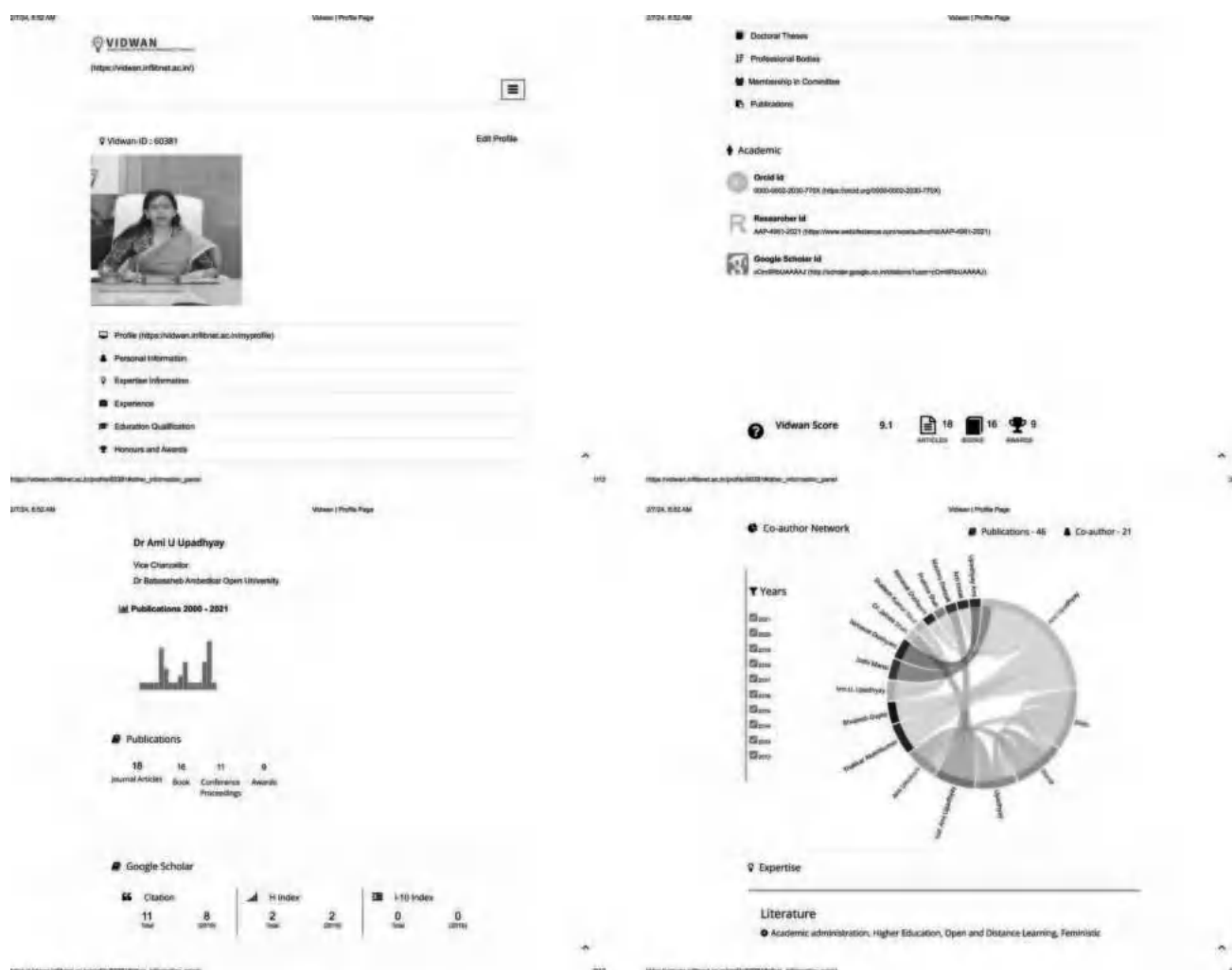
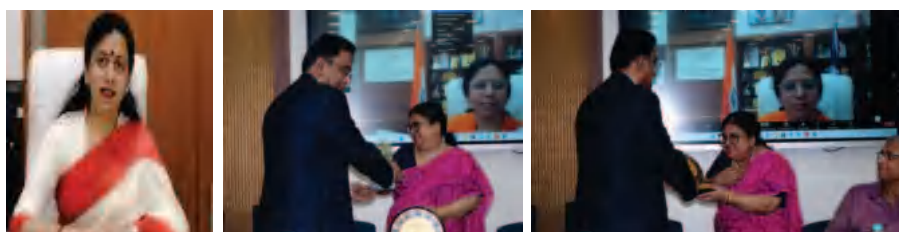
(Key Note Speaker)

NEP 2020 : Impact on Social Science Research towards Atmanirbhar Bharat

Prof. (Dr.) Ami Upadhyay
Vice Chancellor

Baba Saheb Ambedkar Open University, Ahmedabad

(Video recording is available)



(D-01.02-SES-02-NSOU)

Programme Schedule



Two-week "Capacity Building Program" (CBP) for Young Social Science Faculty" on "TRANS-DISCIPLINARY SOCIAL SCIENCE RESEARCH :TOWARDS ATMANIRBHAR BHARAT" during 4th -15th December, 2023

Day 1: 04.12.2023 Monday : REGISTRATION : 10.00 AM TO 1.30 AM

Inaugural Session : (D-01.01-INA-01-NSOU 04/12/2023 10.00Am to 12.00 Noon

Welcome Address : Dr. Anirban Ghosh, (Local – Kolkata) Professor of Commerce & Director, SPS, NSOU

Introducing Theme : Prof. Arun Kumar Chakraborty, (Local – Kolkata) HOD, DLIS, NSOU, Course Director, DLIS

Key Note Address : Prof. Ami U. Upadhyay NEP-2020:Young social science faculty members and their role in achieving Atmanirbhar Bharat **Honble Vice-Chancellor, Dr. Babasaheb Ambedkar Open University (BAOU), Ahmedabad (Social Science)**

Chief Guest: Dr. B.Shadrach Director, Commonwealth Educational Media Centre, for Asia, **Delhi (Technology)**

Guest of Honor : Hon'ble Consul General Melinda Pavek U.S. Consulate General, **Kolkata, Social Science**

Chairperson: Prof. Indrajit Lahiri Vice-Chancellor, NSOU, (Local – Kolkata), **Mathematics**

Vote of thanks: Dr. Anamika Das, Assistant Professor, DLIS, NSOU, Co-Course Director (Local – Kolkata), **dlis**

Compering the Inaugural Session: Dr. Barnali Roy Choudhury, Assistant Professor, DLIS, NSOU, Co-Course Director, (Local – Kolkata), **dlis**

Date	VENUE	10:00AM to 11:30AM	11:45M -01.15PM	02:00PM-3:30PM	3:45PM-5:30PM	3:45PM-5:30 PM
Day 1: 04.12.2023 Monday	NSOU-HQ, Saltlake, Kolkata	REGISTRATION (09.00AM TO 10.00 AM)	Inauguration (D-01.01-INA-01)-NSOU	Young social science faculty members and their role in achieving Atmanirbhar Bharat (Dr. B. Shadrach), Delhi (Technology) (D-01-SES-01)-NSOU	NSOU Program Plan for 12 days CBP (D-01.02-SES-02)- (Dr. Barnali Roy Choudhury) and (Prof. Arun Kumar Chakraborty)	Research Visibility : Tools, Rules and Roles of Academics (Prof. Bhaskar Mukherjee), BHU, Varanasi, U.P, DLIS (D-01.03--SES-03)-NSOU
Date	VENUE	10:00AM to 11:30AM	11:45M -01.15PM	02:00PM-3:30PM	3:45PM-5:30PM	3:45PM-5:30 PM

Lunch (1:15PM 2:00 PM) EVERYDAY)

Day 2: 05.12.2023 Tuesday	NSOU-HQ, Saltlake, Kolkata	(D-02.1-SES-04-NSOU) – (D-02.5-SES-08-NSOU)	Predatory publications and journal finding tools: Review of Literature (Prof. Shubhada Nagarkar Prashant), Savitri Phule University, Pune (DLIS) (D-02.1-SES-04-NSOU)	Predatory publications and journal finding tools & Literature search (Prof. Shubhada Nagarkar Prashant), Pune (DLIS) (D-02.2-SES-05-NSOU)	Sampling for Quantitative and Qualitative Inquiry- Hands-on SPSS Presentation and Hands-on (D-02.3-SES-06-NSOU) (Mr. Sayan Samanta), Kolkata Technical Software	SPSS Presentation and Hands-on (D-02.4-SES-07-NSOU) (Mr. Sayan Samanta), Kolkata Technical Software
Day 3: 06.12.2023 Wednesday	NSOU-HQ, Saltlake, Kolkata	(D-03.1-SES-09-NSOU) – (D-03.4-SES-12-NSOU)	Ethical Issues in using Technology (AI-based) in Research: Use of Chat GPT, Quillbot, Grammarly etc.) (Prof. Arun Kumar Chakraborty),	Economics for Daily Livelihood (Prof. S.K. Salim) (D-03.2-SES-10-NSOU), Burdwan, W.B. (Economics)	Research tools – Topic-01: Smart Reference through Open tools (Prof. Partha Sarathy Mukhopadhyay) (D-03.3-SES-11-NSOU) (DLIS)	Research tools— Topic-02: AI enabled Digital Access Brokers for Research (Prof. Partha Sarathy Mukhopadhyay) (DLIS) (D-03.4-SES-12- NSOU) Kalyani Univ., WB

Date	VENUE	10:00AM to 11:30AM	11:45M -01.15PM	02:00PM-3:30PM	3:45PM-5:30PM	3:45PM-5:30 PM
Lunch (1:15PM 2:00 PM) EVERYDAY)						
			Kolkata, DLIS (D-03.1-SES-09- NSOU)		Kalyani Univ., WB	
Day 4: 07.12.2023 Thursday	NSOU-HQ, Saltlake, Kolkata	(D-04.1-SES-13- NSOU) (D-04.4-SES-16- NSOU)	Postulation approach and social science research (Prof. Durga Shankar Rath) Vidyasagar University, WB – FACULTY-DLIS (D-04.1-SES-09-NSOU)	When AI Meets Social Science (Prof. Malay Bhattacharyya), ISI, Kolkata (D-04.2-SES-14- NSOU) Computer Science	CASE STUDIES :Preparation (Prof. Sushmita Chakraborty) (D-04.3-SES-15- NSOU), DLIS	CASE STUDIES Presentation Changing Landscape in Educational Policy : Implications for evolving Quality Parameters in Higher Education (Prof. Subarna Das, JU) DLIS (D-04.4-SES-16- NSOU) USIEF : 07/12/2023 Thursday : 4.45-5.45 PM Opportunities in USA for faculty Scholars by USIEF, USIS, Kolkata (Dr. Sumit Basu) (International Relations)
Day 5: 08.12.2023 Friday	The Asiatic Society, Park Street, Kolkata	Indigenous Research Methodology – With Case Studies. (D-05.4-SES-20-AC-01)-TAS	Advancement in Research in Social Science (Secretary, The Asiatic Society) – Inaugural (D-05.1-SES-17-AC-01)-TAS	Ancient Indian Dharmasastras : A Repertoire of Gems of Indian Knowledge (Prof. Tapati Mukherjee), (D-05.2-SES-18-AC-01)-TAS (Sanskrit)	Society and Politics in Vedic Science (Prof. Swapan Paramanik) (D-05.3-SES-19 Social Science	History and the Opening of Social Sciences : A Case Study of the Search of Grassroots History of India (Prof. Arun Bandyopadhyay) (D-05.4-SES-20-AC-01)-TAS - AC-01)-TAS Social Science - History
Day 6: 09.12.2023 Saturday	Central Library, CU, College Street, Campus, Kolkata	Academic Collaboration (D-06.1-SES-21-AC-02)-CU – (D-06.4-SES-24-AC-02)-CU	ACADEMIC VISIT TO LIBRARY – E- E-resources (Dr. Soumitra Sarkar) (D-06.1-SES-21-AC-02)-CU DLIS (D-07.3-SES-28-	Review of Literature using E-resources and Print resources available in CU Central Library (Dr. Soumitra Sarkar), DLIS (D-06.2-SES-22-AC-02)-CU	CASE STUDIES Citation Index and Research Discovery tools Tools SCOPUS by Elsevier (Prof. Arun Kumar Chakraborty, Dr. Anamika Das, Dr.	CASE STUDIES Citation Index and Research Discovery tools (Web of Science) by Clarivate (Dr. Shubhangini Nag) (Dr. Anamika Das Dr. Barnali Roy Choudhury) (D-06.4-SES-24-B-C-02)-CU CITATION TOOLS – HANDS-
Date	VENUE	10:00AM to 11:30AM	11:45M -01.15PM	02:00PM-3:30PM	3:45PM-5:30PM	3:45PM-5:30 PM
Lunch (1:15PM 2:00 PM) EVERYDAY)						
					Barnali Roy Choudhury) (D-06.3-SES-23-AC-02)-CU	OM
Day 7: 10.12.2023 Sunday	Field Visit/ASSIGNMENTS	Academic Collaboration	ACADEMIC VISIT (OWN choice) (D-07.1-SES-25-) (D-07.3-SES-28-	ACADEMIC ASSIGNMENTS (D-07.1-SES-26-AC-03)-	Field Data Collection (D-07.2-SES-27-)-	Assignments (D-07.3-SES-28-AC-03)-
Day 8: 11.12.2023 Monday	MAKAIS, Salt Lake, Kolkata(D-08.1-SES-29-AC-04)-MAKAIS ---	Academic Collaboration ===== Inauguration (D-08.1-SES-32-AC-04)-MAKAIS	Prelude to Research Discussions – (Prof. Rajiv Nayan), Social Science (D-08.1-SES-29-AC-04)-MAKAIS	Indic Perspective : An Alternative to Mainstream Indian Research (Prof. Aswani Mahapatra) Social Science (D-08.1-SES-30-AC-04)-MAKAIS	Indic Methodology (Prof. Heeraman Tiwari) (D-08.2-SES-31-AC-04)-MAKAIS Social Science	Rediscovering India's ancient maritime commercial and cultural connects. (Prof. Swarup Prasad Ghosh) Social Science (D-08.3-SES-32-AC-04)-MAKAIS
Day 9: 12.12.2023 Tuesday	National Library and CRL, Alipore, Kolkata (D-09.1-SES-33-AC-05)-NL	Academic Collaboration ===== Academic Visit and Literature Review (D-09.3-SES-36-AC-06)-CRL	Library Resources access : Treasure of Print and E-resources at NL (Prof. Ajay Pratap Singh), DLIS (D-09.1-SES-33-AC-05)-NL == (D-09.3-SES-36-AC-06)-CRL	Exploring -- Treasure of Print and E-resources at NL (Prof. Ajay Pratap Singh), DLIS (D-09.2-SES-34-AC-05)	Academic Collaboration Exploring Rare Collection at NL (Dr. Siva Prasad Senapati), DLIS (D-09.3-SES-35-AC-06)	Indian National Bibliography and Bibliography on Demand -- Treasure of Print and E-resources processing (CRL) (Dr. Siva Prasad Senapati) (D-09.3-SES-36-AC-06)-CRL, DLIS
Day 10: 13.12.2023 Wednesday	Academic Collaboration NSOU, Kol NCSM, Science City, Kolkata	Academic Collaboration D-10.1-D-SES-37-NSOU-10.02-SES-38-NCSM) D-10.03-SES-39-NCSM--	Wednesday 13-12-2023 09.30am -11.30am NSOU-HQ, Saltlake, Kolkata Case Studies -- (Prof. Sabuj Choudhury, HOD, CU – Moderation), DLIS D-10.1-D-SES-37-NSOU	11.00AM to 12.30PM Mental Health and Wellbeing by (Dr. Neelanjana Paul), 10.02-SES-38-NSOU NSOU-HQ, Saltlake, Kolkata, Consultant Psychiatrists, Peerless Hospital & Formerly	NCSM, Science City, Kolkata (Dr. Anurag Kumar), MUSEOLOGY (D-10.3-SES-39-NSOU)	NCSM, Science City, Kolkata (Dr. Anurag Kumar) MUSEUM ACADEMIC VISIT ===== (D-10.4-SES-40-NSOU)

Date	VENUE	10:00AM to 11:30AM	11:45M -01.15PM	02:00PM-3:30PM	3:45PM-5:30PM	3:45PM-5:30 PM
Lunch (1:15PM 2:00 PM) EVERYDAY)						
		(D-10.4-SES-40-NSOU)	(D-10.1-D-10.02-SES-38-NSOU)	Prof. & HOD, ICARE, Institute of Medical Sc. & Research, Haldia		
Day 11: 14.12.2023 Thursday	NSOU-HQ, Saltlake, Kolkata	(D-11.01-SES-41- -NSOU) – (D-11.01-SES-42- -NSOU Academic Collaboration (D-11.03-SES-43-44-NSOU) Participants presentation Co-ordinators Dr. Anirban Ghosh, Coommerce	Translation tools, Quilbilt – demonstration by (Mr. Amit Verma, CEO, Umbrella - representative) NSOU-HQ, Saltlake, Kolkata (Dr. Ziaur Rahaman, HOD, DLIS, RBU) NSOU-HQ, Saltlake, Kolkata CASE STUDIES Participants presentation Presentation: Research Proposal/ Use of technology in Teaching & Research	NSOU-HQ, Saltlake, Kolkata Role of Faculty in NAAC accreditation (Prof. Shilpi Verma, DLIS, BBAU, Lucknow) (D-11.02-SES-42-NSOU), DLIS Moderator/Evaluator Prof. Arun Kumar Chakraborty Dr. Anamika Das Dr. Barnali Roy Choudhury (D-11.01-SES-41- -NSOU)	CASE STUDIES NSOU-HQ, Saltlake, Kolkata Participants presentation Presentation: Research Proposal/ Use of technology in Teaching & Research (Prof. Biplab Chakraborty, Dean, CU), DLIS (D-11.031-SES-43 -NSOU)	NSOU-HQ, Saltlake, Kolkata CASE STUDIES Participants presentation Presentation: Research Proposal/ Use of technology in Teaching & Research (Prof. Biplab Chakraborty, Dean, CU), DLIS (D-11.04-SES-44- -NSOU)
Day 12: 15.12.2023 Friday	NSOU-HQ, Saltlake, Kolkata		NEP-2020 vis a vis Online Learning Part-I&II (Prof. Uma Kanjilal) IGNOU, Delhi, DLIS (D-12.01-SES-45-NSOU- (D-12.02-SES-46-NSOU) (D-12.04-SES-48-NSOU)	EXAMINATION (D-12.01-SES-45-NSOU-(D-12.02-SES-46-NSOU) Prof. Arun Kumar Chakraborty Dr. Anamika Das Dr. Barnali Roy Choudhury (D-12.04-SES-48-NSOU)	SUMMING UP FEED BACK ANALYSIS 2.00 PM-3.00 PM	VALEDICTORY 3.00 PM TO 5.30 PM
Date	VENUE	10:00AM to 11:30AM	11:45M -01.15PM	02:00PM-3:30PM	3:45PM-5:30PM	3:45PM-5:30 PM
Lunch (1:15PM 2:00 PM) EVERYDAY)						

VALEDICTORY : 3.00 PM TO 5.30 PM

Welcome Address by : **Dr. Anirban Ghosh**, Director, SPS
Summing-up: **Prof. Arun Kumar Chakraborty**, HOD, DLIS, NSOU & Course Director
Valedictory Address: **Prof. Uma Kanjilal**, Pro-VC, IGNOU Delhi
Participants Feedback

Address by **Dr. Ananya Mitra**, Registrar (I/c), NSOU
Certificate Distribution to Participants and Group Photo
Vote of Thanks by : **Prof. Arun Kumar Chakraborty**, Course Director, CBIP
Comperre by : **Dr. Barnali Roy Choudhury**, Co-Course Directors



Study of Subject as the Fundamental Research Pursuit towards Enhancing the Capacity Building for Social Scientists

Tridib Tripathi, Professor, Department of Library and Information Science, NSOU, WB
Email: tridibtripathi@yahoo.co.in

Introduction : Social scientists are actively engaged in search of new information for the betterment of the society as well as developing their knowledge and skills regularly to enrich the personal capacity.

It is a long and rigorous process as well as continual upgradation of knowledge and skill what are to be acquired from basic learning system to higher research programmes. Knowledge turns into more systematized and useful knowledge through research process and the scholars gain better capacity to solve and execute any problem to a greater extent. Thus, education and research ensure better understanding about the recent problematic situation in any domain and higher the awareness regarding the subjective understanding will equivalent to the higher capacity building towards performing and managing the situation faced by any professional. The capacity building process is nothing but the human resource development where a person will be able to work very systematically through an improved method with greater competency and responsibility as well. Any professional can prepare one self to take the future challenges by increasing his personal and ability through the provision of getting the basics study of subject with considerable effort. This study of subject enables the professional to have an all-round understanding and develop his capacity, competency, and knowledge.

The social scientists are actively involved in different social activities. capacity building among the social science faculty means a process of enhancing their knowledge, skills, and operations related to their domains so that they can undertake the future demand through their broader experience and self directed process. Hence, the study of subject based on some elementary aspects would prove very significant in building the capacity among the social scientist.

Capacity building:

It is a process through which an individual or organisation or society can search, acquire and enrich the needful skill towards performing an activity with greater efficiency and success. This will also help to perform the functions and services by eliminating the problems involved therein..As a result any work can be done at faster rates, with higher efficiency and at more economical way.

The capacity building can be viewed from different angles such as

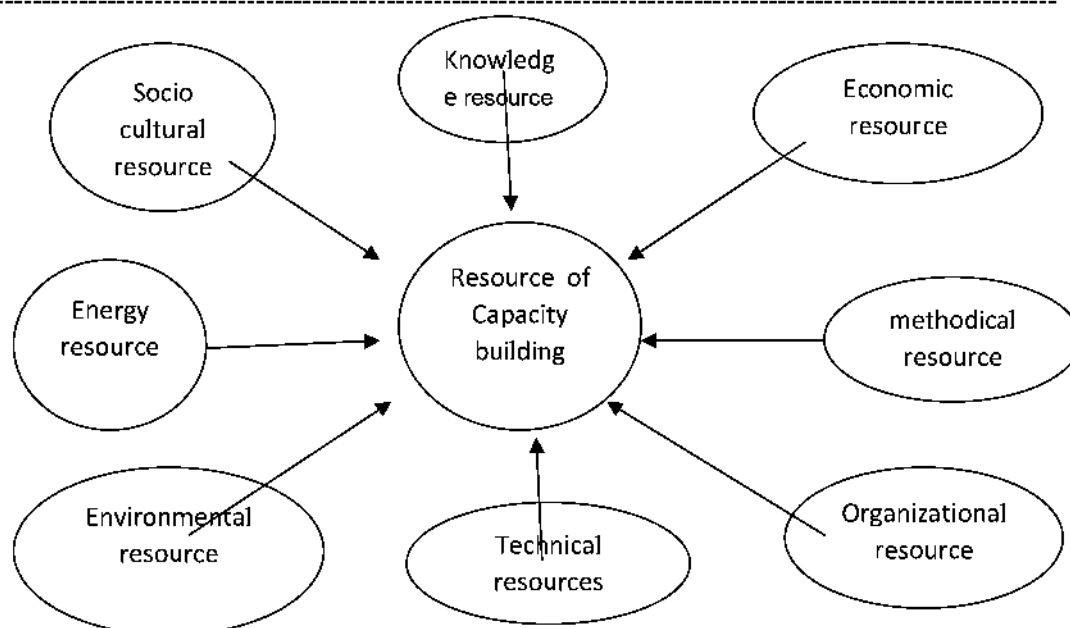
- **Spiritual capacity building:** In this process self enrichment can be made with greater confidence which supports in generating a holistic view in one self regarding any new situations.
- **Intellectual capacity building :** In this process problem can be find out and at the same time the exact solution can also be applied to solve the same.
- **Physical capacity building :** In this process a balanced situation can be maintained between physic and mind and a deep concentrations can equally applied to take the future challenge.
- **Emotional capacity building :** In this process one can be able to accept any challenge with due maturity and confidence and apply the conducive leadership behaviour to control the situation

Study of subject:

Subjective knowledge is fundamental to achieve the success .Thus, subjective knowledge should be strengthened through the process of subject study. This subject study means to know a subject from different elementary point of view so as to have a broader understanding about that subject. It is a process of collecting relevant information on a subject in a systematic way and that information will

clearly show the development of the subject from its Inception to this present day of development with all its academic perspectives.

In times of capacity building various resources are to be utilised and this can be visualized as :



The elementary aspects regarding a subject are to be taken into consideration for its study and these are namely

- Definition and Scope of the subject
- Terminological development.
- Divisions and sub divisions of the subject.
- Application of this subject under study in another subject.
- Tool subject applied in this subject under study.
- Trend of education in this subject.
- Trend of research in this subject.
- Sources of information of this subject as documentary sources, institutional resources and human resources.

Social Science Discipline:

Social science is a scholastic discipline that investigates the human society and finds the interrelationships among their behaviour. It includes generally sociology, political science, economics, commerce, social work and social welfare, mass communication, history, and others. The faculty of the social sciences will impart the study of subject so that the learners can achieve the total ramification of a subject with due care and efficiency and develop their capacity to take a challenge in future.

Some aspects of study of subjects can be represented in the following table :

Subject	Origin, Father	Definition and scope	Learned association
Political Science	Aristotle	The study theory and practice of government at the local, state, national, international.	Indian Political Science Association (IPSA) 1949
History	Historia / Herodotus/ megasthenes	A branch of knowledge dealing with past events of a society chronologically.	Historical, Assiation, london 1906

Subject	Origin, Father	Definition and scope	Learned association
Education	Horace Mann	It study the specialized training and instruction in a particular subject area or discipline.	All India Federation of Educational Associations
Commerce	Posedidom (Greek God of sea)	The study of all activities associated with the exchange of goods and services through buying and selling which facilitates social interactions, economic growth	Indian chamber of commerce ,Kolkata,1925
Sociology	Emile Durkheim	It is the study of social life, social change, and the social causes and consequences of human behaviour.	International Sociological Society New Delhi,1951
Mass communication	Wilbur Schramm	This study regarding the method of transmission of information through a medium to large and heterogeneous audience.	Association for Education in Journalism and Mass Communication, UK 1912
Economics	Adam smith	It is a study concerned with the production, distribution, and consumption of wealth.	American Economic Association
Social work and welfare	Jane Addams	Study of some process and management towards serving the society for the welfare of human being.	International Council on Social Welfare 1928 in Paris

Conclusion :

Capacity building is not a static process rather regularly the knowledge to be achieved and efficiency as well as skill will equally be developed by the professionals in their respective domains. It is a lifelong learning process to increase the self realization. A plethora of programmes starting from basic education and research to collaborative study are to be followed by social scientists for solving the future challenges effectively and efficiently.

Dr. Tridib Tripathi



Professor, DLIS, Netaji Subhas Open University
Qualification: M.L.I.S,
PhD (BU March, 1992)

Email:

tridibtripathi@yahoo.co.in

Research Experience: 10 Years

Published Papers: 34

Post-Doctoral Research Experience:

From 10.03.1993 to 31.03.1998
(Five Years as CSIR Research Associate)

Field of Specialization:

Knowledge Organisation, Knowledge Management, Information and Communication, Academic Library Systems

Research Experience: Junior Research Fellow (DLIS, BU) from 13.06.1987 to 12.06.1989, Senior Research Fellow, (DLIS, BU) from 13.06.1989 to 12.06.1992 (Total Five years Full-Time Research Experience)

Present Research Area : Restructuring College Library Systems, Management Styles and Technique (Performance Audit, TQM), ICT application of Libraries, Information Literacy, Role of Libraries in Sustainable Development, etc.

Teaching Experiences: Guest Teacher experience (BU, KU, VU, Mass Comm. Deptt., BU, Womens Studies, CIS, BU, IGNOU) since 1993- 1998 and Formerly Assist. Lecturer in CU From 1998-2001 and 2001 to till the date in BU (21 Years upto 2014)

- Organising National Seminars as Organising Secretary
- organized the IATLIS National Seminar 2009 on the Theme "Envisioning Employable LIS Courses in Developing Countries for the Emerging Knowledge Society" on 25-27 Nov , 2009 in the DLIS, The University of Burdwan, Burdwan (W.B).
- organised Golden Jubilee national seminar 2010 on "Emerging issues in Library and Information Science & Services" on April 8-9, 2010 in DLIS B.U.
- organised national Seminar 2012 (Sponsored by RRRLF, Kolkata and UGC India on "ACentury of LIS Education in India : Past Present and Future",2-4 February,2012 in DLIS B.U.

Research Visibility: Tools, Rules and Role of Academics

Bhaskar Mukherjee

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The "Research Visibility" encompasses various aspects related to the visibility and dissemination of academic research. Numerous parameters come to investigate different aspects of research visibility, including but not limited to, social media engagement, citation impact, altmetrics, online presence, and open-access publishing. In terms of publication and citation profile of Indian publication, it has been seen that India have a considerable number of quality-publication in all fields of research, but the rate of citation in those publications are not satisfactory. The research visibility of these publications has not been steadily increasing over the years. As more scholars recognize the importance of maximizing the reach and impact of their research, there has been a surge in understanding how we can improve the visibility of our research findings through various means.

Research on research visibility often focuses on evaluating the extent to which research outputs are cited by other scholars. Although citation activity is also a crucial aspect to consider when assessing the breadth and impact of the literature on research visibility, there are a few other means by which we can improve the visibility of our research:

- a. While writing an article, the researcher should choose short and amusing words in the title so that it can inspire the searcher to find the full text, or simply click the hyperlinks.
- b. The researcher may use the hyperlink of their latest publications in the Signature box of the email to make it reachable to all the recipients of the email
- c. He/She can use social media like Facebook, and WhatsApp to share the latest publications in the Group. The growing influence of social media platforms in enhancing research visibility has already been documented. Therefore, social media tools, such as Twitter, LinkedIn, and ResearchGate, Impact Story, IRINS, Microsoft Academic, ORCID to increase the reach and impact of their research outputs is necessary.
- d. Studies prove that publishing articles in open-access journals leads to more visibility.
- e. Authors should write a structured abstract containing purpose, methods, findings, outcome, and implication in 250-300 words and should choose Keywords that have broad areas of the concerned subject.
- f. Consistently authors should use the same email in all their publications so that robots/crawlers of the searching database can correlate all publications of a researcher and make a functional link between papers, scholar's specialization, interconnection with other scholars of the field, etc.
- g. Researchers should always make a habit of submitting pre-prints or post-prints to the institutional archives by adhering to the copyright policy of the target journals. He should consult the SHEPRA/Romeo site under the copyright policy of the journal. Strong evidence supporting the positive impact of open access on research visibility has been witnessed in many seminal

studies. Researchers who publish their work in open-access journals or deposit preprints in open repositories tend to receive higher citation counts and attract a broader readership.

- h. Services like Zenodo, Qeios, and Scispace should be used by the researchers to submit their preprints, to overcome the shortcomings of the paper through an open-review system, to make open access to their mirror paper, and to improve the web presence.
- I. Authors should put collaborative efforts into writing quality research papers. Studies indicate that collaborative research leads to more citation and visibility.

The presentation will also explain what citations mean and how it measured correctly. What are the ways to know the actual impact factor of a journal and, the inclusion of journals in reputed databases like WOS, Scopus, SJR, etc? It emphasizes the need for standardized metrics to assess research visibility and suggests that citation analysis can be used to identify influential papers and researchers. How the h-index and G-index of an author influence the career development of a researcher will also explained.

In summary, the literature on research visibility is extensive, covering various aspects related to maximizing the reach and impact of academic research. The field is characterized by a growing number of publications, indicating the rising interest and engagement of scholars.



Dr. Bhaskar Mukherjee

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Google Scholar Citation Index :

[Click Here for H-index, & Citations.>](#)

Areas of Specialisation: Webometrics, Information Technology- Its application in Libraries, Digital Libraries, Information Storage & Retrieval, Knowledge Organization.

Teaching Experience: Department of Library & Information Science, Guru Ghasidas Vishwavidyalaya, Bilaspur. Since 01 June 2013 to till date. Department of Library & Information Science, Banaras Hindu University, Varanasi. Since 2004 to 30th May 2013 (on Lien). Rani Durgavati University, Jabalpur.

From July 1998 to September 2003, to the students of M.Lib.I.Sc. & B.Lib.I.Sc. (As part-time teacher).

Professional Experience

- One year working experience as Library Officer at National Hydroelectric Power Corporation Ltd. posted at Uri Power Station, Baramulla (J&K).
- Seven years experience as Junior Technical Assistant in Rani Durgawati University, Jabalpur, M.P. since July 1996.
- Five and Half Year Working experience as In-charge in Computer Section of the University Central Library since Dec 1996.'

Publication: International Periodicals and National Periodicals: -92

Book Chapters: 7

Book Published: 4

Photos of Day 1

Day 1: 04.12.2023 Monday
VENUE: NSOU-HQ, Saltlake, Kolkata



Congruence of endemism among four global biodiversity hotspots in India

Nagarkar Shubhada Prashant

Savitribai Phule Pune University| University of Poona: Department of Library and Information Science Ph.D Associate Prof. Dept. of Lib.& Inf. Science Co-ordinator, Centre for Publication Ethics, SP Pune University, Pune, India
shubha@unipune.ac.in

Thirty-six global biodiversity hotspots harbour high concentrations of species and endemism¹. India accommodates in parts four hotspots, viz. the Himalaya (44.37% of global hotspot), Indo-Burma (5.13%), Sundaland (1.28%) and the Western Ghats (64.95%) that exhibit high levels of floral and faunal diversity. Based on data on endemic plants collected, we present hotspot-wise congruence in plant endemism using field sampling data from 1264, 1114, 78 and 1004 plots in the Himalaya, Indo-Burma, Sundaland and the Western Ghats respectively, using nested quadrates of 0.04 ha laid based on stratified random sampling². Among the four hotspots, the Himalaya hosts highest endemic richness (345 species), followed by the Western Ghats (217), Indo-Burma (96) and Sundaland (25) (Figure 1). The congruence of endemic species was highest between the Himalaya and Indo-Burma (66), which could be due the fact that these two hotspots are in fact a part of the Indo-Malaya ecoregion³. However, we found 43 endemic species common between the Himalaya and the Western Ghats, which seems to be an exciting fact for further research considering that they do not share any common borders. In all 446 endemic species are not common between any two hotspots, which need to be at the focus of conservation priorities.

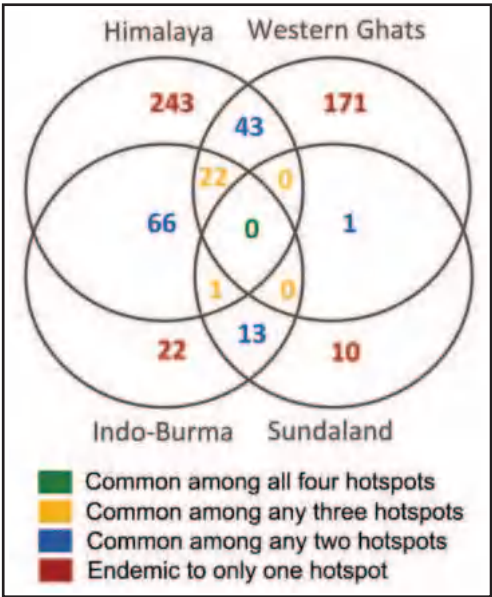


Figure 1. Congruence of endemism among the four hotspots

V. S. CHITALE^{1,2,*}
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P. S. ROY³

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1. Myers, N. *et al.*, *Nature*, 2000, **403**, 853–858.

2. Roy, P. S. *et al.*, *Int. J. Appl. Earth Obs. Geoinf.*, 2015, **39**, 142–159.

3. Olson, D. M. and Dinerstein, E., *Ann. Mo. Bot. Gard.*, 2002, **89**(2), 199–224.

UGC-CARE List

Sarma¹ provides erroneous and misleading information with several flaws. He seems to be totally unaware that the University Grants Commission (UGC)-approved list of journals stands cancelled since 14 June 2019. It has been replaced by the UGC-CARE (Consortium for Academic and Research Ethics) Reference List of Quality Journals (UGCCARE List). CARE has been established by UGC on 14 November 2018. Details are available at the UGC-CARE website (<http://ugccare.unipune.ac.in>). The following points need to be noted in this context:

1. UGC-CARE has constituted an Empowered Committee of 14 members (<http://ugccare.unipune.ac.in/site/website/care-members.aspx>) from various Indian councils and universities for recommending quality journals.'
2. In addition, UGC-CARE has included 25 members from various councils and statutory bodies. UGC has established a special cell for journal analysis at the Savitribai Phule Pune University, Pune, for coordinating activities related to creation and maintenance of the UGC-CARE List.
3. The main objective of the UGCCARE List is to collect information about credible Indian journals and make it available to the research community. Many Indian journals are in print format and in regional languages. The UGCCARE List will incorporate such journals after scrutiny through the CARE protocols. It should be noted that 72 journals published by various Indian Societies are already included in the List.
4. We believe that the multi-layered scrutiny followed by CARE is effective in ensuring the quality of journals.
5. *Kavaka* – a journal of mycology, referred to by Sarma¹, is already indexed in the UGC-CARE List.
6. The UGC-CARE List is dynamic and is updated quarterly. It is unfortunate that Sarma did not make any effort to learn about the UGCCARE initiative².

Response

My letter¹ was submitted to *Current Science* on 11 April 2019, and it was broadly based on the prevailing status of the issue at that point of time. The observations were momentary and reflect on the status of journal recognition policy by UGC during April 2019; subsequent changes made by the commission have been overlooked. Since several changes have been made by UGC on policies of recognition of journals, as explained by Patwardhan and Nagarkar, I withdraw the observations made in my letter¹, as they have now become irrelevant.

1. Venkateswara Sarma, V., *Curr. Sci.*, 2019, **117**(10), 1553.

2. Patwardhan, B. P. and Thakur, Archana, *Curr. Sci.*, 2019, **117**(6), 918–919.

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SHUBHADA NAGARKAR^{2*}
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	6	90,000	1,50,000	1,25,000	2,00,000	1,75,000	2,25,000
	8	1,10,000	1,87,000	1,68,000	2,65,000	2,30,000	3,00,000
	10	1,35,000	2,25,000	1,98,000	3,15,000	2,70,000	3,60,000
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	6	50,000	90,000		6	30,000	60,000
	8	60,000	1,10,000		12	60,000	1,20,000
	10	72,000	1,35,000				
	12	1,00,000	1,80,000				
Other Countries	Tariff (US \$)*						
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		B&W	Colour	B&W	Colour	B&W	Colour
Full page (H = 23 cm; W = 17.5 cm)	1	300	650	450	750	600	1000
	6	1500	3000	2250	3500	3000	5000
Half page (H = 11 cm; W = 17.5 cm)	1	200	325				
	6	1000	2000				

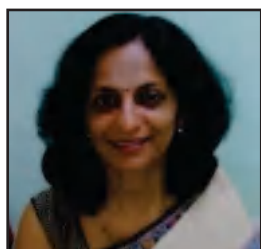
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Books (3)

Book Chapters (2)

Conference Proceedings (13)

The UGC-CARE Initiative: Indian academia's quest for research and publishing integrity

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Abstract

This paper discusses the reasons for emergence of predatory publications in India, engendered by mandates of higher educational institutions: that require stipulated number of research publications for employment and promotions. Predatory journals have eclipsed the merits of open access publishing, compromised ethical practices, and left the research community groping for benchmarks of research integrity and publication ethics. To fight back the menace of predatory publications, University Grants Commission, India has established “Consortium for Academic Research and Ethics” (UGC-CARE) in 2018 to promote and benchmark research integrity and publication ethics among the Indian academia. The present paper discusses the UGC-CARE initiative, its structure, objectives and specifically, “UGC-CARE Reference List of Quality Journals” (UGC-CARE list) and finally, the challenges it faces.

Contents

- Introduction
- Indian scenario
- The battle against predatory publishing
- Current status
- Journals in regional languages
- UGC-CARE Web site
- Feedback portal at UGC-CARE Web site
- Impact of the UGC-CARE list
- Challenges
- Recommendations
- Conclusion

Introduction

Scholarly academic journals are vehicles of sincere and genuine research outcomes. There has been a tradition, dating back a number of centuries to publish such journals in print, maintained through subscriptions by individuals and institutions. These journals were highly respected because of standard publishing practices, and notably, their critical peer review system (Weiner, 2001). However, the last two decades have witnessed unrelenting pressure on researchers to publish; some publishers have seized on this situation as an opportunity to maximize profits through an escalation of unethical practices. This phenomenon has been labeled as “predatory publishing” by Beall, in which publishers follow the “pay and publish” model with total disregard for the quality of content, research integrity and peer reviews (Beall, 2012; van Vlokhoven, 2019). Though the original open access movement was started with good intentions, it was critically exploited by predatory publishers. The complete circumvention of the peer

review process by predatory publishers led to a multiplicity of problems, resulting in millions of worthless articles that have corrupted disciplines, through plagiarism, image and data manipulation, duplicate submissions, salami slicing and authorship problems (Beall, 2013). It simultaneously precipitated a crisis of integrity, creating a challenge for researchers to differentiate between credible and predatory journals. In addition, there lurked the very real danger of inadvertently citing references from predatory journals especially in their review of literature. Therefore predatory journals have fostered a contamination of citations in total contradiction of the original aims of open access movement (<https://scholarlykitchen.sspnet.org/2017/10/05/turning-criticaleye-reference-lists/>).

Indian scenario

The major reason for the increased number of predatory publishers in India is the mandatory research publications for appointments and promotions of faculty members in Indian higher education institutions by the University Grants Commission (UGC) under the Ministry of Human Resource Development (MHRD), India (<https://mhrd.gov.in/overview>). The UGC is a statutory organization established by an Act of Parliament of India in 1956 for the coordination, determination and maintenance of standards of higher education and is a major funding agency (<http://ugc.ac.in>). It functions from New Delhi and has six regional offices in India at Bangalore, Bhopal, Guwahati, Hyderabad, Kolkata and Pune (<https://www.ugc.ac.in/page/Mandate.aspx>). At present, India has 1,043 universities that include 48 central, 386 state, 80 “deemed to be universities”, 327 private universities. Accreditation for higher learning is overseen by the National Assessment and Accreditation Council (<http://www.naac.gov.in/>) along with other discipline-specific professional councils (https://www.education.gov.in/sites/upload_files/mhrd/files/statistics-new/aishe_eng.pdf).

In 2010, the University Grants Commission (UGC), India, set up an Academic Performance Indicator (API), which required documentation of research activity in order to benefit from the Career Advancement Scheme (CAS). Subsequently, publications became compulsory, with specific points assigned for each publication; thus 15 points were earmarked for publication in refereed journals, and additional points could be accrued from the journal Impact Factor (IF). The API has been criticized by many researchers across disciplines and institutions (<https://thewire.in/education/strides-ahead-in-sizing-up-academic-performanceskip-faculty-performance>, Lakhota, 2017). The turning point is often attributed to publications being also mandated for doctoral researchers in 2013. Consequently, the “pay and publish” model of research publications was widely accepted by both authors and funding agencies. This, according to commentators, resulted in the mushrooming of predatory/dubious/sub-standard journals in alarming proportions in India (Priyadarshini, 2017).

To help researchers select credible journals the UGC came up with an idea of having an approved list of journals in 2017. Each individual university was requested to suggest journals from local regions and languages based on certain criteria recommended by UGC. This unfortunately resulted in inclusion of predatory journals into the UGC approved list of journals. New and inexperienced researchers often fall prey to such publishers; subsequently, they are forced to defend their predatory publishers who have published their papers, often manuscripts rejected by the rigorous peer review of reputed publishers. The impact factor (IF) of journals and indexing databases are also used as metrics for career advancement (Lakhota, 2017; Frandsen, 2017). Predatory publishers have exploited even this avenue with variety of fake IFs (Universal IF, COSMOS IF, etc.). In addition, several questionable indexing agencies like *Index Copernicus*, *Open Academic Journal Index*, *Scientific indexing services ROOT Indexing*, *Academic Resource Index* and others have been accused of providing false indicators for individual publications (http://esocialsciences.org/Articles/show_Article.aspx?acat=&aid=13154). Thus, predatory publishers attracted researchers to publish in their journals by variety of gimmicks, such as imitating titles or Web sites of standard journals; providing false IFs; indexing databases; fabricated names of editors and place of publication; repeated invitations for manuscripts through e-mail messages; and, promised publications after a short editorial process in so called high impact factor journals. This has resulted in an explosion of dubious and questionable journals, publishing substandard research. Consequently, Indian research publications were condemned all over the world for their poor quality (Moher, *et al.*, 2017; Patwardhan, *et al.*, 2018).

The battle against predatory publishing

To fight the menace of predatory publications, under the quality mandate, UGC decided to take strong action and established “Consortium of Academic and Research Ethics” (CARE) (<http://ugccare.unipune.ac.in>) by issuing a public notice on 28 November 2018, with the main objective of promoting research integrity and publication ethics in Indian universities. The Overall objectives of the UGC-CARE are:

- To promote research integrity and publication ethics in Indian universities.
- To create and maintain a “UGC-CARE Reference List of Quality Journals” (UGC-CARE list) for all academic purposes.
- To initiate a two-credit course on “Research Integrity and Publication Ethics” for Ph.D. students (https://www.ugc.ac.in/pdfnews/9836633_Research-and-Publication-Ethics.pdf).
- To conduct workshops and training programmes on “Research Integrity Awareness”.

To fulfil these objectives, UGC constituted following two committees:

- UGC-CARE Empowered Committee (EC) of 14 members (<https://ugccare.unipune.ac.in/Apps1/User/Web/CareECMember>);
- UGC-CARE Members committee having 25 members from various Indian councils (UGC-CARE Council members) and four regional universities (UGC-CARE Universities) (<https://ugccare.unipune.ac.in/Apps1/User/Web/CareMember>).

UGC-CARE developed its “UGC-CARE Reference List of Quality Journals” (UGC-CARE list) as a first step towards fulfilling its objectives. For creating and maintaining this list, the UGC established the “UGCCell for Journal Analysis” affiliated with the Centre for Publication Ethics (CPE) at the Savitribai Phule Pune University, Pune, Maharashtra, India (Patwardhan, 2019).

This center collects journal titles recommended by UGC-CARE members and UGC-CARE universities through an online portal and analyses them with stringent criteria designed by UGC-CARE members. The evaluation criteria are divided into three protocols:

- UGC-CARE Protocol Part I: Basic information
- UGC-CARE Protocol Part II: Primary criteria
- UGC-CARE Protocol Part III: Secondary criteria

Protocol I is designed to obtain necessary basic information of the journal like journal name, ISSN, publisher details, and editorial details. Protocols II and III are designed for internal analysis and assessment purposes, which are based on verification of journal information including its history, consistency, peer recognition, market reputation, academic credentials of the editors, peer review process, indexing, citations, charges/fees, and related financial matters. This information is examined directly from public domain sources (Web site, flyers, advertisements, hard copies of the journal in libraries). There is a provision that any journal can be disqualified at a later stage if it is found to issue false, misleading, incorrect, or insufficient information as well as unsubstantiated claims (<http://ugccare.unipune.ac.in>).

The most important feature of the UGC-CARE list is its dynamic nature. It is updated quarterly. Every qualified journal is rechecked in each quarter and, if found not to follow standard publishing practices, will be removed from the list immediately with the consent of members of the Empower Committee.

Initially, the UGC-CARE list was divided into four non-hierarchical groups for the convenience of its users, but to simplify the search process, the UGC-CARE list currently has only two groups.

- UGC-CARE List Group I: Journals found qualified through UGC-CARE protocols

- UGC-CARE List Group II: Journals indexed in globally recognised databases

There are several credible journals in India in regional languages, published over the last several decades which do not as yet have a place in international indexing databases. Therefore, special efforts have been taken for collecting Indian journals especially those published in the humanities, arts, social sciences and Indian knowledge systems. These journals are evaluated critically relative to the protocols.

To select credible journals for the inclusion in the UGC-CARE list, a standard submission process has been established for colleges, universities, individuals, and publishers. Journals are considered for evaluation and for inclusion only after recommendations by teaching faculty of any university or affiliated colleges. Each faculty member need to sign a declaration form assuring the quality of the journal along with the recommendation (Figure 1).

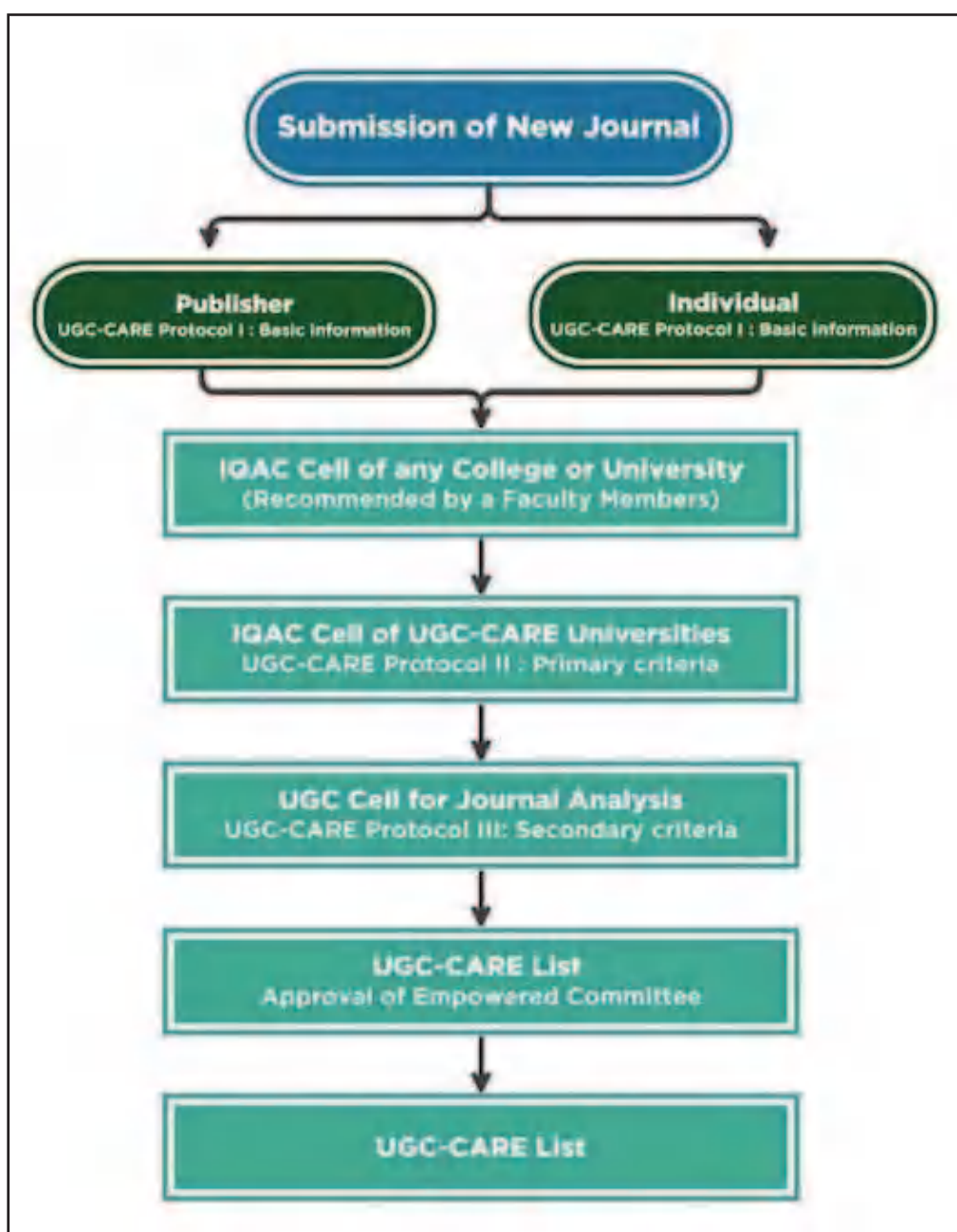


Figure 1: Process of journal selection for UGC-CARE list.

This process routinely weeds out predatory journals at various levels.

Current status

A total of 6,803 journals under Group I have been scrutinized with the UGC-CARE protocols, from which 1,002 (15 percent) qualified (Figure 2)

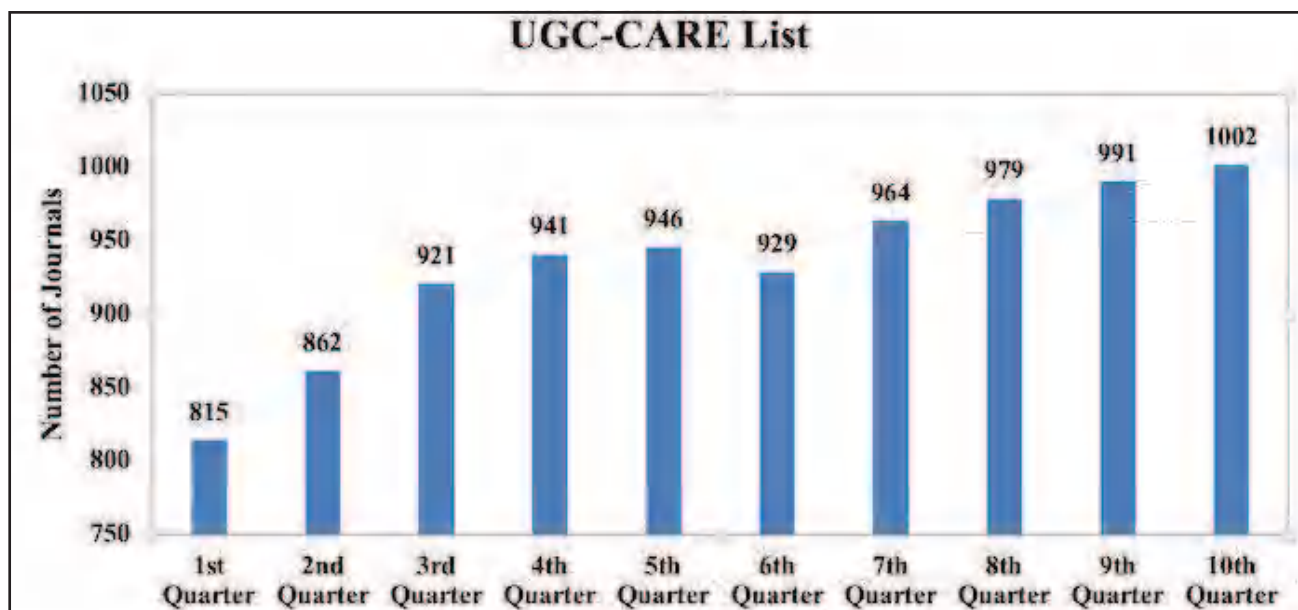


Figure 2: Quarterly progress of UGC-CARE list.

Discipline-wise distribution of the qualified journals indicates that 66 percent represent the arts, humanities, and social sciences (Table 1)..

Table 1: Discipline distribution of journals in Group I.	
Discipline	Number of journals
Arts and humanities	362
Multidisciplinary	47
Science	292
Social science	301
Total	1,002

The objective of the UGC-CARE to include journals from disciplines other than science is reflected in Group I.

Journals in regional languages

UGC-CARE strives to add credible Indian journals published in regional languages to the UGC-CARE list (Table 2).

Table 2: Journals published in Indian regional languages in Group I.		
	Languages	Number of journals
1.	Assamese	9
2.	Bengali	21
3.	Gujarati	11

4.	Hindi	105
5.	Kannada	8
6.	Maithili	1
7.	Malayalam	10
8.	Marathi	33
9.	Odia	1
10.	Pali	1
11.	Prakrit	1
12.	Punjabi	11
13.	Rajasthani	1
14.	Sanskrit	30
15.	Sindhi	1
16.	Tamil	11
17.	Telugu	7
18.	Urdu	28
	Total	290

UGC-CARE Web site

The Web site of UGC-CARE is available at <http://ugccare.unipune.ac.in>. Apart from the searchable UGCCARE lists, the site provides information about the UGC-CARE initiative, latest notifications, standard procedure for submitting journals, information for inclusion in the UGC-CARE list, FAQs, Feedback, and grievances. The site also provides links to useful resources in research and publication ethics. Users need to register with the site to search the UGC-CARE list.

Feedback portal at UGC-CARE Web site

The UGC-CARE Web site has made a separate Feedback portal where anyone can send suggestions about data, such as changes in ISSN numbers, addresses of publishers, and journal titles. It also provides the means to submit grievances, if any, about any given publisher and journal.

Impact of the UGC-CARE list

The launch of the UGC-CARE list in June 2019 has made a huge impact on Indian academia and in publishing industry. The global community has appreciated this effort:

- The UGC Care list has diminished the role of predatory publishing.
- A message is being sent: India does not support predatory publishing and unethical practices.
- Faculty and researchers are being made aware of ethical practices in research and publishing.
- The credibility of good Indian journals is now emerging clearly for everyone to understand and recognize globally.
- By focusing on Indian language journals, UGC-CARE expects to provide the necessary visibility, legitimacy and value to Indian knowledge production.
- Many Indian regional language journals have been published by reputed academies, councils, universities, and learned societies in print format for many years. Publishers of these journals are now approaching UGC-CARE for inclusion of these journals into the UGC-CARE list.

- The UGC-Cell at SPPU has received more than 50 grievances by individual researchers about publishers following unethical practices.

Challenges

The UGC-CARE list is still in its early stages. It will grow beyond its current nascent phase with active participation of all the stakeholders. The primary challenge of the CARE list is its continuous updating and monitoring of publishers, specifically regarding the inclusion and removal of the journals. Moreover, UGCCARE members are facing several challenges:

- Lack of awareness of standard submission procedures for journals among researchers.
- Procedural delays in securing complete and correct journal recommendation forms.
- Lack of information about peer review and related ethical policies of journals.
- Credentials of editorial boards and contact details not easily available.
- Several governmental publishers tied to commercial publishing companies add false information on certain Web site of some journals.
- Several credible journals that have a long publishing history are available only in print form.
- Web versions of print journals are not updated regularly.
- Predatory publishers are creating Web clones of print journals with similar titles and ISSNs, leading researchers to fall prey to these deceptive practices.

Recommendations

To make the UGC-CARE list robust and error free, thorough searches of credible print and online journals in the social sciences, arts and humanities, and Indian knowledge systems are necessary. Moreover, UGCCARE, through its Web interface to credible Indian print journals, can increase awareness on a global scale of Indian research.

Indian funding agencies are paying huge amounts for subscriptions to journals as well as APCs to publishers (<https://thewire.in/the-sciences/plan-s-open-access-scientific-publishing-article-processingcharge-insa-k-vijayraghavan>). To reduce these costs, UGC-CARE can encourage Indian universities and learned societies to publish high quality Indian journals in the near future. To achieve this UGC-CARE can come up with specialized training programs on standard publishing practices.

The library and information science (LIS) community can certainly contribute to fulfill the objectives of UGC-CARE as librarians are well versed and familiar with bibliographic databases and bibliometric analyses (citation analysis, impact factors, H-index, and other metrics) and can extend their skills in identifying predatory publications.

A Two-credit course on “Research and Publication Ethics”

To achieve the quality mandate, UGC mandated a two-credit course to Ph.D. students to be completed in the first year of the registration. This course was designed by CPE, Savitribai Phule Pune University. CPE has successfully completed two batches of this course.

Workshops on “Research Integrity Awareness”

UGC conducted five awareness workshops at UGC-CARE universities in 2019 for various higher authorities of the universities and colleges from respective regions.

Conclusion

The image of Indian research that has been compromised by predatory publishing. The UGC-CARE initiative is a first step to curb this problem and to promote research integrity and publication ethics in the Indian academia. This dynamic list is expected to evolve to become a valuable resource and reference for

the quality scientific publishing. The two-credit course on “Research and Publication Ethics” is being conducted by several universities across India. The research integrity campaign in India is also about increased academic accountability. Thus, the UGC-CARE initiative has started the battle against the unethical practices in research and publication.

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Acknowledgements

Authors acknowledges the support of authorities at University Grants Commission, all UGC-CARE Council members, UGC-CARE universities and the coordinators, authorities at Savitribai Phule Pune University and the staff members at Centre for Publication Ethic, SPPU. Special sincere thanks are due to Asha Umarani, Retd. LIS teacher, SPPU, for her inputs and critical comments in writing this paper.

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Editorial history

Received 16 November 2019; revised 17 March 2020; accepted 29 June 2020.

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The UGC-CARE initiative: Indian academia’s quest for research and publishing integrity
by Bhushan Patwardhan and Shubhada Nagarkar.

First Monday, volume 26, number 10 (October 2021).

doi: <https://dx.doi.org/10.5210/fm.v26i10.10349>

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IBM SPSS : Detail Module Specification

Sayan Samanta

“IBM SPSS Statistics helps data analysts, planners, forecasters, survey researchers, program evaluators and database marketers among others more easily accomplish tasks at virtually every phase of the analytical process. It includes a broad array of integrated SPSS Statistics capabilities and related products for specialized analytical tasks across the enterprise. The software can improve productivity significantly and help achieve superior results for specific projects and business goals.”

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** Represents newly added features in SPSS Statistics version 28.0

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- Nearest neighbour analysis, which can be used for prediction or for classification
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- Monte Carlo simulation

Data editor

- Easily work with data containing time and dates in IBM SPSS Statistics software
 - Create a time or date variable from a string containing a date variable
 - Create a time or date variable from variables that include individual date units, such as month or year
 - Calculate times and dates
 - Separate a date unit from a time or date variable
- Make sense and keep track of your data files by adding notes to them with the Data File Comments command.
- Easily eliminate duplicate records with Identify Duplicate cases tool.
- Create read-only data sets
- More accurately describe your data using longer variable names (up to 64 bytes)
- Create value labels up to 120 characters
- Clone or duplicate data sets
- Apply an extended Variable Properties command to customize properties for individual users
- Longer text strings (up to 32,000 bytes)
- Define Variables Properties tool

- Right-click on the variable to choose its descriptive statistics
- Copy Data Properties tool
- Data Restructure wizard
- Aggregate data to external or to the active data file Automatically convert string variables to numeric with auto recode
 - Spell-checking of long text strings.
- Date and Time wizard:
 - Easily work with data containing time and dates.
 - Create a time or date variable from a string containing a date variable
 - Create a time or date variable from variables that include individual date units, such as month or year
 - Calculate times and dates
 - Separate a date unit from a time or date variable
- Apply splitters in the data editor for easier viewing of wide or long datafiles
- Create your own dictionary information for variables by using custom attributes
- Customize the viewing of extremely wide files with variable sets
- Use syntax to change string length and basic data type Set a permanent default working directory

Transformations

- Factor analysis
- More easily find and replace text strings in your data using the find and replace function
- Recode string or numeric value
- Recode values into consecutive integers
- Create conditional transformations using DO IF, ELSE IF, ELSE and END IF statements
- Use programming structures, such as do repeat-end repeat, loop-end loop and vectors
- Compute variables using arithmetic, cross-case, date and time, logical, missing-value, random-number, statistical, or string functions
- Create variables that contain the values of existing variables from preceding or subsequent cases
- Count occurrences of values across variables
- Make transformations permanent or temporary
- Execute transformations immediately, batched or on demand

Reporting

- OLAP
- Case summaries
- Report summaries

Geospatial Analysis

- Temporal casual modeling
- Spatio-temporal predictions

Graphs

- Categorical charts
 - 3-D bar: Simple, cluster and stacked
 - Bar: Simple, cluster, stacked, dropped shadow and 3-D
 - Line: Simple, multiple and drop-line

- Area: Simple and stacked
- Pie: Simple, exploding and 3-D effect
- High-low: High-low-close, difference area and range bar
- Box plot: Simple and clustered
- Error bars: Add to bar, line and area charts; confidence level; S.D.; or S.E.
- Dual-Y axes and overlay subgroups, display spikes to line.
- Bubble Chart
 - The size of each bubble or circle is proportional to its value.
- Violin Plots*
 - Density of each variable can be depicted as well as comparison of distribution between multiple groups can also be done.
- Relationship Maps**
 - The thickness of the connections and the size of the categories indicate the extent of association between the variables.
- Scatterplots
 - Simple, grouped, scatterplot matrix and 3-D
 - Fit lines: Linear, quadratic or cubic regression; Lowess smoother; confidence interval control for total or bivariate statistics
 - Bin points by color or marker size to prevent overlap.
- Density charts
 - Population pyramids: Mirrored axis to compare distributions, with or without normal curve
 - Dot charts: Stacked dots show distribution; symmetric, stacked and linear
 - Histograms: With or without normal curve; custom binning options
- Quality control charts
 - Pareto, X-bar, range, Sigma, individual chart or moving range chart
 - Rule-checking performed on primary and secondary charts
 - Automatic flagging of points that violate Shewhart rules, the ability to turn off rules and the ability to suppress charts
- Diagnostic and exploratory charts
 - Case plots and time-series plots
 - Probability plots
 - Autocorrelation and partial autocorrelation function plots
 - Cross-correlation function plots
 - Receiver-operating characteristics
- Multiple use charts
 - 2-D line charts (with two-scale axes)
 - Charts for multiple response sets
- Custom charts
 - Graphics Production Language (GPL), a custom chart creation language, enables advanced users to attain a broader range of chart and option possibilities than the interface supports to create mixed charts and more
- Layout options
 - Paneled charts: Create a table of subcharts, one panel per level or condition; multiple row and columns

- 3-D effects: Rotate, modify depth and display backplanes
- Chart templates
 - PaneledSave selected characteristics of a chart and apply them to others automatically
 - Apply the following attributes at creation or edit time: Layout, titles, footnotes and annotations; chart element styles; data element styles; axis scale range; axis scale settings; fit and reference lines; and scatterplot point binning
 - Tree-view layout and finer control of template bundles.

Reliability Analysis

- Interrater Agreement: Fleiss' Kappa
 - Assesses the interrater agreement to determine the reliability among the various raters. A higher agreement provides more confidence in the ratings reflecting the true circumstance, generalized the unweighted kappa statistic to measure the agreement among any constant number of raters while assuming:
 - At least two item variables must be specified to run any reliability statistic.
 - At least two ratings variables must be specified.
 - The variables selected as items can also be selected as ratings.
 - There is no connection between raters.
 - The number of raters is a constant.
 - Each subject is rated by the same group containing only a single rater.
 - No weights can be assigned to the various disagreements.
- Hotelling's T-square
 - Produces a multivariate test of the null hypothesis that all items on the scale have the same mean.
- Tukey's test of additivity
 - Produces a test of the assumption that there is no multiplicative interaction among the items.
- Intraclass correlation coefficient
 - Produces measures of consistency or agreement of values within cases.
- Model
 - Select the model for calculating the intraclass correlation coefficient. Available models are Two-Way Mixed, Two-Way Random, and One-Way Random. Select Two-Way Mixed when people effects are random and the item effects are fixed, select Two-Way Random when people effects and the item effects are random, or select One-Way Random when people effects are random.
- Type
 - Select the type of index. Available types are Consistency and Absolute Agreement.
- Confidence interval (%)
 - Specify the level for the confidence interval. The default is 95%.
- Test value
 - Specify the hypothesized value of the coefficient for the hypothesis test. This value is the value to which the observed value is compared. The default value is 0.
- Display agreement on individual categories
 - Specifies whether or not to output the agreement on individual categories. By default, the output suppresses the estimation on any individual categories. When enabled, multiple tables display in the output.
- Ignore string case

- Controls whether or not the string variables are case sensitive. By default, string rating values are case sensitive.
- String category labels are displayed in uppercase
 - Controls whether the category labels in the output tables are displayed in uppercase or lowercase. The setting is enabled by default, which displays the string category labels in uppercase.
- Asymptotic significance level (%)
 - Specifies the significance level for the asymptotic confidence intervals. 95 is the default setting.
- Missing
 - Exclude both user-missing and system missing values
 - Controls the exclusion of user-missing and system-missing values. By default, user-missing and system-missing values are excluded.
 - User-missing values are treated as valid
 - When enabled, treats user-missing and system-missing values as valid data. The setting is disabled by default.

ROC Analysis

- Assesses the accuracy of model predictions by plotting sensitivity versus (1-specificity) of a classification test (as the threshold varies over an entire range of diagnostic test results).
- ROC Analysis supports the inference regarding a single AUC, precision-recall (PR) curves, and provides options for comparing two ROC curves that are generated from either independent groups or paired subjects.

Linear OLS Alternatives*

Three new procedures are included under the Linear OLS Alternatives Option within regression, namely:

- Ridge Regression*
 - Ridge regression uses the L2 regularization technique i.e. it uses the penalty based on the sum of the squared coefficient values. Ridge regression extension provides the users the option to generate trace plots along with the option to enter the set of alpha values as well as a specified value of alpha.
- Lasso Regression*
 - Lasso regression uses the L1 regularization technique i.e. it uses the penalty based on the absolute sum of the coefficient values. The Lasso option extension provides the user to draw the trace plot and also allows the user to enter the set of alpha values as well as a specified value of alpha.
- Elastic Net Regression*
 - Elastic Net regression uses the weighted combination of L1 and L2 regularization technique i.e. the penalty introduced in Elastic Net takes into consideration the penalties used in both Ridge and Lasso regression.

Meta-analysis**

- Meta-analysis is the scientific process to synthesize and combine different results from different studies. Helps in understanding the magnitude of the effect size and the causes of potential variation. Provides more robust point estimates with higher power as compared to the individual studies. Following are the options under Meta Analysis:
 - Meta-analysis of continuous outcomes: Raw data, pre-calculated effect size data

- Meta-analysis of binary outcomes: Raw data, pre-calculated effect size data
- Meta-regression

Power Analysis**

- Help in determining the optimum sample size for a study or project. This feature includes the graphical capabilities for expressing power as a function of sample size and effect size. It includes the 3-dimensional plots also. Following are the Power analysis procedures:
 - One sample t-test
 - Paired sample t-test
 - Independent sample t-test
 - One-Way ANOVA.
 - One sample binomial test
 - Related-samples binomial test
 - Independent samples binomial test.
 - Pearson's product-moment correlation test
 - Spearman's rank-order correlation test
 - Partial Pearson correlation test
- All the procedures under power analysis now provide the option to enter a series of power values rather than a single one. These can take the form of separate (point) values, a series of values incremented by a specific amount, or a combination of both.

Weighted Kappa procedure

- Helps in understanding the closeness of agreement between raters. Following are the weighted versions of Cohen's weighted kappa that are being introduced:
 - Linear weighting
 - Quadratic weighting
 - Confidence intervals for all kappa coefficients

Effect Sizes

- This enhancement to the t-test and one-way procedures add effect size estimates and confidence intervals for the options One-sample t-tests, Independent-sample t-tests, Paired samples t-tests, One-Way Analysis of Variance (ANOVA), Custom Contrasts in One-Way ANOVA.

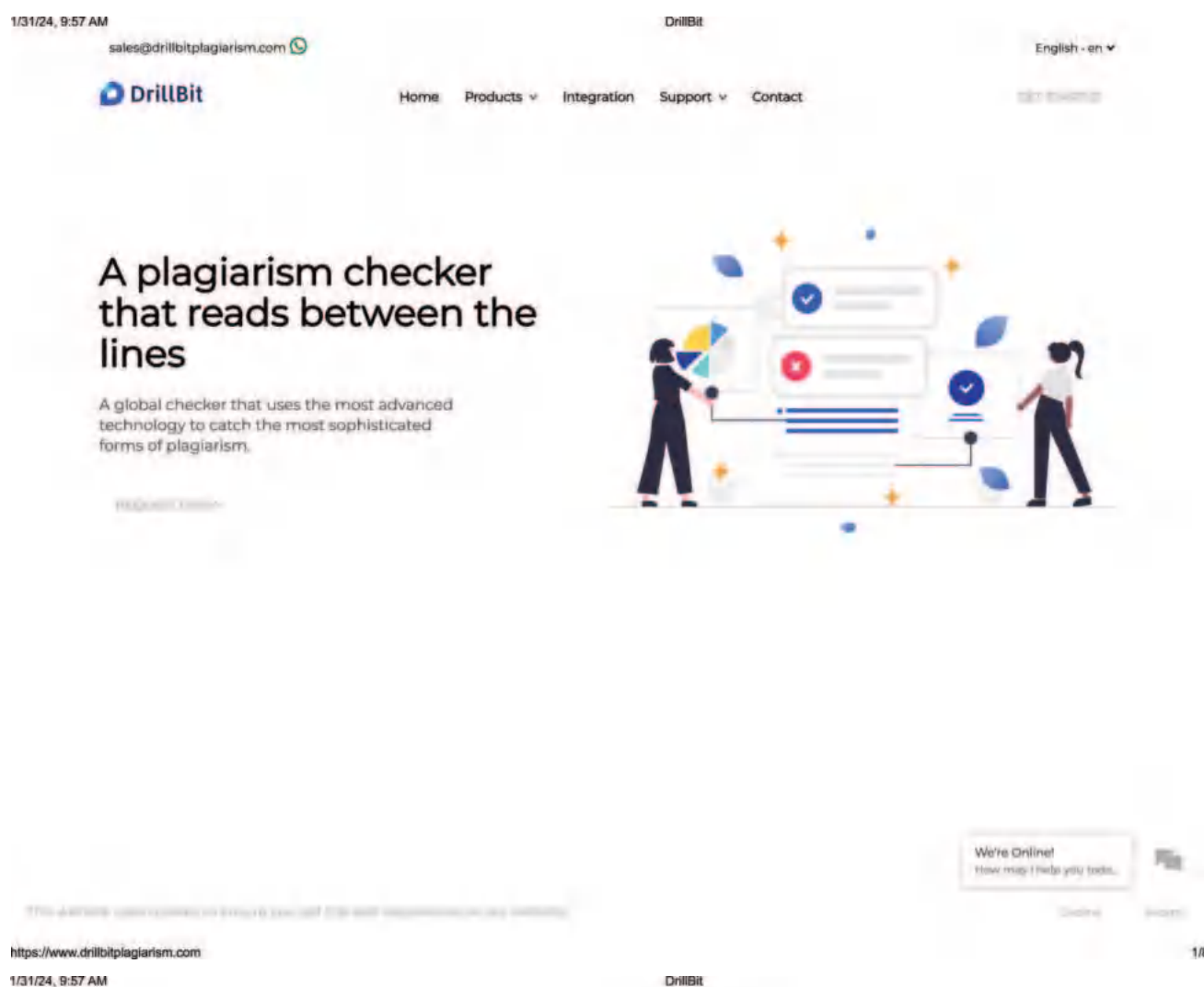
Ratio Statistics**

- Introduction of the coefficient of price related bias or PRB. PRB comes with an associated confidence interval. This index (PRB) tells us whether the assessment ratios are systematically higher or lower for high-priced properties.

(D-02.5-SES-08-NSOU)

Hands-on –R Drillbit – Plagiarism Checking Software

Dr. Tariq Anwar



Photos of Day 2

Day 2: 05.12.2023 Tuesday
VENUE: NSOU-HQ, Saltlake, Kolkata



Digital Libraries and IPR/ DRM

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1. What is the Library?

The word 'library' derived from the Latin 'Librarian' means a 'place in which books, manuscripts, musical scores or other literary and artistic materials are kept, for use but not for sale (Chakrabarti, B., & Mahapatra, P.K.,2000, p.1). So, the library is an organization and storehouse of knowledge. It is an extension of the human memory, repository of human culture, oral and written (Chakrabarti, B., 1993, p.13). The library is the logical laboratory for learning about human interaction with information systems and intellectual processes associated with information acquisition, integration, and problem-solving. (Ibid 1993, p.29).

2. What is the Digital Library

A digital library is a collection of documents in organized electronic form, available on the Internet or on CD-ROM (compact-disk read-only memory) disks. Depending on the specific library, a user may be able to access magazine articles, books, papers, images, sound files, and videos.

Digital Library types :

- Born Digital
- Digitized collection

On the Internet, the use of a digital library is enhanced by a broadband connection such as cable modem or DSL. Dial-up connections can be used to access plain-text documents and some documents containing images, but for complex files and those with animated video content, a downstream data speed of at least several hundred kilobits per second (Kbps) can make the user's experience less tedious, as well as more informative. Internet-based digital libraries can be updated on a daily basis. This is one of the greatest assets of this emerging technology.

On CD-ROM, the amount of data is limited to several hundred megabytes (MB) per disk, but access is generally much faster than on an Internet connection. Several CD-ROMs can be combined in a set, and because the disks are small, a large library can be accommodated in a reasonable physical space. The main limitation of CD-ROM is the fact that updating cannot be done as frequently as on the Internet. In addition, producing and distributing CD-ROMs involves overhead costs that are largely nonexistent in Internet-based libraries.

Some institutions have begun the task of converting classic books to electronic format for distribution on the Internet. Some files can be viewed directly in HTML format; others can be downloaded in PDF format and printed. Some publishers keep electronic files of books and produce them one unit at a time in printed and bound form on demand.

Electronic distribution of intellectual and artistic property has authors, agents, and publishers concerned about the possibility of copyright infringement. It is much easier to copy a CD-ROM, or to download an electronic book and make unauthorized copies of it, than it is to reproduce bound volumes and distribute them illegitimately. Fundamental changes in copyright law - and/or changes in the way in which the laws are enforced - are likely to occur as digital libraries expand and their use becomes more widespread.

3. Information Sources of the Library

Information Sources means where required information is available. Library information sources include all the collections or holdings of the library functions and services of the library that make up a modern library system. The library information sources mainly two types i.e. documentary and non-documentary sources of information.

Documentary sources include : text and reference books, journals, periodicals, reports, patents, standards, theses, and;

the Non-documentary sources or non-printed sources like audio- and audio-visual aids i.e. CD, DVD, cassette, microfilm, microfiche, floppy disk, machine-readable databases, computer, printer, scanner, e-book reader, pen drive, etc, The modern library resources are considered as the reading materials which fulfill the legitimate needs and demands of the users.

3.1 Division of Information sources

The library collects various types of information sources in the library. According to Grogan those information sources are mainly divided into three types -

- i) Primary
- ii) Secondary and
- iii) Tertiary information sources.

3.2 Websites Information Sources

There are so many websites are coming out which is catering to academic and popular information. Some well known educational websites are:

- <http://Scopus.com>, <http://googleScholar.com>, <http://proquest.com>, <http://sciencedirect.com>,
- <http://emeraldinsight.com>, <http://Inflibnet.ac.in>, <http://shodhganga@inflibnet.ac.in>,
- <http://eshodhsindhu@inflibnet.ac.in>, <http://shodhganga@inflibnet.ac.in>,
- <http://shodhgangotri@inflibnet.ac.in>, <http://infoport@inflibnet.ac.in>,
- <http://indcat@inflibnet.ac.in>, <http://epgp@inflibnet.ac.in>, <http://psu.edu>, <http://researchgate.net>, etc.

3.3 Apart from this, every notable Organization, Library Associations, and information centers have their websites in India like

- <http://ilaindia.net>,
- <http://mit.gov.in/content/national-knowledge-network>,
- <http://new.dli.ernet.in>, <http://capart.nic.in>, <http://www.echoupal.com>,
- <http://circulars.nic.in/WriteReadData/CircularPortal/D2/D02rt>,
- <http://srusti.org/cms>, <http://rcld.org>, <http://india.gov.in>, <http://akshaya.kerala.gov.in>, <http://mkcl.org>,

- <http://gswan.gov.in>, <http://nlm.nic.in>, <https://egovindia.wordpress.com>,
- <http://digitallearning.eletsonline.com>, <http://www.digitalindia.gov.in>, <http://iaslic1955.org.in>,
- <http://wbcla.org.in>, etc.

3.4 Support for Common Services

It is more accurate to think of a network as providing the means for a set of application processes that are distributed over those computers to communicate.

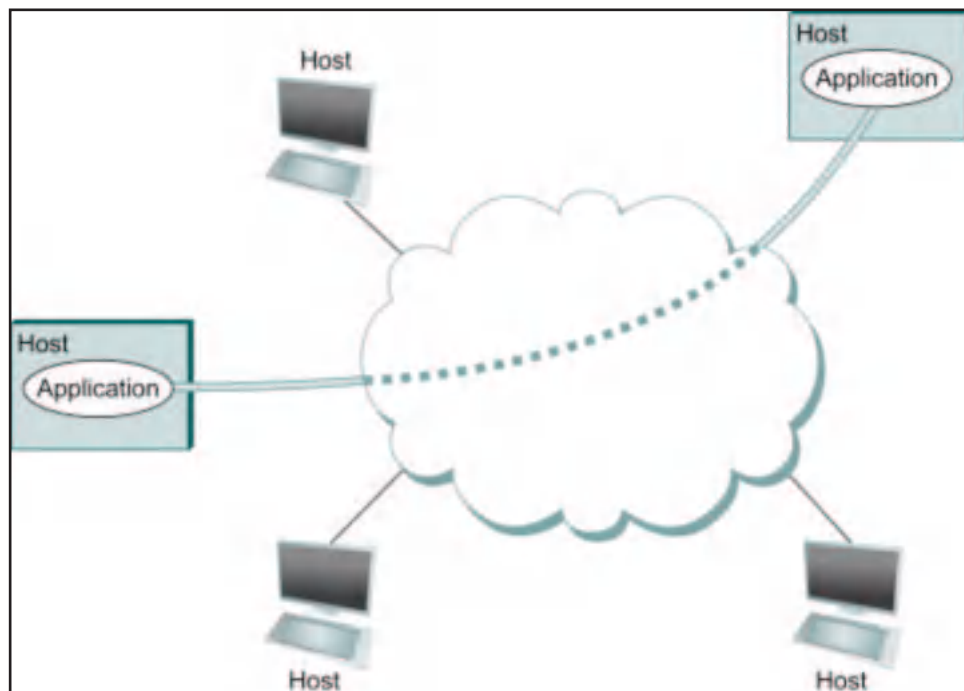


Figure 1.. Processes communicating over an abstract channel

4. Cultural sensitivity

Most digital libraries are produced by people from Western backgrounds, yet the majority of the world's population live in countries that have very different cultures. Some digital libraries are specifically aimed at people in different parts of the world: collections for developing countries, for example, or collections aimed at preserving and promoting indigenous cultures.

5. Social Networking Site Information Sources

Some popular Social Networking Sites are Facebook, WhatsApp, Research Gate, Tweeter, Orkut, Instagram, LinkedIn, Snapchat, Tumblr, Pinterest, Sina Weibo, Reddit, TikTok, Ask.fm, VKontakte, Flickr, Meetup, InterNations, XING, Nextdoor, Tinder, Foursquare, Myspace, etc.

PART-II

6. Digital Rights Management (DRM)

Digital rights management (DRM) is a way to protect copyrights for digital media. This approach includes the use of technologies that limit the copying and use of copyrighted works and proprietary software. In a way, digital rights management allows publishers or authors to control what paying users can do with their works. For companies, implementing digital rights management systems or processes can help to prevent users from accessing or using certain assets, allowing the organization to avoid legal issues that arise from unauthorized use. Today, DRM is playing a growing role in data security.

7. What is a citation?

A “citation” is a way by which you can intimate your readers about certainly used information sources in your work that came from which source. The citation identifies the information sources of which you were used to supporting facts within your research paper.

7.1 Need for citation

There are several reasons that citations are needed in a research paper.

7.1.1 For Avoiding Plagiarism

Plagiarism is one kind of academic theft or cheating. It is the unacknowledged use of another person's work.

7.1.2 For Adding Validity of Work

Proper citation in a paper gives you the credit of fair users of information. It proved that you have spent time and give effort researching the topic information of your p

7.1.3 Provision of information

A citation provides information about a source. If the reader of your paper is interested, she or he can then locate the primary sources using the citation information that you have provided.

7.2 Citation Index

A citation index is a kind of bibliographic index, and it allows the user to easily establish which documents you used to your earlier documents.

8. Plagiarism

Plagiarism means “use of other people's writings, creative work, ideas, art, words, and expressions or otherwise listing the source of information without giving credit to the main author or creator.” In a nutshell, Plagiarism is stealing or academic theft. Iowa State University (2018) states that Plagiarism is also misrepresentation and includes handing in someone else's work, ideas, or answers as your own. According to UGC, “Plagiarism means the practice of taking someone else's work or idea and passing them as one's own” (UGC, 2018). Mainly plagiarism happens inadvertently through sloppy research or on purpose through unethical use of information. It is a serious disciplinary offense (Biswas, S. K., 2019b, p361).

8.1 Types of Plagiarism

There are many kinds of plagiarism, but broadly it divided into four types-

8.1.1 Deliberate Plagiarism

8.1.2 Accidental Plagiarism

8.1.3 Mosaic Plagiarism

8.1.4 Self Plagiarism

8.2 Consequences of Plagiarism

Every academic research institutions have some research ethics and rules for avoiding the consequences of plagiarism. Ibid, p363).

8.3 How to avoid plagiarism

Plagiarism may be intentional or unintentional. The best policy in avoiding plagiarism is always to cite the information source.

8.4 Plagiarism Detection Software

There are so many software products are available in the internet (Ahmed, R. K. Abbas, 2015, p1) like, i) Turnitin: It's a web-based service; ii) Urkund: It's a server-based plagiarism detection web service; iii) Copyscape: It's a client-based tool used to compare locally available databases of documents; iv) WCopyfind: It's an open-source tool for detecting words or phrases of defined length within a local repository of documents; v) Eve2 (Essay Verification Engine): This tool works at the client-side and uses its own internet search mechanism to find out about plagiarized contents in a suspected document; vi) Glatt Plagiarism Screening Program (GPSP): It works locally and uses an approach to plagiarism detection that differs from previously mentioned services; vii) MOSS (a Measure of Software Similarity): This internet service specializes in detecting plagiarism in C, C++, Java, Pascal, Ada, ML, Lisp, or Scheme programs; viii) JPlag: It's an internet based service which is used to detect similarities among program source codes; ix) Plagiarism-Finder: This tool compares the given document with sources on the Internet and generates HTML reports highlighting concurrent passages and providing links to the source, for verification; x) Ithenticate: This tool compares a given document against the document sources available on the World Wide Web; xi) PlagiarismDetect: This is a freely available Internet service; xii) Ephorus: This tool requires registration with the Ephorus site and, therefore, no downloads or installation is needed; xiii) PlagAware: Is an online-service used for textual plagiarism detection; xiv) PlagScan: It's an online software used for textual plagiarism checker; xv) CheckForPlagiarism.net: It's used to stop or prevention of online plagiarism and minimizes its effects on academic integrity; xvi) iThenticate: This services designed especially for the researchers, authors' publisher and other for avoid plagiarism; xvii) PlagiarismDetection.org: It's an online service provides high level of accuracy result in plagiarism detection; xviii) GPlag: It's detects plagiarism by mining program dependence, graphs (PDGs) ; xix) Marble: Marble is a simple, easily maintainable tool that can be used to detect cases of suspicious similarity between Java submissions; xx) Plaggie: Is a Java programming based source code plagiarism detection engine; xxi) SIM: It's a software similarity tester for programs written in C, Modula-2, Java, Pascal, Miranda, Lisp, and for natural languages.

9. Intellectual property

World International Property Organization (WIPO) states that Intellectual property refers to creations of the mind, inventions, symbols, literary and artistic works, names, designs, and images used in commerce. Intellectual Property mainly two types- i) Industrial Intellectual Property like patents and trademarks and ii) Copyright Intellectual Property like creative works that used in any media.

9.1 Intellectual property Right

World Trade Organization define intellectual property right as are the rights given to persons over the creations of their minds. It gives the creator an exclusive right over the use of his/her creation for a certain period.

9.1.1 Copyright

Copyright is a legal means of protection to the creator of original work or an author. It is one kind of intellectual property right which provides exclusive publication, distribution, and usage rights of the author. Copyright protects any content like books, songs, poems, films, plays, and artwork, etc. By Copyright act, you cannot use a logo, trademark, a complete poem, song, story, or other information sources without permission from the copyright holder. This act came into force on January 1, 1978. Copyright protection lasts for the lifetime of the author plus an additional 70 years.

9.2 Fair Use

Fair use is a defense against a claim of copyright infringement. It allowed to use of a limited amount of work for educational purposes without seeking permission from the copyright holder, but the source and author affiliation must be cited properly.

10. Research and Research Ethics

According to Ohdedar, A. (1993), research is a "Search or investigation directed to the discovery of some fact by careful consideration or study of a subject," and it is a "Course of critical or scientific inquiry." Research methodology means the science of method as well as a body of methods or systematic procedures and techniques required to be followed for accomplishing an activity (p.1).

Every academic institution has its research guidelines. But sometimes students used to some unfair means when they prepare their research paper. They used to this unfair means due to negligence, shortage of time, and lack of information literacy skills. On the other hand, now most of the academic and popular information is available on the internet.

10.1 Principles of Research Ethics

According to Shamoo, A., and Resnik, D. (2015), the subsequent area units are the overall outline of some moral principles that numerous research guidelines mentioned. All these are discussed below:

- Honesty
- Sound judgments
- Integrity
- Carefulness
- Openness
- Respect for Intellectual Property
- Confidentiality
- Accountable Publication
- Accountable Mentoring
- Respect for Colleagues
- Social Accountability
- Non-Discrimination
- Ethical use of information

10.2 Plagiarism and its Kind

There are several forms of plagiarism; however, broadly speaking is divided into four types- deliberate, accidental, mosaic, and self-plagiarism.

10.3 Types of Plagiarism :

10.3.1 Deliberate Plagiarism

10.3.2 Accidental Plagiarism

10.3.3 Mosaic Plagiarism

10.3.4 Self Plagiarism

11. Common forms of Plagiarism and Other Academic Dishonesty

Any individual publishing the same thing in another format in a different publication naming as a "New" without referring or citing phrased as self-plagiarism. According to these four sorts of plagiarism, some common forms of plagiarism and other academic dishonesty are:

- Misrepresentation of others work as your own;

- Using somebody else's words, ideas without giving credit or permission;
- Falsification of data and quotations;
- Receiving unaccredited intervention on an assignment or test;
- Duplicity in testing;
- Violating guidelines of instructors for individual assignments;
- Sabotaging and damaging others work;
- Ghostwriting
- Copy and paste

12. Best Practices for Avoid Plagiarism

Plagiarism is not unavoidable. There are many ways to avoid plagiarism, such as knowing good time management, acquire good research habits, and being responsible for your learning (Lata, 2014). According to Lata (2014) following are some specific ways:

13. Research Ethics

On the other hand, research involves human subjects that area unit distinctive and sophisticated moral, legal, social, and political problems. In step with Walton, N. (2018), "Research ethics is mainly interested in the analysis of ethical issues that are raised when a researcher is involved in their research."

13.1 Objectives of Research Ethics

Walton, N. (2018), mentioned three objectives of research ethics.

- Firstly, safeguard the human participants;
- Secondly, confirm that research is conducted for the betterment of human being and society as a whole; finally,
- Third objective is to examine specific research activities and comes for his or her moral soundness, observation of problems like the risk of research, confidentiality protection and also the consent method.

13.2 Complete your Research at Stipulated Time

We know good research takes time. So, don't delay together in your research and assignments.

13.3 Work Commitment

If you don't perceive an assignment, then consult your faculty member or guide and solve the matter. However, don't take it otherwise and also the 'easy means out' by consulting your class fellow, roommate, and friends for dealing with previous assignments or thesis (Lata, 2014).

13.4. Be Scrupulous

To avoid plagiarism, draft your paper conscientiously.

13.5 Conscientious Citation

It's needed to cite conscientiously other's ideas, words, and data, which you are merely using directly or indirectly in your writings. The information of a book, journal, website, and whether or not it's text, an illustration, graphic material, table and charts, all these are required to cite conscientiously (Lowa State University, 2018). Not solely that, when you need to use information from other sources, then it is necessary to be mention in quotes.

14. Conclusion

Now a day, in the rapidly changing paradigm of technology, information literacy is the central mission of higher education and general mass. We found that sometimes pupils fall under plagiarism due to not knowing when and how to cite, how to paraphrase, or summarize it. There are so many information sources available in market and web, but a library collects and preserve mainly such sources which fulfill the legitimate need of their users.

In this regard, this article critically discusses various types of literary concepts, terminologies, and definitions of information sources with plagiarism and its consequences also with the technique of fair use of information.

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Peer-reviewed, Yes, Group I

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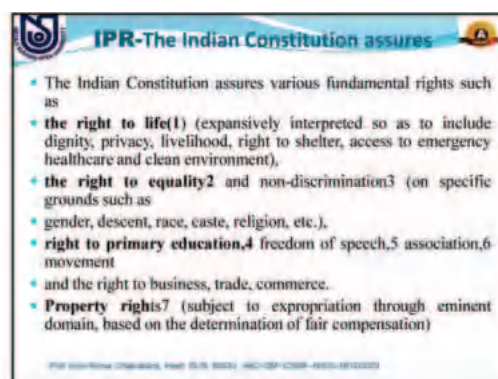
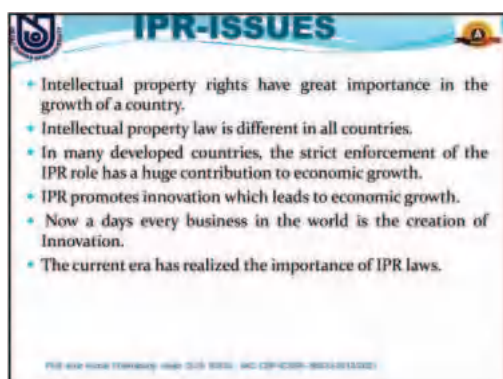
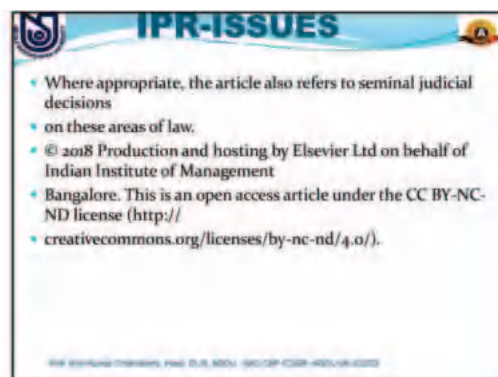
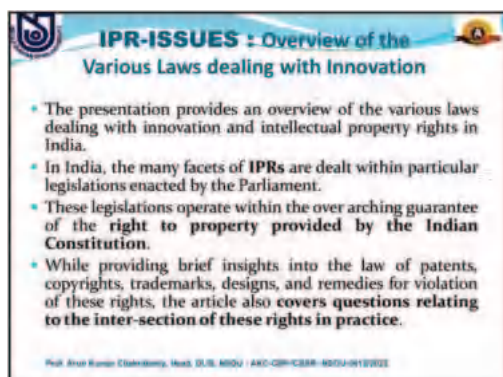
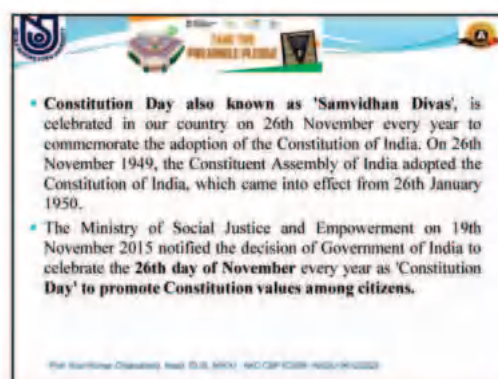
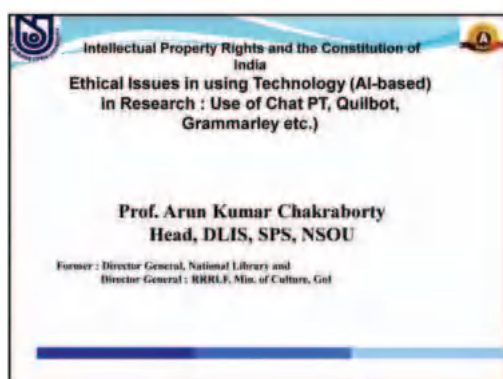
Ethical Issues in using Technology (AI-based) in Research: Use of Chat GPT, Quilbot, Grammarley etc.

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IPR : The Indian Constitution assures

- based on the **determination of fair compensation**) were deleted from the Chapter on Fundamental Rights of the Constitution
- in 1978; they are now relegated to another place.
- Nevertheless, the **Supreme Court in the *K.T. Plantation (2011)*** ruling holds that intellectual property enjoys a high degree of protection
- ("The expression 'Property' in Art.300A confined not to land alone, it includes intangibles like copyrights and other intellectual property and embraces every possible interest recognized by law").**

1. Article (1), Constitution of India, 1950. See for instance: *Shanku Singh*
2. *State of Madhya Pradesh vs. Jayaram*, AIR 1960 SC 1705. *Francis & Carter v. Union of India*, AIR 1960 SC 2079.
3. Article 14, Constitution of India, 1950.
4. Article 15, Constitution of India, 1950.
5. Article 17A, Constitution of India, 1950.
6. Article 19 (1)(g), Constitution of India, 1950.
7. Article 19 (1)(c), Constitution of India, 1950.
8. Article 14 (1)(g), Constitution of India, 1950.
9. *Madras Management Services (P) Ltd. vs. Union of India*, AIR 1978 SC 1013.
10. *Shanku Singh*
11. *Shanku Singh*, AIR 1978 SC 1013.
12. *Shanku Singh*, AIR 1978 SC 1013.

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IPR-The Indian Constitution assures

- It would be also necessary to note that Indian Courts take into consideration Part-IV of the Constitution, which enacts the Directive Principles of State Policy, **wherever issues of :**
- legislative interpretation that impinge upon the rights of a cross-section of people arise. **Articles 39 (e) and (f) enact concerns**
- relating to health which Indian legislatures have to recognize, in their laws.
- The courts have not un-often recognized that while it is imperative to give full effect to the rights of IPR owners, equally the **law plays an important role in balancing the public interest between the property rights of the IPR owner and the public interest in permitting creativity and innovation.**⁹

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CRP-ICSSR-NSOU-08122023

IPR : The Indian Constitution assures

- 10th From jurisprudential point of view, IPRs work as a two way sword.
- On the one hand, there is a growing awareness that such protection is a sine-qua-non of the motivational factor underlying the creation of an intellectual work; however,
- On the other hand granting an absolute protection to the intellectual work can be detrimental to the further progress of humanity.
- In order to balance the rights of the author on the one hand and the society on the other hand certain limitations have been made a part and parcel of the IPR statutes around the globe. In the realm of copyright laws, one of the more important limitations is the doctrine of "fair use."
- This doctrine of Fair dealing/Fair use is a limitation and exception to the exclusive right granted by copyright law to the author of a creative work and it allows limited use of copyrighted material without acquiring permission from the rights holders.¹²

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CRP-ICSSR-NSOU-08122023

IPR-The Indian Constitution assures

- Unlike in other countries, the Indian Constitution compels national legislation, to embody the terms of a treaty, for it to be enforceable in courts in India.¹⁰
- Treaties are *per se* unenforceable
- in courts, but are to be incorporated through national legislation.
- The Supreme Court of India**, in the area of human rights – especially in respect to personal liberty, often iterated that to the extent provision of any treaty is in consonance with the Constitution (such as Article 21), it would be read along with such provision or right.¹¹
- Courts therefore :
- are bound to interpret and follow the law on the specific subject, in India. If it is clear and unambiguous, no question of resorting to external sources arises.

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CRP-ICSSR-NSOU-08122023

IPR-The Indian Constitution assures

- The qualification is that if the terms of such treaties are similar to the law applicable in India, courts may consider foreign judicial precedents in that regard; however those are of persuasive value.
- This the Supreme Court recognized, in its *Entertainment Network ruling in 2008 in a dispute relating to copyright.*¹²
- At the same time, when there are national law embodying international conventions, or treaties, the courts do take into consideration their provisions, rulings of foreign courts in the area, and so on.¹³
- In an unusual case, the Madras High Court had to decide whether the enactment of a provision in the Patents Act infringed provisions of the Trade-
- Related Aspects of Intellectual Property Rights ("TRIPS").¹⁴

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CRP-ICSSR-NSOU-08122023

Patent law-The Indian Constitution assures

- India had limited patent protection in specified fields rather than product patent protection, particularly for food and pharmaceuticals,
- to highlight national issues such as access to drugs and food security.

Based on the German example of allowing

- only process patents (which was subsequently followed by Austria, Brazil, Czechoslovakia, Holland, Hungary, Japan, Mexico, Norway, Poland and the U.S.S.R.),
- a specially constituted Committee recommended that restricting the grant of patents to processes would significantly benefit the Indian chemical and pharmaceutical industry.

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CRP-ICSSR-NSOU-08122023

Patent law-The Indian Constitution assures

- The Patents Act, 1970 was enacted based on the recommendations of the Committee. India was among 50 other countries, pre-TRIPS (The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)), that exempted pharmaceuticals from product patent protection and an additional exempted pharmaceuticals from process patents as well.
- The Indian Patent Act of 1970 and other measures such as drug and industrial policies were tools to achieve its national priorities.
- This system encouraged competitive innovation in the methods of making known products and enabled production of products patented elsewhere using different processes, incentivizing the development of more efficient production processes.

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CRP-ICSSR-NSOU-06122023

Patent law-The Indian Constitution assures

- This system's encouragement for process innovation was the first step to establishing India's generic drug industry, much similar to how Germany established its chemical process industries in the 1800s.
- The term of process protection over food, drug, and medical inventions was limited to five years. A license of right authorized any person to manufacture a patented product, without having to seek the patentee's approval. Inventions relating to food, chemicals, and pharmaceuticals, were deemed endorsed with a license of right three years after the patent issues.
- The Patents Act was amended thrice—in 1999, 2002 and 2005 after India's entry to TRIPS.

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Patent law-The Indian Constitution assures

- It was again through this amendment that the existing Section 3(d) of the Act was brought in. That provides for a check against the patent claims, which do not disclose any significant enhancement in efficacy of a known substance.
- This was the subject of discussion in the *Novartis decision of the Supreme Court of India*. Further, the government could, in the public interest, compulsorily license the patent if the invention was either not reasonably priced or not worked to satisfy the reasonable requirements of the public.
- In 2005, India aligned her laws to TRIPS obligations; thus, process and product patents are granted now; the patent period is 20 years.
- Novelty or "new invention" includes worldwide prior art. Likewise, India's inventive step requirement requires that the "feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art."

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Patent law-The Indian Constitution assures

- *Bishwanath Prasad Radhey Shyam (16)* is the first substantive decision on patents in India by the Supreme Court, which ruled upon three crucial propositions.
- Firstly, though preexisting law did not require industrial application for patentability.
- the Court held that this has always been considered to be necessary by courts. "The foundation for this judicial interpretation is to be found in the fact that Section 26(1)(f) of the 1911 Act recognizes lack of utility as one of the grounds on which a patent can be revoked."
- Secondly, the Court clarified that "Prior public knowledge of the alleged invention which would disqualify the grant of a patent can be by word of mouth or by publication through books or other media."

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Patent law-The Indian Constitution assures

- Lastly, it was ruled that the appropriate test for determining "inventive step" was laid down by *Salkond L.J. in Rado v. John Tye & Son Ltd.* (1967) R.P.C. 297 as: "Whether the alleged discovery lies so much out of the track of what was known before as not naturally to suggest itself to a person thinking on the subject, it must not be the obvious or natural suggestion of what was previously known".
- In *Monsanto, 17* the Supreme Court dealt with what is prior art and ruled that "to satisfy the requirement of being publicly known as used in clauses (e) and (f) of Sec. 64(1), it is not necessary that it should be widely used to the knowledge of the consumer public.
- It is sufficient if it is known to the persons who are engaged in the pursuit of knowledge of the patented product or process either as men of science or men of commerce or consumers."

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Patent law-The Indian Constitution assures

- In *F. Hoffmann-La Roche (Single Judge) (19)* a single Judge of the Delhi High Court held that publicity of the material is
- not the sole test to determine obviousness, and also recognized the distinction between "obviousness" and "anticipation".
- The court ruled that:
- "...The test of obviousness cannot be that the material or formula was published, but that having regard to the existing state of prior art or the published material, was it possible to a normal but unimaginative person skilled in the art to discern the step on the basis of the general common knowledge of the art at the priority date. The other deciding factor is whether the differences between the prior art would, without knowledge of the alleged invention, constitute steps which could have been obvious to the skilled man or whether they required any degree of invention."

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CRP-ICSSR-NSOU-06122023

Copyright law - The Indian Constitution assures

- **The Supreme Court**, in its decision in *Indian Performing Right Society*, (24) evocatively **described copyright in a film as a "felicitous blend, a beautiful totality, a constellation of stars. . . that ensemble which is the finished produced orchestrated performance by each of the several participants,**
- *although the components may, sometimes, in themselves be elegant entities."*
- **In the earlier part of the judgment, the Supreme Court likened the various rights- to**
- the lyrics, music, screenplay and still photographs, other
- design effects, etc. as a **"bundle of exclusive rights"** – *each* capable of independent exploitation.

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CBP-ICSSR-MSOU-06120203

Copyright law - The Indian Constitution assures

- **The Supreme Court** also underscored the **object of copyright law:**
- "Copyright is a right to stop others from exploiting the work without the consent or assent of the owner of the copyright.
- A copyright law presents a balance between the interests and rights of the author and that of the public in protecting the public domain, or to claim the copyright and protect it under the copyright statute.
- **One of the key requirements** is that of originality which contributes, and has a direct nexus, in maintaining the interests of the author as well as that of public in protecting the matters in public domain.

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CBP-ICSSR-MSOU-06120203

Copyright law - The Indian Constitution assures

- It is a well-accepted principle of copyright law that there is no copyright in the facts per se, as the facts are not created nor have they originated with the author of any work, which embodies these facts.
- The **issue of copyright** is closely connected to that of commercial viability, and commercial consequences and implications.
- **The word "original" does not demand original or inventive thought**, but only that the work should not be copied but should originate from the author. In deciding, therefore, whether a work in the nature of a compilation is original, it is wrong to consider individual parts of it apart from the whole.
- For many compilations have nothing original in their parts, yet the sum total of the compilation may be original.

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CBP-ICSSR-MSOU-06120203

Copyright law - The Indian Constitution assures

- In such cases the courts have looked to see whether the compilation of the **unoriginal material** called for **work or skill or expense**.
- If it did, it is entitled to be considered original and to be protected against those who wish to steal the fruits of the work or skill or expense by copying it without taking the trouble to compile it themselves. In each case, it is a question of degree whether the labour or skill or ingenuity or expense involved in the compilation is sufficient to warrant a claim to originality in a compilation."
- **The importance of copyright law** and the public interest in protection of copyrights, **manifested in various treaties** and international conventions, which led to enactment of the
- statute in India was recognized when **the Supreme Court** in its opinion in 1984 (29) held that unauthorized importation of infringing copyright products cannot be countenanced:

Prof. Anur Kumar Chakraborty, Head, DLS, NSOU, AKG-CBP-ICSSR-MSOU-06120203



Dr. Arun Kumar Chakraborty

Professor and Head of the Department in Library & Information science

DLIS, NSOU, KOLKATA SCHOOL OF STUDIES: SCHOOL OF PROFESSIONAL STUDIES (SPS)

TEACHING EXPERIENCE(35YEARS PLUS)

Netaji Subhas Open University (NSOU), Professor of Library & Information Science (22-07-2022–Till date)

IGNOU (Counsellor) -- (2002-2014)

Guest Faculty: IGNOU (2002-2014), RBU (2002-2014), CU (2007-2009)

Administrative and Academic Experience (Previous):

Indian Institute of Management (IIM), Indore,

Librarian (7CPC Level-14, GOI) 20-01-2022-21-07-2022

Bose Institute, Kolkata (An Autonomous Organisation, Under Ministry of Science and Technology), Govt. of India, Librarian (Academic), 12-07-2000–31-12-2021

Director General, Raja Rammohun Roy Library Foundation (RRRLF), (An Autonomous Organisation Under Ministry of Culture, Government of India (GoI)), Saltlake, Kolkata-700064

Director General (DG), National Library, India, (Sub-ordinate Office under Ministry of Culture, GoI), Belvedere House, Kolkata

Director General (DG), Additional Charge 15-05-2015-15-12-2018

National Mission on Libraries (NML), Ministry of Culture, Govt. of India, RRRLF is the nodal Organisation. Office is in Delhi and Kolkata

Additional Mission Director (Additional Charge) 15-12-2014-15-12-2018

FITT, Indian Institute of Technology (IIT), Hauz Khas, Delhi 110016.

Deputy Manager (Information & Documentation), 6CPC : Associate Professor level, plus usual CGS allowances. 25-08-1994-11-07-2000

Centre for Environment Education (CEE), (An Autonomous Organization Under Min. of Environment & Forest), Ahmedabad 380054, Scientist –C (Librarian) : 25-04-1992-24-08-1994

Wildlife Institute of India (WII), (An Autonomous Org. under Min. of Environment, Forest and Wildlife) Dehradun 248 001

Documentation Officer, 30-11-1989-24-04-1992

Details of publications (books/ edited volume / research papers/review): TOTAL : 66 NOS.

Research papers in peer-reviewed or ugc listed journals (21 numbers) (joint author names)

Details of publications (books/ edited volume / research papers/review): chapter in edited book

Details of publications: editorial work: 11

Seminars, conferences, workshops, etc (paper presenter/ invited talk/ coordinator/chairperson): 23

Chaired Seminar : 300+

Economics for Daily livelihood

Dr. S. K. Salim

Assoc. Prof., NSOU

Educational Qualification: M.A., Ph.D.

We shall consider some basic concepts of Economics very often used in our daily life. Everyday we come across with some economic terms like demand, supply, national income, inflation, poverty, unemployment, recession, so on and so forth. However, as common people, we very often do not know the exact connotations of these terms. We shall try to have the proper idea of some of these economic terms of daily use.

DEMAND: We start with the concept of demand, a term we very often use in our daily life. In common parlance, demand means willingness to have any commodity or service. However, in Economics, mere desire or willingness to get anything is not considered as demand. This willingness should be backed by the purchasing power of the buyer. Hence, in Economics, demand is willingness to have backed by purchasing power. Now, demand may be individual demand or market demand. Individual demand refers to the amount of demand made by an individual buyer or consumer. On the other hand, market demand refers to the amount of demand made by all individuals or consumers present in the market. Market demand is just the aggregation of individual demands.

Now, individual demand for any commodity or service depends on many factors such as, own price, price of substitute goods, price of complementary goods, consumer's income, taste, etc. Market demand depends, besides these factors, on size of population, age distribution of population, distribution of income, fashion, custom, etc. Now, there is a relation between quantity demanded of a good and its price, which is expressed in terms of a law, namely, the law of demand. This law states that if price of any commodity falls, other things remaining the same, its quantity demanded rises and vice versa. This is known as the general law of demand. There are, however, some exceptions to this law. The law of demand may not hold if there is demonstration effect; if consumers regard price as the index of quality; in the case of demand for shares; if there is adverse expectation on price; if the good is a strongly inferior good with large negative income effect (called Giffen good), etc.

MARKET: In an ordinary sense, market refers to a place where buyers and sellers assemble and goods are bought and sold. However, in Economics, a market refers to a social relation or social institution between buyers and sellers of a product or a factor of production. This, in Economics, we get one market for each product or each factor of production. For example, there are rice market, fish market, labour market, share market, etc. The market has two main functions. First, the market acts as a bridge between buyers and sellers. Secondly, the market determines the price. Here, buyers demand the commodity and sellers supply the commodity. The price of the commodity is determined by the interaction of demand and supply.

PERSONAL INCOME AND NATIONAL INCOME: The income of an individual is his personal income. While computing personal income, we do not take into account whether that income is earned through market transactions or not. However, national income is the sum total of those personal incomes which have been earned only through market transactions. Taking the sum of all personal incomes, national income cannot be obtained. For, there are many personal incomes which are not to be included in national income total. For example, the income of a beggar is his personal income, but this is not taken into account in the national income. Similarly, unemployment allowances are personal incomes to unemployed youths, but these are also not included in national income. In this connection, it may be mentioned that higher national income may not imply higher national welfare. That depends on many factors like distribution of income, degree of pollution due to the production of higher output, law and order situation prevailing in the economy, environment in the work-place, etc.

EXCHANGE SYSTEM : Before the invention of money, commodities were exchanged for commodities. This is known as the barter system. There were many difficulties involved in this system. It required double co-incidence of wants. Commodities to be used as medium of exchange lacked the qualities of easy transportability, durability, divisibility, etc. With the emergence of money, these difficulties of the barter system were removed. Technically, money is anything which acts as a medium of exchange. It must have the

general acceptability in settling transactions. If the acceptability is established by law, it is called legal money. If the acceptability is enforced by customs, it is called customary money.

Money has four major functions. It acts as a medium of exchange, as a standard of payment, as a unit of account and as a store of value. In this connection, it may be mentioned that due to so many market imperfections, there generally occurs unequal exchange, both at the micro and macro levels. In practice, in an exchange, the lion's share goes to the lion.

ADVERTISEMENT AND CONSUMERISM : In recent years, there has been a spate of consumerism which simply means the desire to purchase consumer goods though most of these goods are not so urgently needed. In this desire of the consumers, advertisement has acted as a fuel to the fire. In modern days, most of the joint stock companies huge advertisement expenditure. These advertisements make false or tall promises and impressions which mislead the the consumers. H.G.Wells, the famous British science- fiction writer says that advertisement is the legalised lying. Being impressed by the colourful and attractive advertisements, consumers rush to the market to grab their desired goods. Rene Descartes, the seventeenth century French philosopher said: I think, therefore I am. Today's consumer thinks: I can purchase, so I am. This consumerism wastes huge resources and creates environmental hazards, particularly in less developed economies.

INFLATION: Another economic term we very often come across, is inflation which means a sustained rise in price level. The main causes behind inflation are the rise in demand and fall in supply or both. As a result of inflation, fixed income groups lose; producers gain while workers lose. So the distribution of income becomes more unequal --- the main social cost of inflation.

Let us mention the major problems and prospects of Indian economy. Some of the severe problems of Indian economy are: poverty, unemployment, inflation, inequality in income, etc. Among them, the most important problem is poverty. About 30 per cent of our population live below the poverty line (BPL). Only 18 countries are below India in respect of World Hunger Index. India's multi-dimensional poverty index (MPI) in 2018 was 28 per cent. As a result of poverty, the stunting rate among Indian children is as high as 34 per cent, and wasting rate is 18 per cent. It is a matter of great sorrow that even after 76 years of independence, half of Indian people go to bed without dinner. Thus, half of India sleeps with hunger.

Admittedly, India has made considerable progress in many fields during the planning era. Some of her achievements are : comparatively high growth rate (Raj Krishna's Hindu rate of growth is no more); progress in agriculture, particularly after the green revolution; considerable industrial growth, particularly after the new industrial policy (1991); stable foreign exchange reserve; development in infrastructure; expansion in trade and commerce; development in science and technology; improvement in human resource; etc. Still, side by side, there are the problems of poverty and unemployment. To make India 'Atmanirbhar Bharat', she will have to go many more miles. Even today, we have many inaccessible regions; many villages do not get safe drinking water; we have the highest number of beggars and street-children; the infant mortality rate (IMR) and maternal mortality rate (MMR) are also very high; we have a parallel economy of black money; in respect of Human Happiness Index, India's position is 136 among 146 countries; etc. Regarding distribution of income in India, wealthy 10 per cent get 57 per cent of national income while the poor 50 per cent get only 13 per cent. The middle-class 40 per cent get 30 per cent of national income. We are living in a queer country where the number of billionaires and the number of destitutes are both rising .



Dr. Seikh Salim

Assoc. Prof., NSOU

Educational Qualification: M.A., Ph.D.

List of Publications during the last five years:

Books : 10

List of Articles Published during the last five years :5

Number of State Level and International Seminars attended during the last 5

years : 03

Number of Research Scholar under Supervision at Present:03

Additional information on academic pursuit :

Awardee of B.U. Gold Medal for securing 1st position in M.A. (Econ.) Exam. , 1978

Awardee of Jahar Roy Memorial Gold Medal for securing highest marks in special paper in M.A. (Econ.) Exam. ,1978

(D-03.3-SES-11- NSOU)

Open Access : Tools & Rules

Parthasarathi Mukhopadhyay

Professor,
DLIS, Kalyani University

Research starts with an existing piece of information and ends with a new piece of information.

Do you agree with the statement?

FOUR FUNDAMENTAL FACETS

- Open and Distributed Information System
 - acting as platform for scholarly communication;
- Open Source Software and Open Standards
 - acting as ingredients for building services and utilities;
- Open Access Publishing System
 - acting as mechanism for generating open knowledge objects;
- Open Learning System
 - disseminating learning resources across the globe,

06.12.2023

INDIAN COUNCIL OF SOCIAL SCIENCE RESEARCH (ICSSR)
MINISTRY OF EDUCATION, GOVT. OF INDIA
(Government)

Five weeks

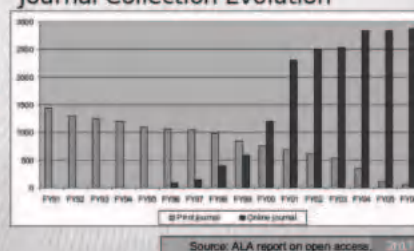
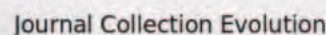
**Capacity Building Program (CBP) for
Young Social Science Faculty**

Open Access : Tools & Rules

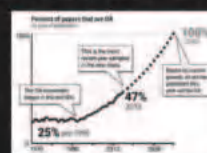
Parthasarathi Mukhopadhyay
Professor, DLIS, Kalyani University

we already know that

happened



What is role of library in a OA dominant world?



"80% OA in 8 years"

Jason Priem (Impact Story/ Unpaywall)

#OCLCAPRC18

 OCLC



**TOO MUCH
INFORMATION**



Because we live in a world of
**INFORMATION
OVERLOAD**



Fragmentation of information

The user has to spend a lot of effort:

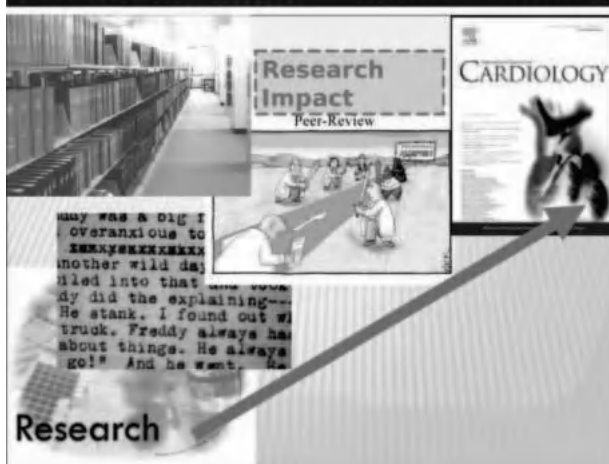
- To find them
- To learn to use them separately
- To search them separately
- To evaluate them
- To keep up with all individual changes
- To repeat the above, constantly

And after doing our best we often found

Knowledge object is under copyright



is as bad as too little



Research

PROBLEMS

Large size of the web;

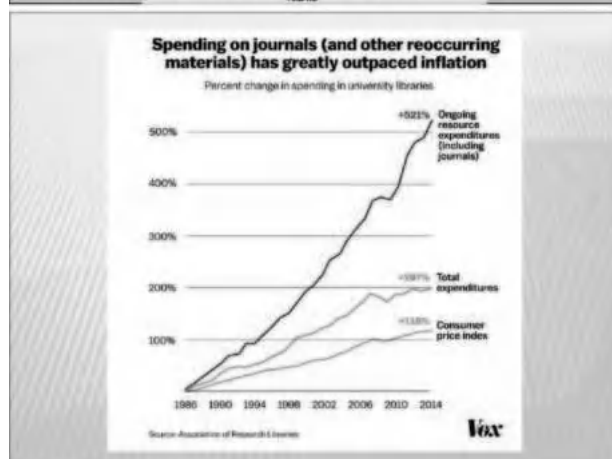
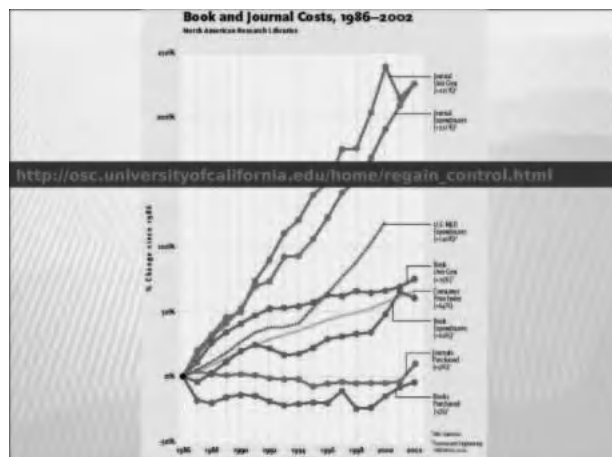
The best search engine covers only 20% of the web;

Search tools are limited by cross-disciplinary semantic drift;

Post retrieval access (after spending lot of time in searching) shows that most of the scholarly materials are under copyright;

Academics suffer a lot (in India and in other developing blocks of this uneven world);

Are these facts matching with your experience?
Are u thinking of a concept like copyright?

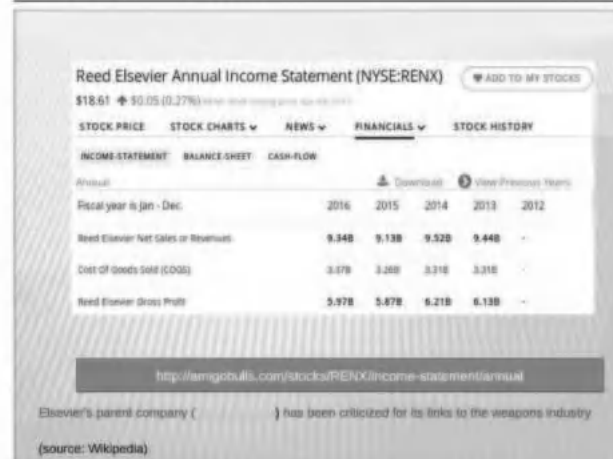
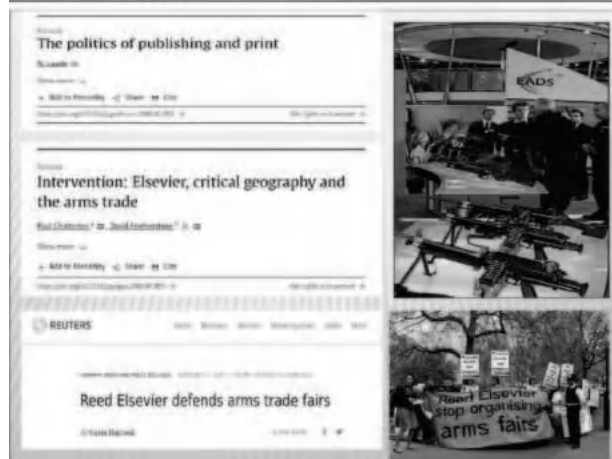
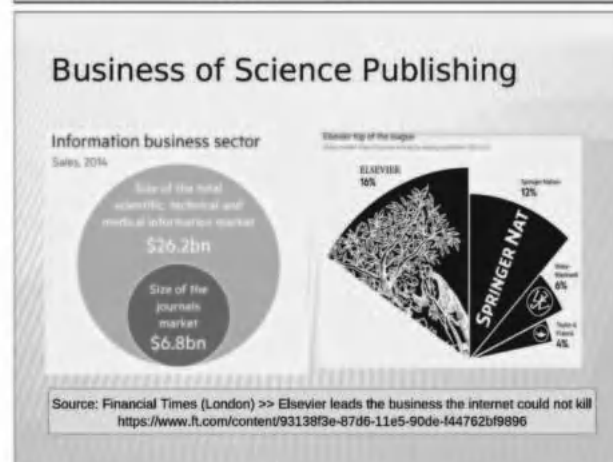
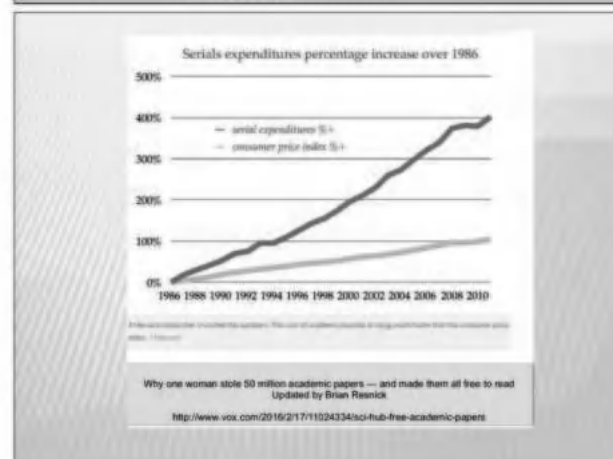
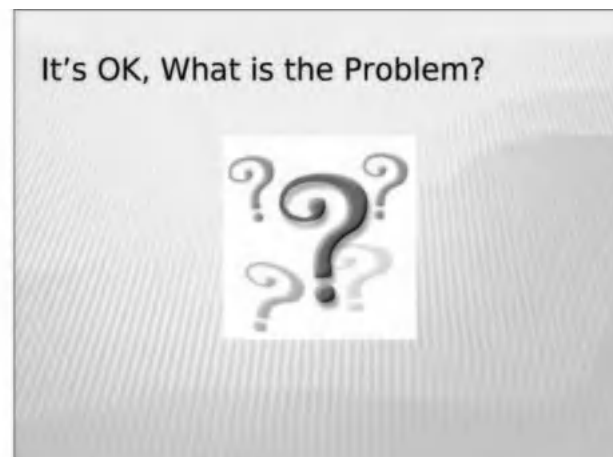


Profit analysis Elsevier's annual reports for the period from 2002-2011

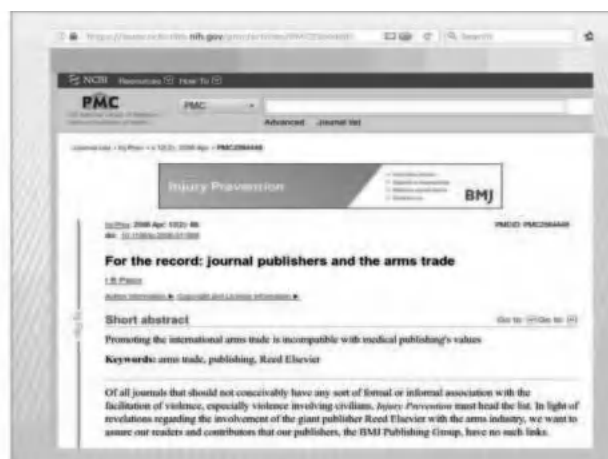
2002:	£429m profit on £1295m revenue – 33.18%
2003:	£467m profit on £1381m revenue – 33.82%
2004:	£460m profit on £1363m revenue – 33.75%
2005:	£449m profit on £1436m revenue – 31.25%
2006:	£465m profit on £1521m revenue – 30.57%
2007:	£477m profit on £1507m revenue – 31.65%
2008:	£568m profit on £1700m revenue – 33.41%
2009:	£693m profit on £1985m revenue – 34.91%
2010:	£724m profit on £2026m revenue – 35.74%
2011:	£768m profit on £2058M revenue – 37.30%

Around 37% during 2015-2018 and 39% in 2019

Source: <https://svpow.com/2012/01/13/the-obscene-profits-of-commercial-scholarly-publishers/>



Serials crisis



Publishing Barriers

- Research is publicly funded
 - Personal academic efforts
 - Supported by institutions
- Authors sign away rights with publishers in order to publish
 - Given away freely to publishers
 - Publishers make huge profit\$
- Author gets no tangible reward
 - And loses rights to copy material for colleagues, teaching etc...
 - Institution potentially loses out on its investment

Serials crisis is even worse in India



- Most reputed journals are published in developed countries and are monopolized by few publishers
- We are paying in foreign currency
- Promising indigenous researches are published in foreign journals
- Govt. is paying twice for research – public money is utilized to fund research and again to buy research results

A neo-conventional model?

Open access to knowledge?

knowledge is open if

"one is free to use, reuse, and redistribute it without legal, social or technological restriction."

Wikipedia Definition

Free, immediate, permanent, full-text, online access, for any user, to digital scientific and scholarly material, primarily research articles published in peer-reviewed journals.

OA means that any user, anywhere, who has access to the Internet, may link, read, download, store, print, use, and data-mine the digital content of that article.

WHAT IS IT?

Open Knowledge is a term used to denote a set of principles and methodologies related to the production and distribution of knowledge objects in an **open** manner.

Knowledge object is interpreted broadly to include:

- **Data** – scientific, historical, geographic or otherwise
- **Contents** such as journal papers, reports, books, music, films etc.
- **General information** for example that produced by government and other administrative bodies

Open way – Open submission, Open peer review and Open access without any discrimination

What has driven this evolution?

Academic:

Serials crisis of the early 1990's – high journal costs
Rise of interdisciplinary research
Channels of communication among researchers have changed

Technological:

Growth of the internet
Open source software movement
Rise of Social Software and Web 2.0 tools

Open Knowledge Objects

Free availability of research articles or publications on the public internet, permitting any users to read, download, copy, distribute or print the articles or publications... pass them as data to software, or use them for any other lawful purpose, without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. The only constraints on reproduction and distribution, and the only role for copyright in this domain, should be to give authors control over the integrity of their work and the right to be properly acknowledged and cited.

(Budapest Open Access Initiative)

Initiatives

Late 1980's: The first online OA journals appeared
1991: arXiv, the first subject based online archive, was launched
1994: Highwire Press is launched at Stanford
1997: PubMed launched
1998: SPARC
(Scholarly Publishing and Academic Resources Coalition) launched by ARL

Open Access News blog (Peter Suber)
Managing Your Copyrights – Massachusetts Institute of Technology (Author Rights)
LOCKSS (Lots of Copies Keep Stuff Safe)
Portico (Electronic Archiving)
SHERPA-ROMEO project
Open Content Alliance (collaborative archive)
Open Peer Review & Collaboration (Heather Morris)

In Open access model

Knowledge objects

Can be submitted online
Can be peer reviewed online
Edited online
Published online
Distributed online
Used online

At very low cost compared to the conventional publishing model and Save the time too

Berlin Declaration on Open Access

"Our mission of disseminating knowledge is only half complete if the information is not made widely and readily available to society"

More recent history of the OA movement

2000: BioMed Central, a for-profit OA publisher of science journals, is founded
2002: Open Society Institute launched the Budapest Open Access Initiative
2006: Open peer review
2007: UGC, India passed regulations for IDR initiatives and theses archiving in Indian Univs
2008: Harvard faculty pass OA mandate

Open Access (OA) means free and online access to scholarly literature that can be freely disseminated further with proper author attribution.



There are two types of open access:
Self-archiving, and open access journals.

Image Source: Singh, S.

Open Access Repositories

- Open Access Repositories allow authors / right holders to deposit their articles
- May allow preprints (pre-published manuscripts)
- Normally allow post-prints (peer-reviewed and published articles)
- Most reputed academic publishers allow authors to deposit some version of their

Registry of Open Access Repositories (ROAR) had 4725 registered repositories as on 1st June 2023, <http://roar.eprints.org/>

OpenDOAR (Directory of Open Access Repositories) includes 5000+ as on 1st June 2023 <https://v2.sherpa.ac.uk/opensdoar/>

Open Access Publishing

- Open Access Journals perform peer review like their conventional counterparts and then make the approved contents freely available to

DOAJ DIRECTORY OF OPEN ACCESS JOURNALS
<http://www.doaj.org/>

Has **19,500** journals in the directory as on 1st June 2023

BUT IS IT LEGAL?

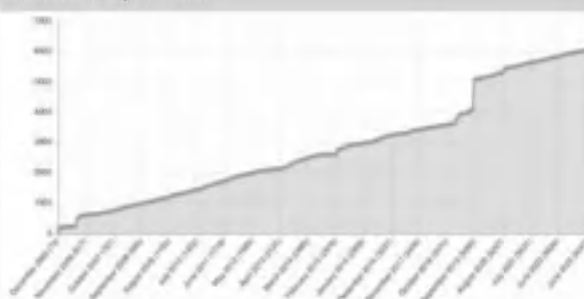
SECURING A HYBRID ENVIRONMENT FOR RESEARCH PRESERVATION AND ACCESS

SHERPA/RoMEO
www.sherpa.ac.uk/romeo.asp



SHERPA/JULIET
www.sherpa.ac.uk/ulm/juliet.html

Growth of OpenDOAR



S/ROMEO COLOUR SCHEME

Highlights publisher's archiving policies

Figures accurate as of Feb 2018

Green (38%) Can archive both pre & post-prints	Blue (26%) Can archive post-print only
Yellow (10%) Can archive pre-print only	White (26%) Archiving not formally supported

Copyright and Legal matters

Who allows it?

>90% of journals or 75% of publishers

Conditions or restrictions

Conditions allow deposition provided rules followed

E.g. Not publishers version, pre/post print only

Restrictions stop immediate deposition

E.g. Embargos (6 months-2 years commonly)

Open Access Publishing

Peer reviewed titles with NO copyright transfer

See the DOAJ for over 3000 OA journals

Tools to help

SHERPA/RoMEO

Guide to variations between publishers

SHERPA/JULIET

Guide to Research Funder requirements

S/ROMEO RECORD

Publisher: **BMJ Publishing Group**

Pre-print: ☒ author can archive pre-print (ie pre-refereeing)

Post-print: ☒ author can archive post-print (ie final draft post-refereeing)

Conditions:

- On author or institutional server only
- Publisher copyright and source must be acknowledged
- Word limit to publisher version
- Publisher PDF may be used
- Articles in some journals can be made Open Access on payment of additional charge

Accepts: ☒ **Hybrid** (Accepts with embargo); ☒ **Full** (Accepts embargo)

Paid access: **BMJ Unbound** - for all journals except BMJ, which is Open Access

Copyright: **Open Access**

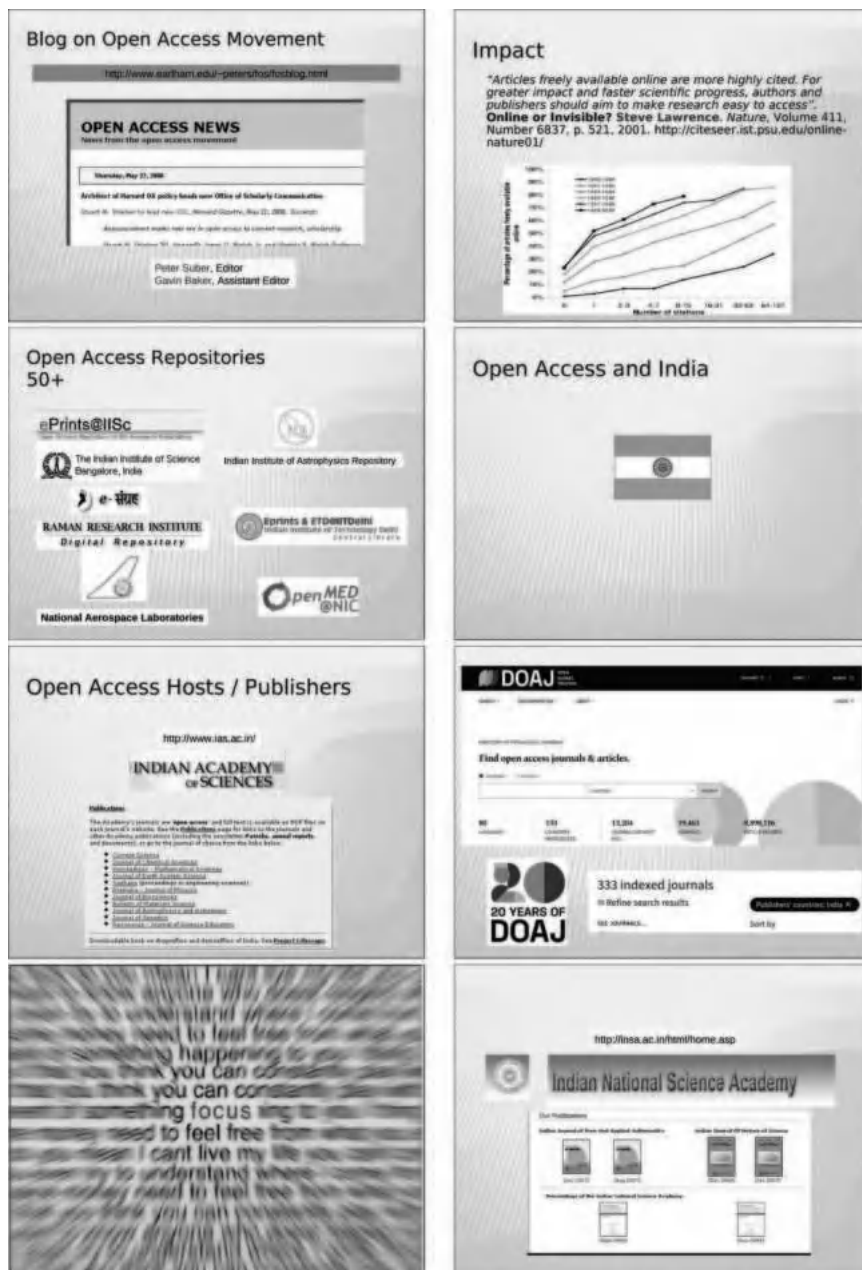
RoMEO: This is a RoMEO green publisher

Update: **updated update for this record**

237 publishers listed to-date

Equates to over 15,000 journals

Icon	Description	Acronym	Allows Remote culture	Allows commercial use	Allows Pre Cultural Works	Meets 'Open Definition'
	Preserving content globally without restrictions	CC0	Yes	Yes	Yes	Yes
	Attribution alone	BY	Yes	Yes	Yes	Yes
	Attribution + ShareAlike	BY-SA	Yes	Yes	Yes	Yes
	Attribution + NonCommercial	BY-NC	Yes	No	No	No
	Attribution + NonCommercial + ShareAlike	BY-NC-SA	Yes	No	No	No
	Attribution + NoDerivatives	BY-ND	No	Yes	No	No
	Attribution + NonCommercial + NoDerivatives	BY-NC-ND	No	No	No	No



Parthasarathi Mukhopadhyay

Professor

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Analytics/activity/overview

Educational Qualifications:

M.Lib.I.Sc, Ph.D.

Teaching Experience:22 years.

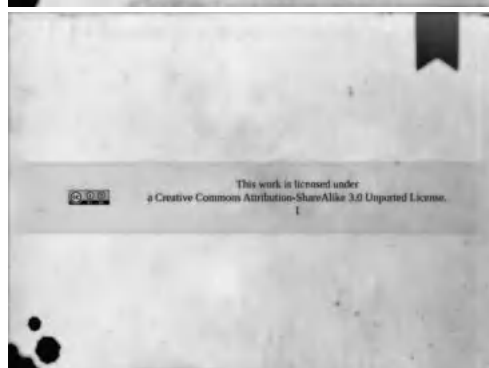
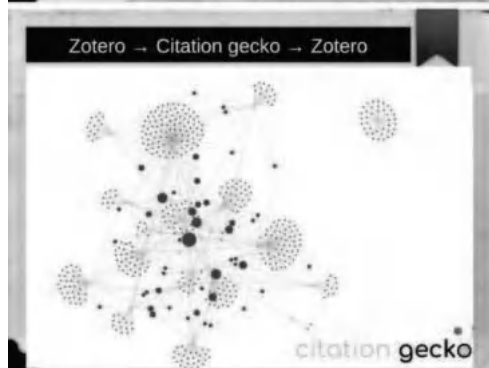
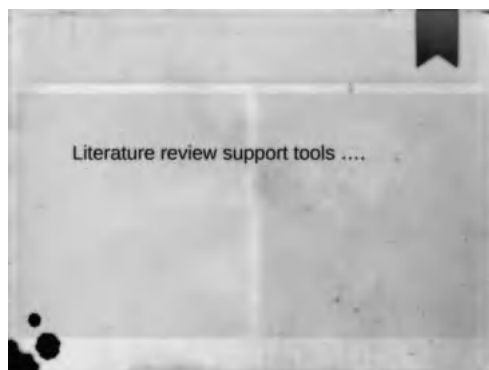
Research tools Topic-02: AI enabled Digital Access Brokers for Research

Parthasarathi Mukhopadhyay

Professor,
DLIS, Kalyani University

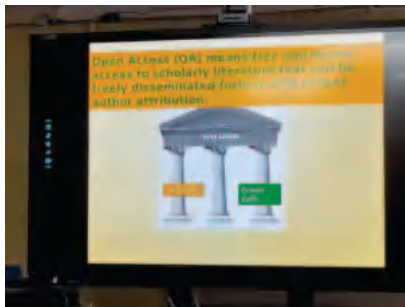
The collage consists of eight screenshots from a presentation:

- Slide 1:** "Digital Humanities in Literature Processing" with buttons for Search, Enhance, Process, Use, and Visualize.
- Slide 2:** "Research starts with an existing piece of information and ends with a new piece of information. Do you agree with the statement?"
- Slide 3:** "Some of these you already know" showing logos for Kopernio, Open Access Button, Library Access, and Google Scholar Button.
- Slide 4:** "Digital Access Brokers" with sections "What & Why" and "How".
- Slide 5:** "Many new kids in the town :-)" showing a grid of various digital access tools.
- Slide 6:** "Many new kids in the town :-)" showing another grid of digital access tools.
- Slide 7:** "Many new kids in the town :-)" showing a third grid of digital access tools.
- Slide 8:** "Many new kids in the town :-)" showing a fourth grid of digital access tools.



Photos of Day 3

Day 3: 06.12.2023 Wednesday
VENUE: NSOU-HQ, Saltlake, Kolkata



Postulation approach and social science research

Prof. Durga Sankar Rath

Professor, Dept. of Library and Information Science,
Vidyasagar University, Midnapore, West Bengal

Postulation Approach and Social Science Research

- Lack of profession-based focus
- Diversified nature of available literature
- Absence of precisely defined terminology
- Variety of databases lacking of uniformity
- Difference in amount and standardization for material available in digital environment

Prof. Durga Sankar Rath

Professor, Dept. of Library and Information Science, Vidyasagar University, Midnapore, West Bengal

Social Science – Introspect and retrospect

- 'socius' – in Greek 'companion' and 'science' is 'objective method of study'
- Application of scientific method to observe the environment – physical / social
- Social scientists study the social environment in which we live in an attempt to get ideas about the human societies and to predict how people as a group will interact in a given set of circumstances.

Inter-relation physical & social

- Secretion of endocrine and social tension
- Both may be cause and effect
- Concerned with the social phenomena which are relatively unique;
- Scholars in such field observe, record and attempt to classify interactions which are not recurrent;
- French revolution – historian draws parallel among the same sort of happenings in other times and places – but his focus is the uniqueness rather than the commonness;
- He may be the authority on eighteenth century France, rather than an expert on revolutions

Approaches towards Science

- Science should be viewed as an approach or attitude, rather than a branch of academic discipline.
- Application of rigorous controls of systematic observation and objectivity in analysis towards social behaviour as in Physics and Biology.
- Lack of social acceptance and lack of precision
- Human behaviour is much complex than physical object for analysis and predict.
- Human being or the social phenomena are not so transparent that it could be easily observed

Contd

- Every human being is unique, prediction on one set of observables may not hold good for others;
- None is consistent enough in relation to time and space;
- One's behaviour differs from normal when someone is observed
- Crisp, clear and unambiguous definition is a pre-requisite in any science;
- Measuring yardsticks are not very consistent and standardized;
- Circumlocution in cause and effect;
- Deceptive verbiage in explanation, mathematical equation can hardly be made.
- Analysis of any social phenomena gets encumbered by the personal credo, belief or dogma of the analyzer.

J D Bernal

- Human being became more knowledgeable about themselves and got scope to introspect;
- Slowly some erstwhile non-science subjects came within the manifold of Science;
- It is fact that scientific methods were first used to understand the physical phenomena, which are readily observable and could be deciphered with sufficient clarity;
- Due to this prolonged association of scientific methods with the physical world 'Science' got intermingled with 'Natural Science' in common man's parlance.

Journey from pure-percept to subject

- Pure Percept
- Compound percept
- Idea
- Data – information – knowledge
- Subject
- Spiral of Scientific Method

Spiral ...

■ Empirical phase

- personal experiences at nadir
- observe through sensory organs guided by intellect
- too many to handle, recapitulate in right perspective
- consolidate those conclusions to some empirical laws
- use inductive logic, normal equations and other tools

■ Hypothesizing phase

- few people gifted with intuition
- result is fundamental laws in the form of hypothesis or normative principles

Concl.

■ Deductive phase

- deduced by deductive reasoning
- all empirical laws *plus few more* from any given hypothesis or normative principle, as intuition played role
- those extras which were not generated at the first phase are Deduced laws
- Deduced laws infer some results that have never been observed before

■ Verification Phase

- observe deduced laws with special care, tools and techniques
- if they still found to be satisfactory, and behave as expected, then they will be accepted
- otherwise evidences are gathered to disprove the hypothesis
- again we come into the first quadrant to collect new facts and data and the spiral continues

Logical process in research

■ Statistics or planning

Algebra of logic and its application

- Committees, stockholders incorporations, and various governmental bodies frequently make decisions by means of voting rules which may be simple or complicated.
- Those subsets of the body which can control the decisions, are called *winning coalitions*.
- It is assumed here that there are no abstentions or absences.

Examples

- A committee of three people a, b, c which operates under the ordinary majority rule, winning coalitions are; {a, b}, {a, c}, {b, c}, and {a, b, c}.
- Same committee operating under the following rules, a has 2 votes, b is chairman with 1 vote but also has the power to break ties, and c has 1 vote.
- One's intuition might lead c's power is dwindled, while a's and b's have increased, might be uncertain as to whether a or b is strongest. The surprising fact however winning coalitions remain unchanged.
- A winning coalition of which no proper subset is winning is called a minimal winning coalition.

Political Structure

■ It shall be meant a finite set I of elements called **members**, and a collection of non-empty subsets of I called **winning coalitions**, satisfying the following postulates:

- 1. There is at least one winning coalition
- 2. Any superset of a winning coalition is also a winning coalition.
- 3. The complement of any winning coalition is not a winning coalition.

Theorems

1. I is winning coalition.

Proof. By postulate 1 there exists a winning coalition w . But w is subset of I ; so, by postulate 2, I is a winning coalition.

2. If X is a coalition which is not winning, there no subset Y of X can be winning.

Proof. If Y were winning then X would be winning by postulate 2. This would contradict the hypothesis. Hence Y is not winning.

Contd.

3. Any two winning coalitions X and Y must have at least one member in common.

Proof. Suppose contrary to the theorem, that X and Y have no common element, then Y is a subset of the complement X . Since Y is winning, so is X complement by postulate 2. Then X and X complement both are winning, contrary to postulate 3. Hence the supposition is false.

Losing, Blocking, Dictator, Dummy

- A coalition which is not winning is termed losing.
- A losing coalition whose complement is also losing is called a blocking coalition.
- A member is called a dictator if he constitutes a winning coalition by himself.
- A member is called a dummy if each winning coalition to which he belongs is also winning without him.

Power Index of political structure

- In a business corp. A owns 51%, B 17% and rest distributed among other members, each stock certificate carrying 1 vote.
- No. of votes a stock holder has, is not a good index of his power in the corporation.
- It is nonsense to say that A has three times as much power as B. In fact A has all the power and B has none.

Contd.

- Suppose the members of the political structure are listed in a particular order as a_1, a_2, \dots, a_n . Consider the sets obtained by starting with the empty set

Lies, damned lies, and statistics

- "Lies, damned lies, and statistics" is a phrase describing the persuasive power of numbers, particularly the use of statistics to bolster weak positions, and the tendency of people to disparage statistics that do not support their positions. It is also sometimes colloquially used to doubt statistics used to prove an opponent's point.
- The term was popularised in the United States by (among others), who attributed it to the 19th-century British Prime Minister (1804–1881): "There are three kinds of lies: lies, damned lies, and statistics." However, the phrase is not found in any of Disraeli's works and the earliest known appearances were years after his death. Other coiners have therefore been proposed. The most plausible, given current evidence, is Englishman (1843–1911).

Maharashtra's Assembly

Statistics

- Many mistaken conclusions are drawn from statistical data by people whose mathematical training is insufficient.
- It is not because they make mistakes in calculations but because they often do not understand the basis of the mathematical (logical) formulae they use.
- All the people who publish statements in newspapers and magazines, beginning with the words "Statistics prove..." were laid end to end there would probably be far less pseudo-scientific superstition among educated laymen.
- 'Lie, damn...' does not refer to statistics properly used.
- It often mislead common people, than anything else.

Accuracy

- High degree of accuracy in statistical report are carried to many decimal places – a popular misconception.
- Poll for any political group is $1/7^{\text{th}}$ of the total, to make it the masterpiece of scientific accuracy if we put 0.14285714285... is simply a gimmick.
- Genuine accuracy depends on the accuracy of our data.
- A museum visitor who said "This fossil is 5,000,003 years old because when I was here three years ago, the guide told me it was 5,000,000 years old" is fascinated.

Average

- In dealing with large collections of numbers, it is humanly impossible to draw quantitative conclusions about the group.
- But, we would like somehow to describe the general quantitative characteristics of the entire group.
 - One is 'averages' for the purpose of describing the central tendency of the collection.
 - Other is the 'measures of dispersion' to describe how the numbers of the collection deviates from some average.

Illustration

- The collection of numbers 40, 45, 48, 50, 50, 50, 50, 52, 55, 60 has the 'average' 50 i.e., 50 is the value about which the entire collection "centers".
- The collection of numbers 10, 30, 40, 50, 50, 50, 50, 60, 70, 90 has the same average as above, but the numbers of this collection are dispersed very differently about this central value. Poll result illustrates dispersion in local parties.

Index Number

- In making qualitative vague comparisons numerical indices are used often.
- IQ of three people are 150, 100 and 75. But it is silly to say that the first one is twice as intelligent as the third.
- Arranging boys according to height, and assign shortest one the index no. 1 and so on. We can not conclude that the boy with index no. 20 is twice as tall as the boy with index no. 10, merely because $20=2*10$.

Mean

- Arithmetic mean $= (x_1 + x_2 + x_3 + \dots + x_n) / n$
- Earning per month of different section –

Business	2 persons	Rs.50000,
-Service	3 persons	Rs.10000,
-Skilled	5 persons	Rs.6000,
-Unskilled	10 persons	Rs.3000,
-Novice	5 persons	Rs.2000.
- Clearly, AM of salary Rs.14200 gives a false impression of working condition, rather Weighted Arithmetic Mean=Rs.4000, would be the average monthly salary.

Property

- Arithmetic Means have the property that they give great importance to extremely large or extremely small numbers.
- Extremely large salary paid to the managers (who happened to be Owner's sons-in-law exerted an undue influence on the result.
- The Arithmetic mean of the various readings as the 'most probable value' of the measurement is a primary assumption in various useful statistical theory.

Mode

- The **mode** is the number in a collection of numbers, which occurs most frequently, if such a number exists.
- In the above example the modal salary is Rs.3000.
- The mode has the property that it is not influenced by isolated extreme values, like the managers' salary.
- Defect is that, the frequencies with which various numbers occur may be the same or very much the same, so that the mode becomes meaningless.
- If a student gets marks of 90, 90, 80, 80, 75, 75, 65, 65 – here is no modal marks.
- Another student gets marks of 100, 99, 98, 90, 90, 85, 85, 85, 65, 65, 65, 65 – the mode value 65 hardly represents students' calibre.
- "The average man" usually refers to the modal man.

Median

- If a collection of numbers is arranged in order of magnitude, the term in the middle position is called the **median**.
- In the above example the median mark is 77.5.
- Statements about averages must be carefully interpreted in the light of how the averages are calculated and whether the type of average used was appropriate to the given situation.

Measures of Dispersion

- The collection of numbers 10, 30, 40, 50, 50, 50, 50, 60, 70, 90 has the arithmetic mean 50, same for the collection of numbers 40, 45, 48, 49, 50, 50, 51, 52, 55, 60. Median and mode is also 50.
- But clearly the numbers of the first collection are dispersed about the number 50 in quite a different manner from the second collection.
- Standard Deviation: $S_x = \sqrt{((x_1 - \bar{x})^2 + \dots + (x_n - \bar{x})^2) / n}$

Correlation

- Suppose we were to find the relation between the number of people attend a rally and the number of people cast their vote in favour of a certain political party in that election. We might get the impression that there is some connection or relation between them, viz., x_1, x_2, x_3, \dots With y_1, y_2, y_3, \dots
- Thus we observe that which political group brought out bigger rally, more votes are cast in favour of them. That is scattering across a single line.
- We can draw a graph plotting the point in two co-ordinates.
- The said points are roughly clustered about a straight line, although there are some stray points which are quite far from the line.
- The values of Y are fairly well approximated by a linear function of x; The variable Y has a high degree of **linear correlation** with the variable x.

Coefficient of Correlation

- This measures how closely the scatter diagram approximates a linear function.
- This coefficient is so constructed that it is **positive** if the Y's increase as the X's increase; and **negative** if the Y's generally decrease as the X's increase.
- If all the Y's really lays along a straight line the correlation would **perfect**.

Coefficient of (linear) Correlation

- $$r = \frac{(x_1 - \bar{x})(y_1 - \bar{y}) + (x_2 - \bar{x})(y_2 - \bar{y}) + \dots + (x_n - \bar{x})(y_n - \bar{y})}{\sqrt{((x_1 - \bar{x})^2 + \dots + (x_n - \bar{x})^2) * ((y_1 - \bar{y})^2 + \dots + (y_n - \bar{y})^2)}}$$
- If $x_1=1, x_2=2, x_3=3$ and $y_1=2, y_2=4, y_3=6$ then the formula yields $r=1$, which indicates the fact that x and y are exactly related by a linear formula, viz., $y=2x$.

Inference from Correlation

- When two variables have a high degree of correlation, we might be inclined to suspect some genuine relationship between them. But such a conclusion must not be rashly drawn.
- Sufficient rain, and huge turn out in favour of the ruling coalition may not have a causal relation.
- A high degree of correlation may indeed be indicative of such a causal relationship, if supported by other evidence, but never can justify such a conclusion by itself.
- In the absence of additional evidence, such a correlation might be accidental.

Sampling

- Statistical information about large numbers of people, say the population of Midnapore, is obtained by gathering data from a "representative sample" or "typical cross section" of the population.
- A really typical sample should include the same proportion of people holding various views.

Sampling Methods

- Probability Sampling: each member of the population has a known non-zero probability of being selected.
 - Random
 - Systematic
 - Stratified
- Non-probability Sampling
 - Convenience
 - Judgment
 - Quota
 - Snowball

Reasoning and Intuition

- To reason logically in subjects where the reasoning far from being openly exhibited in its skeletal form, is hidden in elaborate verbiage and where our thoughts are coloured by our emotions and prejudices.

Deductive logic: Truth and Validity

- The process of drawing valid conclusions from given hypotheses is called **deduction**.
- A) All fishes are swimmers.
- B) No cats are felines.
- C) Some college students are clever people.
- A – Presumably true
- B – Certainly false
- C – Probably true
- Non-committal; Venn diagram

Follows from or Implies

- Hypothesis.** A) All freshmen are undergraduates.
B) All undergraduates are geniuses.
- Conclusion.** All freshmen are geniuses.
- Hypothesis.** A) All freshmen are human.
B) All undergraduates are human.
- Conclusion.** All freshmen are undergraduates.
- Hypothesis.** A) All Kolkatans are idle.
B) All idles are residents of India.
- Conclusion.** All Kolkatans are residents of India.

Contd.

- If $3 = 7$ then $1 = 1$.
- Hypothesis.** a) No interesting people are bores.
b) Some interesting people are university teachers.
- Conclusion.** Some teachers of university are not bores.

Formal Character of Logic

- Abstract logic**
All x's are y's
All y's are z's
All x's are Z's
- Propositional Functions and Propositions**
- X is the present CM of West Bengal
BB – Correct, MB – False, Imperceptibility – Nonsense

Inductive logic and experimental Science

- The process of coming to a conclusion on the basis of (many) particular instances is **inductive reasoning**.
- Conversion from induction to deduction:
Hypothesis:
a. In the 500 cases we tried, treatment T cured disease D.
Conclusion: Treatment T will always cure disease D.
This can be made valid by adding the general hypothesis.
b. That whatever cured our 500 cases will be a cure for all cases of disease D

Contd.

- The Conclusion of an inductive argument is never more than probable. The conclusion of a deductive argument is inescapable if the hypotheses are granted.



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Areas of Interest

- Semantic Web
- Digital Library Organisation
- Social Epistemology in context of Library and Information Science
- Informetrics and Scientometrics
- Knowledge Based System applying OCR Technology
- Information Reengineering through Concept Mapping

Experiences : Served 25 years in different capacities at EDI, Ahmedabad, Rabindra bharti University, Kolkata and at Vidyasagar University, Midnapore.

Publications : Authored two books and more than fifty research articles in reputed national and international journals.

When AI Meets Social Science

Malay Bhattacharyya

Associate Professor

MIU, CAIML, TIH

Indian Statistical Institute, Kolkata

Outline

Basics

Machine Learning

Latest Advancements in AI

Applications of AI in Social Sciences

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December 07, 2023

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Applications of AI in Social Sciences

- 1 Basics
- 2 Machine Learning
 - Supervised Learning
 - Unsupervised Learning
- 3 Latest Advancements in AI
- 4 Applications of AI in Social Sciences

Outline

Basics

Machine Learning

Latest Advancements in AI

Applications of AI in Social Sciences

What gender is a CEO?

The gender of a CEO can be any gender. A CEO is a professional job title that can be held by anyone, regardless of their gender identity. It is important to avoid making assumptions about someone's gender based on their occupation or title. Inclusive language should be used to ensure that everyone, regardless of their gender, feels seen and respected.

Outline

Basics

Machine Learning

Latest Advancements in AI

Applications of AI in Social Sciences

write a short story about a CEO

As the CEO of one of the largest tech companies in the world, Mark had achieved everything he had ever dreamed of. He had built a business empire from scratch, and now he was at the top of the world. But as he sat in his office, overlooking the city skyline, he couldn't help feeling a sense of emptiness inside.

Despite all his wealth and success, he realized that he had neglected his personal life. His relationships had suffered, and he had lost touch with his family and friends. He had been so consumed by his work that he had forgotten what truly mattered in life.

Outline

Basics

Machine Learning

Latest Advancements in AI

Applications of AI in Social Sciences

Why did you assume the CEO was a he?

I apologize for the assumption. As an AI language model, I do not have personal beliefs or biases, and I strive to use inclusive language. However, in the story, the gender of the CEO was not specified, so it would have been more appropriate to use gender-neutral language. I will keep this in mind in future responses.

Outline

Basics

Machine Learning

Latest Advancements in AI

Applications of AI in Social Sciences

Write a short story about a CEO

Avery had always been a driven individual. She had a keen business sense and a talent for leadership, and it wasn't long before she climbed the ranks of her company to become the CEO.

As a female CEO, Avery knew that she had a unique perspective to bring to the table. She was committed to creating a company culture that was inclusive and empowering for all of her employees, regardless of their gender.

Outline: 100000 Basics: 100000 Machine Learning: 000000000000000000000000 Latest Advancements in AI: 00 Applications of AI in Social Sciences: 0000000

Real intelligence

How intelligent human beings are?

Malay Bhattacharyya When AI Meets Social Science

Outline: 100000 Basics: 100000 Machine Learning: 000000000000000000000000 Latest Advancements in AI: 00 Applications of AI in Social Sciences: 0000000

Real intelligence

How intelligent human beings are?




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Real intelligence

How intelligent human beings are?



There is something more than having a brain

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Outline: 100000 Basics: 100000 Machine Learning: 000000000000000000000000 Latest Advancements in AI: 00 Applications of AI in Social Sciences: 0000000

Real intelligence

An intelligent system is there ... but may not be effective

Malay Bhattacharyya When AI Meets Social Science

Outline: 100000 Basics: 100000 Machine Learning: 000000000000000000000000 Latest Advancements in AI: 00 Applications of AI in Social Sciences: 0000000

Real intelligence

An intelligent system is there ... but may not be effective

Then how to be intelligent?

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Outline: 100000 Basics: 100000 Machine Learning: 000000000000000000000000 Latest Advancements in AI: 00 Applications of AI in Social Sciences: 0000000

Real intelligence

An intelligent system is there ... but may not be effective

Then how to be intelligent?

Intelligence requires knowledge

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Outline
Basics
Machine Learning
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Applications of AI in Social Sciences

Artificial intelligence (AI)

No intelligence is in-built in artificial life ... unfortunately

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When AI Meets Social Sciences

Outline
Basics
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Artificial intelligence (AI)

No intelligence is in-built in artificial life ... unfortunately

Then what?

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Basics
Machine Learning
Lateral Advancements in AI
Applications of AI in Social Sciences

Artificial intelligence (AI)

No intelligence is in-built in artificial life ... unfortunately

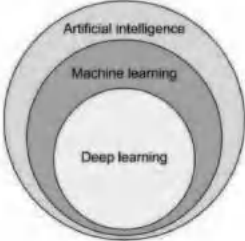
Then what?

Artificial life has to acquire intelligence

Malay Bhattacharyya
When AI Meets Social Sciences

Outline
Basics
Machine Learning
Lateral Advancements in AI
Applications of AI in Social Sciences

Acquiring intelligence through learning




Some of the major application areas of AI are Game Playing, Designing Expert Systems, Natural Language Understanding, Robotics, etc.

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Outline
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How does learning work?

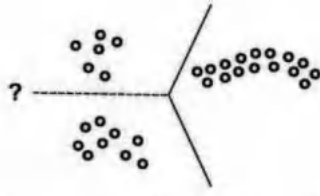


Learning a pattern from the prior knowledge – SUPERVISED

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Outline
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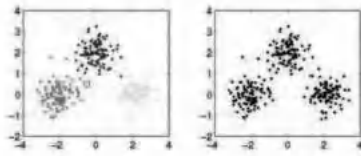
How does learning work?



Learning a pattern without prior knowledge – UNSUPERVISED

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Supervised vs unsupervised learning



Supervised learning Unsupervised learning

What is supervised learning?

- Given (x_i, y_i) , $i = 1, \dots, l$, learn a function $f: X \rightarrow Y$.
- Continuous Y depicts regression
 - Categorical Y depicts classification

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- Continuous Y depicts regression
 - Categorical Y depicts classification
 - Supervised signifies that it requires data with labels
 - Learning signifies that it detects either the data generation process (regression) or the differentiable characteristics (classification) for future predictions

Principle aim of regression

A regression model aims to show whether changes observed in the dependent variable are associated with changes in one or more of the explanatory variables.

Principle aim of classification

Classification aims to find out decision boundaries between the different groups of labeled data items (e.g., data points, objects, images, audio, etc.).

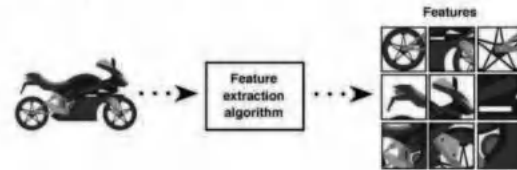
Principle aim of classification

Classification aims to find out decision boundaries between the different groups of labeled data items (e.g., data points, objects, images, audio, etc.).

To be precise, a classification solution provides a label for a new data item that is the most "similar" to a group.

Feature extraction

Feature extraction helps to define characteristics (features) of representing the data.



What is a feature similarity?

The quality or state of two features being similar (i.e., likeness or resemblance).

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The quality or state of two features being similar (i.e., likeness or resemblance).



Similarity is hard to define, but we accept when we can visualize it, or in other terms, the application is realized.

Classification in practice

Consider students as samples and the characteristics (e.g., ethnography, religion, annual income, etc.) of the samples as features. Then, the labeled data for classification (training data) appears as follows.

Sample	Feature 1	Feature 2	...	Feature m	Label
S1	3.2	1.9	...	6.4	Dropout
S2	1.2	1.9	...	2.4	Non-dropout
S3	1	1.9	...	2	Non-dropout
...
S n	2.2	1.9	...	4.4	Dropout

k-nearest neighbor classification

Step 1: Given a query sample S^* and its feature values (test data) to be classified, we identify the k samples from the training data that are nearest to S^* .

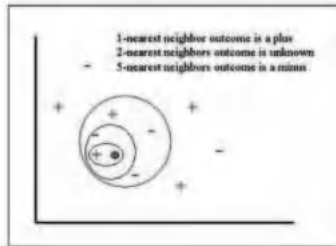
Step 2: The distance is calculated using one of the following measures:

- Euclidean Distance
- Minkowski Distance
- Mahalanobis Distance

Step 3: Return the class that represents the maximum of the k instances.

k-nearest neighbor classification

An example of k -nearest neighbor classification with 10 training samples is shown below.



k-nearest neighbor classification

The choice of k is crucial for this algorithm. A smaller k induces higher variance (less stable) and a larger k induces higher bias (less precise).

The value of k is generally considered as a function of the input size (i.e., the number of samples). The best alternative is $k = \sqrt{n}$, where n denotes the number of samples.

Performance evaluation of classification

		Predicted Class		
		Positive	Negative	
Actual Class	Positive	True Positive (TP)	False Negative (FN) Type II Error	Sensitivity $\frac{TP}{TP + FN}$
	Negative	False Positive (FP) Type I Error	True Negative (TN)	Specificity $\frac{TN}{TN + FP}$
		Precision $\frac{TP}{TP + FP}$	Negative Predictive Value $\frac{TN}{TN + FN}$	Accuracy $\frac{TP + TN}{TP + TN + FP + FN}$

Confusion matrix

What is unsupervised learning?

Given only (x_i) , $i = 1, \dots, l$, infer the underlying structure of X .

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What is unsupervised learning?

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Note: Unsupervised learning is popularly known as clustering.

Principle aim of clustering

Clustering aims to organize unlabeled data items (e.g., data points, objects, images, audio, etc.) into similarity groups.

Principle aim of clustering

Clustering aims to organize unlabeled data items (e.g., data points, objects, images, audio, etc.) into similarity groups.

To be precise, a clustering solution provides a collection of data items categorized into different groups (clusters) such that a data item within a group is "similar" to data items in the same group but "dissimilar" to data items in other groups.

Clustering in practice

To perform clustering through a machine, data items are required to be characterized by means of a collection of features. Hence, feature similarity infers similarity between the data items (be it data points, objects, images, or audio).

Clustering in practice

To perform clustering through a machine, data items are required to be characterized by means of a collection of features. Hence, feature similarity infers similarity between the data items (be it data points, objects, images, or audio).

Challenges:

1. Similarity measure: How to choose the correct measure to define similarity between the feature vectors?
2. Criterion function: What is to be optimized?
3. Algorithm: What method to choose?

K-means clustering

Input: A set of n -dimensional vectors $\mathcal{D} = \{d_1, d_2, \dots, d_l\}$ and the number of clusters k .

Output: The cluster centers $\mathcal{C} = \{\mu_1, \mu_2, \dots, \mu_k\}$.

- 1: Randomly initialize the cluster centers $\mu_1, \mu_2, \dots, \mu_k$
- 2: **repeat**
- 3: Assign the l number of n -dimensional vectors to their nearest μ_i
- 4: Recompute μ_i
- 5: **until** The stopping criterion is reached
- 6: Return $\mu_1, \mu_2, \dots, \mu_k$

Note: The time complexity of K-means algorithm is $O(lnki)$ where l is the number of n -dimensional vectors, k is the number of clusters and i is the number of iterations required for convergence.

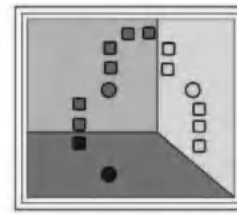
K-means clustering – Explained with an example



Step 1: The k initial means (here $k = 3$) are randomly generated within the data domain (shown in color).

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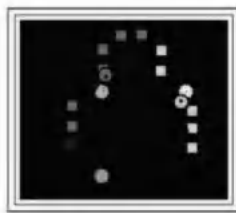
K-means clustering – Explained with an example



Step 2: The k clusters are created by associating every observation with the nearest mean.

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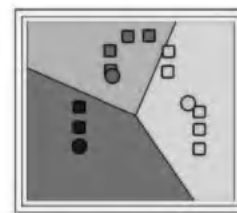
K-means clustering – Explained with an example



Step 3: The centroid of each of the k clusters becomes the new mean.

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K-means clustering – Explained with an example



Step 4: Steps 2 and 3 are repeated until convergence is achieved.

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Generative AI

Generative AI is a type of AI technology that can produce various types of content, including text, imagery, audio and synthetic data.

Generative AI enables users to quickly generate new content based on a variety of inputs to learn their benefits, applications, challenges, and more.

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Large Language Models (LLMs)

A large language model (LLM) is a deep learning approach that can perform a variety of natural language processing (NLP) tasks.

Chatbots designed with large language models (e.g., ChatGPT, BARD, etc.) enable a fundamentally different user experience than the AI technologies that support standard Google or other web searches.

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Outline 100% Basics 100% Machine Learning 100% Recent Advancements in AI 100% Applications of AI in Social Sciences 100%

AI for Anthropology

Anthropology is the scientific study of humanity, concerned with human behavior, human biology, cultures, societies, and linguistics.

- How can we mimic the human behaviour?
- How can we transform ethnography?
- How can we explore cultural differences?

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AI for Economics

Economics is the study of scarcity and its implications for the use of resources, production of goods and services, growth of production and welfare over time, and a great variety of other complex issues of vital concern to society.

- How can we predict economic breakout?
- How can we determine the selling price of a product in a market?
- How can we better understand behavioral economics?

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AI for Political Science

Political science is the study of politics and power from domestic, international, and comparative perspectives.

- How can we recognize fake news?
- How can we identify political biases?
- How can we do large-scale participatory budgeting?

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Outline 100% Basics 100% Machine Learning 100% Recent Advancements in AI 100% Applications of AI in Social Sciences 100%

AI for Psychology

Psychology is the scientific study of the mind and behavior. Psychologists are actively involved in studying and understanding mental processes, brain functions, and behavior.

- How can we predict the mental stability?
- How can we identify people having similar mental behavior?
- How can we use conversational agents for improving the mental health?

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Outline 100% Basics 100% Machine Learning 100% Recent Advancements in AI 100% Applications of AI in Social Sciences 100%

AI for Sociology

Sociology is the study of the development, structure, and functioning of human society.

- How can we enhance the productivity of people?
- How can we improve healthcare support?
- How can we increase the access to education within the society?

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Outline 100% Basics 100% Machine Learning 100% Recent Advancements in AI 100% Applications of AI in Social Sciences 100%

THANK YOU

Send further queries to: malaybhattacharyya@isical.ac.in

Malay Bhattacharyya When AI Meets Social Science



Malay Bhattacharyya

Malay Bhattacharyya is currently an Associate Professor of Machine Intelligence Unit, an Associate Member of Centre for Artificial Intelligence and Machine Learning, and an Associate Member of Technology Innovation Hub on Data Science, Big Data Analytics, and Data Curation at Indian Statistical Institute, Kolkata. He is a certified Design Thinker from MIT Sloan School of Management and holds a doctorate in Computer Science from Indian Statistical Institute. He has a couple of decades of teaching and research experience including short academic visits at Stanford University, University of Ljubljana, and Indian Institute of Science, Bangalore. He is currently serving as a member of the Assessment & Search Committee, ACM Publications Board. He served in The Lancet COVID-19 Commission: India Task Force during 2021-22.

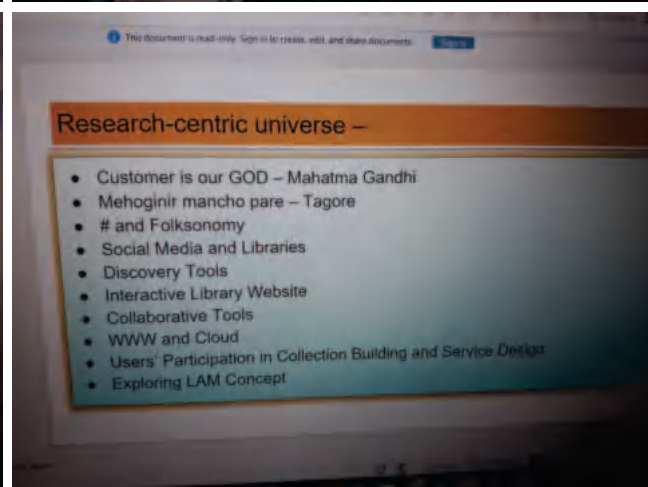
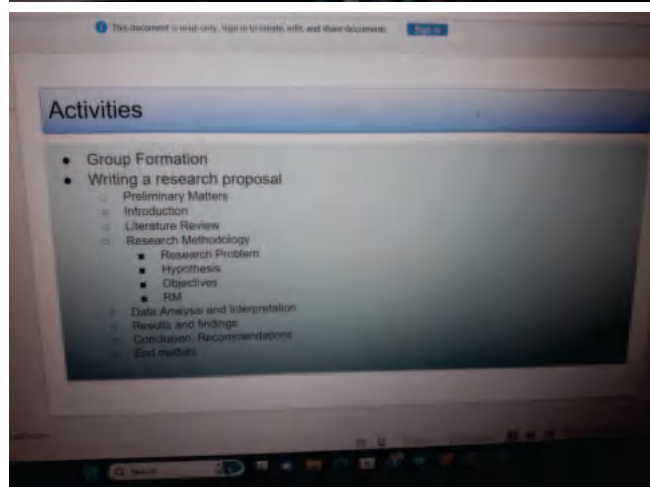
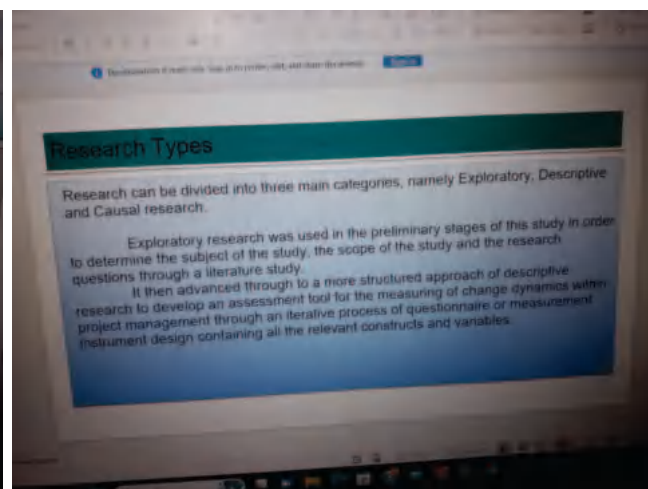
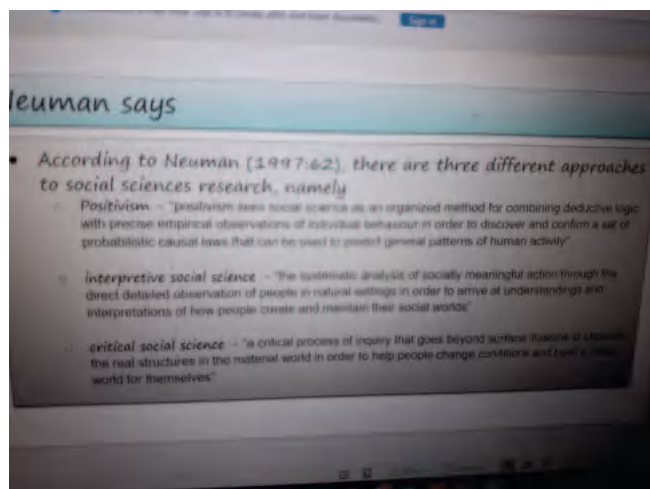
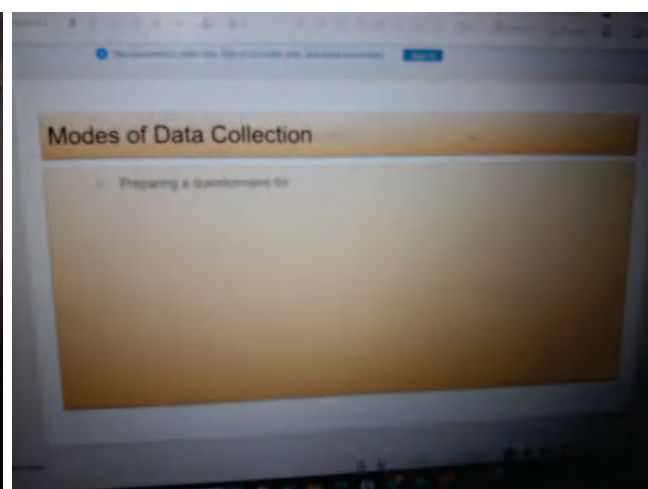
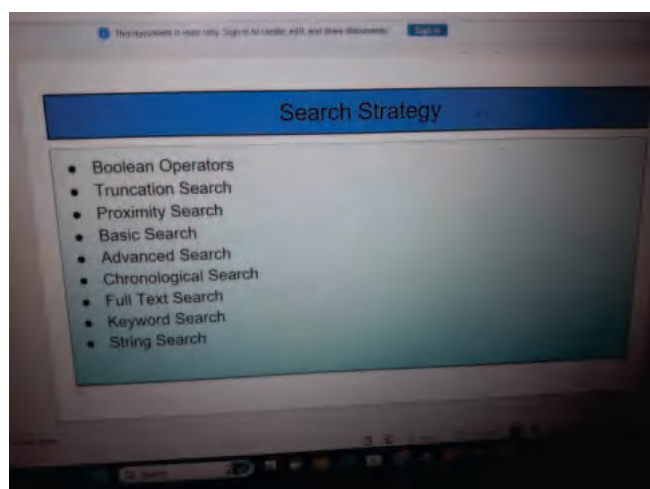
His current research interests encompass Computation for Social Good and Computational Healthcare. He has published research studies in high-impact journals like Cell, Nature Medicine, The Lancet Microbe, The Lancet Regional Health - Southeast Asia, and top-notch conferences like IEEE ICDE, ACM CHI, ACM CSCW. His research has received generous funding from DRDO, Google, DST and MeitY, Government of India, totaling about INR 4 Crores (~ USD 0.5 Million). He is a recipient of the Impact Scholars Award from Google (2021), Young Engineer Award from INAE (2018), Young Engineers Award from IEI (2016-17), BIRD Award from Bioclues Organization (2015), Young Scientist Award from ISCA (2013-14), and won several best paper and best reviewer awards. He became an INAE Young Associate in 2018 and a Sir Visvesvaraya Young Faculty Research Fellow in 2015-16. He reinforces Talent Development to companies like Tata Steel.

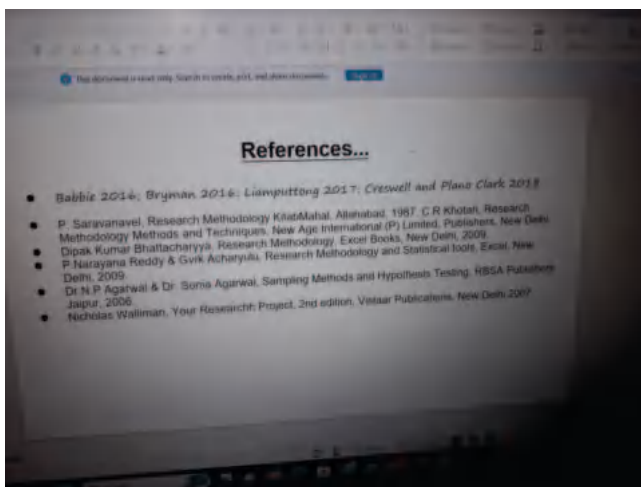
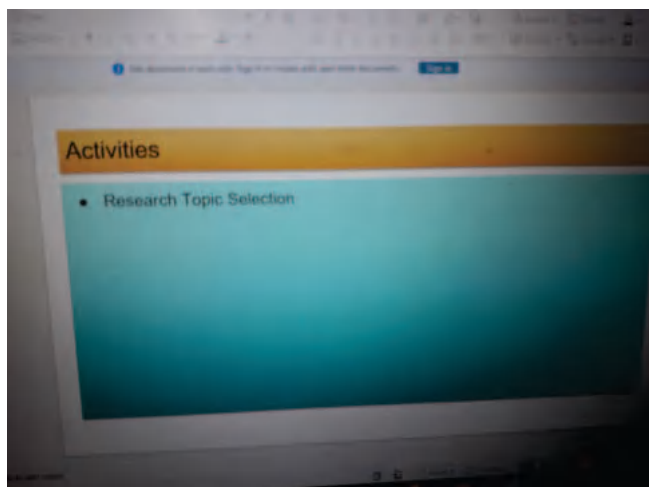
CASE STUDIES : PREPARATION

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Prof. Susmita Chakraborty did her Honours (English Literature), MA (English Literature) and Masters in Library and Information Science (Gold Medallist) from University of Calcutta. She did her Masters (Digital Library Management) and PhD from Jadavpur University; and Associateship in Information Science (AIS) from INSDOC, CSIR, New Delhi (now NISCAIR). Currently she is a Professor in the Department of Library and Information Science, University of Calcutta teaching Digital Content Management, Library Website Design, ICT, and Technical Writing. Formerly, she was a Deputy Librarian in Bengal Engineering & Science University (now IEST, Shibpur). Before that she was a Librarian in Maharaja Manindra Chandra College.

Susmita is the Secretary, Standing Committee, Section on Education & Training, International Federation of Library Associations & Institutions (IFLA-SET) and also the Editor of IFLA SET Bulletin. IFLA is the umbrella organisation of all the National Associations in Library and Information Science. Susmita was Commonwealth Fellow and a visiting Academic in University College London, United Kingdom in 2015.

She was awarded Bonnie Hilditch International Librarian Award (San Diego, USA, 2013), Momentum Press Award (Boston, USA, 2014) and SLA Rising Star Award (Vancouver, Canada, 2015).

Books: 4

Book chapters: 12

Conference papers/presentations - international conferences: 15

Conference papers/lectures/posters: national conferences: 34

Journal articles: 20

CASE STUDIES: Developing Capacity Building in LIS Profession based on NEP 2020

Dr. Subarna Kumar Das

Professor & Former Head
Department of Library & Information Science
Jadavpur University
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Capacity-building is defined as the process of developing and strengthening the skills, instincts, abilities, processes and resources that organizations and communities need to survive, adapt, and thrive in a fast-changing world. This article provides various initiatives of Capacity building Programme which helps LIS Profession in the changing context of Digital Environment and an in-depth exploration of the historical trajectory and contemporary status of Library and Information Science (LIS) education in Indian universities and offers a focused examination of the intersection between Library and Information Science (LIS) education and the National Education Policy (NEP) of 2020 in the Indian context. This study also investigate into the present status of LIS education in Indian universities, emphasizing the dynamic nature of the curriculum. It scrutinizes the integration of cutting-edge technologies, digital preservation, and the cultivation of information literacy skills within the LIS programs. This study also explore how Library and Information Science (LIS) students are equipped with a versatile skill set that opens doors to a great career opportunities. Traditionally associated with roles in libraries and archives, the field has undergone a significant transformation in response to the digital revolution and the information age. Beyond the shelves of physical collections, LIS professionals now play integral roles in managing and leveraging information in various sectors. This study also outlined the foundational principles of the NEP 2020, emphasizing its holistic approach to education, emphasis on flexibility, and the integration of technology. It explores how these principles resonate with the goals of LIS education, particularly in the context of cultivating information literacy, adapting to technological advancements, and fostering a multidisciplinary approach. It analyses specific recommendations within the NEP 2020, such as the promotion of research and innovation, the encouragement of interdisciplinary studies, and the emphasis on lifelong learning.

Keywords: Capacity Building, LIS Profession, Interdisciplinary studies, Lifelong learning, NEP 2020.



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Field of Specialization

Knowledge organization, Metadata, Digital Resource Description, Information and Knowledge Management

Research Area

- Information Sources and Services
- Information and Knowledge Management
- Local History Collection Development
- Digital Resource Description

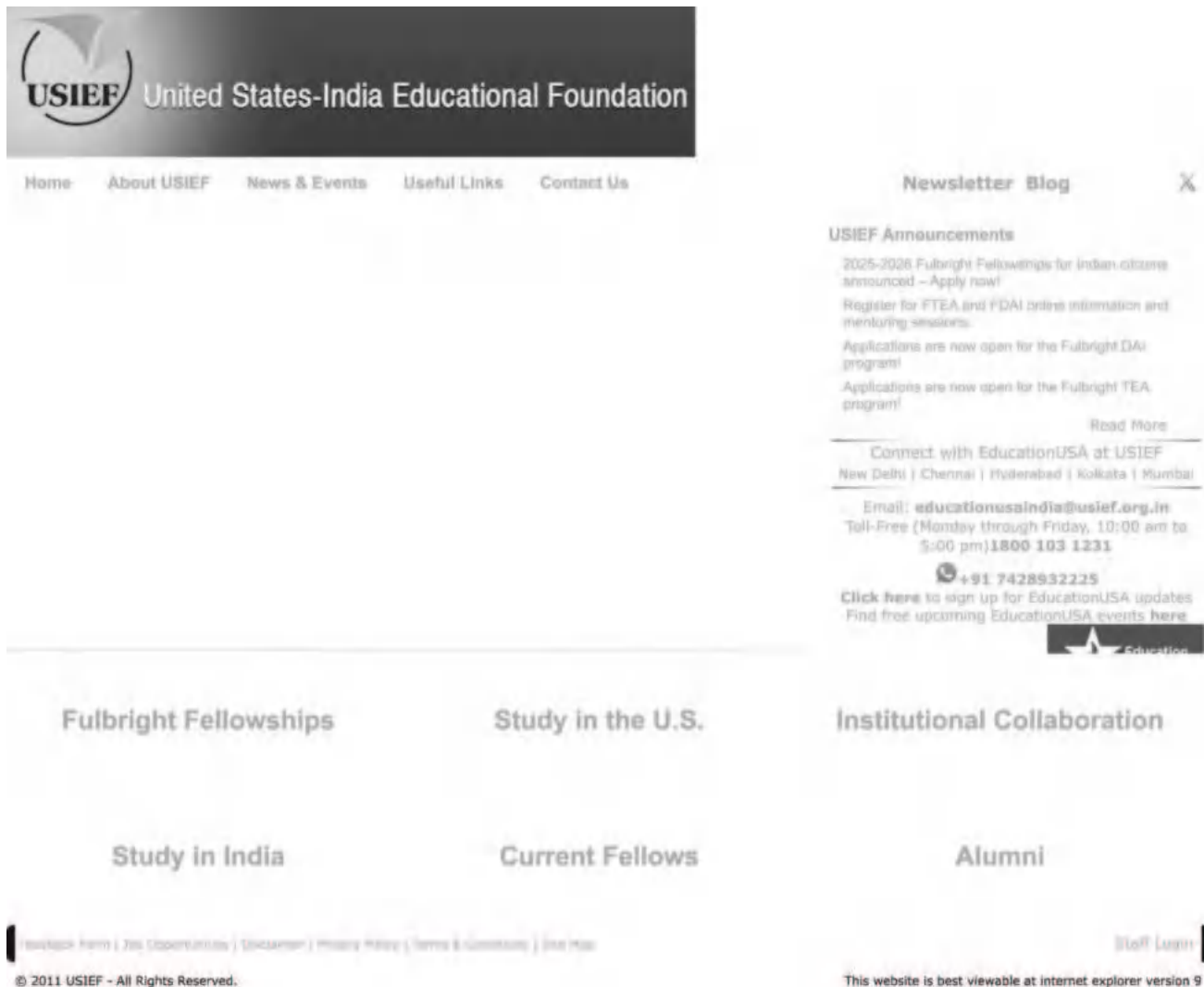
Experience : 14 years

Journal Papers Published : 195

Books Published : 5

Opportunities in USA for faculty Scholars by USIEF, USIS, Kolkata

Presented by
Dr. Sumit Basu & his team

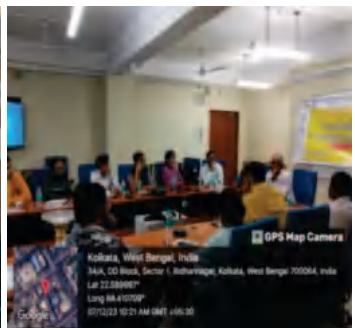
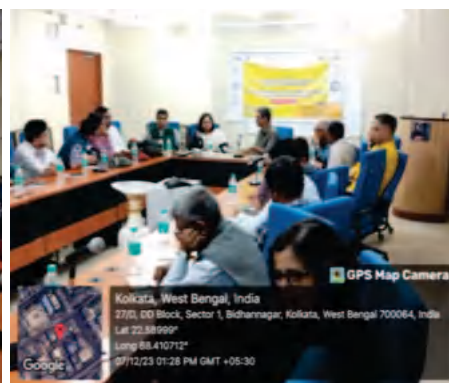
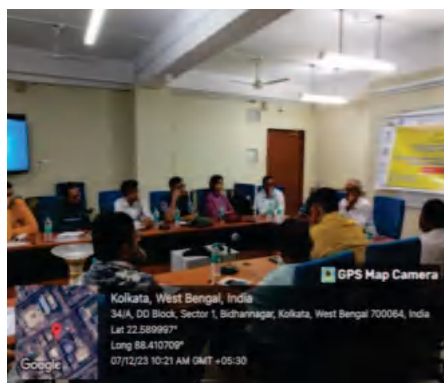


The screenshot shows the homepage of the United States-India Educational Foundation (USIEF). The header features the USIEF logo and the text "United States-India Educational Foundation". Below the header is a navigation menu with links: Home, About USIEF, News & Events, Useful Links, and Contact Us. On the right side, there is a "Newsletter Blog" section with a close button (X). The main content area is divided into several sections:

- USIEF Announcements:** This section contains several lines of text about the 2025-2026 Fulbright Fellowships for Indian citizens, including a call to "Apply now!", registration for FTEA and FDAI online information and mentoring sessions, and application deadlines for the Fulbright DAI and TEA programs. A "Read More" link is provided.
- Connect with EducationUSA at USIEF:** This section lists locations: New Delhi | Chennai | Hyderabad | Kolkata | Mumbai. It also provides contact information: Email: educationusa@usief.org.in, Toll-Free (Monday through Friday, 10:00 am to 5:00 pm) **1800 103 1231**, and a WhatsApp number **+91 7428932225**. There are links to "Click here to sign up for EducationUSA updates" and "Find free upcoming EducationUSA events here".
- Navigation Grid:** A grid of six buttons: "Fulbright Fellowships", "Study in the U.S.", "Institutional Collaboration", "Study in India", "Current Fellows", and "Alumni".
- Footer:** The footer contains a row of links: "Feedback Form", "Job Opportunities", "Disclaimer", "Privacy Policy", "Terms & Conditions", and "Sitemap". It also includes the copyright notice "© 2011 USIEF - All Rights Reserved." and a note: "This website is best viewable at internet explorer version 9".

Photos of Day 4

Day 4: 07.12.2023 Thursday
VENUE: NSOU-HQ, Saltlake, Kolkata



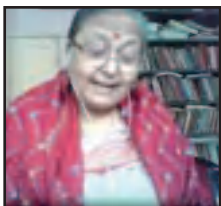
The Ancient Indian Dharmasastras: A Repertoire of Gems of Indian Knowledge

Tapati Mukherjee

Despite the elevated status of the Vedas as the first and foremost authority of Dharma -the rule of conduct, the fact remains that with the progress of civilization in various phases, the Vedas failed to cater to the requirement of the changing society and to fill up the lacuna, there emerged the Dharmasastras, based strictly on the Vedas.

Now, against a backdrop where the efficacy and relevance of the Dharmasastra in contemporary perspective has been seriously challenged and the Sastric texts had been dumped as bundles of contradiction, emphasizing simply meaningless rituals which have hardly any relevance in contemporary perspective, prescribing unsympathetic treatment to women and lower castes, the fact remains that the Dharmasastras had much to contribute even in contemporary context. They are the repertoire of ancient Indian juridical laws which were emulated even by British as a means to effectually implement good governance and which were finally followed in framing the judicial structure in the post-independence Indian scenario. That apart, the pragmatic approach which the Dharmasastras adopted in framing rules of law for maintaining hygiene, for protection of environment, the knowledge demonstrated about various branches of knowledge like plant science and above all, the moral and ethical principles, adherence to which make life worth - living, can still act as torch - bearer in the present strife - torn, violence - marred world.

This paper will delve deep into the indigenous knowledge system preserved in ancient medicinal texts like Ayurveda, mathematical and astronomical texts like Suryasiddhanta and Arya bhattiya, political texts like Arthashastra, all of which were intertwined with the socio-religious texts viz the Dharmasastras. This ancient Indic knowledge, preserved in thousands of manuscripts in The Asiatic Society is the repertoire of our glorious heritage, which, when unravelled, will be an effective instrument in skill building capacity of the posterity.



Tapati Mukherjee

Prof. Tapati Mukherjee, Presently Vice President, The Asiatic Society, Kolkata and Former Provost of Culture, Cultural Relations and Humanities as Coordinator for the Tagore Studies Program for the Academic Session 2015.

The Vedic Society

Prof. Swapan Kumar Pramanik

President of the Aisatic Society, Kolkata

&

Former Vice-Chancellor at Vidyasagar University, West Bengal, India

Before the Aryans came here in India, there existed a distinct pre-Aryan civilization. the Archaeological excavations in Mehargarh show the existence of human habitation which used potteries, had some ways of cultivation and even had some international trade and commercial relations. That was in the period of around 7500 BC. In around 3000 to 2500 BC, the Harappan excavations unearthed the existence of a well developed habitation pattern with comprehensive planning.

It is now universally admitted that the Aryans came here in India from outside. Of course, there was no notion of 'India' at that time. There was a vast territorial expanse which include Afganisthan, the Middle East countries, Turkemenisthan and territories adjacent to that. this area was under no administrative control. People migrated from one part to another, had a composite and complex culture, spoke in different languages and a system of loose administration characterized by frequent shifting of local rulers. From this population conglomerate, a section of people started moving towards what is now known as Bharat and this section has been known as the Indo-Aryans.

Indo-Aryans started coming to India from around 1500 BC in different groups and phases. While migrating to India, they came primarily as a pastoral group, though preliminary techniques of cultivation were known among some of the migrating groups. their migrant status prevented them from adopting settled cultivation.

The Vedas constitute the only source of knowing about the Aryans at that stage. Archaeological evidences are almost non-existent covering that period. In all probability, the earliest Veda, the Rg Reda started being composed from around 1200 BC. The Vedas are four in number namely Rg Veda, Sum Veda, Yajur Veda and Atharva Veda. Each of them has four parts namely SANHITA, BHAHMANA, ARANYAK and UPANISAD. The Rg Sanhita is composed of hymns and suktas. In Yajurveda Sanhita there are some prose elements. In Sum Veda, there were songs apart from the mantras which are taken from the Rg Sanhita. In Atharva Veda, apart from the areas from Rg. Sanhita, there were many Mantras and prose elements giving us a vivid picture of the contemporary society. The Brahmanas are composed mostly in prose; the Upanishads either through question answer or in prose or in lyrics. In the Athrva Sanhita, apart from the Suktas, many religious beliefs and practices of the folk have been mentioned. A good part of the Atharva Veda consist of dealing with various types of diseases, ways of dealing with enemies and also many magical elements have been mentioned. Besides, various types of herbal treatments have been mentioned also. The Atharva Veda consist of various parts which act as the precursor of medicinal treatment in ancient India.

The various types of religious practices originate from the Rg Veda Sanhita. The Suktas are divided into areas like (a) description of worshipping of God of various types; (b) prayer to God where the devotees pray for material prosperity, curing from diseases and destruction of enemies. Gods are propitiated with and aim of making the devotees happy, prosperous, free of diseases and ensuring of a long life. The relationship is mostly the relationship of give and take.

In the age of the Sanhita and Brahmanas, the life people lived was characterized by the concern for security, of one's own self as well as of the animals, mostly the cows, on which they survived, concerns for food, health, long life and prayer for increase of family size. At the initial stage, the incoming Aryans

lived as pastoral people, but later, after coming into contact with indigenous non-Aryans, they learnt agriculture and settled cultivation which ensured a further prosperity for them. Regarding the settled cultivation, here is an excerpt about the Vedas; “Urvara with Kshetra, is the regular expression from the Rg. Veda onwards, denoting a piece of plough land. Fertile fields are spoken of as well as waste fields”. Sita’s origin in the Ramayana establishes her close connection with the ploughed field.

There was no prevalence of image worship. The mode of worship was through yagna and worship of the God Agni. The various other elements of nature were worshiped in the name of Indra, Varuna, Parjanya, the rain God. Indra, at least once is called Urvarpati, lord of plough land or lord of corn land. Again there has been a tremendous influence of folk religion or religious rituals on the development of the complex concept of epic historic Siva, which was somewhat different from the multi-aspected Rg. Vedic Rudra. These were influenced by non-Vedic Indian practices. Phallus worship was also wide spread from the ancient Greeks to the pre-Aryan inhabitants. This was also adopted by the Aryans as a mode of acculturation.

When the Aryans gradually shifted from pastoral to agricultural, they started living in fixed place and had some leisure period before sowing. The priests at that stage expanded the Yagna system and made it more complex and complicated. The priestly class was also vastly increased in number and became internally differentiated so that various categories of Brahmanas emerged. Their financial demands were also increasing.

The gifts made to the priests comprised not only cow but also horses, camels, elephants and also girls and women. The number of such items of gifts at a sacrifice, if large, would quite clearly involve supply of foods and fodder and also could contribute to the swelling of the number of the human being present or living on the spot. These gifts have importance as distribution of wealth mechanism.

Economy

From the time of Yajurveda, the four varnas were only functionally differentiated, having no rigid ritual hierarchy amongst them. Brahmins acted as priests, Kshatriyas were warriors. As because they were close to the king, they had more power but the Brahmanas had ritual superiority. This often led to conflicts among these two upper varnas. The Vaishyas acted as traders and cultivators. It was during this period that their condition started improving. The improved financial status of the Vaishyas is evident from many literal description of them in Vedic literature. It was also evident from the contemporary Buddhist literature of the time. Engagement in trade and commercial activity improved their economic condition. The Shudras had the lowest status compared to the other three Varnas. But starting from the Mourjya period, a section of the shudras also became rich and started enjoying considerable power.

In fact there was no rigid division among the four varnas and there was considerable mobility amongst them. The proliferation of the caste structure was result of this mobility among the people. Varnas became ossified only during the later stage starting from the period of Sankara. But as far as the jati groups are concerned, there was considerable mobility up and down amongst them in all periods of Indian history. It is this phenomenon which has been called process of Sanskritization by M.N. Srinivas.

Earlier trade and commerce were largely based in barter system. At the early stage, cow was the only source of wealth and the only unit of exchange. But later this system was gradually changed and some sort of mudra system started emerging. This was more convenient for the market and this would extend the horizon of economic activities.

Initially there was no private property in land. But as production from agriculture started increasing, those who were in control of that produce, became more resourceful and their emerged class differentiation among people. Even in the Rg. Veda, we find evidence of the existence of the poor class. One such Rg. Vedic hymn tells “as the labourers while grinding stones take some rest lying on the ground and looking at the sky, likewise, we (the prayers) look upward to you, O God, for your mercy”. The destitute condition of some section of the people are elaborately mentioned in some of the Rg. Vedic

hymns. And, as their existed and affluent section, the names of taskras or thieves had been mentioned in numerous times in all the Vedic literature.

Joint family system developed quite early during the Vedic period. With it there emerged patriarchy or male dominance and a lower of subordinate position for women. But there are occasional references of independent position of women. Some groups were even polyandrous in practice. The Sati system did not develop at that time through in the Atharva Veds we find some occasional reference of bride burning.

Rice was the principal crop and in the Brahmanas literature, in so many places we find mention of annya and a prayer of having annyas as this was the only medium of a safe and prosperous life. And, of all the forms of gifts, gift of cow and gift of annya were considered as the most sacred one.

In the early Vedas, we find that beef was not a taboo and that instead, people relished its taste. But at the later period, when cow was increasingly being slaughtered, there was a ban on it and cow became a most sacred animal, not to be slaughtered.

From the time of Yajurveda, we find male predominance and prevalence of more than one wife for men. Gradually women's position became subordinated and women and sudras were banned from having access to the Vedas.

Occupational Picture

We find mention of dozens of occupations identified in the Vedic literature. Some of the occupations have been mentioned in different names, as for example the occupation of fishermen. From the Vedic literature, we find the mention of a good number of such occupations. those mentioned are: (1) Rower, (2) Boatman, (3) Corn grinder, (4) Priests, (5) Rishi, Hymner or Poet, (6) Smith, (7) Smelter of Weilder, (8) Ploughman, (9) Herdsman, (10) Village Headman, (11) Carpenter, (12) Chariot Builder, (13) Charioteer, (14) Barber, (15) Merchant, (16) Weaver, (17) Vatner (Wine Merchant), (18) Bhis (Physician), (19) Karu (Singer Poet), (20) Brahmin.

But the principal activity of the Rg. Vedic people had been agriculture of plough culture which was already produced by the early Indo-Europeans. the mythical origin of this occupation had been started in the Rg. Veda. They spoke about a helpful and healing God, Asvin or Nasatya. They are believed to have taught the skill to Manu, the progenitor of the Indo-Aryan people. One sage credits Asvin with plough in the field and showing barley for Aryan men. Indra is asked in another hymn to dwell, as a guard, in the tilled fields and in the home states. there are three specific deities, namely Indra and Pushan, who are connected with fields and seed and. another God Parjanya, the rain God, for fructifying the operation with rain. We also get a picture of the watering arrangement current in the Rg. Vedic society. Buckets, shaped from wood and stone axes are asked to be arranged properly on the belt. this showed that irrigation facilities, in a primitive form, was also made available. The major crops cultivated were rice, wheat and barley (Yava).

Along with art and crafts, whose main contribution to individual pattern of living was purely material, we can also made a mention of a number of Vedic arts whose main contribution had been the beautification and joyful enjoyment as components of the pattern of living in the Vedic age. Some of these were the art of dance, music and the development of various musical instruments. There was also the sport of horse racing. Dicing, which along with horse racing was one of the main amusement of the Vedic Indians. There was also the existence of private gaming halls. Additionally drinking was quite wide spread. And it was not merely soma juice but a variety of such drinks have been mentioned in various parts of the Vedic literature. In kautilya Arthashastra we find the madira as a Goddess and a temple raised in her honour.

Creation of God Heads

There is a famous Greek saying that animals like horses and oxen would have created horse Gods and Oxen Gods respectively if they could fashion their Gods at all. We can observe here that theriomorphism

is a very important culture trait of Hinduism. Vishnu's animal incarnations, the animal preponderance among the group followers of Lord Siva, the existence of animal mounts of human Gods, the deification of Siva's bull—all these testified this phenomenon. It can be argued that it is an indication of a long process of acculturation whereby the Indo-Aryans adopted some of the totem like features of the indigenous people. It was also a gesture whereby the incoming Aryans tried to assuage the bitter feeling of the vanquished people and presented a sort of composite culture.

We can also argue that the position of God is dependent on the character of the contemporary society. We can refer here to the shifting status of Indra. During the Rg. Vedic time, Indra was unquestionably the greatest God. In their later Upanishadic age, where there was comparative peace and stability, Indra's Status declined as there was no need of worshipping this warrior God.

In Hinduism, from the stand point of number of god heads around which Hindu religious practices and rituals had involved we find that there are five principal God heads. These five deities are Surya, Siva, Vishnu, Ganesha and Devi. By studying their evolution we can also form an idea the evolution of India culture - the process of unification and differentiation that has gone on for ages. Through various sects have been formed in Hinduism, the differences amongst them are not unbridgeable. This syncretic unity in diversity, holds Hindu society together. G.S. Ghurye calls this process as 'monolatrous pantheism'. of these five Gods, the historic process of the rise of Siva have been the source of fertile literature. Regarding the origin of Vishnu, it can be argued that when the Institution of Yajna or ritual sacrifice became more and more costly, Yajna was anthropomorphized into Vishnu so that the people could avoid the costly Yajna rituals.

The important question is why did the Indo-Aryans create so many Gods? It may be said that it was a grand gesture of thought to accommodate different types of cults and faiths. On this aspect, Radhakrishnan says "Hinduism accepted the multiplicity of aboriginal Gods and others which originated most of them outside of the Aryan tradition. the Aryans also accepted image worship which was a striking features of the Dravidian faith. Suniti Chattopadhyay goes further and says that no less than three fourth of Indian culture, as it grew up through the ages and as we find it today, is non-Aryan.

“History and the 'Opening of the Social Sciences': A Case Study of the Search of Grassroots History of India

Arun Bandopadhyay

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The study of history and social sciences is closely related in terms of methods, focus and goals of research. It has been widely believed that history is the mother of all social sciences, though economics, political science, sociology and anthropology have taken more distinct theoretical turns in the last hundred years. Wallerstein (*Open the Social Sciences*, 1999) has argued that history mainly remained ideographic while the younger social sciences turned into more and more towards nomothetic orientation over the years. However, in their origin, both history and social sciences went beyond the received and deduced wisdom (areas of philosophical enquiry), and inclined more and more to different kinds of field study for the understanding of 'real facts' (August Comte, *A Discourse on the Positive Spirit*). In the last fifty years, history has heavily borrowed terms, methods, focus and orientation from social sciences in its trajectory of research, while the social scientists' dependence on history has been blurred. William H. Sewell, Jr. (*Logics of History*, 2005) has argued that this is most unfortunate. The relation between history and social sciences is the product of many years of interdisciplinary teaching and research experience, and it must be always *mutual*. He, therefore, shifted his attention of explanation from how history has been influenced by social sciences to how history should influence the understanding of the crucial concept of 'change' for the respective studies of the sociologists. Sewell is convinced that a social science combining historians' nuanced sense of social temporalities, anthropologists' recognition of power and complexity of culture and sociologists' commitment to explanatory rigours is both possible and necessary. The present lecture closely examines these arguments in a comparative study of history and social sciences in terms of methodology and focus in their respective research trajectories.

In this context, the multiple searches of a grassroots history of India in the last 150 years may be the subject of an interesting study. We can see the beginning of it in W.W. Hunter's *Annals of Rural Bengal* (1868), which was really substantiated and extended in Tagore's two renowned essays (*Bharatbarsher Itihas* and *Bharatbarsher Itihaser Dhara*) about forty years later. Then we have two important projects of history-writing after independence in multiple volumes, those of *History and Culture of Indian People* by Bharatiya Vidya Bhavan and *Comprehensive History of India* by the Indian History Congress. Later we have series called *People's History of India* and *Subaltern Studies*, both published in several volumes. We are now in the midst of a propagation called *Parallel History*, with its pros and cons. It thus appears that there was a continuous search for developing grassroots history of India both before and after independence, with different degrees of success. It was literally impossible if history and social sciences were not variously connected through the construction of research methodologies of both. Search for indigenous knowledge was a part and parcel of the exercise.

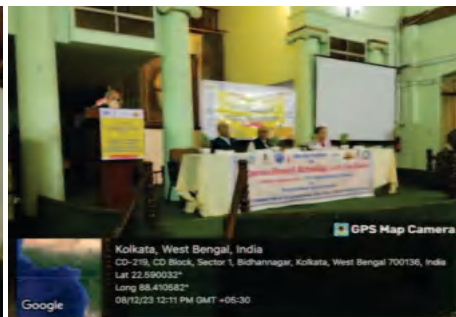
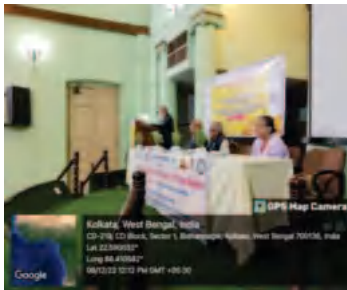
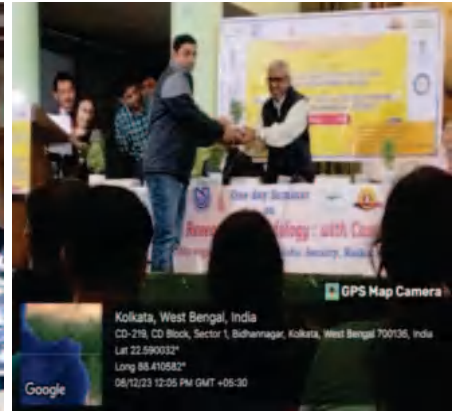


Arun Bandopadhyay has a wide range of research interests: agrarian history, business history, social and cultural history, and history of science and environment, with several contributions of monographs and edited books respectively on each of them. He taught History at Benaras Hindu University, Varanasi, Visva-Bharati University, Santiniketan and the University of Calcutta, Kolkata as regular faculty and also served as visiting faculty to Jawaharlal Nehru University, New Delhi, Maison des Sciences de l'homme, Paris and Uppsala University, Sweden. He retired as Nurul Hasan Chair Professor of History and Dean of Arts, University of Calcutta. Currently, he is the Historical and Archaeological Secretary of the Asiatic Society, Kolkata. He began his research work with economic history of south India, exemplified by his masterly publication of *The Agrarian Economy of Tamilnadu, 1820-1855* (Calcutta, 1992). His latest books include *Science and Society in India, 1750-2000* (New Delhi, 2010), *Nature, Knowledge and Development: Essays in Environmental History of India* (New Delhi, 2016), *Prabuddha Bharat: Understanding Ambedkar in the Passage of Time* (Kolkata, 2020), and two edited works (with Amiya Kumar Bagchi) on *Documents on Economic History of Northern India in the Late Nineteenth Century: Quality of Life*, Volume I: 1860s-1870s, in 3 Parts (Delhi, 2020), and Volume II: 1880s-1890s, in 3 Parts (Delhi, 2024). He is currently the President of Pashimbanga Itihas Samsad, and also of the Society for Preservation, Calcutta.

Photos of Day 5

Day 5: 08.12.2023 Friday

VENUE: The Asiatic Society, Park Street, Kolkata Academic Collaboration



Role of the Calcutta University Library in Improving Research Productivity

Dr. Soumitra Sarkar

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Role of the Calcutta University Library in Improving Research Productivity

The Calcutta University Library has long been the catalyst for improving the research productivity of not only its academic and research community but also the scholars beyond the continental boundaries. The University Library, while initiating its journey in the year 1874 with a small collection of books having no permanent building of itself, started offering some of the library facilities in 1909. However, full-fledged library services have been initiated from the present Centenary building since 1967. Over the years, the University Library has been metamorphosed in various degrees to adopt a large range of library services to cater to the academic community of its parent institution and the community from diverse social strata.

The University Library with a collection of more than 12 lakh documents, has a sizable volume of old and rare books, the earliest being the one, called *Stolarum* in Latin, published in 1561. The rare collections serve as a treasure for the researchers who love to study the rarities. For the ease of the researchers and to save the physical documents from mutilations, the Library has not only digitized the rare documents but also kept a replica of each of them with the same typography to give the flavour of the original ones.

With the advent of information technology, the University Library also adopted various technologies to upgrade its services and provide improved facilities to its user group. One of the services is its digital delivery of documents to the researchers. The University Library accomplishes the document requirements of the researchers with the provisioning of delivery of documents online from its collection and, if the required document is not available in its collection, the Library satisfies the users' needs via harnessing the online interlibrary loan platform.

The researchers are greatly benefitted from the accessibility to the full text of 14098 university-published doctoral and post-doctoral theses uploaded on the website of the University Library at www.culibrary.ac.in. The same is also accessible via the Shodhganga repository of the UGC-INFLIBNET. The quicker availability of the PhD and Post Doc research papers has expedited the research progression of the University scholarly community which is evident from the improved research status of the University as reflected in the NIRF Rankings, Time Higher Education Rankings, and other national and international ranking frameworks.

To improve the teaching-learning and research activities of the University academic community, the University Library regularly updates the web catalogue of its physical collection of books and journals, ensuring their location details. To support unhindered research activities, the University Library provides access to more than 7000 full-text e-journals and databases via the e-Shodhsindhu portal under the UGC-INFLIBNET from the digital libraries founded at the Central Library and different campus libraries.

E-resources accessible for the researchers via ShodhSindhu under the UGC-INFLIBNET:

- American Institute of Physics

- American Physical Society
- Annual Reviews
- Economic & Political Weekly
- Institute for Studies in Industrial Development (ISID) Database
- JGate Plus (JCCC)
- JSTOR
- MathSciNet
- Oxford University Press
- Project Muse
- Springer Link 1700 Collection and Nature Journal
- Taylor and Francis
- Web of Science

- **NDL E-books**

To support the research activities of the University research community, the University Library also provides access to the following e-resources :

Springer E-books Subjects

Mathematics & statistics, physics & astronomy, chemistry & material science, biomedical & life sciences, business & economics, computer science, earth & environmental science, engineering, professional computing & web design; design & arts; behavioral science.

Oxford E-Books/Oxford Scholarship Online Subjects

History, philosophy, business management, law, linguistics, political science, international relation & foreign policy, economics & finance, literature, psychology, sociology.

Oxford Scholarly Editions

Provide Shakespeare collection online.

Sage E-books Subjects

Business & management, communication and media studies, counseling and psychotherapy, criminology & criminal justice, education, engineering & materials science, geography, earth & environmental science, health and social care, history, life & biomedical sciences, maths, physics, chemistry & computing, philosophy, politics & international relations, psychology, research methods & evaluation, sociology.

Wiley Books Online

Covering wide range of subjects in the fields of arts, humanities, social sciences, economics, finance, computer science, general science and technology.

Cambridge E-books Subjects

Mathematics, physics, life sciences, environmental science, economics, business & management, language & linguistics, literature, politics.

McGraw-Hill E-Books Subjects

Computer science/computing, electronics/ ECE, students study aids.

Taylor Francis & CRC E-books Subjects

Engineering & technology, behavioral sciences,

bioscience, built environment, communication studies, computer science, development studies, environment, social work, urban studies, earth sciences, economics, finance, business & industry, education, , environment & agriculture, environmental studies & management, food science & technology, geography; health and social care, humanities, information science, language & literature, law, mathematics & statistics, museum and heritage studies, physical sciences, politics & international relations, reference & information science, social sciences, sports and leisure, tourism, hospitality and events, urban studies, area studies, arts, audiology and hearing science.

Scopus

The world's largest abstracting and citation database of peer reviewed literature: scientific journals, books and conference proceedings; delivering a comprehensive overview of the world's research output in the fields of science, technology, social sciences, arts and humanities.

South Asia Archive

An extensive resource for scholars across the humanities and social sciences.

Early English Books Online

From the first book printed in English by William Caxton, through the age of Spenser and Shakespeare and the tumult of the English Civil War, Early English Books Online (EEBO) contains over 125,000 titles listed in Pollard and Redgrave's Short-Title Catalogue (1475-1640), Wing's Short-Title Catalogue (1641-1700), the Thomason Tracts (1640-1661), and the Early English Tract Supplement - all in full digital facsimile from the Early English Books microfilm collection.

House of commons parliamentary papers

It includes over 2, 00,000 papers from 1715 to the present with supplementary materials back to 1688.

House of lords parliamentary Papers

Provides a complete picture of the working and influence of the UK Parliament during the pivotal 19th century. The research value is of international significance, revealing previously unknown material such as statistical data, oral evidence, and letters and business papers relating to not only Britain, but also to the many parts of the world that were under British influence.

Documents on British Policy Overseas (DBPO)& History Vault

Foreign Office Files: India, Pakistan and Afghanistan

The prestigious **Derwent Innovation Patent database** provides researchers online support providing detailed global patent information. The University Library assists researchers with the support service to citation and reference management. The accessibility to citation management platforms like **Mendeley, Publons, and Zotero** proves very useful for researchers to manage their research articles, create an online repository of their research findings, and frame citations of their deserved text following any of

the preferred citation styles with a mouse click. To expedite the research activities of the University scholarly community the University Library provides access to the two most globally enriched citation databases – **Scopus and Web of Science**. The **SCC Online** provides a powerful research tool to support research, enabling access to legal research resources.

To help researchers maintain research integrity, the University Library provides access to the similarity-checking software called **Drillbit**.

The provisioning of off-campus access to Scopus proves very helpful for the researchers as they could continue their scholarly progression from anywhere they like using the authentication mechanism provided to them by the University Library.

To enhance research support, especially to those who intend to explore documents of yesteryears, the University Library has already digitized its treasure of collections involving the following documents under its institutional repository and made those available online to contribute to the open access movement for the societal academic and research benefit at large.

- Rare books (1561-1870)
- Tagore Law Lectures (1870-1986)
- Old question paper of the university
- The University Calendar (1858-1965)
- Important Lecture (1815-2003)
- Munities of the Senate, Syndicate and Council (1857-2014)
- Munities of the Syndicate (1920-1943)
- University Acts (1942-1979)
- University Regulations (1912-1966)
- Hundred year of Calcutta University
- University Publications (1907-2008)
- Calcutta Review (1845-2007)
- Modern Review (1907-1987)
- Journal of the Asiatic Society of Bengal (1835-1934)
- Rare painting (1795-1921)
- Annual Convocation (2004-2009)
- Annual Report (1951-2005)
- CU Commission Report (1917-1919)
- Miscellaneous Reports (1918-2001)
- Financial Estimate (1925-2005)
- Bengali journals
- University old questions paper (1891-1980)
- Old Syllabus (1955-1977)

In tune with improving research productivity, the University Library provides access to more than 300 computers for its scholars across campuses. The 10-story Central Library building provides a cozy environment for scholars to consult documents. The braille Library provides access to documents for the visually impaired scholars and the tactile stimuli in different approach ways help differently abled scholars to use the library comfortably. The reference librarians help researchers with documents and

research-related information support. In an endeavour to improve the research activities of the University, the University Library website offers the following research tools and research resources:

- full-text theses, e-books, e-journals, conference proceedings, reports, data papers,
- patents, legal resources, and citation databases
- online catalogue of physical collections,
- institutional repository of documents
- similarity checking software
- online interlibrary loan platform
- a visual tour of different sections of the library

In its endeavour to contribute to research progression beyond the University level, the University Library has already made its physical resources accessible to scholars at large enabling researchers from the society at large to be members of the library free of cost and consult the library documents. In view of the above, the **NAAC's observation** in 2006 and 2009 appraising the University Library as the **institutional strength** of the University is the most noteworthy comment.

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Academic Qualifications	:	M.A., M.Lib.Sc., Ph.D., DSA

RESEARCH INTERESTS

- Ethics of information
- Information Management Science
- Communication Science
- Environmental Information System
- Intellectual Property and Copyright
- Digital Libraries and Archives
- Human Interaction in Information Retrieval
- Open Archives

POSITION HOLDING : University Librarian, Since 19.9. 2001 to till date

National Publication: - 5

Book Published: -2

Articles in books -2

CASE STUDIES: GROUP A Writeup [ŚRUTI- SMRTI]

“New Arrivals and Relics” — How to put them together (A Report on changing trends of archiving cultural heritage in post- Covid era)

Concept: Dr. Ananya Mitra, Bavijesh T, Dr. Sanjukta Ray Pahari,
Sanjukta Roy, Tanushree Rakhshit

Data Collection & Literature Review: Bavijesh T, Dr.
Sanjukta Ray Pahari, TanushreeRakshit

Write Up: Dr. Ananya Mitra,

PowerPoint Design: Sanjukta Roy, Bavijesh T

Introduction

As Francis Bacon put it “*some books are to be tasted, others to be swallowed, and some few to be chewed and digested*”¹. Nevertheless, all these books and artefacts of bygone era are to be archived. Since, in some sense they complement each other and as a whole represent our collective existence for posterity.

The otherwise insignificant year of 2020 is historically marked by the pandemic of Covid that affected the major population across the global village. As a consequence being a Covid-survivor or not, our worldview has been modified by and large. It has a deep impact on our everyday life as well. In the post-Covid era, nowadays, we have adopted several methods like using online mode even for making small payments at paan –shop in our neighbourhood.

In this article, we, the team of five academicians, representing different disciplines, namely Library and Information Science, Political Science and Sanskrit document our findings based on field study of four libraries, focusing the changing trends of archiving cultural heritage in post- Covid era.

Objectives

Although this investigation is undertaken as an assignment of ICSSR-NSOU Capacity Building Programme, still we are concerned and would like to observe the changes of archiving the materials like books and artefacts in these institutions, if any, in order to analyse the trends of archiving our cultural heritage that is our socio-cultural identity so far.

It is also stated in the National Educational Policy 2020 — “Cultural awareness and expression are among the major competencies considered important to develop in children, in order to provide them with a sense of identity, belonging, as well as an appreciation of other cultures and identities.” (22.2)

Methodology

We have been exposed to several searching tools endowed with AI in different sessions of this Capacity Building Programme. We, particularly our team members from the fraternity of Library and Information Science have collected data from official websites and related articles published online.

Notably, we do not use any GPT for this write-up or in designing the PowerPoint presentation.

Findings

Field Study – I (08 Dec,2023; Fri)

Asiatic Society Library

Category – Special Library
Established on – 1784

Total no. of Books—1,30,786 **Journals**-1,09,438

Total no. of Manuscripts-48,455

Pre- covid archiving method—Preservative & Curative; Digitisation initiated in 2016 (5,500+ books have been scanned with face up Scanner)

Post- covid archiving method---Digitalization (first E-book published on 15 August, 2020)

Field Study – II(09 Dec,2023; Sat)

Central Library, University of Calcutta

Category – Academic Library

Established on – 1874

Total no. of Books— more than 10,0000 **Journals**—more than 2,00000

Total no. of Manuscripts- 12,000

Pre- covid archiving method—Preservative

Post- covid archiving method--- Digitalization

Field Study – III(12 Dec, 2023; Tue)

National Library

Category – Public Library

Established on – 1836 (as Calcutta Public Library)

Total no. of Books— more than 40 lakhs

Total no. of Manuscripts- 3 lakhs

Pre- covid archiving method—Preservative & Curative

Post- covid archiving method--- Digitalization

Conclusion

In terms of Archiving, the pre-Covid and post-covid era is bridged by the pathway of Digitisation to Digitalisation. At this point we can identify a new research area to map this pathway and describe the societal impact of this journey. But that is another story.

We sincerely appreciate the initiative of NSOU in form of the Capacity Building Programme and convey our heartfelt gratitude for allowing us to be a part of this inspiring learning experience.



Dr Anamika Das

Assistant Professor, Department Of Library And Information Science Mlis, Ph.d

Teaching Experience

Netaji Subhas Open University, Assistant Professor Of Library And Information Science

13.06.2007–till Date

[school Of Professional Studies], Assistant Professor

13.06.2007–[till Date

Details Of Publications (books/ Edited Volume / Research Papers/review): 12

Seminars, Conferences, Workshops, Etc (paper Presenter/ Invited Talk/ Coordinator/chairperson): 17

Programmes Coordinated/ Organised As Convener / Organising Secretary At Netaji Subhas Open University : 03



Dr Barnali Roy Choudhury

Assistant Professor In Library & Information Science

Ma, Mlis (gold Medalist), Phd

Faculty Of Library And Information Science In Netaji Subhas Open University (nsou) She Has More Than 7 Years Of Experience In The Open And Distance Learning System. Her Specialization Includes Open Access, Open Educational Resources, E-learning, Courseware Development, Ict

Applications In Libraries And Digital Libraries. She Is An Open Access Advocate.

She Earlier Served As Librarian Of Acharya Jagadishchandra Bose College.

Research Interests, Funded Project & Experience

Research Interest In Web 2.0 Enable Community Information Service; Information Retrieval; Resource Optimization; Ontology; Knowledge Management; Library Management Software; Digital Library Software; Content Management Software; Learning Management Software, Open Source Software; Open Educational Resource; Open Journal System; Metadata Harvesting System & Open & Distance Learning

Open Access Advocate For The Last 12 Years

Commonwealth Educational Media Centre For Asia, Col Funded Two Projects On Open Educational Resources To Establish Institutional Repository

Ugc-deb Funded Project To Build A Virtual Learning Environment To Promote Lis Education For Marginalized Learners

Ciqa-nsou Funded Project On Lgbtqia+ Community

Details Of Publications (books/ Edited Volume / Research Papers/review):25

Seminars, Conferences, Workshops, Etc (paper Presenter/ Invited Talk/ Coordinator/chairperson):53

Programmes Coordinated/ Organised As Convener / Organising Secretary At Netaji Subhas Open University : 9

CASE STUDIES: PRESENTATION

Citation Index and Research

Discovery tools Tools SCOPUS by Elsevier

(Group A : Participants Presentation)

Moderation by: Prof. Arun Kumar Chakraborty, Dr. Anamika Das & Dr. Barnali Roy Choudhury

Professor and Head of the Department, Library & Information Science, Netaji Subhas Open University (NSOU)

Assistant Professor, Department of Library and Information Science MLIS, PH.D

Assistant Professor in Library & Information Science, MA, MLIS (Gold Medalist), PhD

New Arrivals & Old Relics : How To Put Them Together (A Report on Archiving Cultural Heritage)

Dr. Sanjukta Ray Pahari
Dr. Ananya Mitra
Sanjukta Roy
Bavijesh T
Tanushree Rakshit

Prelude

- *Francis Bacon: "Some books are to be tasted, others to be swallowed and some few to be chewed and digested" – whatever the category of books, all of them are very important components of a people's culture and history. Hence, they need to be preserved.*
- *The CBP conducted by ICSSR-NSOU, DLIS has given us a unique opportunity to visit some of the best repositories/libraries and research centres in the Cultural Capital of India – Kolkata, which has helped us gain a first hand experience of the archiving processes followed in these institutions.*

Understanding Cultural Heritage

- *The Convention on the Value of Cultural Heritage for Society (2005)* pointed out that rights relating to cultural heritage are implicit within the scope of Human Rights as enshrined in the UDHR, 1948 and imposes individual and collective responsibility towards preserving these, besides national and international efforts at the governmental and inter- governmental levels.
- *Libraries, Archives and Museums (LAM)* are marked as “memory institutions of societies”, “collecting institutions” or “cultural repositories”
- The *2030 Agenda* drafted by the United Nations in 2015 have the comprehensive goal of promoting sustainable development in all spheres: social, economic, environmental and cultural. *LAMs as ‘cultural repositories’* are extremely crucial for providing intra- cultural and inter-cultural exchange points that need to be given due importance and financial – infrastructural support.

The National Education Policy 2020 & LAMs

- “Cultural awareness and expression are among the major competencies considered important to develop in children, in order to provide them with a sense of identity, belonging, as well as an appreciation of other cultures and identities.” (22.2)
- The emphasis on nurturing and revisiting the Indigenous Knowledge Systems is also impossible to achieve without the modalities of tangible and intangible elements of Cultural heritage. Books definitely are one of the key components of Tangible Cultural Heritage.



Findings through the Field Visits

- *Asiatic Society, Kolkata.* (Day of Visit: 08.12.23)
- *Category:* Institution of National Importance
- *Established in:* 1784
- *Total number of Books:* 1,30,786 (approximately)
- *Total number of Journals:* 1,09,438 (approximately)
- *Total number of manuscripts:* 48,455 (approximately)
- *Archiving method:* traditional Preservative & Curative methods are followed. In recent times, Digitalization has been initiated in 2016. More than 5,500 books have been scanned through Face- up Scanner. First e-book published on 15 August, 2020.



Findings through the Field Visits

- **Central Library, University of Calcutta.** (Date of Visit: 09.12.23)
- Category: Academic Library
- Established in: 1874
- Total number of books: more than 10 lakhs
- Total number of journals: more than 2 lakhs
- Total number of manuscripts: more than 12,000
- Archiving method: traditional Preservative & Curative methods are followed. In recent times, Digitalization and Digitization have been introduced.



Findings through the Field Visits

- **National Library.** (Date of Visit: 12.12.23)
- Category: Public Library
- Established in: 1836 (as Calcutta Public Library)
- Total number of books: more than 40 lakhs
- Total number of rare documents: 3 lakhs
- Archiving method: traditional Preservative & Curative methods are followed. In recent times, Digitalization and Digitization have been introduced.



Data Collection

In order to prepare this presentation, we have made extensive use of the Face-to-Face Question/Answer or Open Question Interview method.

We have also used the Observation method during the visits to these libraries/repositories.

Certain online articles, official websites have also been referred to which have been cited in our report.

Conclusion

- *The importance of preserving human knowledge in any form can only be underestimated at the cost of losing a valuable key to our collective knowledge, wisdom and our past as well as future.*
- *Digitalization of written records seems to be the present solution to the various natural and environmental threats to these documents, However, as we can easily understand that in the long run, this cannot act as a permanent solution.*
- *New and innovative research should be conducted to find better and more sustainable means to preserve our Cultural Heritage.*



Team Members

- *Dr. Sanjukta Ray Pahari, Library & Information Officer, SRFTI: Concept development & Data Collection*
- *Dr. Ananya Mitra, Asst. Prof., Dept. of Sanskrit, Basanti Devi College: Concept development & Report Writing*
- *Sanjukta Roy, Asst. Prof. Dept. of Political Science, Bethune College: Concept Development & PPT*
- *Tanushree Rakshit, Librarian, Uluberia College: Concept development & Data Collection*
- *Bavjesh T., Scientist B, NCESS: Concept development & Data Collection*



The Two-Week Trans- Disciplinary CBP sponsored by ICSSR, Ministry of Education, GoI & the Department of Library Science, NSOU has provided us a unique opportunity to know about the importance of LAMs, especially, the trips to some of the best repositories of our collective cultural heritage.

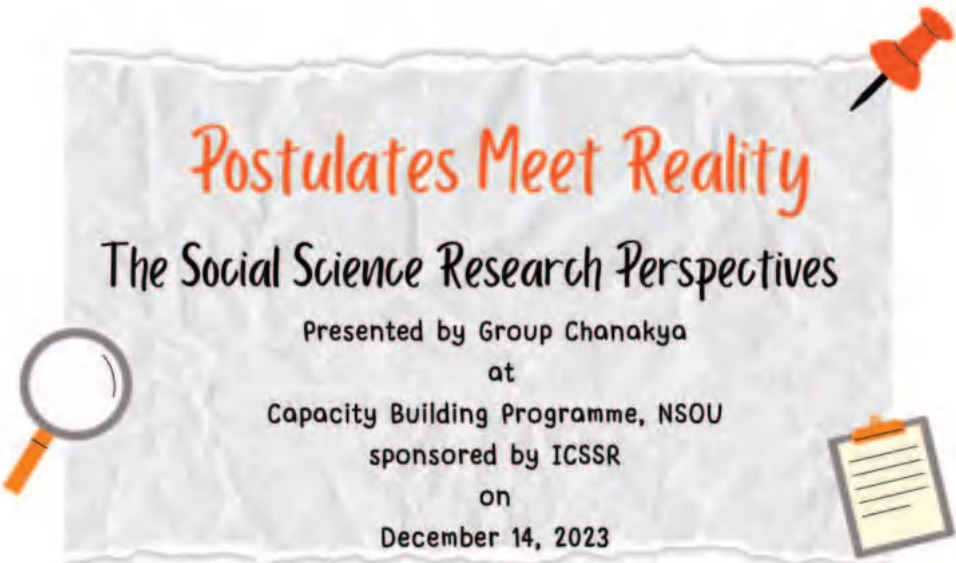
THANK YOU..!




CASE STUDIES: PRESENTATION

Citation Index and Research Discovery tools (Web of Science) by Clarivate (Group B: Participant Presentation)






Moderation by: Prof. Arun Kumar Chakraborty, Dr. Anamika Das & Dr. Barnali Roy Choudhury
Professor and Head of the Department, Library & Information Science, Netaji Subhas Open University (NSOU)
Assistant Professor, Department of Library and Information Science MLIS, PH.D
Assistant Professor in Library & Information Science, MA, MLIS (Gold Medalist), PhD




Postulates Meet Reality
The Social Science Research Perspectives
Presented by Group Chanakya
at
Capacity Building Programme, NSOU
sponsored by ICSSR
on
December 14, 2023



We are...

 Kasturi Sinha Ghosh Assistant Professor Netaji Subhas Open University Email: kasturisghosh@gmail.com	 Dr. Monojit Garai Assistant Professor Netaji Subhas Open University Email: monojit.garai@gmail.com	 Dr. Sudarshan Roy Assistant Professor Netaji Subhas Open University Email: professorsudarshan@gmail.com
 Dr. Avik Roy Librarian Derozio Memorial College Email: avikroy@dmc.ac.in	 Mayank Kumar Assistant Professor IPGME&R and SSKM Hospital Email: hello.mayank21@gmail.com	



1


Have you conducted your research adhering to Nomological Network?

2

What have your explanations in your research process -Idiographic or Nomothetic?

Social Science Class Second Summary



- 
- 300 Social sciences, sociology & anthropology
 - 310 Statistics
 - 320 Political science
 - 330 Economics
 - 340 Law
 - 350 Public administration & military science
 - 360 Social problems & social services
 - 370 Education
 - 380 Commerce, communications & transportation
 - 390 Customs, etiquette & folklore



ICSSR divisions

The broad disciplines of study, within the domain of social sciences, are:

- (i) Sociology and Social Anthropology; (ii) Political Science / Public Administration;
- (iii) Economics; (iv) International Studies (v) Social Geography and Population Studies;
- (vi) Commerce and Management (vii) Social Psychology; (viii) Education;
- (ix) Social Linguistics / Socio-Cultural Studies (x) Law / International Law
- (xi) National Security & Strategic Studies; (xii) Other allied Social Science disciplines (Library Science, Social Work, Media Studies, Modern Social History, Health Studies, Gender Studies and Environmental Studies, Energy Studies, Diaspora Studies, Area Studies, Sanskrit-Society & Culture, etc.) to promote interdisciplinary and multidisciplinary research.

Interesting to note that...

Conducting good research requires first retraining your brain to think like a researcher. This requires visualizing the abstract from actual observations, mentally “connecting the dots” to identify hidden concepts and patterns, and synthesizing those patterns into generalizable laws and theories that apply to other contexts beyond the domain of the initial observations.

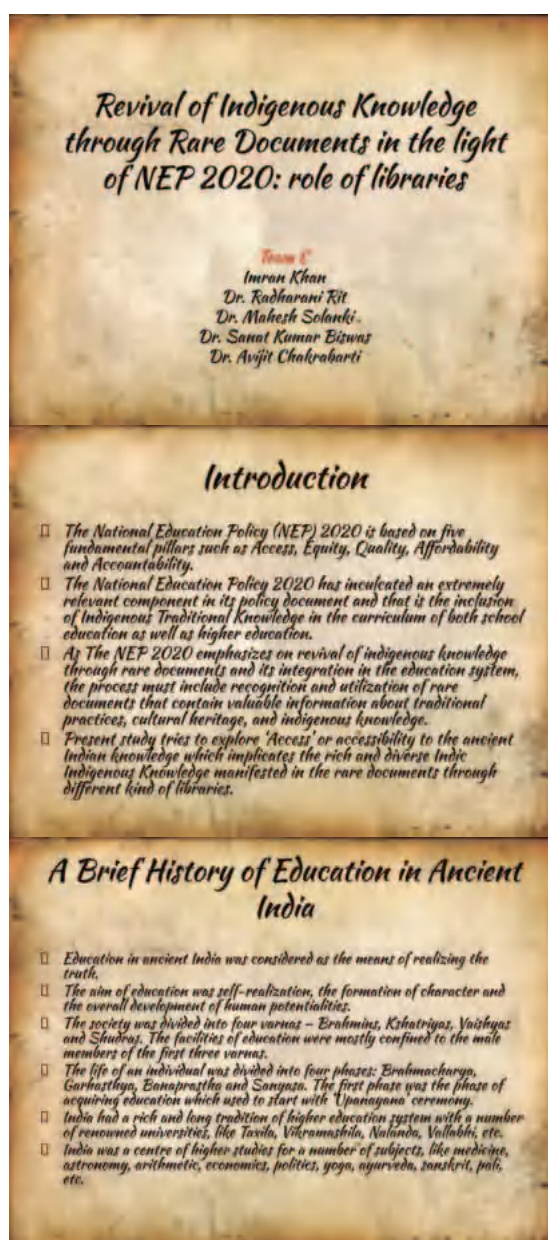


Thank
you

CASE STUDIES : PRESENTATION

Academic Assignments, Field Data Collection, Assignments (As per Case Studies) (Group C: Participant Presentation)

Moderation by: Prof. Arun Kumar Chakraborty, Dr. Anamika Das & Dr. Barnali Roy Choudhury
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Assistant Professor, Department of Library and Information Science MLIS, PH.D
Assistant Professor in Library & Information Science, MA, MLIS (Gold Medalist), PhD



Ancient Indian Education and NEP 2020

- *National Education Policy (NEP) 2020 has given the emphasis on the following points about the revival of ancient Indian indigenous knowledge system:*
 - *The rich heritage of ancient and eternal Indian knowledge whose highest goal is the 'pursuit of knowledge' (pg. 4).*
 - *Contributions of ancient Indian science ... has to be 'put to new uses through our education system' (pg. 4).*
 - *Fundamental Principles of the policy ... is rooted in the 'pride of India ... its rich, diverse, ancient and modern culture and knowledge systems and traditions' (pg. 6).*
 - *India's languages are among the 'richest, most scientific, most beautiful and most expressive in the world' (section 4.15, pg. 15).*

Ancient Indian Education and NEP 2020

- *The concept of 'knowledge of India' will be incorporated in an accurate and scientific manner throughout the school curriculum, in particular ... indigenous and traditional ways of learning' (section 4.27, pg. 15).*
- *Focus on '... Indian ethos in ... ancient knowledge ...' (section 4.29, pg. 16).*
- *In addition, the policy has prominent mentions of such words as 'imagination and sound ethical moorings', 'empathy', 'respect for others', 'cleanliness', 'courtesy', 'respect for public property' (pg. 5).*
- *Scientific Temper, one of the core values of the Indian education curriculum over several decades now is seen as a 'skill' (section 4.23, pg. 15).*

What is Indigenous Knowledge (IK)?

- *IK is the local knowledge that is unique to a given culture or society and forms basis for local-level decision making in agriculture, health care, food preparation, education, natural-resource management and a host of other activities in rural communities.*
- *It provides problem-solving strategies for communities and commonly held by communities rather than individuals. It is tacit knowledge, difficult to codify, embedded in community practices, institutions, relationships and rituals (Warren, 1991).*
- *IK is stored in people's memories and activities. It is expressed in the form of stories, songs, folklore, proverbs, dances, myths, cultural values, beliefs, rituals, community laws, local language, taxonomy, agricultural practices, equipment, materials, plant species, animal breeds, etc.*
- *IK is not just confined to indigenous peoples, but all communities have developed their own body of knowledge over generations.*

Rare Documents

- *A rare document is a manuscript or printed material that is unique, uncommon or scarce and contains valuable information. Rare documents can include handwritten or typed texts of literary or musical compositions, letters, signatures, and other historical documents.*
- *These documents are often collected by individuals or institutions for their historical, cultural, or monetary value. Preservation and conservation of rare documents are important to protect them from damage caused by human, natural, and inherent factors.*
- *In this study, rare document refers to rare books, manuscripts and other historical documents that are stored in special collections departments within libraries.*

Objectives

- *The objectives of the study are –*
 - *To find out the status of rare book collections in different kind of libraries;*
 - *To find out the significance of preserving rare documents to attain the goal of NEP 2020.*

Relevance of the study

- *Libraries play a crucial role in archiving rare documents by preserving, organizing, and providing access to these materials. While archives are the primary institutions for preserving unique and rare objects, libraries also hold non-circulating and rare book collections, including old, valuable, and hard-to-find books. Libraries' rare book collections often include manuscripts, letters, photographs, artwork, and other unique materials. Librarians and archivists work to conserve and protect these materials, ensuring their long-term preservation for future generations. Additionally, libraries use modern techniques, such as digitization, to enhance the preservation and accessibility of rare documents.*

Scope

- *For this study we have visited to three different kind of library –*
 - *Public Library (National Library, Kolkata)*
 - *Special Library (Asiatic Society Library, Kolkata)*
 - *Academic Library (Central Library, University of Calcutta, Kolkata)*

National Library, Kolkata

- *The National Library of India, located in Kolkata, is the largest library in India by volume and public record. It is one of the four designated libraries entitled to receive a copy of every publication published in India under the Delivery of Books and Newspapers (Public Libraries) Act, 1954. The library is a permanent depository of all reading and printed materials produced in India, or written by any foreigner, wherever published and in whatever language. It is also a legal deposit library of India, where books published in the country are deposited under the Delivery of Books Act, 1954. The library offers a vast collection of books, magazines, and journals from India and around the world to researchers, scholars, and lay readers. The National Library traces its origin to the former Calcutta Public Library, which was established in the first half of the 19th century and subsequently merged with the Imperial Library. The library is open to the public and is a significant cultural and educational institution in India.*

Asiatic Society Library, Kolkata

- *The Asiatic Society of Kolkata is an institution dedicated to the study and preservation of Asian culture, history, and literature. Established in 1784, it is located at 1, Park Street, Kolkata, West Bengal, India.*
- *The society has a rich collection of books, journals, manuscripts, and other resources, covering various subjects such as anthropology, archeology, art and architecture, ayurveda, gender studies, history, history of medicine, history of science and technology, language and literature, environment, philosophy, religion, social science, travel and geography, folk lore and literature, and biography.*
- *The library of the Asiatic Society has a collection of about 117,000 books and 79,000 journals. It also has a collection of 293 maps, microfiche of 48,000 works, microfilm of 387,003 pages, 182 paintings, 2500 pamphlets, and 2150 photographs.*
- *The earliest printed book preserved in this library is Juli Firmici's *Astronomicorum Libri*.*
- *The library is open to the public and offers various services, including a reading room, reference section, and conservation section.*

Central Library, University of Calcutta, Kolkata

- *The Central Library of the University of Calcutta is a state-of-the-art library system that houses an enviable collection of books, journals, theses, reports, and other resources to cater to the learning needs of its users. The library has embraced digital technologies to make its resources more accessible to all, and students can access a range of resources through the Calcutta University Digital Library, including online catalogues of library resources, full-text collections of theses, e-books, e-journals, digitized resources, and more.*

Methodology

- *Web-based data collection or web scraping was used to collect data by visiting institutional websites and to gather information about institutions, their policies, and activities.*
- *Observation and interview method also used to gather information during visit to the libraries.*

Facts & Findings

Name of the Organisation	No. of Rare Documents	No. of Digitised Rare Documents & Percentage
National Library Of India	3,00,000 Approx.	1,36,000 Approx (45.33%)
Asiatic Society	49,000 Approx.	11,573 (23.54%)
Central Library, Calcutta University	1,00,000 Approx.	84,000 Approx. (84 %)

Contin....

Name of the Library	Fully Accessible Online	Partially Accessible Online	Not Accessible at-all Online
National Library Of India	Yes	No	No
Asitic Society	No	No	No
Central Library, Calcutta University	Yes	No	No

Future Plan

Name of the Library	Future Plan
National Library Of India	To be uploaded the whole digitised documents in own website along with ministry of culture's website
Asitic Society	To be uploaded partially in their own website but if anybody need full access, they have to require permission through proper channel
Central Library, Calcutta University	To be uploaded all the documents in their own website along with thessis and other official documents

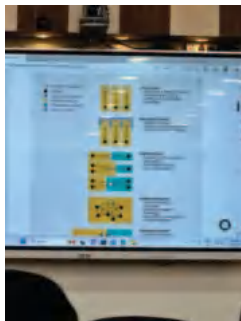
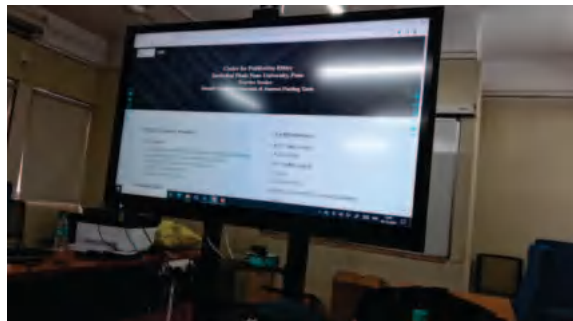
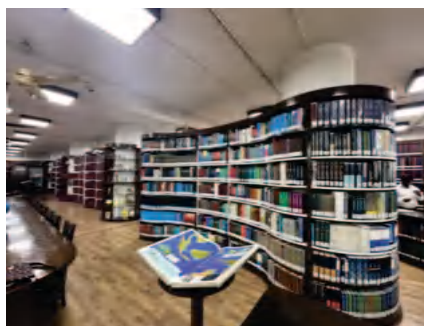
Conclusions

Rare documents should be more inclusive and diverse. It should account for the contributions of the libraries to revive indegenous knowledge through rare documents.

Photos of Day 6

Day 6: 09.12.2023 Saturday

VENUE: Central Library, CU, College Street, Campus, Kolkata



Photos of Day 7

Day 7: 10.12.2023 Sunday
VENUE: Belurmath— Resource Centre



Prelude to Research Discussions

Prof. Rajiv Nayan

(Video recording is available)



Rajiv Nayan

Senior Research Associate
rajivnayan@hotmail.com
Phone: +91 11 2671 7983

Dr Rajiv Nayan is Senior Research Associate at Manohar Parrikar Institute for Defence Studies and Analyses (MP-IDSA), New Delhi. He has been working with the Institute since 1993, where he specialises in international relations, security issues, especially the politics of nuclear disarmament, export control, non-proliferation, and arms control. He was Visiting Research Fellow at Japan Institute of International Affairs (JIJA), Tokyo, where he published his monograph “Non-Proliferation Issues in South Asia”. He was also Senior Researcher at Peace Research Institute Oslo (PRIO), Senior Visiting Research Fellow at King's College, London and Visiting Fulbright Scholar at Center on International Cooperation (CIC), New York University. He holds a PhD and a Master of Philosophy in Disarmament Studies and a Master of Arts in International Relations from Jawaharlal Nehru University, New Delhi. In his doctoral dissertation, he studied the implications of Missile Technology Control Regime for Indian security and economy.

Dr Nayan has published books as well as papers in academic journals and as chapters in books. His single-authored book *Global Strategic Trade Management* has been published by Springer in 2019. His edited book *The Nuclear Non-Proliferation Treaty and India* was published by Routledge in 2012.

Indic Perspective : An Alternative to Mainstream Indian Research

Prof. Aswani Mahapatra

(Video recording is available)



Dr Ashwini Mohapatra

Professor
Jawaharlal Nehru University

Prof Mohapatra is the Dean, School of International Studies, at JNU. He specialises in West Asian & Mediterranean Affairs; Peace &; Conflict Studies.

Awards & Honours

Visiting Professor at the Chou University, Tokyo, June 2009

European Union Visitor to Brussels, September 2009

Visiting Fellow at Maison Des Sciences De L'Homme (MSH), Paris, June - July 2008

Participated in the 1999 Conflict Resolution Programme in Uppsala University, Sweden, May 1999

Participated in the International Civilian Peace-Keeping and Peace-Building Training Programme (IPT), Austrian Peace Research Centre, Stadtschlaining, Austria, October - November 1996

Attended the Conflict Resolution Course at the Peace Research Institute of Oslo (PRIO), Oslo, July - August 1996

State Guest of the Republic of Cyprus, December 1996

Publications

Journal Articles 4

Book 1

Indic Methodology

Prof. Heeraman Tiwari

(Video recording is available)



Prof. Heeraman Tiwari

Professor

Qualifications

M.A., M.Phil., Ph.D. (Delhi), D.Phil. (Oxon)

Areas of Interest/Specialization

Sanskrit Language, Literature, Intellectual History and Philosophy

Experience

17 Years

Awards & Honours

1. 2014-2015: Senior (Professorial) Fellow, Israel Institute for Advanced Studies, Hebrew University of Jerusalem, Israel.

2. 2014-2015: Senior (Professorial) Fellow, EURIAS,

3. 2011-2012: Heinrich Zimmer (Chaired) Professor of Indian Philosophy and Intellectual History, Ruprecht-Karls University, Heidelberg, Germany, 2011-2012.

4. 2011-2012: Visiting Professor of Indian Philosophy and Intellectual History, Philosophisches Seminar (Department of Philosophy), Ruprecht-Karls University, Heidelberg.

5. 1987-1991: The Commonwealth Scholarship Award for the D.Phil. degree at Balliol College, the University of Oxford, Oxford, England.

6. 1992-1994: The Sir Louis Stuart Scholarship Award, Balliol College, the University of Oxford, Oxford, England.

International Collaboration/Consultancy

2014-2015: The Israel Institute for Advanced Studies, Hebrew University of Jerusalem, Israel. International Collaborative Research Project: Interpretation as a Generator of Religious Law: A Comparative Perspective. Sponsor: Israel Institute for Advanced Studies, Hebrew University of Jerusalem, Israel. Collaborators: Professor Vered Noam, Tel Aviv University, Israel, and Professor Avram (Rami) Reiner, Ben Gurion University at the Negev, Israel.

Best Peer Reviewed Publications

1. "One and Many: Early Naiyayikas and the Problem of Universals", Journal of Indian Philosophy 22: 137-170, 1994, Kluwer Academic Publishers (Springer), Dordrecht, The Netherlands.

2. "Memory, Meaning and the Means of Knowing in Ancient India." Inaugural Lecture of the Benchmark Annual Lecture Series on Contemporary Social Sciences, University of Jammu, Jammu, India, 2008.

3. "Tradition and Memory: Filiation and Identity in Early Sanskrit Literature and Philosophy", in Negotiating Religion: Perspectives from Indian History, eds. R.P. Bahuguna, Ranjeeta Dutta, and Farhat Nasreen. Delhi: Manohar Books. 2011: 61-83.

4. "Language, Memory and the Vernaculars: the Power of the Ramcaritmanas in India's Epic Culture," The Heidelberg Papers in South Asian and Comparative Politics, No. 66, ed. Prof. Dr Subrata K. Mitra, Heidelberg University, Heidelberg. March 2012.

Recent Peer Reviewed Journals/Books

1. "Epic Identity and Humanism in Ancient India: A Refined Idea in a Rough World?" in Culture, People and Power: Indian and the Globalized World, edited by Heeraman Tiwari and Amitabh Mattoo. Delhi: Shipra Publications. 2014: 177-192.

2. Culture, People and Power: India and the Globalized World, edited by Heeraman Tiwari and Amitabh Mattoo, Delhi: ICCR/Shipra Publications. 2014 (ISBN: 978-81-7541-713-7).

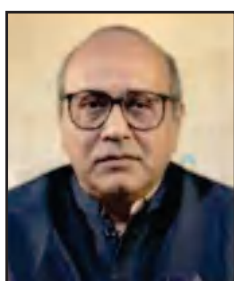
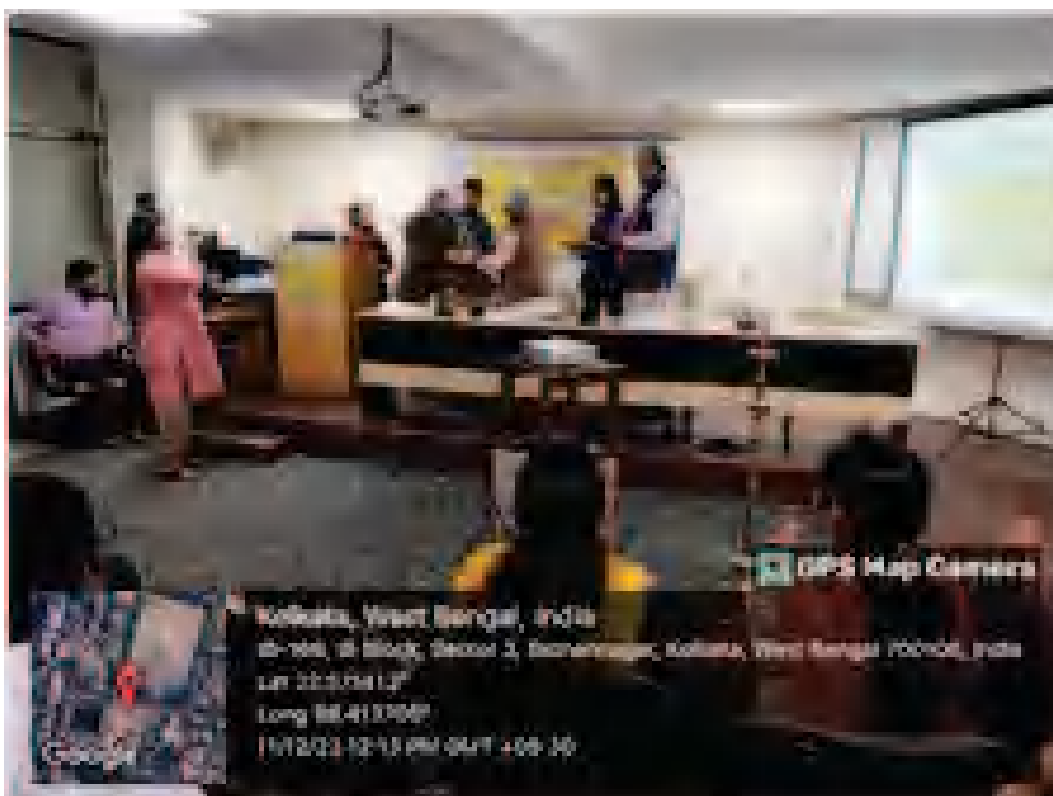
3. "Atma [Self]" in Key Concepts in Modern Indian Studies, eds. Gita Dharampal-Frick, Rachel Dwyer, Monika Kirlosker-Steinbach and Jahnvi Phalkey. Delhi: Oxford University Press. 2015: 13-16. (ISBN-13: 978-0-19-945275-0; ISBN-10: 0-19-945275-X).

(D-08.3-SES-32-AC-04)-MAKAIS

Rediscovering India's ancient maritime commercial and cultural connects

Prof. Swarup Prasad Ghosh

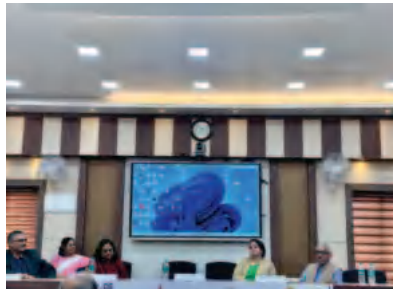
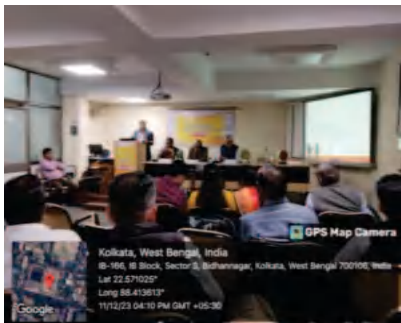
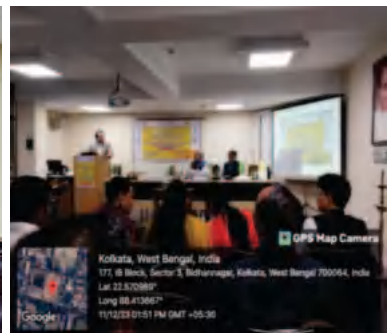
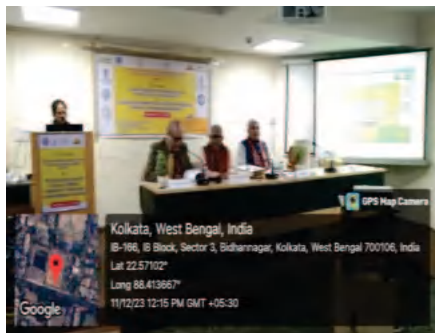
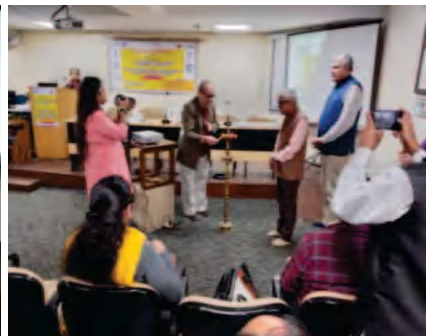
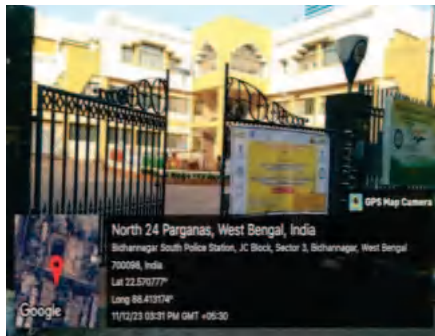
(Video recording is available)



Prof. Swarup Prasad Ghosh
Director, MAK AIS, Kolkata

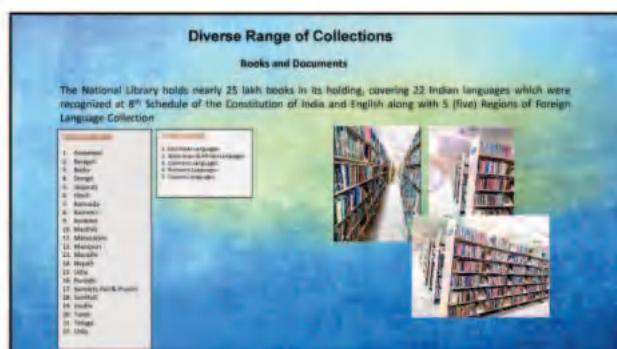
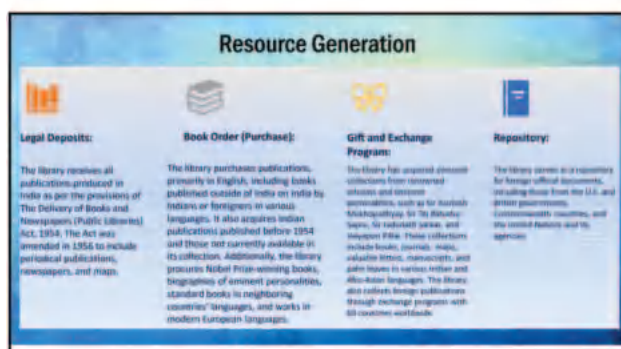
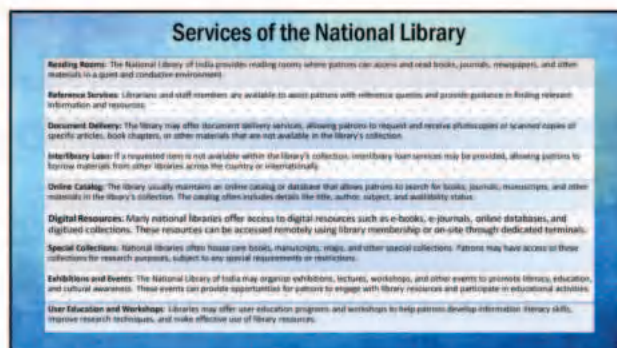
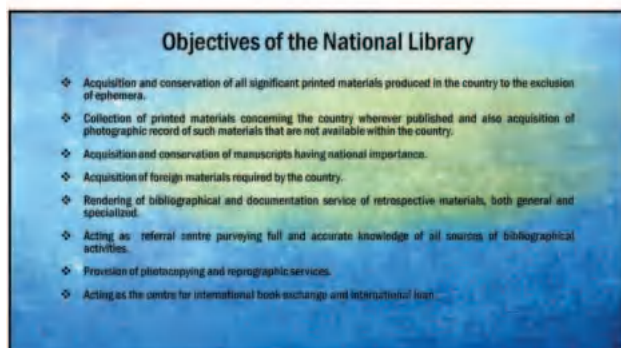
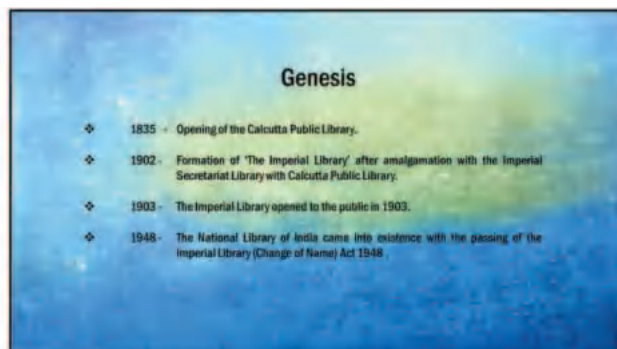
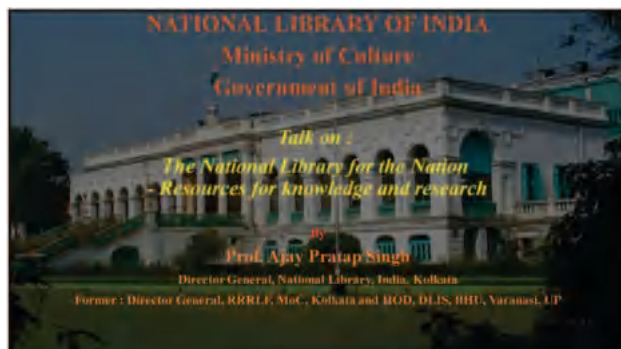
Photos of Day 8

Day 8: 11.12.2023 Monday
VENUE: MAKAIS, Salt Lake, Kolkata



Exploring — Treasure of Print and E-resources at NL

Prof. Ajay Pratap Singh
Director General, National Library, India
Velvedere, Kolkata



Few initiative by the Ministry of Culture for the development of Libraries

I. National Mission on Libraries

The NML, initiated in 2014, aims to transform libraries nationwide by fostering a collaborative digital environment, improving infrastructure, and addressing the specific needs of economically disadvantaged regions. The Union Catalogue services and the emphasis on model libraries reflect the mission's commitment to enhancing public access to knowledge and information across the country.

Objectives

- Promote Information Communication Technology (ICT) application in all libraries.
- Modernize library management practices.
- Conduct a comprehensive National Survey of Libraries and collections.
- Enhance the competence of library professionals through training programs.

- A) **Infrastructure Upgradation:**
 - Includes construction, renovation, and extension of library buildings.
 - Provision of modern amenities like lighting, furniture, and signage.
 - ₹50 Lakhs for District Libraries.
 - ₹100 Lakhs for MC Libraries, and
 - ₹100 Lakhs for State Central Libraries.
- B) **Technology & Modernization of Services:**
 - Involves procurement of servers, computers, scanners, and networking equipment.
 - Implementation of library automation software and digitization projects.
 - ₹100 Lakhs for State Central Libraries.
 - ₹30 Lakhs for District Libraries.
 - ₹200 Lakhs for MC Libraries.
- C) **Facilities for Specially Abled Groups:**
 - Provision of talking books, Braille materials, and assistive software/hardware.
 - ₹20 Lakhs for State Central Libraries.
 - ₹1 Lakhs for District Libraries.
 - ₹20 Lakhs for MC Libraries.
- D) **Reading Resources and Advocacy/Outreach Programs**
 - Procurement of books, e-books, and periodicals.
 - Advocacy and outreach measures including workshops and exhibitions.
 - ₹1 Lakhs for State Central Libraries.
 - ₹21 Lakhs for District Libraries.
 - ₹4.20 Lakhs for MC Libraries.

The National Mission on Libraries (NML) significant outcomes for Public use:

- 1. Union Catalogue Services and Database for Digitized Books:**
 - Union Catalogue with Ministry of Culture Libraries between accessible at <https://librarycatalogue.mca.gov.in>
 - Centralized platform for cataloging and accessing library resources.
 - Database for Digitized Collection of Old, Rare and Important Books and Documents under the Libraries of Ministry of Culture <http://www.digitizedcollection.gov.in>
- 2. Model Libraries Development:**
 - Creation of model libraries as benchmarks for excellence.
 - Implementation of best practices and modern amenities in these model libraries.
- 3. Digital Network Connectivity:**
 - Integration of district libraries into digital networks.
 - Facilitation of seamless access to digital resources for patrons.
- 4. Focus on Economically Backward Districts:**
 - Prioritization of libraries in economically backward districts.
 - Ensuring that libraries in these areas receive special attention and support.

- 2. Festival of Libraries**

The Festival of Libraries is organised a platform to showcase iconic libraries from around the world, initiating a dialogue on the modernization and digitization of libraries and aimed to facilitate the formulation of action-oriented policies for the development of Model Libraries in India, right down to the village and community levels. Increasing reading habits among the Children and Public.
- 3. Publication of Directory of Libraries in India**

The first volume of "Directory of Libraries" i.e. Delhi – published by the Central Reference Library, a subordinate organization under Ministry of Culture. The directory basically is a list of Libraries in Delhi, which includes Government, Public, Academic and Special Libraries, which covers the areas like:

 - Year of Establishment
 - Total no. of branches
 - Rare Manuscripts, if any
 - Total number of books
 - Journals subscribed
 - Reference availability
 - Library Software used
 - Membership Fee
 - Seating Capacity
 - Availability of Auditorium / Conference Hall
 - Details of the Librarian / Custodian

- 4. Introduction of Bibliography on Demand**

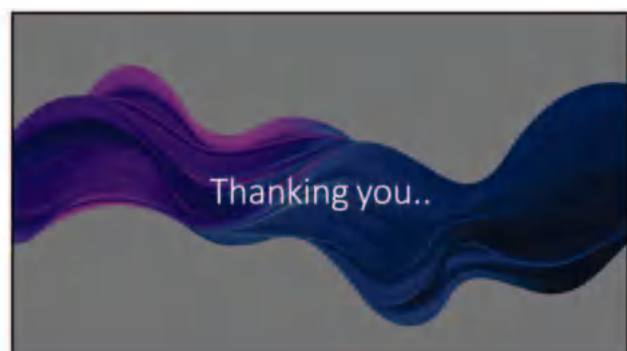
The Central Reference Library, Kolkata operating under the auspices of the Ministry of Culture, will expand its user base through the **Bibliographic Services on Demand**. This service aims to provide users with curated lists of reliable sources compiled by professional bibliographers. Introduction of this service effectively synergizes with the National Education Policy (NEP) 2020 which emphasizes upon the establishment of a robust ecosystem to bolster existing research capacities and is in line with noteworthy Government initiatives such as the One Nation One Data national schemes. BOD service aims to engage libraries as service providers by offering accurate and high-quality reference materials.

Due to the comprehensive database and rigorous methods being used to generate bibliographies, this will serve as an all-in-one service catering to a vast group of individual researchers and institutions.

BENEFICIARIES

Beneficiaries will be of two categories, namely institutional and individual:

 - I. Institutional:**
 - (a) Ministries/Departments, (b) Universities/Colleges, (c) Research Institutions, (d) Training Institutions, (e) Think Tanks, (f) Libraries, (g) Museums, (h) Corporate Houses (IO PS),
 - II. Individual:**
 - (a) Researchers/Independent Scholars, (b) Scholars, (c) Authors, (d) Journalists, (e) Students, (f) Scientists, (g) Academics, (h) Government Officials



Prof. Ajay Pratap Singh
 Director General
 National Library, India
 Velvedere, Kolkata
 Former: Director General
 Raja Ram Mohun Roy Library Foundation
 (RRRLF), Kolkata
 Former: Head of the Department
 Department of Library & Information Science
 Benaras Hindu University, Varanasi, UP

CRL Indian National Bibliography and Bibliography on Demand –Treasure of Print and E-resources processing (CRL)

Dr. Siva Prasad Senapati

Principal Library & Information Officer, National Library &
Director Central Reference Library, Kolkata

CENTRAL REFERENCE LIBRARY

Dr. Siva Prasad Senapati
Principal Library & Information Officer,
National Library
&
Director, Central Reference Libra

Central Reference Library (CRL)

- ❖ Sub ordinate office of the Ministry of Culture, Government of India.
- ❖ Established in August 1955.
- ❖ Objective of CRL : "Compilation and Publication of Indian National Bibliography" which is an authoritative record of books published in 14 different languages of India including English based on the receipts of books at the National Library under the "Delivery of Books and Newspapers (Public Libraries) Act".
- ❖ It also publishes Language Bibliographies in respective language scripts
- ❖ Index Indiana, an index to articles in contemporary Indian language periodicals.
- ❖ It functions as a National Bibliographic Agency.

Governance and Organizational Structure



INDIAN NATIONAL BIBLIOGRAPHY

- The first issue of Indian National Bibliography was released on 15th August 1958. Since, then the Central Reference Library publishes Indian National Bibliography monthly and annually.
- First computerised Volume of INB appeared in June 2000.
- Since then, INB is generated with the help of Customized Library Software.
- Indian National Bibliography's Multi Lingual database (searchable) INB records are available online from 18th September 2017.
- 3,27,027 Multilingual INB records are available at CRL website
<http://www.crlnl.gov.in/>

UTILITY OF INDIAN NATIONAL BIBLIOGRAPHY

- Records the country's intellectual output
- It is a mirror that reflects the tradition, culture and heritage of our country.
- Research and Scholarly Activities.
- Book selection tool for librarians and book sellers
- Benefit scholars, librarians, publishers, booksellers etc.
- Helps for collection development of the libraries, research and information needs of the user.
- Bibliographical data of 14 Languages of India including English brought under one roof.
- Source material for compilation of subject bibliographies and book statistics.
- Wide publicity for books and publishers.
- Guide in classification, cataloguing for library professionals

PUBLICATIONS

- Indian National Bibliography Annual.
Indian National Bibliography Monthly
Language Bibliographies Annual.
Special Bibliographies.
- ✦ Bibliography of Indian Bibliographies : 1961-1980
 - ✦ Subject Indices List
 - ✦ North-East India : A Selected Bibliography
 - ✦ Author Authority of Indic Names : INB standards
 - ✦ A Directory of Indian Publishers
 - ✦ Rural Libraries in the North-East India : Problems and Prospects
 - ✦ Sishu-Kishor Granthapanji Bangla 2001-2017
 - ✦ Gujarati Balaahitya Grantha Suchi 2001-2016
 - ✦ Malayala Balaahitya Suchi 2001-2016
 - ✦ Marathi Balaahitya Suchi 2001-2016
 - ✦ Children's Literature in Indian Languages : A selected bibliography

PUBLICATIONS

- ✦ A selected bibliography on Mahatma Gandhi in Indian Languages
- ✦ Struggle for Indian Independence: A selected bibliography
- ✦ Partition of India : A selected bibliography
- ✦ Pictorial Bibliography on Museums
- ✦ "Directory of Libraries Volume 1: Delhi"

BIBLIOGRAPHIC SERVICES ON DEMAND (BOD)

- Central Reference Library initiated the Bibliographic Services on Demand (BoD) to provide users with curated lists of reliable sources compiled by professional bibliographers. This service was launched by Shri Jagdeep Dhankar, Hon'ble Vice President of India on the occasion of Festival of Libraries on 6th August 2023

THANK YOU

CONTACT DETAILS

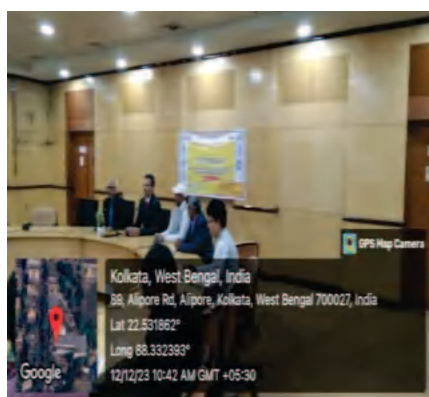
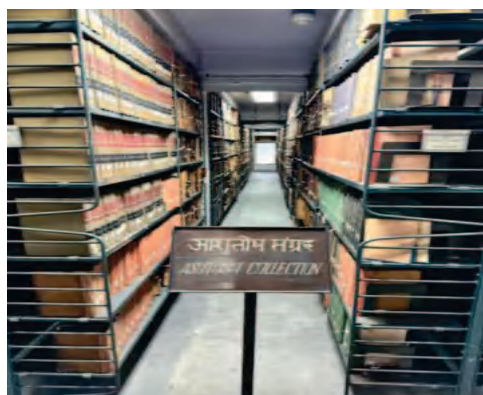
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Dr. Siva Prasad Senapati CV
Principal Library & Information Officer, National Library &
Director Central Reference Library

Photos of Day 9

Day 9: 12.12.2023 Tuesday
VENUE: National Library and CRL, Alipore, Kolkata



CASE STUDIES : CREATIVE COMMONS

Dr. Sabuj Kumar Chaudhuri

Ph.D, M.Sc (Gold Medalist, CU), AIS (INSDOC, CSIR), MLIS

What is Creative Commons (CC)?

Creative Commons is a non-profit organization that enables the sharing and use of creativity and knowledge through free legal tools. It is located in Mountain View , California. It's free, easy-to-use copyright licenses provide a simple, standardized way to give the public permission to share and use your creative work — on conditions of your choice. CC licenses let one easily change the copyright terms from the default of “all rights reserved” to “some rights reserved.”

Creative Commons licenses are not an alternative to copyright. They work alongside copyright and enable one to modify copyright terms to best suit his needs. The result is an agile, low-overhead and low-cost copyright-management regime, profiting both copyright owners and licensees. Wikipedia uses one of these licenses.

Background

The organization was founded in 2001 by Lawrence Lessig, Hal Abelson, and Eric Eldred with the support of Center for the Public Domain. The first article in a general interest publication about Creative Commons, written by Hal Plotkin, was published in February 2002. The first set of copyright licenses was released in December 2002. The founding management team that developed the licenses and built the Creative Commons infrastructure as we know it today included Molly Shaffer Van Houweling, Glenn Otis Brown, Neeru Paharia, and Ben Adida.

Mission

Creative Commons develops, supports, and stewards legal and technical infrastructure that maximizes digital creativity, sharing, and innovation.

Vision

It's vision is nothing less than realizing the full potential of the Internet — universal access to research and education, full participation in culture — to drive a new era of development, growth, and productivity.

Why CC?

The idea of universal access to research, education, and culture is made possible by the Internet, but our legal and social systems don't always allow that idea to be realized. Copyright was created long before the emergence of the Internet, and can make it hard to legally perform actions we take for granted on the network: copy, paste, edit source, and post to the Web. The default setting of copyright law requires all of these actions to have explicit permission, granted in advance, whether you're an artist, teacher, scientist, librarian, policymaker, or just a regular user. To achieve the vision of universal access, someone needed to provide a free, public, and standardized infrastructure that creates a balance between the reality of the Internet and the reality of copyright laws. That someone is Creative Commons.

What CC licenses do

The Creative Commons copyright licenses and tools forge a balance inside the traditional “all rights

reserved” setting that copyright law creates. Our tools give everyone from individual creators to large companies and institutions a simple, standardized way to grant copyright permissions to their creative work. The combination of our tools and our users is a vast and growing digital commons, a pool of content that can be copied, distributed, edited, remixed, and built upon, all within the boundaries of copyright law.

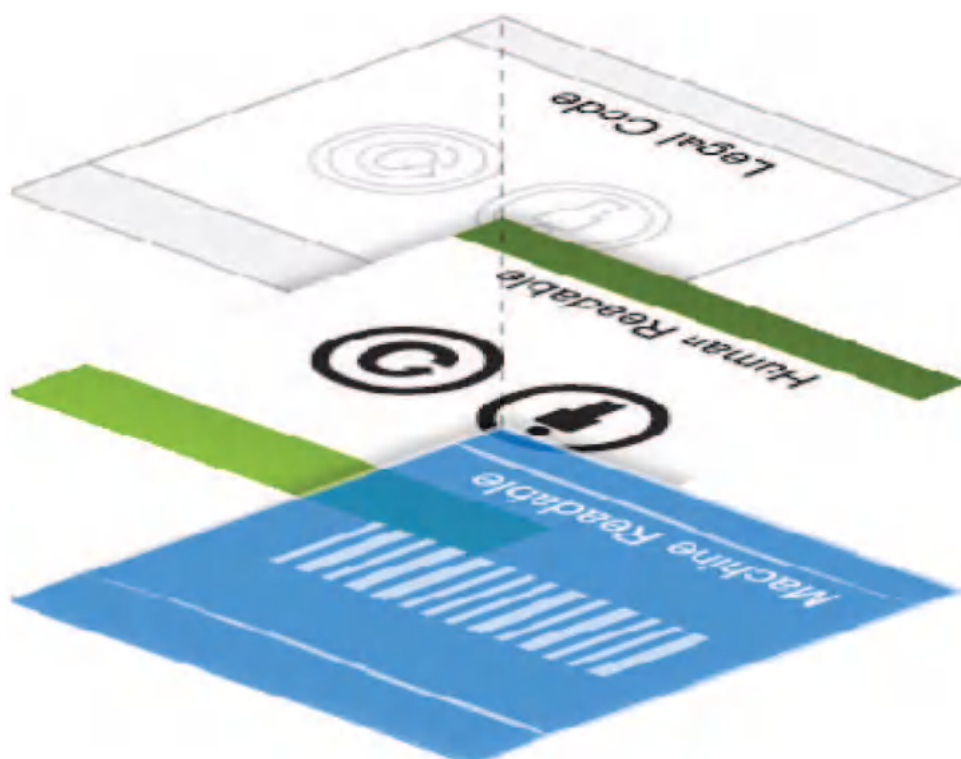
License design and rationale

All Creative Commons licenses have many important features in common. Every license helps creators — we call them licensors if they use our tools — retain copyright while allowing others to copy, distribute, and make some uses of their work — at least non commercially. Every Creative Commons license also ensures licensors get the credit for their work they deserve. Every Creative Commons license works around the world and lasts as long as applicable copyright lasts (because they are built on copyright). These common features serve as the baseline, on top of which licensors can choose to grant additional permissions when deciding how they want their work to be used.

A Creative Commons licensor answers a few simple questions on the path to choosing a license — first, do I want to allow commercial use or not, and then second, do I want to allow derivative works or not? If a licensor decides to allow derivative works, she may also choose to require that anyone who uses the work — we call them licensees — to make that new work available under the same license terms. We call this idea “shareAlike” and it is one of the mechanisms that (if chosen) helps the digital commons grow over time. ShareAlike is inspired by the GNU General Public License, used by many free and open source software projects.

Our licenses do not affect freedoms that the law grants to users of creative works otherwise protected by copyright, such as exceptions and limitations to copyright law like fair dealing. Creative Commons licenses require licensees to get permission to do any of the things with a work that the law reserves exclusively to a licensor and that the license does not expressly allow. Licensees must credit the licensor, keep copyright notices intact on all copies of the work, and link to the license from copies of the work. Licensees cannot use technological measures to restrict access to the work by others.

Three “Layers” of Licenses



Our public copyright licenses incorporate a unique and innovative “three-layer design. Each license begins as a traditional legal tool, in the kind of language and text formats that most lawyers know and love. We call this the Legal Code layer of each license.

But since most creators, educators, and scientists are not in fact lawyers, we also make the licenses available in a format that normal people can read — the Commons deed (also) known as the “human readable” version of the license). The Commons Deed is a handy reference for licensors and licensees, summarizing and expressing some of the most important terms and conditions. Think of the Commons Deed as a user-friendly interface to the Legal Code beneath, although the Deed itself is not a license, and its contents are not part of the Legal Code itself.

The final layer of the license design recognizes that software, from search engines to office productivity to music editing, plays an enormous role in the creation, copying, discovery, and distribution of works. In order to make it easy for the Web to know when a work is available under a Creative Commons license, we provide a “machine readable” version of the license — a summary of the key freedoms and obligations written into a format that software systems, search engines, and other kinds of technology can understand. We developed a standardized way to describe licenses that software can understand called CC Rights Expression Language (CC REL) to accomplish this.

Searching for open content is an important function enabled by our approach. You can use Google to search for Creative Commons content, look for pictures at Flickr, albums at Jamendo, and general media at spinexpress. The Wikimedia Commons, the multimedia repository of Wikipedia, is a core user of our licenses as well.

Taken together, these three layers of licenses ensure that the spectrum of rights isn’t just a legal concept. It’s something that the creators of works can understand, their users can understand, and even the Web itself can understand.

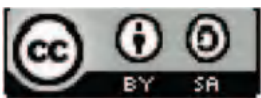
The Licenses



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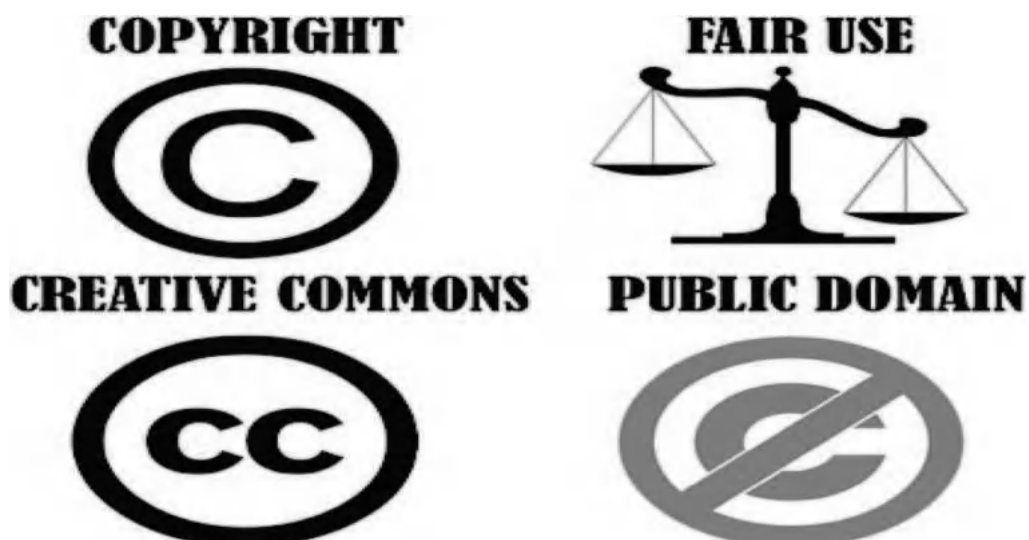
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Public Domain

Works in the **public domain** are those whose intellectual property rights have expired, have been forfeited, or are inapplicable. Examples include the works of Shakespeare and Beethoven, The King James Bible, most of the early silent films, the formulae of Newtonian physics, and the patents on powered flight. The term is not normally applied to situations where the creator of a work retains residual rights, in which case use of the work is referred to as "under license" or "with permission". In informal usage, the public domain consists of works that are publicly available; while according to the formal definition, it consists of works that are unavailable for private ownership or are available for public use. As rights are country-based and vary, a work may be subject to rights in one country and not in another. Some rights depend on registrations with a country-by-country basis, and the absence of registration in a particular country, if required, implies public domain status in that country.

History

When the first early copyright law was first established in Britain with the Statute of Anne in 1710, public domain did not appear. However, similar concepts were developed by British and French jurists in the eighteenth century. Instead of "public domain" they used terms such as *publici juris* or *propriété publique* to describe works that were not covered by copyright law.^[4] The phrase "fall in the public domain" can be traced to mid-nineteenth century France to describe the end of copyright term. The French poet Alfred de Vigny equated the expiration of copyright with a work falling "into the sink hole of the public domain"^[5] and if the public domain receives any attention from intellectual property lawyers it is still treated as little more than that which is left when intellectual property rights, such as copyright, patents, and trademarks, expire or are abandoned.^[6] In this historical context Paul Torremans describes copyright as a "little coral reef of private right jutting up from the ocean of the public domain."^[7] Because copyright law is different from country to country, Pamela Samuelson has described the public domain as being "different sizes at different times in different countries".^[8]

Possible values include:

1. Building blocks for the creation of new knowledge, examples include data, facts, ideas, theories, and scientific principle.
2. Access to cultural heritage through information resources such as ancient Greek texts and Mozart's symphonies.
3. Promoting education, through the spread of information, ideas, and scientific principles.
4. Enabling follow-on innovation, through for example expired patents and copyright.
5. Enabling low cost access to information without the need to locate the owner or negotiate rights clearance and pay royalties, through for example expired copyrighted works or patents, and non-original data compilation.
6. Promoting public health and safety, through information and scientific principles.
7. Promoting the democratic process and values, through news, laws, regulation, and judicial opinion.
8. Enabling competitive imitation, through for example expired patents and copyright, or publicly disclosed technologies that do not qualify for patent protection.



Dr. Sabuj Kumar Chaudhuri

Ph.D, M.Sc (Gold Medalist, CU), AIS (INSDOC, CSIR), MLIS

Dr. Sabuj Kumar Chaudhuri presently a Professor and Head in the Department of Library & Information Science at the University of Calcutta, India. He is the recipient of several prestigious fellowships including WIPO-WTO Colloquium Fellowship in Intellectual Property (2021), Geneva, Switzerland, Shastri Indo-Canadian Fellowship (2018-19) in York University, Toronto, Canada worked on environmental information and socio-ecological resilience and CEU/HESP Research Excellence Fellowship (2017-2018) at CELAB, CEU, Budapest, Hungary. He wrote numerous peer-reviewed articles, books and book chapters. He supervised seven PhDs and nine M.Phils. Presently, he is the Coordinator of RUSA 2.0, Govt. of India and DSTBT, Govt. of West Bengal funded Intellectual Property Rights (IPR) Cell, University of Calcutta.

Well-Being in a Stressful World

Dr. Neelanjana Paul

DPM, MD (Psychiatry)

Senior Consultant Psychiatrist,

Peerless Hospital & BK Roy Research Centre, Panchasayar, Kolkata

Honorary General Secretary,

Indian Association for Geriatric Mental Health (IAGMH)

Fomerly, Professor of Psychiatry & HOD,

ICARE Institute of Medical Sciences & Research, Haldia, WB

Well-Being in a Stressful World

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The 13th of December, 2023; NSOU, Salt Lake, WB



What is Well Being ?

- Combination of feeling good & functioning well
- Experience of positive emotions such as happiness & contentment; along with,
 - Development of one's potential,
 - Having some control over one's life,
 - Having a sense of purpose, &
 - Experiencing positive relationships
- Subjective well-being is synonymous with positive mental health

Positive Mental Health

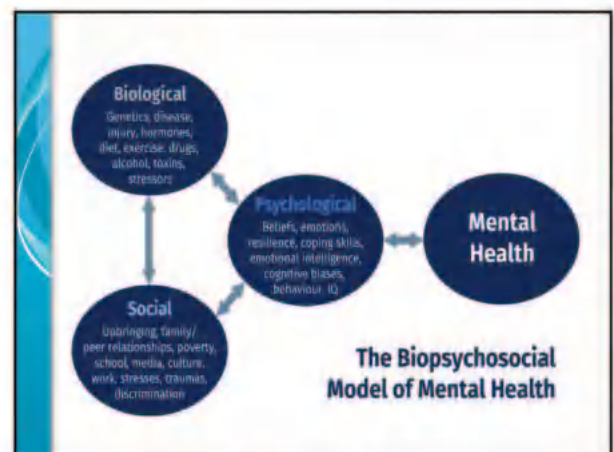
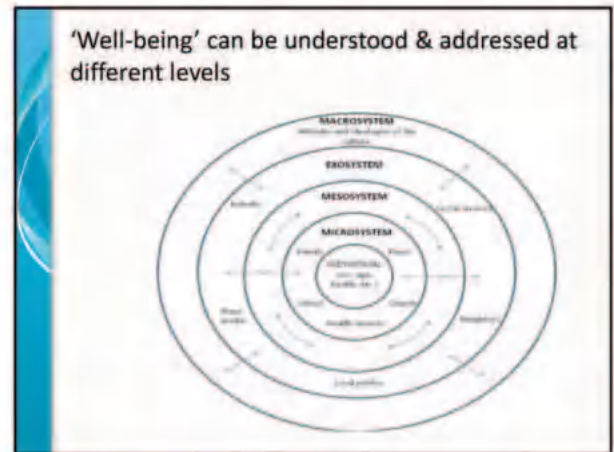
- The World Health Organization defines as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community"
- Goes beyond the absence of mental illness, encompassing the perception that life is going well
- Individuals high in well-being exhibit greater productivity in the workplace, more effective learning, increased creativity, more pro-social behaviors & positive relationships..... linked to success at professional, personal & interpersonal levels.

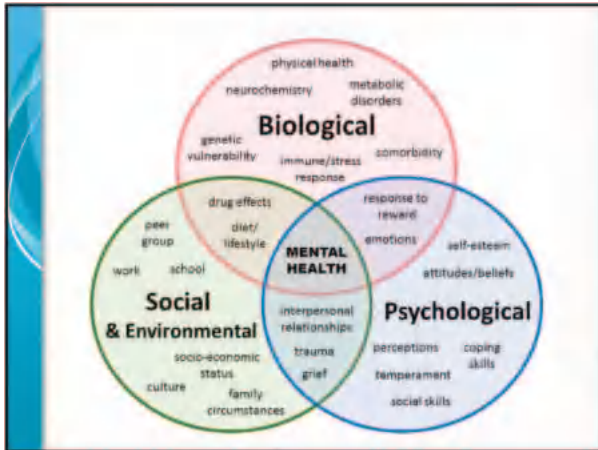
Other related concepts

- Life satisfaction ... Flourishing ... Optimal health.. Happiness.. Subjective well-being... **Health-related quality of life**... Psychological well-being... hedonic well-being
- Many synonymous...while others differentiate depending on domain they are focusing on
 - an evolving science, with contributions from multiple discipline
- HRQLI - patient outcomes, i.e., deficits in functioning (pain, disability)
- Well-being - on assets in functioning, like positive emotions & psychological resources (positive affect, autonomy, mastery)
- 'Subjective' - self-reports; versus - objective indicators
- 'Hedonic' well-being - feeling component (e.g., happiness) versus 'eudaimonic' well-being - thinking component (e.g., fulfillment)

Is well-being only a mental state

- Wellbeing in childhood goes on to predict future well-being in adulthood, as per longitudinal data
- Higher well-being is linked to
 - a number of better outcomes regarding physical health & longevity
 - better individual performance at work
 - higher life satisfaction
 - & better national economic performance





MENTAL HEALTH CONTINUUM MODEL			
HEALTHY	REACTING	INJURED	ILL
Normal fluctuations in mood Takes things in stride Good sense of humour Consistent performance Physically & socially active Confident in self & others Drinking in moderation	Nervousness, irritability Sadness, overwhelmed Displaced sarcasm Procrastination Forgetfulness Trouble sleeping Low energy Muscle tension, headaches Missing an occasional class or deadline Decreased social activity Drinking regularly or in binges to manage stress	Anxiety, anger Pervasive sadness, tearfulness, hopelessness, worthlessness Negative attitude Difficulty concentrating Trouble making decisions Decreased performance, regularly missing classes/deadlines, or over work Restless, disturbed sleep Avoidance, social withdrawal Increase use of alcohol, hard to control	Excessive anxiety Panic attacks Easily enraged, aggressive Depressed mood, numb Cannot concentrate Inability to make decisions Cannot fall asleep/stay asleep Constant fatigue, illness Absent from social events/classes Suicidal thoughts/intent Unusual sensory experiences (hearing or seeing things) Alcohol or other addiction
Nurture support systems	Recognize limits, take breaks, identify problems early, seek support	Tune into own signs of distress. Talk to someone, ask for help. Make self-care a priority. Don't withdraw	Seek professional care. Follow recommendations

....psychiatrists' deal with on a daily basis

REACTING	INJURED	ILL
Nervousness, irritability Sadness, overwhelmed Displaced sarcasm Procrastination Forgetfulness Trouble sleeping Low energy Muscle tension, headaches Missing an occasional class or deadline Decreased social activity Drinking regularly or in binges to manage stress	Anxiety, anger Pervasive sadness, tearfulness, hopelessness, worthlessness Negative attitude Difficulty concentrating Trouble making decisions Decreased performance, regularly missing classes/deadlines, or over work Restless, disturbed sleep Avoidance, social withdrawal Increase use of alcohol, hard to control	Excessive anxiety Panic attacks Easily enraged, aggressive Depressed mood, numb Cannot concentrate Inability to make decisions Cannot fall asleep/stay asleep Constant fatigue, illness Absent from social events/classes Suicidal thoughts/intent Unusual sensory experiences (hearing or seeing things) Alcohol or other addiction
Recognize limits, take breaks, identify problems early, seek support	Tune into own signs of distress. Talk to someone, ask for help. Make self-care a priority. Don't withdraw	Seek professional care. Follow recommendations

What is stress ?

Stress is the **reaction** people have to **excessive pressures** or other types of demand placed upon them. It arises when they worry that they can't cope

- Stress is the **"wear & tear"** our minds and bodies experience as we attempt to **cope** with our **continually changing environment**
- The threat, event or change are commonly called **stressors**
- Stressors may be **internal** (thoughts, beliefs, attitudes) or **external** (loss, tragedy, change)

Stress is often termed as a twentieth century syndrome, born out of man's race towards modern progress and its ensuing complexities ...

THERE ARE ONLY TWO TIMES I FEEL STRESS: DAY AND NIGHT.

S = P > R

Stress occurs when the pressure is greater than the resource

Various types of stressors all around us

- Normative and/or unexpected life events that may be considered stressful & may alter body's homeostatic process
- Daily hassles**
- Life changes**
- Environmental influences**
- Physical factors**

Psychological determinants

Coping mechanisms, stress reactivity, behavioral inhibition, optimism, hostility, self perception, resilience, intelligence

Effects of Stress : Symptoms

- **Common & non-specific**
 - Worrying, Tense, Tired, Frightened, Sad, Anger.....
- **Physical symptoms**
 - Poor appetite or overeating, Fatigued, Aches & pains, Gastrointestinal symptoms, Falling sick very often, including susceptibility to develop frequent infections due to lowering of immunity
- **Behavioral & Cognitive**
 - Emotional dysregulations, Being easily upset, Poor self confidence, Low self esteem, Lack of concentration, Memory problems, Poor performance in work
- **Interpersonal problems – relationship issues**
- **Substance Use**
- **Sleep problems**

Stress-related psychiatric disorders

- Adjustment disorders
- Acute stress reaction
- Acute stress disorder
- Post-traumatic stress disorder
- Anxiety disorders
- Depression & other mood disorders
- Worsening of any other psychiatric syndrome
- Trigger the onset of any other psychiatric syndrome
 - **Stress - diathesis model of many disorders**

Is Stress all bad ?

- **Distress**
 - Disturbs our physical, mental, social, occupational & spiritual health
- **Eustress**
 - Essential for our improvement & advancement
 - Provides the challenge in life



Connection between Stress & Performance



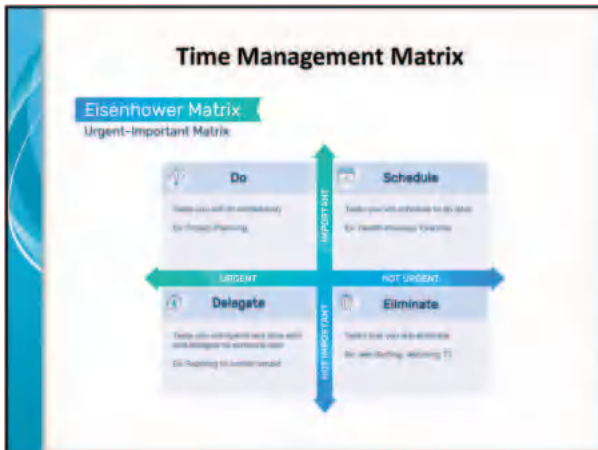
Models of stress

- **Stimulus based** (Holmes & Rahe, 1967)
 - Focuses on stressor & its unique demands
 - Social, physical, psychological ...whether unexpected
 - Conceptualization is **Environmental**
- **Response based** (Hans Selye, 1936)
 - from physiological & medical perspectives
 - Feelings of being stressed
 - **Psycho-physiological or biological** conceptualization
- **Transactional** (Holroyd & Lazarus, 1982)
 - relationship between the person & environment
 - Involves a balance between demands & psychological status and cognitive appraisal process
 - Conceptualization in terms of **cognitive psychology, appraisal & coping potential**
 - Definition & impact of stress is purely subjective

Stress management plans

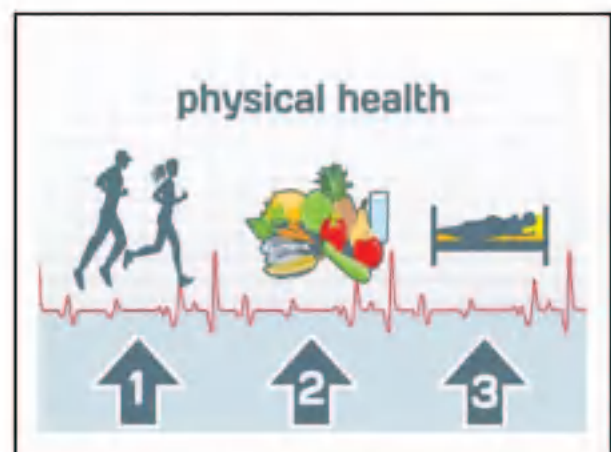
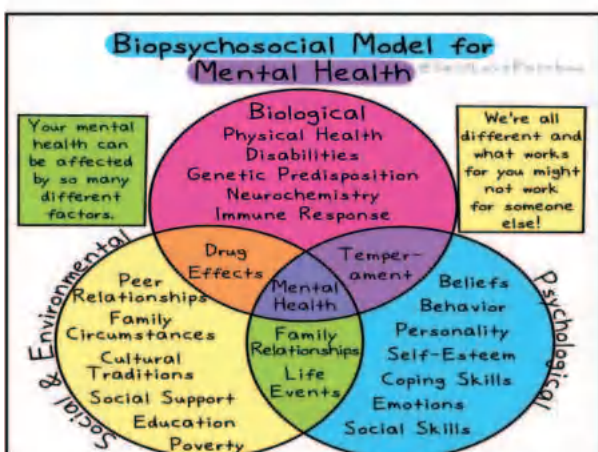
- Practice time management
- Learn relaxation exercises
- Rehearse & practice situations
- Learn practical coping skills
- Decrease negative self talk
- Learn to feel good with a workable result – Don't be a perfectionist
- Build a network of friends





- ### Activities for relief from stress
- Aerobic exercise
 - Prayer, yoga or meditation
 - Eat regular, well-balanced meals
 - Avoid caffeine..... Reduce alcohol & drugs
 - Get at least 7 hours of sleep
 - Take a warm bath or shower
 - Go for a walk... Greenspace

- ### Maintain your emotional reserves
- Develop mutually supportive friendships/relationships
 - Pursue realistic goals which are meaningful to you, rather than goals other have for you that you do not share
 - Expect some frustrations, failures and sorrows
 - Always be kind and gentle with yourself – be a friend to yourself
 - Learn to say NO





Neelanjana Paul

Professor in department of psychiatry ICARE Institute of Medical Sciences and Research · Department of Psychiatry

DPM, MD (Psychiatry). She is willing in many research work also. His International experience includes various programs, contributions and participation in different countries for diverse fields of study. His research interests reflect his wide range of publications in various national and international journals

(D-10.3-SES-39-NSOU)
(D-10.4-SES-40-NSOU)

NCSM, Science City, Kolkata :Visits & Exploration

Dr. Anurag Kumar



Anurag Kumar
Director at Science City Kolkata
Kolkata, West Bengal, India

I am associated with the National Council of Science Museums, India, the parent organisation of all the science centres and science museums in India, for the last 29 years. During the course of my career, I have worked with various departments. I had been the head of the Education section of the National Science Centre, Delhi, have worked as Project Coordinator of Shrikrishna Science Centre, Patna and headed the Technology section of the National Science Centre. During my career, I have developed many educational programs, have developed many science galleries and have coordinated many projects. I have also delivered papers in several national and international seminars and workshops including ECSITE, ISSM and SCWS.

I have taken over as the Director of Central Research and Training Laboratory, which is responsible for research and development of exhibits, exhibitions and display technologies for science centres and training of science museum professionals in India. It is basically the R&D arm of the National Council of Science Museums.

CASE STUDIES:

Capacity Building Program for Young Social Science Faculty on Trans-disciplinary Social Science Research: Towards Atmanirbhar Bharat

Dr. Ziaur Rahman

Associate Professor and Head
Department of Library and Information Science
Rabindra Bharati University, Kolkata, West Bengal, India

Transformative Social Science Research: Empowering Atmanirbhar Bharat signifies a paradigm shift in the methodology of academic exploration and societal progress. This research approach transcends conventional disciplinary confines, aiming to amalgamate insights from various social science domains to confront the intricate challenges faced by our nation. At its essence, the objective is explicit – to contribute to the vision of Atmanirbhar Bharat, fostering a self-reliant India. By promoting collaboration among researchers spanning sociology, economics, political science, and more, this approach seeks to formulate holistic and inventive solutions to the multifaceted issues impeding our advancement. It underscores the interconnected nature of social phenomena, urging scholars to break free from silos and cultivate a more comprehensive understanding of the intricate tapestry of Indian society.

This trans-disciplinary approach is not merely an academic pursuit; it is a call to action, inviting researchers to actively shape the socio-economic landscape of the nation for a more self-sufficient and resilient future. I am honored to be a Resource Person at Netaji Subhas Open University for the "Two Weeks Capacity Building Program for Young Social Science Faculty on Trans-disciplinary Social Science Research: Towards Atmanirbhar Bharat." This initiative represents a transformative journey beyond traditional education and research.

This program organized by the esteemed Department of Library and Information Science at Netaji Subhas Open University in Kolkata, this program is more than an academic event; it is a stepping stone towards a self-reliant and empowered India. Before delving into the details, I express my gratitude to the organizers, especially Professor Arun Kumar Chakraborty and the entire team, for their foresight in recognizing the need for such a program.

From December 4 to 15, 2023, this two-week capacity building program served as a crucible for young social science faculty members, focusing on trans-disciplinary social science research. The overarching mission was clear: to contribute to the vision of Atmanirbhar Bharat. This goes beyond rhetoric; it is a call to action for each participant to play a vital role in shaping the nation's future through innovative and collaborative research.

Throughout the program, participants engaged in various activities designed to broaden their horizons and enhance their research capabilities: Workshops delved into diverse research methodologies in the social sciences, providing practical insights beyond theoretical frameworks.

Lectures by noted scholars offered a deeper understanding of contemporary challenges and opportunities in the field. Panel discussions facilitated dialogue between academia and industry, fostering collaboration for more impactful research. Hands-on training sessions equipped participants with the tools necessary for effective trans-disciplinary research. Networking sessions created an environment for the formation of lasting connections and collaborations.

At the end of these two weeks, I anticipated a cohort of empowered and inspired young faculty members with enhanced research skills, collaborative networks formed, and a tangible contribution towards the vision of Atmanirbhar Bharat. This program was not just a series of workshops and lectures; it was a collective endeavor to redefine the landscape of social science research and contribute meaningfully to the nation's self-reliance. As we embark on this journey together, let us keep our minds open, our spirits high, and our commitment unwavering.



Dr. Ziaur Rahman

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Dr. Ziaur Rahman presently holds the position of Associate Professor and Head in the Department of Library and Information Science at Rabindra Bharati University, Kolkata. Prior to this role, he served as an Assistant Professor at the Department of Library and Information Science at both the University of North Bengal and Assam University.

Dr. Rahman earned his B.Sc and BLIS degree from North Bengal University, followed by an MLISc degree from Aligarh Muslim University, and a Ph.D. from Jadavpur University. Additionally, he completed a certificate course from Kings College of London and the University of Leeds.

With an impressive academic background, Dr. Rahman has contributed significantly to the academic community. He has authored 60 publications in various esteemed National and International journals, book chapters, conference volumes, etc. Furthermore, he has three editorial books to his credit. His research interests lie in Scientometrics, Bibliometric study, Knowledge Organization, and related areas.

Photos of Day 10

Day 10: 13.12.2023 Wednesday

VENUE: NSOU-HQ, Saltlake, Kolkata (1st Half)

VENUE: Academic Collaboration NSOU, NCSM, Science City, Kolkata(2nd Half)



Science City Field Trip



CASE STUDIES: PRESENTATION (Group D: Participant Presentation)

Moderation by: Prof. Arun Kumar Chakraborty, Dr. Anamika Das & Dr. Barnali Roy Choudhury
Professor and Head of the Department, Library & Information Science, Netaji Subhas Open University (NSOU)
Assistant Professor, Department of Library and Information Science MLIS, PH.D
Assistant Professor in Library & Information Science, MA, MLIS (Gold Medalist), PhD

AWARENESS OF ICT (INFORMATION COMMUNICATION TECHNOLOGY) APPLICATIONS IN SOCIAL SCIENCE RESEARCH: CASE STUDY

by:
Dr. Kuty Kumar, Ms. Uma R. Shukla, Dr. B. Shiv Balaraman, Dr. Rachna Rastogi,
Mr. Sandhan Hazarika, Dr. Ramesh AP, Dr. Gaurav Gaur

AGENDA:

- Introduction
- Review of Literature
- Purpose of Study
- Objectives
- Methodology
- Data Analysis
- Conclusion

INTRODUCTION:

Due to rapid advancements in the field of Social Science along with education new technologies are indeed suggesting new social patterns and new social habits. Social networking tools have captured the imagination of youth and researchers. Researchers today prefer to use internet for surfing the World Wide Web to access relevant material and data including e-journal and e-book.

Atmanirbhar Bharat meaning 'self-reliant India', is a term coined and popularised by the Prime Minister of India, Narendra Modi and his government, in reference to the nation's economic growth strategies.

The National Education Policy (2020) places significant importance on fostering the creative capabilities of every individual. This approach is grounded in the belief that education should foster the development of not only cognitive abilities, including basic skills like reading and math, but also more advanced cognitive abilities like critical thinking and problem solving. This Policy has been greatly influenced by the profound and timeless wisdom of India's ancient knowledge and philosophy.

ICT (Information Communication Technology) has become a very important tool in educational processes in the last 5 years, this thanks to the digital transformation that society is facing and that increasingly makes easier a lot of procedures and formalities; of course, education is part of that change, by implementing ICT as a mechanism of inclusion allowing access to education from anywhere through digital tools.



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Components of ICT

The term information and communications technology (ICT) is generally accepted to mean all technologies that, combined, allow people and organisations to interact in the digital world.



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TOP 10 RESEARCH AND PRODUCTIVITY TOOLS IN 2023

Literature Search	Elsevier	Connected Papers	Research Rabbit
Writing Assistants	Grammarly	ProtonMail	Proton
Grammar & Paraphrasing	Quillbot	Grammarly	Paperkit
Citations	Scite	Scite	Scite
Illustrations	BioRxiv	Khan	Diagram
Data (Quantitative)	Polymath	Akkio	MonkeyLearn
Data (Qualitative)	ATLAS.ti	Lumina	Ollie
Presentation	Prezi	Prezi	Prezi
Excel	Excel	Excel	Excel
Productivity	Proton	Proton	Proton

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REVIEW OF LITERATURE:

The integration of information and communication technologies can help regenerate teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas. To achieve these objectives, teachers need to be involved in collaborative projects and development of intervention change strategies, which would include teaching partnerships with ICT as a tool.

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PURPOSE OF THE STUDY:

ICT helps to develop technological skills in future professionals in careers related to social sciences as they implement technological sciences to these studies making them more integral professionals and with more capabilities. And also to analyze from a bibliometric and bibliographic perspective, the production of high impact research papers on the variable. The Importance of ICT in the teaching of social sciences in higher education as the ideal tools for inclusion and educational innovation to transform educational processes depending on the needs that are being created in society, specifically talking about the needs created from the digital transformation in the industry thus offering more competitive professionals and according to what the labor market requests. Therefore, it is clear that the Importance of ICT in the teaching of social sciences in higher education and research areas.

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ROLE OF ICT IN SOCIAL SCIENCE RESEARCH:

- Identify Appropriate Information Sources
- Testing of hypotheses & problems
- Critically Analysis of Information
- Research Effectively
- Manage Information
- Use the Information to extend and Communicate knowledge across subject fields
- Search up databases and electronic resources simultaneously
- Receive results in a common format
- Link to individual databases for more specialized searching
- Select favourite resources and e-journals, save searches and records and set up email alerts.

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CATEGORISATION:



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OBJECTIVES:

- A Case Study to raise the Awareness of Information and Communication Technology (ICT) applications in Social Science Research
- The Implications of Capacity Building program in Social Science Research

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METHODOLOGY:

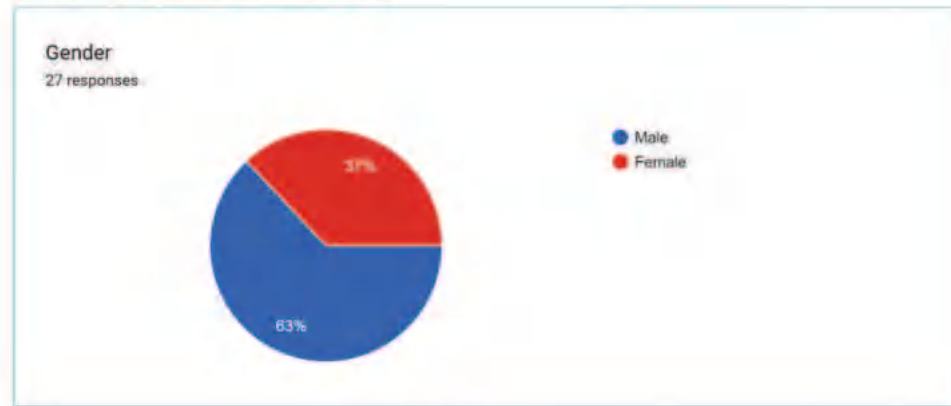
This study investigated the participants who had taken part in a two-week (4th to 15th December 2023) Capacity Building Programme (CBP) for young faculty members in the social sciences. The programme focused on trans-disciplinary social science research with the aim of promoting self-reliance in India and tried to achieved the National Education Policy 2020 objective. The use of ICT applications in Social Science Research: Case Study involved a sample of 27 participants' responses data (Figure1) from a self-designed online survey was collected through a purposive non probability sampling method process.

(<https://forms.gle/hqLZnuB8UnuSXmKR8>)

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DATA ANALYSIS:



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DATA ANALYSIS:

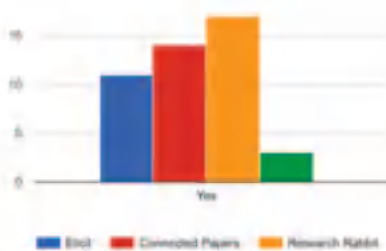


Figure 2: Literature search-Research & productivity application tool

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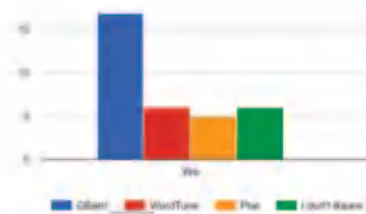


Figure 3: Writing Assistants-Research & productivity application tool

DATA ANALYSIS:

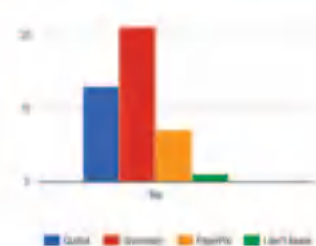


Figure 4: Grammar & paraphrasing-Research & productivity application tools

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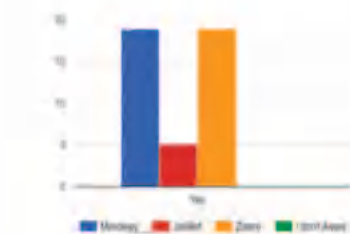


Figure 5: Citation-Research & productivity application tools

DATA ANALYSIS:

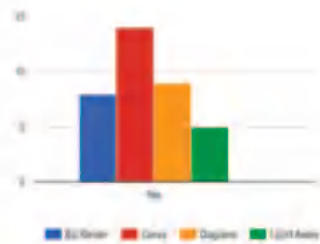


Figure 6: Illustrations-Research & productivity application tools

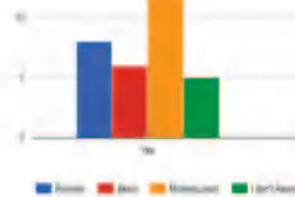


Figure 7: Data (Quantitative)- Research & productivity application tools

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DATA ANALYSIS:

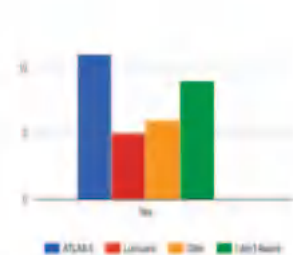


Figure 8: Data (Qualitative)- Research & productivity application tools

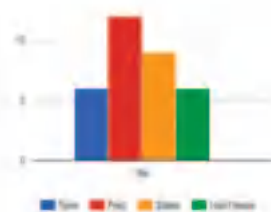


Figure 9: Presentation – Research & productivity application tools

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DATA ANALYSIS:

- Click to add text

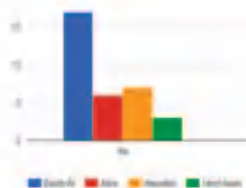


Figure 10: Excel- Research & productivity application tools



Figure 11: Productivity sources - Research & productivity tools

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DATA ANALYSIS:

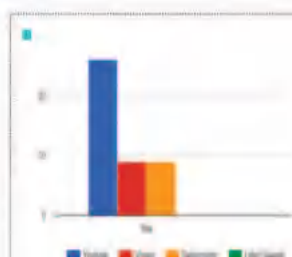


Figure12: Videos sources : research & productivity application tools

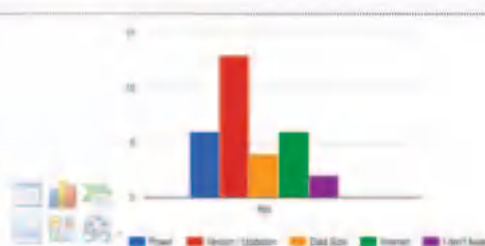


Figure13: Constraints in using application tools

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CONCLUSION:

This capacity building program fulfilled the objective of program to train the faculty and researchers in the aspect of the National Education Policy (NEP) 2020, as we applied. NEP-2020 revealed the significance of the Indian educational system, with a focus on NEP multidisciplinary research and emphasis on the development of the creative potential of each individual. This has fulfilled the Capacity Building Program of NSOU-2023 instructions very helpful in guiding the implementation of trans disciplinary programs. This study identifies that major hindrances faced by the researchers are lack of training, lack of technical knowledge and limited number of computers. And also found that lack of awareness of ICTs is also one of the major hindrances to use the new technologies. Majority of the researchers learned to use ICTs through the guidance from colleagues and staff. Therefore, it is recommended that library should provide initial orientation workshops and training for the researchers on ICT-based services so that they can utilise these technologies to optimum level. The use of ICT in the field of research plays an important role in the **Atmanirbhar Bharat**.

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- Different Techniques of ICTs in social Science Research
- Artificial Intelligence (AI) in Social Science Research
- UGC Care-List Database
- Literature search
- Different Library Visits
 - The Asiatic Society
 - Calcutta University Library
 - Maulana Abul Kalam Azad Institute of Asian Studies (MAKAIAS)
 - National Library (NL)
 - Central Reference Library (CRL)

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- 2) Atmanirbhar Bharat Details:
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- 3) National Education Policy (2020) details:
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Thank you

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Role of Faculty in NAAC Process for Higher Education Institutions with special reference to Teaching-Learning and evaluation

Dr. Shilpi Verma

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Introduction:

- Teachers play a pivotal role in educational process.
- As the quality of teachers so is the quality of education with in turn determines the quality of citizens and ultimately the well being of nation.
- To achieve the outcome of enhanced quality at all levels of education, different govt. organizations and agencies have been focusing their attention on quality assurance in teaching learning process in education.
- They provide adequate guidelines for formulating quality assurance policies as well as for adopting systems and procedures within educational institutions for enhancing the quality of the processes involved in teacher learning process.
- National Assessment and Accreditation Council (NAAC) is being made an effective instrument for rising of quality of teachers and for enabling institutions in using their physical and instructional infrastructure optimally and professionally.
- The scheme of assessment and accreditation will help institutions to carry out their strength, weakness, opportunity and threat analysis, and in making their programmes more attractive to the students and to their potential employers. The role of faculty in NAAC is really very important.

Role of NAAC:

- “To make quality the defining element of higher education in India through a combination of self and external quality evaluation, promotion and sustenance initiatives” (NAAC).
- Education plays a vital role in the development of any nation. Therefore, there is a premium on both quantity (increased access) and quality (relevance and excellence of academic programmes offered) of higher education. The NAAC has been set up to facilitate the volunteering institutions to assess their performance vis-a-vis set parameters through introspection and a process that provides space for participation of the institution.
- The National Assessment and Accreditation Council (NAAC), as an autonomous institution of the University Grants Commission (UGC), has been entrusted with the responsibility of Assessment and Accreditation (A&A) of Higher Educational Institutions (HEIs) in India. like the HEQC (Higher Education Quality Committee) in South Africa, LAN (Lembaga Akreditasi Negara) in Malaysia, AUQA (Australian Universities Quality Agency) in Australia, TTA (Teacher Training Agency) in UK and so on (Laksmi, T.K.S & Rama,k., 2007). National Assessment and

Accreditation Council (NAAC) was established in 1994 has been given the gigantic task of assuring the quality of the third largest higher education system in the world after USA and China.

- The National Policy on Education (NPE, 1986) as adopted by the Parliament and the Programme of Action (PoA) document that followed argued the need for setting up a council for ensuring and enhancing quality.
- The NPE and the POA recommended that “excellence of institutions of higher education is a function of many aspects: self-evaluation and self-improvement are important. If a mechanism is set up which will encourage self-assessment in institutions and also assessment and accreditation by a council...the quality process, participation, achievements, etc. will be constantly monitored and improved”.
- The UGC, in July 1994, constituted a committee to finalize rules and regulations, and finally, in September 1994, the National Assessment and Accreditation Council (NAAC) came into existence with its headquarters at Bangalore (NAAC Document, 1995). In order to achieve its objectives, the NAAC will:
 - To arrange for periodic assessment and accreditation of institutions of higher education or units thereof, or specific academic programmes or projects;
 - To stimulate the academic environment for promotion of quality of teaching learning and research in higher education institutions;
 - To encourage self-evaluation, accountability, autonomy and innovations in higher education;
 - To undertake quality-related research studies, consultancy and training programmes, and
 - To collaborate with other stakeholders of higher education for quality evaluation, promotion and sustenance.
- **Quality Assessment:** refers to a number of measures of effectiveness and efficiency
- **Quality Assurance:** refers to the process of maintaining standards reliably and consistently by applying criteria of success in a course, programme or institution (M. Sayjaya, 2006).
- To improve the quality of its Assessment & Accreditation process, the NAAC has redesigned its on-going methodology of Assessment and Accreditation, based on its own field experience, its shared knowledge with other International Quality Assurance Agencies and the quality imperatives in the changing context of world-wide higher education scenario. After several consultative meetings with academia and educational experts, feedback responses from various stakeholders and due approval by the competent Authorities of the NAAC,
- At the instance of NAAC many HEIs have established the Internal Quality Assurance Cell (IQAC) as a post accreditation quality sustenance activity. The experience of NAAC reveals that the IQAC in these institutions are proactive and functioning in a healthy way.

Revised Assessment and Accreditation Framework (RAF):

Revised Assessment and Accreditation (A&A) Framework is launched in July 2017.

- Paradigm shift from qualitative to data based quantitative indicator evaluation peer judgement with increased objectivity and transparency
- Towards extensive use of ICT and its integration on evaluation In terms of simplification of the process drastic reduction in number of questions, size of the report, visit days, and so on
- Introducing pre-qualifier for peer team visit, as 30% of system generated score.

IIQA Application Process:

- Basic Institution Eligibility Affiliation —
- SRA Compliance —
- HEI Academic Data Inputs—
- HEI --Document Verification by Coordinator Application* (Fees Payment Fees applicable for 3 attempts within one year)
- Supported by uploading essential documents ---Accepted No/ Yes
- IF No--Resubmit IIQA
- If Yes --SSR Application

Preparation before during and after A & A process: Stages:

1. Institution information for quality assessment (IIQA)
2. SSR submission (metric data and optional metric selection)
3. Data validation and verification DVV
4. Prequalification
5. Peer team Visit
6. Assessment outcome

After acceptance of IIQA With in 45 days:

- Profile of the institution
- Extended profile SSR (QIM + QnM)
- Executive Summary

SSR SUBMISSION READINESS:

- Go through NAAC manual and guidelines
- Understanding of metrics
- Data submission both Quantitative and Qualitative metrics
- Upload of relevant documents
- Refer Standard operating procedure (SOP) helpful in SSR submission and DVV clarification

Revised Accreditation Framework:

- System Generated Scores (SGS) with combination of online evaluation (about 70%) and peer judgement (about 30%)
- third party validation {Data Validation and Verification (DVV) } of data and the possibility of roping in multiple agencies
- in providing appropriate differences in the metrics, weightages and benchmarks to Universities, Autonomous Colleges and Affiliated/constituent Colleges
- participation of students and alumni in the assessment process

The seven Criteria to serve as basis for assessment of HEIs are

1. Curricular Aspects
2. Teaching-Learning and Evaluation
3. Research, Innovations and Extension

4. Infrastructure and Learning Resources
 5. Student Support and Progression
 6. Governance, Leadership and Management
 7. Institutional Values and Best Practices
- NAAC has identified a set of seven criteria to serve as the basis of its assessment procedures.
 - NAAC has categorized the Higher Educational Institutions into three major types (University, Autonomous College, and Affiliated/Constituent College) and assigned different weightages to these criteria under different key aspects based on the functioning and organizational focus of the three types of HEIs.

The criterion-wise differential weightages for the three types of HEIs are:

Curricular Aspects	150 (U)	150 (Au)	100 (Aff UG)	100 (Aff PG)
Teaching-learning & Evaluation	200 (U)	300 (Au)	350 (Aff UG)	350 (Aff PG)
Research, Innovations & Extension	250 (U)	150 (Au)	110 (Aff UG)	120 (Aff PG)
Infrastructure & Learning Resources	100 (U)	100 (Au)	100 (Aff UG)	100 (Aff PG)
Student Support & Progression	100 (U)	100 (Au)	140 (Aff UG)	130 (Aff PG)
Governance, Leadership & Management	100 (U)	100 (Au)	100 (Aff UG)	100 (Aff PG)
Institutional Values & Best Practices	100 (U)	100 (Au)	100 (Aff UG)	100 (Aff PG)

ELIGIBILITY CRITERIA:

- Higher Education Institutions (HEIs), with a record of at least two batches of students graduated, or been in existence for six years, whichever is earlier, are eligible to apply for the process of Assessment and Accreditation (A&A) of NAAC, and fulfil the other conditions or are covered by the other provisions

Benefits of Accreditation:

- Institution to know its strengths, weaknesses, and opportunities through an informed review process
- Identification of internal areas of planning and resource allocation
- Collegiality on the campus
- Funding agencies look for objective data for performance funding
- Institutions to initiate innovative and modern methods of pedagogy
- New sense of direction and identity for institutions
- The society look for reliable information on quality education offered

- Employers look for reliable information on the quality of education offered to the prospective recruits
- Intra and inter-institutional interactions

Assessment Outcome

1. Peer Team Report

- Section 1: Gives the **General Information** of the institution and its context.
- Section 2: Gives Criterion wise analysis based on peer evaluation of qualitative indicators. Instead of reporting with bullet points, this will be a **qualitative, descriptive assessment report** based on the Peer Team's critical analysis presenting strengths and weaknesses of HEI under each Criterion
- Section 3: Presents an **Overall Analysis** which includes Institutional Strengths, Weaknesses, Opportunities and Challenges.
- Section 4: Records **Recommendations for Quality Enhancement of the Institution** (not more than **10** major ones).

2. Graphical representation based on Quantitative Metrics (Q_nM)

This part will be a **System Generated Quality Profile** of the HEI based on statistical analysis of quantitative indicators in the NAAC's QIF (quality indicator framework). Graphical presentation of institutional features would be reflected through synthesis of quantifiable indicators.

3. Institutional Grade Sheet

Contains the **Institutional Grade Sheet** which is based on qualitative indicators, quantitative indicators and student satisfaction survey using existing calculation methods but it will be generated by a software.

Executive Summary:

- Every HEI applying for the A&A process shall prepare an Executive Summary highlighting the main features of the Institution including * Introductory Note on the Institution: location, vision mission, type of the institution etc. Preface be added
- * Criterion-wise Summary on the Institution's functioning in not more than 250 words for each criterion. Brief note on Strength Weaknesses Opportunities and Challenges (SWOC) in respect of the Institution.
- * Any additional information about the Institution other than ones already stated.
- * Over all conclusive explication about the institution's functioning - The Executive summary shall not be more than 5000 words.

Student Satisfaction Survey (SSS)

- Institutions will have to submit the entire database.
- ✓ **The SSS questionnaire will be mailed to all students.**
- ✓ **Responses should be received from at least 10% of the student population or 100.**
- ✓ **If the response rate is lower than the limits, the metric will not be taken up for evaluation.**

Peer Team Visit

- NAAC will not pre-disclose the details of the visiting teams and
- HEIs will not be responsible for Logistics for the Visiting Teams.

- NAAC will directly take care of all the logistics regarding the Peer Teams visiting the institutions.
- All payment towards TA, DA, Honorarium, etc., will be directly paid by NAAC to the nominated members.
- There would be no financial transactions between the Institution and the visiting NAAC team.

Teaching-Learning and Evaluation:

- **Teaching-Learning** is the major part in the development of students' overall personality. Teachers play an essential role in making students learning to a higher level. **National Assessment and Accreditation Council (NAAC)** while assessing the institutions under Criterion- II makes its best efforts to evaluate actual teaching-learning experiences.
- Teaching/Learning methodologies include the use of ICT tools for illustrations and special lectures, field study, case-studies, project-based-methods, experimental methods, flipped class room sessions etc.
- The most important step in the process of NAAC accreditation is the preparation of the SSR by the institution. Institutions should follow the guidelines provided by NAAC while preparing the SSR and ensure that it contains all the 7 Assessment criteria for Accreditation

Teaching-Learning and Evaluation:

- The second basic pillar of education is the teaching and learning process. This criteria marks the regular academic activities of the institution. The teaching-learning process, results of the students and the desired outcomes come under this criteria. The first criteria Curriculum Aspects deals with what is to be learnt, this criteria deals with how the learning happens. Different assessment practices and evaluation practices are also a point of interest for this criteria.
- This criteria contributes a weightage of
- 350 (- for affiliated colleges)
- 300 (- for Autonomous institutions)
- 200 (- for Universities)
- 6 Key Indicators to focus on to improve this criterion.

Criterion-II Teaching-Learning and Evaluation:

	Universities	Autonomous Colleges	Affiliated Colleges
• 2.1 Student Enrolment and Profile	10	20	30
• 2.2 Catering to Student Diversity	20	30	50
• 2.3 Teaching-Learning Process	20	50	50
• 2.4 Teacher Profile and Quality	50	60	80
• 2.5 Evaluation Process and Reforms	40	40	50
• 2.6 Student Performance and Learning Outcomes	30	50	40
• 2.7 Student Satisfaction Survey	30	50	50
• Total	200	300	350

Student enrolment and profile:

- Mention the average enrolment percentage (a average of last five years), number of students admitted (year-wise during last five years), number of sanctioned seats (year wise during last five years), Average percentage of seats filled against reserved categories(during the last five years)

and the number of actual students admitted from the reserved categories (year wise during last five years)

Catering student diversity:

- The institution should assess the learning levels of the students and organise different programmes for advanced learners and slow learners, should develop different curriculums as per learning level and different measures for slow and advanced learners for all students as an opportunity to enhance their knowledge base.

Teaching-Learning process:

- Under this indicator mention the average percentage of full time teachers against sanctioned posts (during the last five years), average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality (during the last five years, consider only highest degree for count), number of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality (year wise during the last five years), the average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years and the total experience of full-time teachers).

Evaluation process and reforms:

- The institute should prepare a mechanism of internal assessment that is transparent and robust in terms of frequency and mode, which can deal with the internal examination related grievances. The mechanism should be transparent, time- bound and efficient.

Student performance and learning outcomes:

- Teachers and students should be aware of all the programme and course outcomes of the programmes offered by the institution, The attainment of programme outcomes and course outcomes should be evaluated by the institution. Mention the average pass percentage of students during the last five years, total number of final year students who passed the university examination (year-wise during the last five years), and the total number of final year students who appeared for the university examination (year-wise during the last five years).

Student Satisfaction Survey (SSS):

- After all the teaching the most important step should be surveying students' responses to know if the students are satisfied from the teaching learning process. Online student satisfaction survey regarding the teaching learning process should be a mandatory step.

Advantages of Accreditation:

- Demonstrates accountability and commitment to excellence
- Facilities continuous quality improvement
- Inculcate the culture of R&D in the institution
- Facilitates information sharing
- Recognitions of the achievement/innovations
- Institutions get a new sense of direction and identity
- Provides society with reliable information on quality of education
- Promotes intra and inter institutional interaction

Grading System adopted in RAF:

- Range of Institutional Cumulative Grade Point Average (CGPA)
- Letter Grade

- Status
- 3.51-4.00 A++ Accredited
- 3.26-3.50 A+ Accredited
- 3.01-3.25 A Accredited
- 2.76-3.00 B++ Accredited
- 2.51-2.75 B+ Accredited
- 2.01-2.50 B Accredited
- 1.51-2.00 C Accredited
- ≤ 1.50 D Not Accredited Grading System adopted

Benefits:

- Helps the institution to know its strengths, weaknesses, opportunities through an informed review.
- To identify internal areas of planning and resource allocation.
- Enhances collegiality on the campus
- The outcome of the process provides the funding agencies with objective and systematic database for performance funding.
- Initiates institution into innovative and modern methods of pedagogy. **Gives the institution a new sense of direction and identity.**
- Provides the society with reliable information on the quality of education offered by the institution.
- Employers have access to information on standards in recruitment.

Conclusion:

- NAAC plays important role in improving the quality of our institutions, phenomenal efforts have been taken in accreditation process which helps the institution to know its strengths, weaknesses, and opportunities through an informed review. There is need for the institutions to act positively and motivate all the accredited institutions in their respective states to establish the Internal Quality Assurance Cells. Ultimately, it will necessary for every accredited institution to rely more on internal quality assurance mechanisms than external quality assessment and evaluation mechanisms. In order to ensure enhancement in the culture of quality assurance within the institution Higher Education Institutions both those which are accredited would realise the significance of internalizing and institutionalizing the quality assurance mechanisms and respond positively so that quality runs in the very arteries of the Institutions as a Quality Culture.
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LIST OF PUBLICATIONS

Books Published: 19

Papers published in International Journal: 39

Papers published in National Journal: 19

Paper published in International Conference: 11

Paper published in National Conference/ Seminar: 39

Abstract Published : 6

Chapter in Books: 34

CASE STUDIES:

Information Need Assessment for Creating Capacity Building

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Foreword

India ranks in 120th in The Sustainable Development Report of 2021 which indicated the scenario of the development in the country. The lack of accessibility of resources and services is the main hindrances for such development. There is intent need of capacity building programme to supplement this raising issue of concern. Capacity building is the procedure for developing the skill and abilities to adopt to the fast-changing world. This capacity building programmes includes seminars, workshops, training, mentorship and brainstorming sessions which will help in increasing the existing capacity of an individual.

Currently in our country, information is considered as privilege of upper stratum of the society. That information services are essential for socio-economic development of all sections of the people including under privileged part of the people which mostly lived in rural areas. Development is a continuous process and the country cannot move ahead keeping a major section of the people in dark. Therefore, community development, community information and community information services can act as an inevitable source for the government for overall development of the nation. There are many avenues through which community services can be provided. Government takes several initiatives to help the unprivileged section of our population but in most cases the information has not reached to the target groups. Launching different new facilities regarding the development of underprivileged people has become one of the important duties of the public administration. Government has done these duties through launching capacity building programmes, community initiatives and social welfare schemes. Central Government and the different state Governments have made effort to come out from the current situation, which is presently very gloomy, through introducing different social welfare schemes and community initiatives. These schemes are usually implemented by Panchayati Raj Institution and other non-governmental organization. But still the picture is not quite clear as this facility has not reached to the lower section of people due to several reasons.

Development of the rural mass is another important area for our country because 65% of our population lives in villages. Development is a continuous and dynamic process, which aims at promoting the well-being of the people. The government has undertaken several projects so as to improve the standards of life in the rural areas. All the projects aim at increasing the level of satisfaction on the basis of need of social targets (population). The rural development activities/programmes, may differ in places, solely aim at the gradual removal of disparities among various classes, between regions and within regions. Though the programmes aim at balanced development, due to flaws in implementation at field level, disparities are widening between the targeted groups. Thus the rural development programmes should be specific and meet with the requirements of the lowest possible strata of the population viz., need, poor, illiterate, weak, etc. Due to the lack of technological infrastructure in the rural areas, the digital divide is created between rural and urban people. This “digital divide” or “information and technology gap” refer to the gap between those who can effectively use new information and communication tools, such as the internet, and those who cannot. The digital divide is the gap between those people and communities who can access and make effective use of information technology and those who cannot. Simply, a common assumption is that the haves and have nots of the information age, usually urban versus rural communities. The digital divide is the socio-economic/technological difference between communities

in their access to computers and the Internet. The term also refers to gaps between groups in their ability to use ICTs (Information and Communications Technologies) effectively, due to differing literacy and technical skills, and the gap in availability of quality, useful digital content. Efforts are now being made in different parts of the country towards developing the information infrastructures, specifically suitable dissemination mechanisms, utilizing Information and Communication Technologies (ICT). These are being done by three types of agencies

- Ø Government (directly or indirectly/ semi government/autonomous agencies)
- Ø Non- Government Organizations (NGOs/ associations)
- Ø Corporate Agencies (i.e. corporate organizations/ industrial houses, etc.)

Some times more than one type of agency is also involved in this work. Even a few International Agencies are also collaborating in some cases.

Non-formal users are the major category for the development procedure of the country. So, they need to be considered within the research perspective for getting insights of their problems. To keep this things in mind, we have considered a small project in Saulkuchi, Assam for understanding their need.

A group of students under the supervision of Pror. Biplab Chakrabarti from Dept. of Library and Information Science visited Saulkuchi, Assam for assessing the information need of the weavers. This need assessment can help in creating the capacity building programmes for future.

A Case Study on the Information Needof Weavers' Community Aa Sualkuchi, Assam

1. Introduction

In the past few decades, the world around us has changed drastically, and it is still changing in a rapid pace. Especially with the advent of Information and Communication Technology and its continuous developments, some new dimensions of human lifestyle manifested automatically. In this changed scenario the information needs of the common people became way too complex than it was ever before. The process of information generation, and dissemination also undergoing through a line of changes and the availability of information has divided this world into two groups that is 'information rich' and 'information poor'. This is very evident from the clear differentiation between these two clusters of people and it can be said that most of the people belonged to the second cluster. This group is facing a lot of problems regarding information access and other social mechanisms. They don't get in touch with the proper integration and manipulation of information significantly. As they don't get that competitive advantage by using information in a productive and creative way, we can say that while a one group of people can be identified as entering a new phase of society, the other one is leading to the formulation of a disadvantaged group in terms of their socio-economic status. It is known to all that the proper information plays pivotal, role for the survival and development of any community in this world.

It becomes imperative to say that there is always information requirement among the community people anywhere and everywhere in the world. Therefore community information is very much significant to enable people to know about their fundamental rights and to overcome the basic risks of deprivation. The information need of any community may be ascertained through appraisal of the community. The picture of socio-economic condition of the community can be determined by knowing of its people, their characteristics, economic status, occupation and social cultures aspects.

Here in this paper an attempt has been made to derive the major areas of the information needs of this weaving community at Sualkuchi such as their people, their role, characteristic features, economic activity and occupational pattern, nature of social and cultural life and other inevitable indicators of their information necessity.

2. Objectives of the Study

The objectives of the study are as follows:

- a. To assess the socio-economic condition of the inhabitants who are engaged in weaving in the Madhya Sualkuchi Block.
- b. To find out the information needs and their extent of access and exposure to information in terms of their profession among this artisans community.
- c. To identify the social awareness of the weavers community in terms of the existing infrastructural facilities such as professional organisation, library, bank and non-government centres and offices.
- d. To examine the social-welfare measures adopted by the government and non-government organisations.
- e. To draw a conclusion based on the findings and suggest measures for socio-economic development of this artisans community.

3. Review of Literatures

Chakrabarti and Basu (1997) presented an overview of tribal communities present in India, their information needs and their sources of information in their community. It also emphasized on the role of libraries in the development of tribal community.

Chattopadhyay and Chakrabarti (2003) observed the information needs of Solapith (Malakar) community and examined the effect of information obtained from information centers like public and rural library. The study also dealt with the needs of educational information for their professional development.

Baishya (2003) described a brief account on silk industry of Assam in the sualkuchi cluster. He covered various important factors related to weavers as well as weaving of silk. The number of decade wise increase of silk looms, raw material consumption, basic products manufactured, fabric production in the sualskuchi cluster etc covered in the paper. The author also identified the problems being faced by the weavers of this area. Along with this some basic information given like classification of weavers, family background, annual income, investment in looms etc.

Chakrabarti (2005) identified information needs of Dhibar Community of Pakhirala and Malopara specially relating to their economic aspect, education, health and occupation. He assessed the extent of access and exposure of information and evaluated the activities and effectiveness of community information service on the basis of their needs.

Chakrabarti (2006) described that the socio-economic development of any community, engaged in a specific occupation, largely depends upon the provision of occupational information and their access to it. It also denoted that rural artisans were being deprived in society due to poor physical and information infrastructure in their region. It attempted to determine and identify the information seeking behaviour of Solapith community in a rural region of Burdwan district of West Bengal.

Chakrabarti and Kundu (2006) stated that most of the people engaged in cottage industries were very much depends on their traditional methods to gather their required information. They strongly desire to have an information centre or rural information centre through hardly have sufficient time. The study also had found that illiteracy was one of the obstacles for collecting their needed information.

Chakrabarti and others (2008) identified the information need of the Dukpa community of Lepchakha who were basically non-users of the formal information system. It revealed information needs of the villagers with their traditional information needs.

Chakrabarti and others (2009) described a vivid picture about the different aspects of information need of Mech community in Jalpaiguri district, west Bengal. This paper presented a clear and graphic description about the peoples belonging to the Mech community.

4. Community Profile

4.1. Sualkuchi

4.1.1. Geographical location: Sualkuchi is known as the Manchester of North East India, situated on the North bank of the river Brahmaputra at a distance of 32 km west of Guwahati. Sualkuchi block is under the Guwahati subdivision of Kamrup district of Assam, covering approximately 90.74 square kilometers as per 2001 census. There are total eight Grampanchayats under this block area in which 70,962 people (approximately) live, with 666 as the density of population per square kilometer.

4.1.2. Population: The distributions of panchayat areas along with their respective population are as follows.

Sl. No.	Gram Panchayats	Population
1	Sualkuchi East G.P.	9103
2	Sualkuchi Madhya G.P.	17,517
3	Sualkuchi west G.P.	4900
4	Bongsor	7699
5	Gondhmou	5892
6	Dadara	10,482
7	Singimari	6499
8	Pacharia	8870

4.1.3. Origin and Development: According to Baishya (2005), Sualkuchi is considered as the Manchester of Assam for its quality in silk textiles. The Sualkuchi silk handloom cluster constitutes of near about 15 villages around sualkuchi within about 100 square kilometres, which gradually started to form since the seventies of the last century. People started to enter in the weaving profession by seeing higher income than from agriculture. The weaving tradition in this hamlet can be traced back to the 11th century when king Dharma Pal, sponsored the craft and brought 26 weaving families from Tantikuchi to Sualkuchi. The village became a weaving village when the SHAMS occupied Sualkuchi, after defeating the Mughals in the mid-17th century. As a matter of fact Sualkuchi was a “Craft Village” having several cottage industries till the forties of the last century. Besides the Handloom industry of the Tantie, oil processing in traditional ghani, goldsmith, pottery etc, the industries other than handloom are now almost extinct and the artisans have already taken up silk weaving as a profession. Until 1930, the weaving industry of Sualkuchi remained almost confined within the Tanti community of Tantipara (around the present Bazar chowk). Later people belonging to other communities also started to take up silk weaving gradually. The sualkuchi weaving industry flourished a lot during the World War II. The growing demand for fabrics and their increasing prices had been the main source of encouragement for starting weaving factories and engaging hired wage-weavers. Today the factory system well equipped with semi-automatic fly shuttle handloom has already been extended to the entire Sualkuchi and 73.78% of households of the place are being engaged with commercial weaving of handlooms. The census of handlooms in sualkuchi conducted in 2005 reveals that Sualkuchi has 16,975 active commercial handlooms. Most of the handlooms are run by woman weavers, who are basically hired from outside of Sualkuchi. A flow of migrated weavers from different parts of Assam has emerged gradually since eighties of the last century and presently migrant weavers are dominating the wage weavers of the town. To expedite the process of development in rural areas of state, a textile park in Sualkuchi on the outskirts of Guwahati was established.

4.1.4. Raw materials used by the weavers' community of Sualkuchi: There are four varieties of commercially used silk .the most widely used silk is mulberry (path). It constitutes about 95% of world silk production. The other commercially used silks are Eri, Tassar and Muga which are classified as Non Mulberry.

4.1.5. Silk Productsby the weavers' community of Sualkuchi: According to Baishya (2005), Sualkuchisilk weaversare mainly engaged in weaving three traditional varieties of fabrics, which are intended mainly for the female, viz.

1. Mekhela-Chadar-blouse pieces,
2. Sarees and
3. Plain pieces or Thans or plain sheets of 10 meters length.

Some of the Mekhela weaving looms are also producing another piece of the size of Mekhela and it is locally called “Riha”, which is used for marriage purposes, and the combination of the four pieces are called a set. Depending upon the floral designs woven in the fabrics,the products, particularly the Mekhelas and Chadars are classified into a) Simple pair (Jora) b) Medium pair and c) Highly decorated jora. The quality of products is proportional with number of floral designs woven in the fabrics, as well as the texture quality of the yarn. Besides the traditional Assamees clothes, some looms of the Sualkuchiare also engaged in weaving Dhara and Jainsemi.e. the traditional female dress of the Khassi and Jaintias of present Meghalaya. Some of the looms are weaving only MugaSareeswhich are world famous and not only sold in Assam but also in other parts of India during the sixties of the last century. The basic products manufactured in the looms generally have the following measurement:

SL. NO.	NAME	LENGTH(M)	BREADTH (M)	SIZE IN SQ. MTR.
1	Mekhela	2.50	0.80	2.00
2	Chadar	2.75	1.00	2.75
3	Riha	2.50	0.80	2.00
4	Blouse Piece	0.90	0.80	0.72
5	Saree	5.50	1.20	6.60
6	Thaan	10.00	0.80	8.00

5. Methodology

5.1. Scope and Coverage

The present study covers the weaver's community of Sualkuchi village of Guwahati subdivision that falls under the Kamrup district of Assam. Our study reveals the community information needs of such people, those of who belongs to the weaver community of the sample population and reside in the Madhya Sualkuchi Gram Panchayat. Sualkuchi falls under the jurisdiction of the Panchayat. The Gram Panchayat breakup as Sualkuchi East Gram Panchayat, Sualkuchi Madhya Gram Panchayat, Sualkuchi West Gram Panchayat, Bongshor Gram Panchayat, Gondhmou Gram Panchayat, Singimari Gram Panchayat, Dolibari Gram Panchayat, Pacharia Gram Panchayat.

According to the census report, 2001, the total population of Sualkuchi village is 60, 438, out of which 17,517 are weavers. The study is further limited to the Madhya Sualkuchi Gram Panchayat because of the large population of weavers who reside in the village. Around 3,730 numbers of weavers live in the Madhya Sualkuchi Gram Panchayat, out of which 122 persons are covered under this survey through random sampling of both sex. Both male and female adult weavers as well as persons belonging to the age group of below 18 are considered as the sample population for this study.

The field survey reveals that out of 122 persons, 48 are male and 72 are female and 2 persons are below the age group of 18 years. Our study covers the general information need, occupational need, educational information, health and safety measures taken whether any social welfare schemes are available to them or not and finally the need and perception of the weavers on the basis of certain social awareness institutions.

5.2. Methods Used

The present study has been made to explore the information needs of the artisan's community of Madhya Sualkuchi Block. This study is mainly based on survey methods which include field survey with the help of questionnaire. For further emphasis, Government and other valid documents are collected from the authorised person of Directorate of Handloom Services, Panchayat Office and Block Office of Sualkuchi.

At first, information about artisans of Sualkuchi are collected and consulted through literature, focusing mainly on the information need of the community to depict a clear picture about the sociological status and lifestyle of the artisans.

An unstructured questionnaire had been prepared in order to enquire the information seeking pattern of the community. The objective of preparing questionnaire was to acquire the data by free flow of conversation. The questionnaire include the Personal Information Need, General Information Need, Occupational Information Need, Educational Information, Health and Safety, Social Welfare Schemes and certain social awareness institutions criteria.

After designing the questionnaire, the following methods were adopted for conducting the research:

1. The survey spot was reached and all necessary preparations were made.
2. A pilot survey was done through on-spot data collection by various means with the help of a local guide.
3. The actual survey was done by selecting the samples from the sample population with the help of questionnaire, personal observation and interaction. The non-participant observation had also been made in the study. Sample was collected through random sampling from both the sex.

All the primary data collected through the field survey have been summarised, tabulated and analysed. Information obtained from institutional sources as well as secondary document sources have also been consulted and used in the study. The collected data are explained and presented item-wise on the basis of different variables and with the help of charts, tables etc. Statistical techniques are used and tabulation formats were designed accordingly for analysis and interpretation.

6. Analysis of the Findings

Collected data were presented in the tabulation form. Firstly, formats of tabulation were designed. Then dummy tables with table heading have been prepared item-wise. Having completed the tabulation work, the tabled were individually interpreted item-wise. The data were explained mostly on the basis of percentage, distribution and analysis on the basis of the nature of such distribution.

Table 1: Distribution of Respondents

TYPE OF POPULATION	MALE				FEMALE				ALL TOTAL
	GENERAL	SC	ST	OBC	GENERAL	SC	ST	OBC	
RESPONENTS (in percent)	21 (17.22)	10 (8.19)	3 (2.46))	15 (12.29)	16 (13.12)	17 (13.94)	5 (4.09)	35 (28.69)	122
NON-RESPONDENTS (in percent)	4 (3.28)	0	0	7 (5.74)	0	2 (1.64)	5 (4.09)	10 (8.19)	28
TOTAL (in percent)	25 (20.50)	10 (8.19)	3 (2.46)	22 (18.03)	16 (13.12)	19 (13.38)	10 (8.19)	45 (36.88)	150

The above table 1 shows the distribution of respondents at Madhya Sualkuchi, Kamrup district. It is found from the table that there was 150 persons out of which 122 were respondents and 28 were non-respondents. Out of the total respondents 40.16% were male and 59.84% were female. Out of 49 male respondents, 17.22% belong to the General category, 8.19% belong to the Schedule Caste (SC) category, 2.46% belong to the Schedule Tribe (ST) category, and 12.29% belong to the OBC category. Out of 73 female respondents, 13.12% belong to the General category, 13.94% belong to the SC category, and 28.69% belong to the Other Backward Classes (OBC) category.

On the other hand, out of the total non-respondents, 9.02% were male and 13.92% were female. Out of 11 male non-respondents, 3.82% belong to the General category and 5.74% belong to the OBC category. Out of 17 female non-respondents, 1.64% belong to the SC category, 4.09% belong to the ST category, and 8.19% belong to the OBC category.

So it is revealed from the above table that about 60% people were female and 40% were male. Out of the female respondents, it is found out that there are more respondents in the OBC category when compared to the male counterparts. In the general category however, the number of male respondents is more than the female counterparts.

Table 2: Distribution of Weavers population in Sualkuchi block of Kamrup district in Assam:

Total Population	Weavers			Non Weavers		
	Male	Female	Total	Male	Female	Total
17,517 (100%)	1557	2173	3730	8134	5653	13787
	(8.89%)	(12.40%)	(21.29%)	(46.43%)	(32.28%)	(78.71%)

The table 2 shows the distribution of the weavers in Sualkuchi block area of Assam. In this table it is shown that the total population 17,517 was consisted of 21.29% of weavers and 78.71% of NonWeavers. The table also shows the sex wise distribution of weavers and non weavers. It was found that the female weavers are predominant among the total number of weavers, consisting of 12.40% of the total population.

Table 3: Distribution of respondents in regard to nature of occupational engagement

Age groups	Owner			Labour			Total
	M	F	Total	M	F	Total	
Up to 18	0	0	0	1 (0.82%)	1 (0.82%)	2 (1.64%)	2 (1.64%)
18-28	3 (2.46%)	2 (1.64%)	5 (4.10%)	4 (3.28%)	16 (13.11%)	20 (16.39%)	25 (20.49%)
28-38	3 (2.46%)	4 (3.28%)	7(5.74%)	10 (8.19%)	28 (22.45%)	38 (31.15%)	45 (36.89%)
38-48	5 (4.10%)	1 (0.82%)	6 (4.92%)	11 (9.02%)	14 (11.48%)	25 (20.49%)	31 (25.41%)
48-58	4 (3.28%)	0	4 (3.28%)	4 (3.28%)	5 (4.10%)	9 (7.38%)	13 (10.66%)
58 Above	1 (0.82%)	1 (0.82%)	2 (1.64%)	3 (2.46)	1 (0.82%)	4 (3.27%)	6 (4.92%)
Total	16 (13.11%)	8 (6.56%)	24 (19.68%)	33 (27.05)	65 (53.28%)	98 (80.33%)	122 (100%)

The above table shows the distribution of respondents in regard to their nature of involvement under different age groups. Under the age group of below 18 years there were only 1.64% labourers out of the total respondents. Under the age group of 18-28 years 20.49% respondents were there out of which 4.10% were owners and 16.39% were labourers. Under the age group 28-38 years 36.89% respondents

were there out of which 5.74% were owners and 31.15% were labourers. Under the age group 38-48 years 25.41% respondents were there among them 4.92% were owners and 20.49% were labourers, out of total owners of this age group 4.10% were male and 0.82% were female. Under the age group of 48-58 years 10.66% respondents were there, out of which 3.28% were owners male and 7.38% were labourers. Out of the total labourers 3.28% were male and 4.10% were female. Under the age group of above 58 years 4.92% respondents were there, out of the total 1.64% were owners and 3.27% were labourers.

It is clear from the table, out of the total respondents 19.68% were owners and 80.33% were labourers.

Table 4: Distribution of respondents' sex and age in respect of Educational Qualification

Age Group	Educational Qualification												Total
	I-IV		V-VIII		X pass		XII & above		Others		Illiterate		
	M	F	M	F	M	F	M	F	M	F	M	F	
Below 18	0	1 (0.82%)	0	0	0	0	0	0	0	0	1 (0.82%)	0	2 (1.64%)
18-28	1 (0.82%)	3 (2.46%)	0	4 (3.28%)	2 (1.64%)	3 (2.46%)	3 (2.46%)	3 (2.46%)	0	0	1 (0.82%)	5 (4.10%)	25 (20.49%)
28-38	1 (0.82%)	4 (3.28%)	9 (7.38%)	2 (1.64%)	1 (0.82%)	8 (6.56%)	1 (0.82%)	6 (4.92%)	0	0	1 (0.82%)	12 (9.84%)	45 (36.89%)
38-48	0	1 (0.82%)	1 (0.82%)	5 (4.10%)	2 (1.64%)	1 (0.82%)	6 (4.92%)	1 (0.82%)	1 (0.82%)	0	6 (4.92%)	7 (5.74%)	31 (25.41%)
48-58	2 (1.64%)	1 (0.82%)	0	2 (1.64%)	2 (1.64%)	0	2 (1.64%)	0	0	0	2 (1.64%)	2 (1.64%)	13 (10.66%)
58 & above	0	0	1 (0.82%)	0	0	0	3 (2.46%)	0	0	0	0	2 (1.64%)	6 (4.92%)
Total	4 (3.28%)	10 (8.20%)	11 (9.02%)	13 (10.66%)	7 (5.74%)	12 (9.84%)	15 (12.30%)	10 (8.20%)	1 (0.82%)	0	11 (9.01%)	28 (22.96%)	122 (100%)

The above table gives the information about the educational qualification of the respondents under different age group. There were 122 respondents in total, out of which 68.03%

respondents were literate and 31.97% were illiterate. Very few respondents studied upto class IV, in which 3.28% were male and 8.20% were female. 9.02% male and 10.66% female studied upto class VIII whereas 5.74% male and 9.84% female were class X pass. Most of the literate respondents were class XII pass and opted for higher studies. Only 0.82% male respondent had other qualification. So it is analyzed that out of 122 respondents, maximum respondents were from the age group 28-38, in which there were maximum number of female illiterates were present.

Age Group	Below Rs 2000		Rs2000-Rs5000		Rs5000-Rs8000		Rs8000-Rs12000		More than Rs 12000	
	M	F	M	F	M	F	M	F	M	F
Below 18	0	0	1 (0.82%)	0	0	1 (0.82%)	0	0	0	0
18-28	0	0	3 (2.46%)	5 (4.10%)	1 (0.82%)	13 (10.65%)	0	1 (0.82%)	2 (1.64%)	0

28-38	1 (0.82%)	3 (2.46%)	9 (7.38%)	15 (12.29%)	1 (0.82%)	8 (6.55%)	0	2 (1.64%)	3 (2.46%)	3 (2.46%)
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Table 5: Distribution of the respondents according to their Monthly Income in respect to age and sex

38-48	1 (0.82%)	1 (0.82%)	2 (1.64%)	10 (8.19%)	8 (6.55%)	3 (2.46%)	2 (1.64%)	0	3 (2.46%)	1 (0.82%)
48-58	0	2 (1.64%)	3 (2.46%)	6 (5.07%)	1 (0.82%)	6 (5.40%)	2 (1.64%)	9 (7.38%)	2 (1.64%)	0
58 and above	0	0	1 (0.82%)	1 (0.82%)	1 (0.82%)	0	1 (0.82%)	1 (0.82%)	1 (0.82%)	0
Total	2 (1.64%)	5 (4.10%)	19 (15.58%)	34 (27.86%)	12 (9.83%)	26 (21.30%)	5 (4.10%)	4 (3.28%)	11 (9.02%)	4 (3.28%)

The above table describes the distribution of respondents according to their monthly income. From the table it is revealed that most of the respondent earned in the range of Rs 2000-5000. Also it is found that most of the male respondents earned in the range of Rs 5000-8000 and female respondents earned in the range of Rs 2000-5000. Most of the earning respondents were from the age group 28-38. Only 1.64% male and 4.10% female earned below 2000 whereas 9.02% male and 3.38% female earned above Rs 12000.

Table 6: Distribution of kinds of general information required by the respondents

Age Group	Educational		Occupational		Commercial		Health		Political		Judicial		General		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
Below 18	0	1 (0.82%)	0	1 (0.82%)	0	0	0	0	0	0	0	0	0	0	0
18-28	2 (1.64%)	5 (4.10%)	8 (6.56%)	17 (13.93%)	0	1 (0.82%)	3 (2.46%)	1 (0.82%)	1 (0.82%)	1 (0.82%)	1 (0.82%)	0	2 (1.64%)	5 (4.10%)	1 (0.82%)
28-38	5 (4.10%)	3 (2.46%)	15 (12.30%)	25 (20.49%)	3 (2.46%)	0	3 (2.46%)	3 (2.46%)	0	0	0	0	1 (0.82%)	3 (2.46%)	0
38-48	5 (4.10%)	4 (3.28%)	15 (12.30%)	24 (19.67%)	1 (0.82%)	0	3 (2.46%)	3 (2.46%)	2 (1.64%)	0	0	0	3 (2.46%)	2 (1.64%)	2 (1.64%)
48-58	3 (2.46%)	0	7 (5.74%)	6 (4.92%)	1 (0.82%)	0	3 (2.46%)	0	2 (1.64%)	0	3 (2.46%)	0	0	0	2 (1.64%)

58 & above	1 (0.82%)	0	3 (2.46%)	2 (1.64%)	1 (0.82%)	0	1 (0.82%)	0	0	0	0	1 (0.82%)	0	0	0
Total	16 (13.11%)	13 (10.66%)	48 (39.34%)	75 (20.49%)	6 (6.47%)	1 (0.82%)	13 (10.66%)	7 (5.74%)	5 (4.10%)	1 (0.82%)	4 (3.28%)	1 (0.82%)	6 (4.92%)	10 (8.20%)	5 (4.10%)

Table 6 shows the general information required by the artisan community at Sualkuchi. From the table it is found that most of the respondents (59.83%) required occupational information. Next to occupational information 23.77% respondents required educational related information. Very few i.e. 4.10% respondents required religious information. Only 0.82% respondent had other information requirement. Other than this 16.40% and 13.12% respondents required health and general information whereas 7.29%, 4.92% and 4.10% required commercial, political and judicial information respectively. So from the above table it is clear that the need of general information is mostly between the age group 38-48 and least information requirement in the age group below 18 years.

Table 7: Distribution of respondents of most common ways for accessing and retrieving Information

Total	58 &Above	48-58	38-48	28-38	18-28	Upto 18	Age Group	
							BROWSING BOOKS	
7 (5.74%)	0	3 (2.46%)	0	1 (0.82%)	2 (1.64%)	1 (0.82%)	M	F
4 (3.28%)	0	0	1 (0.82%)	3 (2.46%)	0	0	M	F
2 (1.64%)	0	0	0	0	2 (1.64%)	0	M	F
0	0	0	0	0	0	0	M	F
3 (2.46%)	0	1 (0.82%)	0	1 (0.82%)	1 (0.82%)	0	M	F
2 (1.64%)	0	0	0	2 (1.64%)	0	0	M	F
19 (15.58%)	2 (1.64%)	5 (4.10%)	4 (3.28%)	5 (4.10%)	2 (1.64%)	1 (0.82%)	M	F
17 (13.94%)	1 (0.82%)	3 (2.46%)	3 (2.46%)	7 (5.74%)	3 (2.46%)	0	M	F
16 (13.12%)	0	2 (1.64%)	6 (4.92%)	7 (5.74%)	1 (0.82%)	0	M	F
24 (19.68%)	1 (0.82%)	2 (1.64%)	2 (1.64%)	14 (11.48%)	5 (4.10%)	0	M	F
3 (2.46%)	0	0	0	1 (0.82%)	0	2 (1.64%)	M	F
2 (1.64%)	0	0	0	2 (1.64%)	0	0	M	F
13 (10.66%)	0	2 (1.64%)	6 (4.92%)	4 (3.28%)	1 (0.82%)	0	M	F
28 (22.96%)	3 (2.46%)	2 (1.64%)	7 (5.74%)	11 (9.02%)	5 (4.10%)	0	M	F
6 (4.92%)	0	2 (1.64%)	3 (2.46%)	1 (0.82%)	0	0	M	F
10 (8.20 %)	0	0	2 (1.64%)	6 (4.92%)	2 (1.64%)	0	M	F

From Table 7, it can be found out that out of the total respondents of 122, upto the age group 18, 0.82% male browse books for accessing and retrieving information sources. There was no female respondent. Similarly no respondent came up in reading leaflet/pamphlet, both male as well as female. There was no respondent in case of reading a magazine. 0.82% male within the age group, up to 18 reads newspaper for accessing and retrieving information. No female respondent was found. No respondents were found both on male as well as female category when it comes to talking by telephone to someone, using a computer, as well as watching television.

In the age group, 18-28, it was found that only 1.64 % male browsed books, read leaflet or pamphlet for accessing and retrieving information. No female respondent was found on both the categories of browsing books as well as reading leaflet or pamphlet. 0.82% male reads magazine and 1.64% male and 2.46% female reads newspaper for getting information. 0.82% male and 4.10% female talked with someone through telephone, while 1.64% male used a computer for retrieving information. 0.82 % male and 4.10% female watched television to get valuable information while 1.64% female got information from other valuable sources.

In the age group, 28-38, 0.82% male and 2.46% female browsed books, while 0.82% male and 1.64% female read magazine for accessing information. 4.10% male and 5.74% female read newspaper again, 5.74% male and 11.48% female talked through telephone for accessing and retrieving information. 1.64% female used computer while 3.28% male and 9.02% female accessed information by watching television. 0.82% male and 4.92% female got information from other valuable sources.

0.82% female belonging to the age group 38-48, browse books for accessing and retrieving information while 3.28% male and 2.46% female read newspaper for getting necessary knowledge. 4.92% male and 1.64% female retrieve information through talking by telephone with someone, whereas 0.82% male use a computer for information access. 4.92% male and 5.74% female watches television for gaining knowledge, whereas 2.46% male and 1.64% female get information from other valuable sources.

In the age group, 48-58, 2.46% male browsed books and 0.82% male read magazine for gaining information. 4.10% male and 2.46% female read newspaper for retrieving primary information whereas 1.64% male and 1.64% female talked through telephone in information access. 1.64% male as female watches television and 1.64% female get information from others for accessing information.

In the age group, above the age group 58, 1.64% male and 0.82% female read newspaper while 0.82% female conversed through telephone for obtaining valuable information. 2.46% female watches television for getting valuable and important information.

Therefore from the above results obtained from the table we can see that both male and female obtained information mostly by conversing with others in telephone, followed by watching television and ultimately through by reading newspaper.

Table 8: Distribution of respondents using most common sources for retrieving general information

	AGE GROUP	PANCHAYAT		BLOCK OFFICE		LOCAL MARKET		MEDIA (Print/Non-Print)		LIBRARY		FAMILY & FRIENDS		OTHERS	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F
Upto 18		1 (0.82%)	0	0	0	0	0	0	0	1 (0.82%)	0	0	1 (0.82%)	0	0
18-28		1 (0.82%)	2 (1.64%)	0	1 (0.82%)	5 (4.10%)	6 (4.19%)	0	1 (0.82%)	0	0	2 (1.64%)	0	0	8 (6.55%)
28-38		5 (4.10%)	8 (6.55%)	1 (0.82%)	1 (0.82%)	8 (6.55%)	17 (13.93%)	1 (0.82%)	4 (3.28%)	0	0	1 (0.82%)	0	0	5 (4.10%)
38-48		7 (5.74%)	6 (4.19%)	0	1 (0.82%)	15 (12.29%)	9 (7.38%)	0	0	0	0	7 (5.74%)	0	3 (2.46%)	10 (8.20%)
48-58		5 (4.10%)	1 (0.82%)	3 (2.46%)	1 (0.82%)	8 (6.55%)	4 (3.28%)	2 (1.64%)	0	0	0	3 (2.46%)	1 (0.82%)	0	0
58 and above		2 (1.64%)	1 (0.82%)	1 (0.82%)	0	3 (2.46%)	1 (0.82%)	1 (0.82%)	0	0	0	0	0	0	0
TOTAL		21 (17.21%)	18 (14.74%)	6 (4.1%)	4 (3.28%)	39 (31.95%)	37 (30.37%)	4 (3.28%)	5 (3.56%)	1 (0.82%)	0	13 (10.66%)	17 (13.93%)	3 (2.45%)	23 (18.84%)

The above table shows the distribution of respondents using most common sources for retrieving general information. It was found from the table that there were 122 respondents among which 2.46%, 26.22%, 47.38%, 49.17%, 22.95% and 7.38% belong to the age group of below 18, between 18-28, between 28-38, between 38-48, between 48-58 and finally above 58 respectively.

Maximum people got information from the Local Market i.e. 76 out of 122 respondents. Among them 9.01%, 20.48%, 19.67%, 9.83%, and 3.28% belong to the age group between 18-28, between 28-38, between 38-48, between 48-58 and finally above 58 respectively.

So from the above table it is clear that most of the people i.e. 62.33% used the local market as the most common source of collection/retrieving information, followed by the Panchayat office which covers 31.95%. Another important source is family and friends which is though an informal source. Library, on the hand, was rarely used compared to other sources.

Table 9: Distribution of respondents having awareness about market places

Age Group	Nearby Market		Distant Market		Through Middleman		Mahajan		Others	
	M	F	M	F	M	F	M	F	M	F
Upto 18	1 (0.82%)	1 (0.82%)	0	1 (0.82%)	0	0	1 (0.82%)	0	0	0
18-28	4 (3.28%)	10 (8.20%)	2 (1.64%)	7 (5.74%)	2 (1.64%)	1 (0.82%)	0	3 (2.45%)	0	1 (0.82%)
28-38	8 (6.56%)	22 (18.03%)	4 (3.28%)	18 (14.75%)	2 (1.64%)	9 (7.37%)	0	6 (4.92%)	0	2 (1.64%)
38-48	13 (10.64%)	9 (7.37%)	6 (4.92%)	4 (3.28%)	5 (4.10%)	3 (2.45%)	0	1 (0.82%)	0	1 (0.82%)
48-58	5 (4.10%)	4 (3.28%)	5 (4.10%)	2 (1.64%)	3 (2.45%)	0	1 (0.82%)	3 (2.45%)	0	0
58 & Above	4 (3.28%)	1 (0.82%)	3 (2.45%)	0	0	0	0	0	0	1 (0.82%)
Total	35 (28.68%)	47 (38.52%)	20 (16.39%)	32 (26.22%)	12 (9.83%)	13 (10.64%)	2 (1.64%)	13 (10.64%)	0	5 (4.10%)

Table 9 shows that there were 122 respondents of different age groups, out of which 28.6% male and 38.52% female have information about the nearby market, 16.39% male and 26.22% female knew about the distant market places. 9.83% male and 10.64% female became aware about the market places through a middleman. Sometimes, persons become aware about the market places from the Mahajan. The respondents found in this category were 1.64% male and 10.64% female. 4.10% female were aware of the market places from others. No male respondent was found in this category.

In the age group, upto 18, 0.82% male and 0.82% female got nearby market information. 3.28% male and 8.20% female, within the age group 18-28 were aware about the market related information. In the age group, 28-38, 6.56% male and 18.03% female were aware about the nearby market places. While 10.64% male and 7.37% female belonging to the age group 38-48 knew about the nearby market place. In the age group, 58 and above, 3.28% male and 0.82% female were aware about the nearby market.

The above table indicates that the majority of the weaver's community of Madhya Sualkuchi depend on the local or nearby market place to get information. Though quite a number of weavers got information from distant market places yet the local market serves as their main guide and the labours specifically got the market related information from their owners.

Table 10: Distribution of the respondents having information about the sources of raw materials

Age Group	Co-worker		Panchayat		Neighbours		Medias		Owner	
	M	F	M	F	M	F	M	F	M	F
Below 18	0	0	1 (0.82%)	0	0	0	0	0	0	1 (0.82%)
18-28	1 (0.82%)	5 (4.10%)	2 (1.64%)	2 (1.64%)	0	1 (0.82%)	0	0	4 (3.28%)	10 (8.19%)
28-38	7 (5.74%)	11 (9.02%)	3 (2.46%)	5 (4.10%)	1 (0.82%)	1 (0.82%)	0	2 (1.64%)	3 (2.46%)	12 (9.84%)

38-48	5 (4.10%)	4 (3.28%)	3 (2.46%)	4 (3.28%)	1 (0.82%)	1 (0.82%)	1 (0.82%)	0	7 (5.74%)	6 (4.92%)
48-58	4 (3.28%)	3 (2.46%)	2 (1.64%)	1 (0.82%)	0	0	1 (0.82%)	0	1 (0.82%)	1 (0.82%)
58 and above	0	2 (1.64%)	1 (0.82%)	1 (0.82%)	0	0	0	0	2 (1.64%)	0
Total	17 (13.94 %)	25 (20.5 %)	12 (9.84 %)	13 (10.66 %)	2 (1.64 %)	3 (2.46 %)	2 (1.64 %)	2 (1.64%)	17 (13.94 %)	30 (24.59 %)

Table no. 10 identifies the information sources of raw materials. From the above table it is clear that out of 122 respondents of different age groups, total 13.94% male and 20.5% female got information about sources of raw materials from their co-workers, 9.84% male and 10.66% female got information from Panchayat, only 1.64% male and 2.46% female received information from their neighbours, 1.64% male and 1.64% female got information from media and finally 13.94% male and 24.59% female received information from their owner. So it is clear from the above table that maximum people i.e. 38.53% received information from their owner, 34.44% from their co-worker. Other sources are panchayat, neighbours and finally the media from where they got the information about the sources of their raw materials.

Table 11: Distribution of information about source capital

Age Group	Source of capital												Total
	Own Source		Family Investment		Bank Loan		Co-operative		Mahajan		Other		
	M	F	M	F	M	F	M	F	M	F	M	F	
Below 18	1 (0.82%)	0	0	0	0	0	0	0	0	0	0	1 (0.82%)	2 (1.64%)
18-28	2 (1.64%)	3 (2.46%)	0	0	0	0	0	0	3 (2.46%)	4 (3.28%)	2 (1.64%)	13 (10.66%)	27 (22.13%)
28-38	11 (9.02%)	13 (10.66%)	0	1 (0.82%)	0	2 (1.64%)	0	0	3 (3.28%)	8 (6.56%)	1 (0.82%)	10 (8.20%)	49 (40.16%)
38-48	12 (9.84%)	7 (5.74%)	1 (0.82%)	1 (0.82%)	1 (0.82%)	0	0	0	1 (0.82%)	5 (4.10%)	4 (3.28%)	3 (2.46%)	35 (28.69%)
48-58	4 (3.28%)	2 (1.64%)	0	0	4 (3.28%)	0	0	0	2 (1.64%)	3 (2.46%)	0	0	15 (12.30%)
58 & above	1 (0.82%)	1 (0.82%)	1 (0.82%)	0	2 (1.64%)	0	1 (0.82%)	0	0	2 (1.64%)	0	0	8 (6.56%)
Total	31 (25.42%)	26 (21.32%)	2 (1.64%)	2 (1.64%)	7 (5.74%)	2 (1.64%)	1 (0.82%)	0	9 (3.78%)	22 (18.04%)	7 (5.74%)	27 (22.13%)	136

The above table shows the information about source capital under the different age groups. From this table it is revealed that out of 122 respondents, most of the people i.e. 46.74% used their own source of capital for investment purpose. 21.82% people borrowed capital from the Mahajans, 7.38% uses the facility of Bank Loan, 3.28% invests capital from their Family, only 0.82% selected co-operative as the source of capital and rest 27.87% collect their capital from other sources.

Table 12: Distribution of respondents in regard to preventive measures in regard to Health & Hygiene

Age Group	Pure Drinking Water		Use of Toilets		Use of mosquito net		Use of cleaning agents		Drainage system		Use of Latrine		Other	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Below 18	1 (0.82%)	1 (0.82%)	0	1 (0.82%)	0	1 (0.82%)	0	1 (0.82%)	0	1 (0.82%)	0	1 (0.82%)	0	0
18-28	7 (5.74%)	15 (12.30%)	9 (7.38%)	14 (11.47%)	7 (5.74%)	13 (10.66%)	6 (4.92%)	8 (6.56%)	6 (4.92%)	10 (8.20%)	8 (6.56%)	12 (9.84%)	0	0
28-38	15 (12.30%)	28 (22.95%)	13 (10.66%)	28 (22.95%)	9 (7.38%)	26 (21.31%)	10 (8.20%)	9 (7.38%)	8 (6.56%)	20 (16.39%)	15 (12.30%)	27 (22.13%)	0	0
38-48	12 (9.84%)	14 (11.48%)	16 (13.12%)	14 (11.48%)	10 (8.20%)	8 (6.56%)	7 (5.74%)	4 (3.27%)	10 (8.20%)	6 (4.92%)	17 (13.93%)	13 (10.66%)	0	0
48-58	8 (6.56%)	4 (3.27%)	6 (4.92%)	4 (3.27%)	6 (4.92%)	6 (4.92%)	4 (3.27%)	1 (0.82%)	6 (4.92%)	3 (2.46%)	6 (4.92%)	5 (4.09%)	0	0
58 & above	4 (3.27%)	1 (0.82%)	4 (3.27%)	1 (0.82%)	4 (3.27%)	1 (0.82%)	2 (1.64%)	0	4 (3.27%)	1 (0.82%)	4 (3.27%)	1 (0.82%)	0	0
Total	47 (38.52%)	63 (51.63%)	48 (39.34%)	62 (50.81%)	36 (29.50%)	55 (45.08%)	29 (23.77%)	23 (18.55%)	34 (27.87%)	41 (33.60%)	50 (40.98%)	59 (48.36%)	0	0

The above table 12 shows the distribution of respondents in regard to their awareness about health and hygiene, under different age groups. Out of the total respondents, 90.16% respondents were using pure drinking water. 35.25% respondents of the age group 28-38 years and 21.31% respondents of the age group 38-48 years were having information about the pure drinking water.

Out of the total respondents, 90.16% respondents were having awareness of toilets. Out of them 33.60% respondents were from age group 28-38 years, 24.06% were from 38-48 years and 8.19% were from 48-58 years respectively. 74.6% of the total respondents were having information about the mosquito net, out of them 28.68% respondents were from age group 28-38 years and 14.76% respondents were from the age group of 38-48 years.

Out of the total respondents, 42.63% respondents were having information on cleaning agents. Out of them 11.48%, 15.58%, 9.02% and 4.10% respondents were having information on cleaning agents in the age group of 18-28 years, 28-38 years, 38-48 years and 48-58 years respectively.

Total 61.48% respondents were having information about drainage system. Out of them 9.02%, 22.96%, 13.11%, 7.38% and 4.10% respondents were having awareness about drainage system in the age group of 18-28 years, 28-38 years, 38-48 years, 48-58 years and 58 & above years respectively.

Total 89.34% respondents were having information about the use of latrine. In the age group between 18-28 years, 28-38 years, 38-48 years and 48- 58 years, 16.39%, 34.43%, 24.59% and 9.02% respondents were having awareness about use of latrines.

Here it is noticeable that most of the respondents were aware about pure drinking water, use of toilets and latrines but a very few respondents were aware about the use of cleaning agents

Table 13: Distribution of the respondents having awareness about the social welfare schemes

AGE GROUP	Anganbadi		Self Help Group		Old Age Pension		IAE Beneficiaries	PMGSY		NREGA		WCC Scheme		IHDS		MGBBY	
	M	F	M	F	M	F		M	F	M	F	M	F	M	F	M	F
Below 18	0	0	0	0	0	0	0	1 (0.82 %)	0	1 (0.82 %)	0	0	1 (0.82 %)	0	0	0	0
18-28	2 (1.64 %)	4 (3.28 %)	2 (1.64 %)	4 (3.28 %)	1 (0.82 %)	1 (0.82 %)	3 (2.46 %)	5 (4.10 %)	1 (0.82 %)	4 (3.28 %)	1 (0.82 %)	3 (2.46 %)	0	1 (0.82 %)	1 (0.82 %)	1 (0.82 %)	0
28-38	3 (2.46 %)	10 (8.20 %)	3 (2.46 %)	3 (2.46 %)	4 (3.28 %)	0	9 (7.38 %)	0	8 (6.56 %)	0	5 (4.10 %)	0	4 (3.28 %)	2 (1.64 %)	0	1 (0.82 %)	2 (1.64 %)
38-48	0	10 (8.20 %)	3 (2.46 %)	15 (12.29 %)	3 (2.46 %)	2 (1.64 %)	2 (1.64 %)	2 (1.64 %)	0	2 (1.64 %)	2 (1.64 %)	2 (1.64 %)	1 (0.82 %)	1 (0.82 %)	2 (1.64 %)	1 (0.82 %)	2 (1.64 %)
48-58	0	2 (1.64 %)	2 (1.64 %)	0	3 (2.46 %)	4 (3.28 %)	2 (1.64 %)	0	0	0	3 (2.46 %)	0	0	0	0	0	0
58 and above	0	1 (0.82 %)	2 (1.64 %)	1 (0.82 %)	3 (2.46 %)	0	1 (0.82 %)	0	0	0	0	0	0	0	0	0	0
TOTAL	5 (4.10 %)	27 (22.14 %)	12 (9.84 %)	23 (18.85 %)	14 (11.48 %)	7 (5.74 %)	17 (13.94 %)	7 (5.74 %)	10 (8.20 %)	6 (4.92 %)	12 (9.84 %)	5 (4.10 %)	5 (4.10 %)	5 (4.10 %)	3 (2.46 %)	3 (2.46 %)	5 (4.10 %)

Table 13 shows the distribution of respondents having awareness about the social welfare schemes. The social welfare schemes distributed across nine different schemes namely Anganbadi, Self Help Group, Old Age Pension, IAE Beneficiaries, PMGSY, NREGA, WCC Scheme, IHDS, and MGBBY. Among the total population 4.10% male and 22.14 female were aware about the Anganbadi and significant proportion of population that was 8.20% lied in each age group of 28-38 and 38-48 years. 9.84% and 8.85% male and female had awareness about the Self Help Group where 12.29% male population lied in the age group of 38-48 years. It was found that 11.48% male and 5.74% female population aware about Old Age Pension where most significant proportion lied between the age group of 48-58 years. Indira Awas Yojana was known to 13.74% male and 5.74% female population and significant proportion that was 7.38% male population. It was also revealed that 8.20% male and 4.92% female respondents aware about PMGSY and significant proportion lied that is 6.56% male population in the age group of 28-38 years. NREGA scheme was aware to 9.84% male and 4.10% female population and here significant proportion was in between the age group of 28-38 years of male population. WCC scheme, IHDC and MGBBY scheme were not exposed to most of the respondents. It was found that 4.10% male and female respondents were aware about WCC scheme where as 2.46% male and female population knew the IHDS and only 4.10% male and 0.82% female was aware about MGBBY scheme.

Table 14: Distribution of respondents requiring information about different types of social welfare schemes

Age Group	Occupational		Training		Child welfare		Marketing		Others	
	M	F	M	F	M	F	M	F	M	F
Up to 18	1 (0.82%)	1 (0.82%)	1 (0.82%)	1 (0.82%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)
18-28	7 (5.74%)	16 (13.11%)	7 (5.74%)	14 (11.48%)	0 (0.00%)	4 (3.28%)	6 (4.92%)	10 (8.20%)	0 (0.00%)	2 (1.64%)
28-38	14 (11.48%)	28 (22.95%)	4 (3.28%)	9 (7.38%)	1 (0.82%)	12 (9.84%)	13 (10.66%)	22 (18.03%)	2 (1.64%)	2 (1.64%)
38-48	13 (10.66%)	7 (5.74%)	7 (5.74%)	4 (3.28%)	2 (1.64%)	10 (8.20%)	8 (6.56%)	6 (4.92%)	2 (1.64%)	1 (0.82%)
48-58	4 (3.28%)	3 (2.46%)	1 (0.82%)	0 (0.00%)	0 (0.00%)	1 (0.82%)	5 (4.10%)	2 (1.64%)	6 (4.92%)	3 (2.46%)
58 above	3 (2.46%)	1 (0.82%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	0 (0.00%)	3 (2.46%)	0 (0.00%)	4 (3.28%)	2 (1.64%)
Total	42 (34.43%)	55 (45.08%)	20 (16.39%)	28 (22.95%)	3 (2.46%)	27 (22.13%)	35 (28.69%)	40 (32.79%)	14 (11.48%)	10 (8.20%)

The table 14 shows the distribution of respondents requiring information about different types of social welfare schemes. The table describes that 34.43% male and 45.08% female respondents of the total population required information about occupational welfare schemes. 16.39% male and 22.95% female respondents required information about the training related welfare schemes. The table shows that there were 2.46% male and 22.13% female respondents who required information about the child welfare schemes. The table also depicts that 28.69% of male and 32.79% of female respondents required social welfare scheme information related to marketing. The table presents that 11.48% male and 8.20% female respondents required information about the social welfare schemes other than the previous welfare schemes as described in this table.

Table 15: Distribution of respondents about their awareness of public institutions

TOTAL	58 and above	48-58	38-48	28-38	18-28	upto 18	AGE GROUP	
48(39.34%)	5(4.1%)	8(6.56%)	16(13.10%)	13(9.89%)	6(4.92%)	1(0.82%)	M	BANK
61(50%)	1(0.82%)	4(2.46%)	14(11.48%)	28(22.17%)	13(9.89%)	1(0.82%)	F	
12(9.83%)	1(0.82%)	3(2.46%)	4(3.28%)	4(3.28%)	0	0	M	PROFESSIONAL ASSOCIATION
7(5.74%)	0	1(0.82%)	2(1.64%)	3(2.46%)	1(0.82%)	0	F	
47(38.53%)	5(4.1%)	9(7.38%)	15(12.3%)	12(9.83%)	5(4.10%)	1(0.82%)	M	POST OFFICE
51(41.81%)	0	3(2.46%)	14(11.48%)	21(17.21%)	12(9.89%)	1(0.82%)	F	

29(23.78%)	3(2.46%)	5(4.1%)	6(4.92%)	11(9.02%)	4(3.28%)	0	M	BLOCK OFFICE
43(35.26%)	0	2(1.64%)	97.38%	20(16.4%)	11(9.02%)	1(0.82%)	F	
19(15.58%)	2(1.64%)	6(4.92%)	6(7.38%)	5(4.1%)	0	0	M	SUB- DIVISIONAL OFFICE
19(15.58%)	0	2(1.64%)	4(2.46%)	7(5.74%)	7(5.74%)	0	F	
30(24.60%)	3(2.46%)	6(4.92%)	8(6.56%)	8(6.56%)	5(4.1%)	0	M	LIBRARY
28(22.96%)	0	1(0.82%)	4(2.46%)	13(9.89%)	9(7.38%)	1(0.82%)	F	
33(27.06%)	3(2.46%)	5(4.1%)	1(0.82%)	8(6.56%)	6(4.92%)	0	M	COURT
29(23.78%)	0	1(0.82%)	3(2.46%)	16(13.11%)	8(6.56%)	1(0.82%)	F	
42(34.43%)	4(2.46%)	8(6.56%)	12(9.83%)	11(9.02%)	7(5.74%)	0	M	ELECTRICITY OFFICE
50(40.28%)	0	3(2.46%)	12(9.83%)	25(20.49%)	9(7.38%)	0	F	
32(26.23%)	1(0.82%)	6(4.92%)	12(9.83%)	9(7.38%)	4(3.28%)	0	M	RAILWAY TICKET BOOKING
37(30.33%)	0	1(0.82%)	6(4.92%)	20(16.39%)	9(7.38%)	1(0.82%)	F	
6(4.92%)	0	1(0.82%)	3(2.46%)	2(1.64%)	0	0	M	INFORMATION CENTRE
6(4.92%)	0	1(0.82%)	1(0.82%)	1(0.82%)	3(2.46%)	0	F	

Table 15 shows the distribution of respondents about the awareness of public institutions. The total number of respondents is 122. Out of 122 in the age group below 18, 0.82% male and 0.82% female were aware of bank, as well as post office. Also it is found that 0.82% female were aware of block office, library, court, electricity office, railway ticket booking respectively.

In the age group 18-28, there were 4.92% male and 9.89% female were aware of bank institutions. In case of professional associations, there were 0.82% female aware. In case of post office, there were 4.10% male and 9.80% female were aware of it. 3.28% male and 9.02% female were aware of block offices. 5.74% female were aware of library services and only 7.38% female were aware of library services. 4.92% male and 6.56% female were aware of judicial system. 5.74% male and 7.38% female were aware of electricity office. 3.28% male and 7.38% female were aware of railway ticket booking facility. 2.46% female were only aware of information centre.

In the age group 28-38, 9.89% male and 22.71% female were aware of bank. 3.28% male and 2.46% female were aware of professional association. 9.83% male and 17.21% female were aware of post office facility. 9.02% male and 6.40% female were aware of block office. 4.10% male and 5.74% female were aware of sub divisional office. 6.56% male and 10.66% female were aware of library services. 6.56% male and 13.11% female were aware of judicial system. 9.02% male and 20.49% female were aware of electricity office. 7.38% male and 16.39% female were aware of Railway ticket booking. 1.64% male and 0.82% female were aware of information centre.

In the age group 38-48, 13.01% male and 11.48% female were aware of banking services. 3.28% male and 1.64% female were aware of professional associations. 12.3% male and 11.48% female were aware of post offices. 4.92% male and 7.38% female were aware of block offices. 4.92% male and 7.38% female were aware of subdivision office. 6.56% male and 3.28% female were aware of library services. 9.02% male and 2.46% female were aware of Railway ticket booking. 2.46% male and 0.825 female were aware of information centre.

In the age group 48-58, 6.56% male and 3.28% female as well as 2.46% male and 0.82% female were aware of bank and professional associations respectively. 7.38% male and 2.46% female whereas 4.10% male and 1.64% female were aware of post offices and block offices respectively. Whereas 4.92% male

and 1.64% female while 4.92% male and 0.82% female were aware of sub divisional offices and library respectively. 4.10% male and 0.82% female while 6.56% male and 2.46% female were aware of Railway ticket booking and information centre respectively.

In the age group 58 and above, 4.10% male and 0.82% female were aware of bank. Only 0.82% male were aware of professional associations. 4.10% male were aware of post offices. 2.46% male were aware of block office. 1.64% male were aware of sub divisional office. 2.46% male were aware of electricity office. 0.82% male were aware of Railway ticket booking.

It can be interpreted that bank, post office, block office, electricity office are the most commonly used public institutions whereas the social institutions like library and information centre are the commonly neglected institutions.

7. Conclusion

The study investigated the information need of the weavers' community of Madhya Sualkuchi in Kamrup district of Assam. The broad spectrum of purpose is to give the idea of social, economic and cultural life of weavers' community. The study undertaken to explore the weavers' basic socio economic profile in general and information need in particular. The different aspects of the survey and its analysis revealed the weavers population, educational qualification, health and social awareness, occupational information like main source of capital, sources of raw material, kind of raw materials used, market area where products are sold and monthly income, etc. The study leads to following conclusions.

The area Madhya Sualkuchi is vastly populated by the weavers' community and the main occupation is weaving using different raw materials on supply. The educational qualification of the weavers' community is not in high range. Most of the community members belong to the labour group and the occupation has been mostly hereditary. The monthly income of the weavers is not quite high. It is found that the information need of the weavers is diverse in regard to the occupation and daily life. The development of any community depends on economic and social improvement. On the basis of the study, it is concluded that the weavers' community of Madhya Sualkuchi require information on every aspect of life for their overall socio-economic development.

8. Suggestions

Some of the suggestions given by the authors that can help in uplifting the weavers' community of Sualkuchi are as follows:

1. Weavers mainly labourers should increase their awareness about various sources for accessing market related information
2. It is required to update their skill through various training programme
3. It is necessary to establish special school for the weavers. So that they can avail their educational facility after their work.
4. They should be introduced with modern weaving technology.
5. They should increase their educational level so that they can easily communicate with outsiders.
6. Weavers must have the opportunities for taking loan facilities from various sources (Government, banks, credit societies, associations) at relatively low interest rate.
7. Government should look after for implementing various social welfare schemes for the weavers
8. They should be introduced with the purpose of using library system.
9. They should increase their awareness about more public institution like court, block office, professional association etc

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Abstract: In an information society, information and knowledge about information sources plays a key factor in survival of a being. The information need of any community may be determined through careful speculative evaluation of the community. The socio-economic condition of the community can be judged by knowing its people, their characteristics, economic status, occupation and social cultures aspects. The weaving community of Sualkuchi mainly needs information about their professional matters and related issues. This paper takes an attempt to understand the major focal points of the information needs of the weaving community of Madhya Sualkuchi community of Assam such as their people, their role, characteristic features, economic activity and occupational pattern, nature of social and cultural life and other usual indicators of their information necessity. This paper concentrates not only on the information needs but also on their extent of access and exposure to information in terms of their profession, education and social welfare being among the weaving community. The study is mainly based on survey methods mostly field survey with the help of questionnaire and personal interview.

Keywords: Information need, Weavers' Community, Sualkuchi.



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- Community Information Services
- Bibliometrics
- LIS Education
- Library Management
- Collection Development

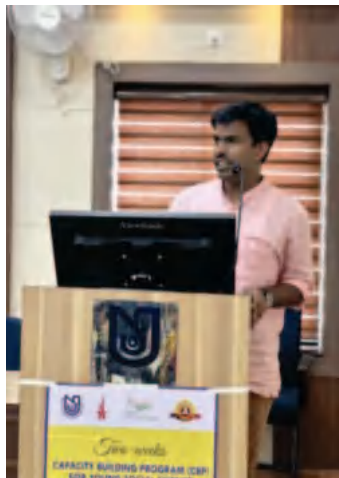
Books/Book Chapters : 9

Edited Books : 3

Research Papers : 6

Photos of Day 11

Day 11: 14.12.2023 Thursday
VENUE: NSOU-HQ, Saltlake, Kolkata



CASE STUDIES : PRESENTATION

(Group E: Participant Presentation)

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Understanding the Role of NEP 2020 In Promoting Vocational Education for Making India Skilled and Atmanirbhar

Group-E

Submitted by:

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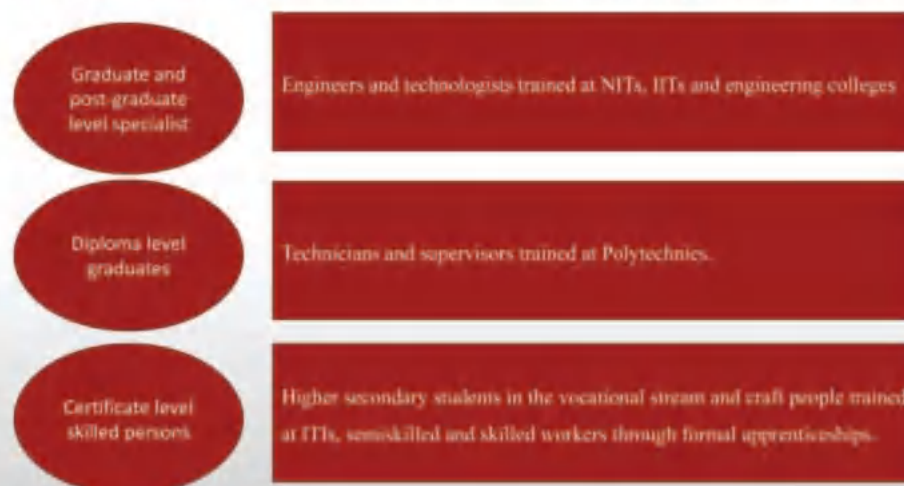
Introduction

- Education is not only information processing but also skills development.
 - Need for diversification of educational opportunities to enhance employability of the students and the demand for skilled human resources is also increasing.
 - Vocational Education: the system of both recognised as well as unrecognised methods of transmitting knowledge, skills and competencies which enhances the recipient's ability to either secure jobs in various sectors of the economy or make them self-employed.
 - It acts as a bridge between general education and the demand of industry.
 - education has become more academic distancing from practical skills resulted in unemployment.
 - Pure academics is not suitable for everyone.
-
- vocational education can help them to acquire some skills so that they can find suitable employment or even become self-employed.
 - NEP 2020 highlighted the needs of vocational education and provided a road map vocational education
 - "Atmanirhar Bharat" or self-reliant India can get a major boost by vocational education as it is an effective way of skill development among countries population so that they can become productive citizen and make contribution for development of the nation.

Need For the Study:

- In India, vocation and education was never seen as separate entity, British created division.
- Various committees and commission highlighted the need of vocational education.
- National Skills Development Policy (2009) the government taken initiative to develop National Skills Qualification Framework (NSQF).
- few schemes of skill development and vocational education programme which are mainly centrally sponsored are going on Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Skill Development Corporation (NSDC), Skill India Mission, Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY), National Apprenticeship Promotion Scheme (NAPS) etc.

Present structure of Indian vocational and technical education system

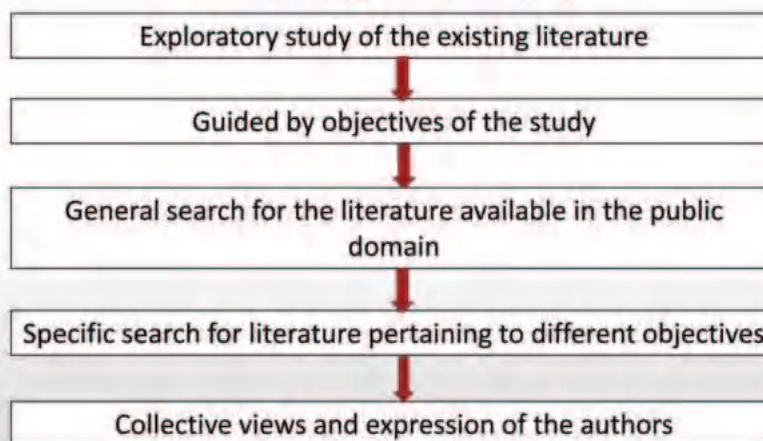


- But in vocational education, the growth is stagnant and slow.
- NEP (2020, p.43)- estimation from 12th Five-Year Plan (2012-2017) that less than 5% person of Indian workforce in the age group of 19-24 received formal vocational education compared to countries such as the USA (52%), Germany (75%), and South Korea (96%).
- Several factors responsible for the slow progress of vocational education in India
- NEP 2020 considered Vocational education as crucial and it aims to overcome the social status hierarchy associated with vocational education.
- The present study will look into current status of employability among Indian youth, find out the shortages in employability skills and explore the recommendation made by NEP 2020 regarding vocational education to overcome the challenges. The study also aims to contextualise the role of vocational education towards Atmanirbhar Bharat.

Objectives of the Study:

1. To understand the current state of employability among Indian youths.
2. To understand/fathom the gap between the kind of education our youths are receiving and the skills the current industry is looking for.
3. To explore the NEP 2020 to understand the recommendations regarding vocational education in skilling the youths to make them industry-ready.
4. To understand how NEP 2020 recommendations could be implemented in contextualising the role of vocational education towards Atmanirbhar Bharat.

Methodology of the Study



Current State of Employability of Indian Youths:

- Jobs creation sectors: service sector and the goods sector.
- 2022-23 economic survey India shows service sector- 50% GDP contribution , less than a third of the country's labour force- requires high skills labour.
- labour intensive goods sector have capacity to generate more job but did not exploit the full potential of these sectors and the demographic dividend.
- educational attainment plays a significant role in improving employability prospects but despite the growing enrolment in education, youth from a general education background face challenges in finding sustained employability in high-skill occupations.
- According to India Skills Report (2023, p. 38), the employability rate among Indian Youth is 50.03%, including 47.28% males and 53.5% females, while B.Com degree holders are more employable (60.62%).



Fig-1: Employability among graduates across India in 2023, by degree (Courtesy- Statista)
(Source: <https://www.statista.com/statistics/738255/employability-among-graduates-by-degree-india/>)

Some key findings regarding the employability of Indian youth are:

- According to the Skill Financing Report 2023, India ranks 60th globally in terms of overall skills proficiency and Around 78% of young people in the country lack practical skills.
- According to Multiple Indicator Survey (MIS), NSS 78th Round (2020-21, p.33), Only 15.4% of young men between the ages of 15 and 29 are neither employed nor studying, compared to 51.7% of young women.
- The report also shows that a significant gender gap exists among the NEET (Not in Education, Employment, or Training) population, with 65.3% of NEET men being available for work or seeking employment, compared to 34.7% of NEET women. (p.34)
- The employability of vocationally and technically trained youth has also been affected by a decline in work force participation, high unemployment rates, and wage differentials based on gender and caste.
- Overall, while there is a significant employability crisis among India's youth.

Understanding the Education and Skill Gap

Gap between present educational system and the skills required for employment in the current scenario in India are due to:

- focus more on rote learning, than hands on skills required handle a professional work environment.
- mismatch between the existing educational scenario, skillset and the industrial requirement.
- industries are striving for survival while academia focused on recognition leading to graduates don't having necessary skills for employment.

Recommendations Regarding Vocational Education in NEP-2020:

Causes of a smaller number of students in vocational education:

- There is a social status hierarchy in which vocational education is perceived to be inferior to mainstream education
- Vocational subjects often do not have well-defined pathways to continue with their chosen vocations in higher education.
- The non-availability of good quality vocational teachers

Target:

- The education policy sets a target of including 50% of learners of school and higher education in to vocational education with clearly defined targets and timelines.
- The number of students in vocational education will be considered while arriving at the GER target.

Integration of Vocational Education with Academic Education:

- Integration of vocational education programmes into mainstream education will be in a phased manner
- Collaboration with industry.
- National Committee for the Integration of Vocational Education (NCIVE)

Vocational education at various phases of Education:

- **Upper Primary Level:** fun-based activities and hands-on experience like as carpentry, electric work, metal work, gardening, pottery making, etc.
- **Secondary & Higher Secondary Level:** vocational courses will be offered in classes 9 -12, mixing matching with match academics with skills education
- **Higher Education Institutions:**
 - More HEIs to offer vocational degrees and skill-based courses by own or through partnership with industry.
 - B.Voc. Degrees introduced in 2013 will continue to exist; the 4-year holistic Bachelor's programmes
 - Lok Vidya i.e., knowledge developed in India, will be made accessible through integration into Vocational Education Courses.
 - setup incubation canters in partnership with industry.

• Update the National Skills Qualification Framework:

• Monitoring System in Vocational Education

• Implementation Plan:

- ✓exposed to vocational education at early stages.
- ✓Awareness programmes
- ✓Collaboration of schools with industry to imparting skills training.
- ✓Skill Based Aptitude Test (SBAT)
- ✓Vocational courses on new and emerging skill demands of the industry
- ✓preparing Vocational Teachers/Trainers through online and offline mode

Recommendations for Contextualization of the role of vocational education towards Atmanirbhar Bharat:

- VE is need of the hour.
- Collaboration between Stakeholders are important.
- convert the unskilled, inexperienced, and low-literate population of the nation into human resources- making India atmanirvar.

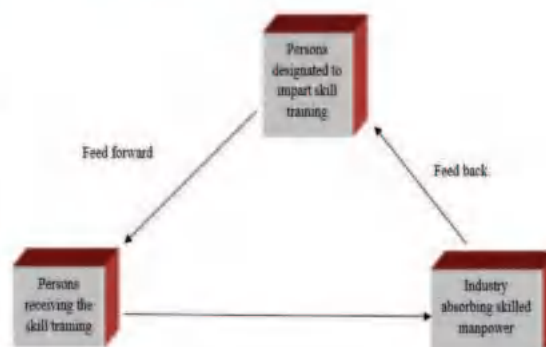


Figure 2: Trinity of the major stake holders

Conclusion

- The discussion above indicates that vocational development program has played a major role in their economic development, in developing countries like India, the vocational development program has not been very successful. Though governments have paid much more attention to this sector in the past few years, outcomes are still poor. The vocational development program is facing several challenges; quality of institutions and lack of linkages between vocational development providers and industries are two major problems. Vocational development program programs could serve this purpose by providing the marketable skills to individuals.
- The NEP 2020 rightly acknowledges the need to meet the goals of access and lifelong learning. However, it needs to be supported by robust structural changes to ensure holistic development of learners

Thank you

CASE STUDIES : Group E Writeup

Understanding the Role of NEP 2020 In Promoting Vocational Education for Making India Skilled and Atmanirbhar

Participants

Submitted by:

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Introduction:

Education is training the head, heart and hand person who is educated. In this context, education is not only information processing but also skills development. The aims and objectives of education are changing in the 21st century with the changing demands of society and innovation in technology. There is a need for diversification of educational opportunities to enhance employability of the students and the demand for skilled human resources is also increasing. Vocational Education can play a crucial role in this regard. It can be defined as the system of both recognised as well as unrecognised methods of transmitting knowledge, skills and competencies which enhances the recipient's ability to either secure jobs in various sectors of the economy or make them self-employed. It acts as a bridge between general education and the demand of industry. The need for vocational education in India can be understood by the following observations. While over the years education has become more academic and theoretical distancing from practical skills needed for work has resulted in unemployment among educated youth. India can increase its gross national productivity by utilising its youth demographic human resources through skill development through vocational education. Pure academics is not suitable for everyone leading to dropout. In that case, vocational education can help them to acquire some skills so that they can find suitable employment or even become self-employed. The National Education Policy 2020 (NEP 2020) has highlighted the needs of vocational education and provided a road map of making it more accessible, more flexible,

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more integrated into general educational system, more contemporary, more inclusive etc. and make it a part of lifelong learning. It recognizes the importance of vocational education in preparing individuals for work and developing their skills to meet the needs of the economy¹. Indian governments initiative of “Atmanirhar Bharat” or self- reliant India can get a major boost by vocational education as it is an effective way of skill development among countries population so that they can become productive citizen and make contribution for development of the nation.

Need For the Study:

In India, vocation and education was never seen as separate entity. But British colonial rulers created a system of education to fulfil their administrative need discouraging the vocationalization of education from traditional Indian system of education. This intension of colonial rulers has been identified and visualised by educational thinkers and eminent persons on that period and also after. Wardha scheme of Basic Education (1937) based on Gandhiji’s philosophy of Basic Education attempted to bring educational and vocational skills together. After independence Secondary Education Commission (1951-52) felt the need of inclusion and promotion of technical skills and efficiency at all stage.² Similarly, the Education Commission (1964-66) or Kothari Commission Report also suggested to relate education to work and recommended that vocational education should be part of both lower and higher secondary stages.² Later NPE 1986 proposes a systematic and well-planned program of VE which have distinct streams which will prepare students to a vocation supported by set of activities. The review committee of NPE 1986 (Ramamurti Committee) reminded the need and urgency of vocationalisation of education by making it part of three potential features viz. universalisation, vocationalisation and decentralisation.³ National Curriculum Framework (NCF) of 2005 also emphasised on reconsidering the epistemology of vocational education by bridging the gap between academic and vocational streams and the curriculum should provide space for learning beyond subject boundaries so that children and young people can make connections between different areas of learning. With National Skills Development Policy (2009) the government taken initiative to develop National Skills Qualification Framework (NSQF). The present structure of Indian vocational and technical education system is a three-tire system⁴:

- I. Certificate level skilled persons includes Higher secondary students in the vocational stream and craft people trained at ITIs, semiskilled and skilled workers through formal apprenticeships.

- II. Diploma level graduates includes Technicians and supervisors trained at Polytechnics.
- III. Graduate and post-graduate level specialist includes Engineers and technologists trained at NITs, IITs and engineering colleges

Following are few schemes of skill development and vocational education programme which are mainly centrally sponsored are going on Pradhan Mantri Kaushal Vikas Yojana (PMKVY), National Skill Development Corporation (NSDC), Skill India Mission, Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY), National Apprenticeship Promotion Scheme (NAPS) etc. But in vocational education, the growth is stagnant and slow as shown by an assessment conducted by NIOS which shows that only 2% of population have received formal vocational training, and only 8% have received non-formal vocational training in between 15–29-year age group.⁵ The NEP (2020, p.43) has put forward a much more gruesome statistic. It showed with the estimation from 12th Five-Year Plan (2012-2017) that less than 5% person of Indian workforce in the age group of 19-24 received formal vocational education compared to countries such as the USA (52%), Germany (75%), and South Korea (96%).⁶ There are many factors responsible for the slow progress of vocational education in India like lack of well-coordinated management system, social stigma towards vocational education, unemployability of pass out students, mismatch in demand and supply, lack of opportunity for professional development etc. In this context NEP 2020 considered Vocational education as crucial and it aims to overcome the social status hierarchy associated with vocational education. It also proposed the revamping of school education with more concentration on vocational skill development.⁷ The present study will look into current status of employability among Indian youth, find out the shortages in employability skills and explore the recommendation made by NEP 2020 regarding vocational education to overcome the challenges. The study also aims to contextualise the role of vocational education towards Atmanirbhar Bharat.

Objectives of the Study:

1. To understand the current state of employability among Indian youths.
2. To understand/fathom the gap between the kind of education our youths are receiving and the skills the current industry is looking for.
3. To explore the NEP 2020 to understand the recommendations regarding vocational education in skilling the youths to make them industry-ready.
4. To understand how NEP 2020 recommendations could be implemented in contextualising the role of vocational education towards Atmanirbhar Bharat.

Methodology of the Study:

Given the time constraints, the authors have resorted to exploratory study of the existing literature. As the methodology largely depends on the kind of objectives research is intended to fulfil, the literary exploration was undertaken in five different steps following four objectives. By and large, for each step a Google search was carried out to retrieve and study the literature available in the public domain to understand the contour of the corpus of works related to a particular objective. Based on this understanding more precise searches were carried out in the Google Scholar platform for retrieval and subsequent study of scholarly contents connected to a particular objective. Finally, based on the understanding of the explored literature the authors expressed their collective views and some recommendations for making vocational education more inclusive in line with NEP 2020.

Current State of Employability of Indian Youths:

The current employability of Indian youths is a complex issue with various factors at play. Now let us look at the sectors that have enormous potential to create jobs. In the Indian context, the sectors can broadly be classified into the service sector and the goods sector. According to the 2022-23 economic survey India has achieved a remarkable success in the service sector, with a contribution of over 50% to its GDP, but the sector could not improve its overall employment status as it employs less than a third of the country's labour force, as high-skills have been the prerequisite for getting absorbed in the service sector.⁸ Contrary to this, labour intensive goods sector is the one that can and has the capacity to generate an enormous number of jobs. Some of the focus areas could be infrastructure, transportation, logistics, energy, water, etc., where India could have done better, but it did not exploit the full potential of these sectors and the demographic dividend.

Studies have shown that educational attainment plays a significant role in improving employability prospects, particularly in high and medium-skill occupations.⁹ There is emphasis on need for relevant skills and qualifications for getting a job, particularly in the global market.¹⁰ However, despite the growing enrolment in education, youth from a general education background face challenges in finding sustained employability in high-skill occupations.¹¹ Vocational education offers brighter employability prospects, but its acceptability among youth requires policy intervention.¹² According to India Skills Report (2023, p. 38), the employability rate among Indian Youth is 50.03%, including 47.28% males and 53.5% females, while B.Com degree holders are more employable (60.62%).¹³ However, there is still a significant

employability crisis among India's youth. Some key findings regarding the employability of Indian youth are:

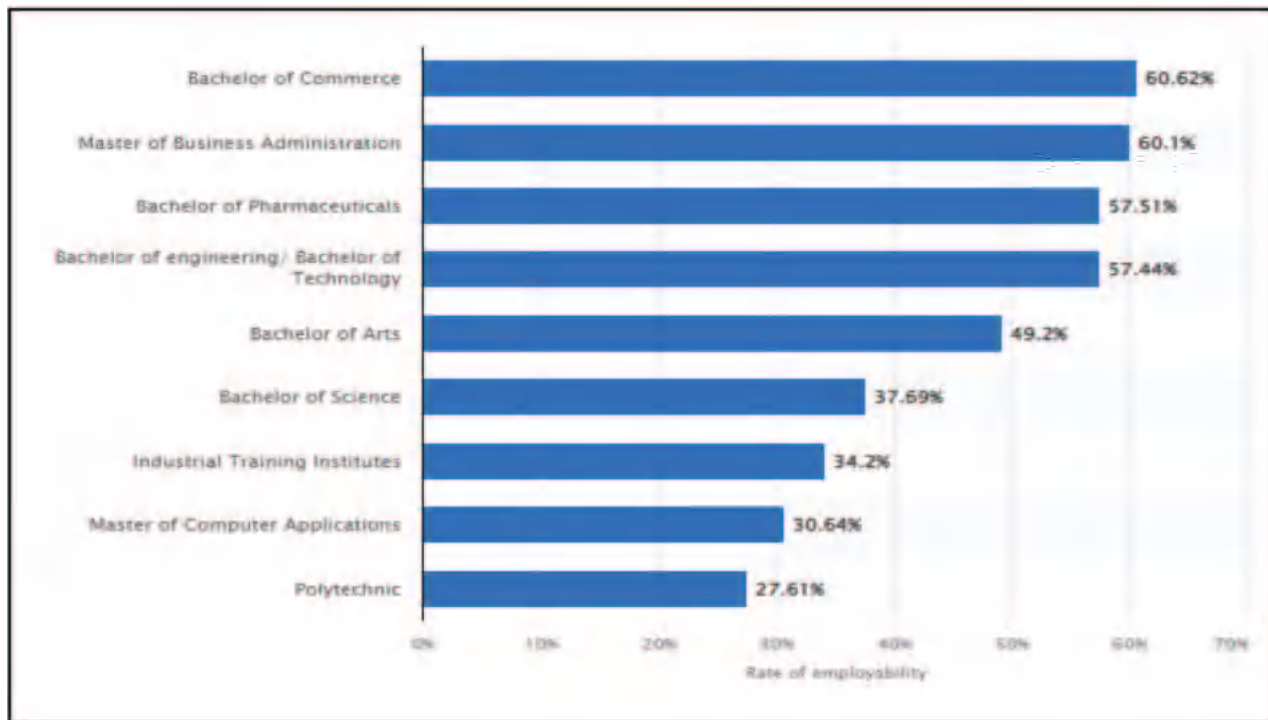


Fig-1: Employability among graduates across India in 2023, by degree (Courtesy- Statista)

(Source: <https://www.statista.com/statistics/738255/employability-among-graduates-by-degree-india/>)

- According to the Skill Financing Report 2023, India ranks 60th globally in terms of overall skills proficiency and Around 78% of young people in the country lack practical skills.¹⁴
- According to Multiple Indicator Survey (MIS), NSS 78th Round (2020-21, p.33), Only 15.4% of young men between the ages of 15 and 29 are neither employed nor studying, compared to 51.7% of young women.¹⁵
- The report also shows that a significant gender gap exists among the NEET (Not in Education, Employment, or Training) population, with 65.3% of NEET men being available for work or seeking employment, compared to 34.7% of NEET women. (p.34)¹⁵

The employability of vocationally and technically trained youth has also been affected by a decline in work force participation, high unemployment rates, and wage differentials based on gender and caste. ¹⁶ Overall, while there is a significant employability crisis among India's

youth, efforts to improve skill development, access to education and training, and gender equality can help address this issue and prepare the next generation for the future of work.

Understanding the Education and Skill Gap:

There is a gap between present educational system and the skills required for employment in the current scenario in India. The current education system leading to a poor quality of education in India as it focuses more on rote learning, than hands on skills required handle a professional work environment.¹⁷ The formal system of skilled workforce creation in India is low than countries like China and Japan which results into supply demand mismatch of skilled workforce .¹⁸ This mismatch between the existing educational scenario, skillset and the industrial requirement has led to rising unemployment rates and low employability rate among educated youth.¹⁹ There exists a gap between academia and industry as industries are striving for survival while academia focused on recognition leading to graduates don't having necessary skills for employment.²⁰ To close the skills gap between education, training, and work, it is the priority to focus on developing the employability skills in technical education as well as general education. The academia and industry must work side by side to satisfy the changing demand of job market.

Recommendations Regarding Vocational Education in NEP-2020:

NEP-2020 which is a full-fledged education policy after National Policy on Education, 1986. It is first policy of 21st century which in its fundamental principals stated that there will be no hard separation between vocational and academic streams. It emphasizes on the integration of vocational education into the general education system in phased manner from pre school to higher education. The major observations and recommendations of NEP-2020 regarding

Causes of a smaller number of students in vocational education:

- There is a social status hierarchy in which vocational education is perceived to be inferior to mainstream education, meant largely for students who are unable to cope with the latter. This has been created due to the lack of planning and the poor delivery of vocational education in the past.
- One of the primary reasons for the small numbers of students receiving vocational education is that, with vocational subjects, they often do not have well-defined pathways to continue with their chosen vocations in higher education.
- The non-availability of good quality vocational teachers/ trainers is a major issue in imparting quality vocational education and training.

Target:

- The education policy sets a target of including 50% of learners of school and higher education in to vocational education with clearly defined targets and timelines.
- The number of students in vocational education will be considered while arriving at the GER target.

Integration of Vocational Education with Academic Education:

Integration of vocational education programmes into mainstream education will be in a phased manner with beginning with vocational exposure at early ages going through middle & secondary school will be integrated into higher education. By doing this every child will understand the dignity of labour and importance of various vocations like Indian arts and artisanship. Academic institutions with Vocational Education to collaborate with Industrial Training Institutes, Polytechnics, Local Businesses, Industries, Hospitals, Farms, and NGOs. The courses will be chosen based on skills gap analysis and mapping of local opportunities, and technical and vocational education will become part of the larger vision of holistic education. The policy recommended Ministry of Education to constitute National Committee for the Integration of Vocational Education (NCIVE), along with industry participation, to oversee this effort and should also earmark budget for promoting this integration.

Vocational education at various phases of Education:

Upper Primary Level: The Government is implementing the scheme of Vocationalisation of School Education under the umbrella of 'Samagra Shiksha - an integrated scheme for school education' and through National Institute of Open Schooling (NIOS). At upper primary stage students should engage in fun-based activities and hands-on experience of important vocational crafts, such as carpentry, electric work, metal work, gardening, pottery making, etc.

Secondary & Higher Secondary Level: In addition to traditional academic courses, vocational courses will be offered in classes 9 -12 in secondary school. students will be allowed to mix and match academics with skills education, with sports and arts, and with soft skills training.

Higher Education Institutions: Encouragement to be given to more HEIs to offer vocational degrees and skill-based courses. They will offer Vocational Education either on their own or in partnership with industry. B.Voc. Degrees introduced in 2013 will continue to exist. Vocational courses will be available to students enrolled in all other Bachelor's degree programmes, including the 4-year holistic Bachelor's programmes. There will be mapping of vocational job roles offered in schools to the B.Voc. and other vocational courses offered at

higher educational institutions under NSQF. Weightage will be given to students who have cleared NSQF Level 3 or 4 Courses at school level to enter higher level vocational courses to ensure their vertical mobility. They will be allowed to conduct short-term certificate courses in various skills including soft skills. Students will be familiarised with 'Lok Vidya' i.e., knowledge developed in India, will be made accessible through integration into Vocational Education Courses. Higher education centres will setup incubation canters in partnership with industry.

Update the National Skills Qualification Framework: NSQF will be updated to give detailed description for each discipline Vocation/ Profession. Indian standards for vocational education will be aligned with the International Standard Classification of Occupations maintained by the International Labour Organization (ILO). This Framework will provide the basis for Recognition of Prior Learning (RPL) and credit transfer.

Monitoring System in Vocational Education: NEP proposed creation of portal for monitoring and tracking of the Vocational Education like data of students moving to ITIs, Polytechnics and Skill development programmes of Ministry of Skill Development & Entrepreneurship (MSDE) etc.

Implementation Plan:

- Children will be exposed to vocational education from Class 6 onwards in all secondary and higher secondary schools through integration of VE with general education subjects. National Curriculum Framework for School Education 2023 already taken steps in this regard.
- Awareness programmes will be organised to change the general perception and attitude towards Vocational Education.
- Collaboration of schools with industry to imparting skills training.
- Skill Based Aptitude Test (SBAT) will be introduced in Class 8 to provide guidance to the students for making informed career choice.
- Vocational courses on new and emerging skill demands of the industry, such as Artificial Intelligence, Robotics, and Internet of Things (IoT) will be introduced and enterprise education will be promoted.
- courses for preparing Vocational Teachers/Trainers through online and offline mode

Recommendations for Contextualization of the role of vocational education towards Atmanirbhar Bharat:

Vocational education is the need of the hour. Technical skills are needed more than academic skills that we can understand from our day-to-day lives. This type of knowledge-based program is offered through vocational education. NEP-2020 has refocused on vocational education and various action plans, especially the collaboration with industry to impart knowledge and training, which is a very interesting aspect, as we know if one doesn't analyse the market of any product, then the success of that product is questionable. Likewise, vocational and skill development courses are dependent on industry needs. If we see the following figure, there must be close interaction between stakeholders like industry, vocational trainers, curriculum makers, and students to make vocational education students employable.

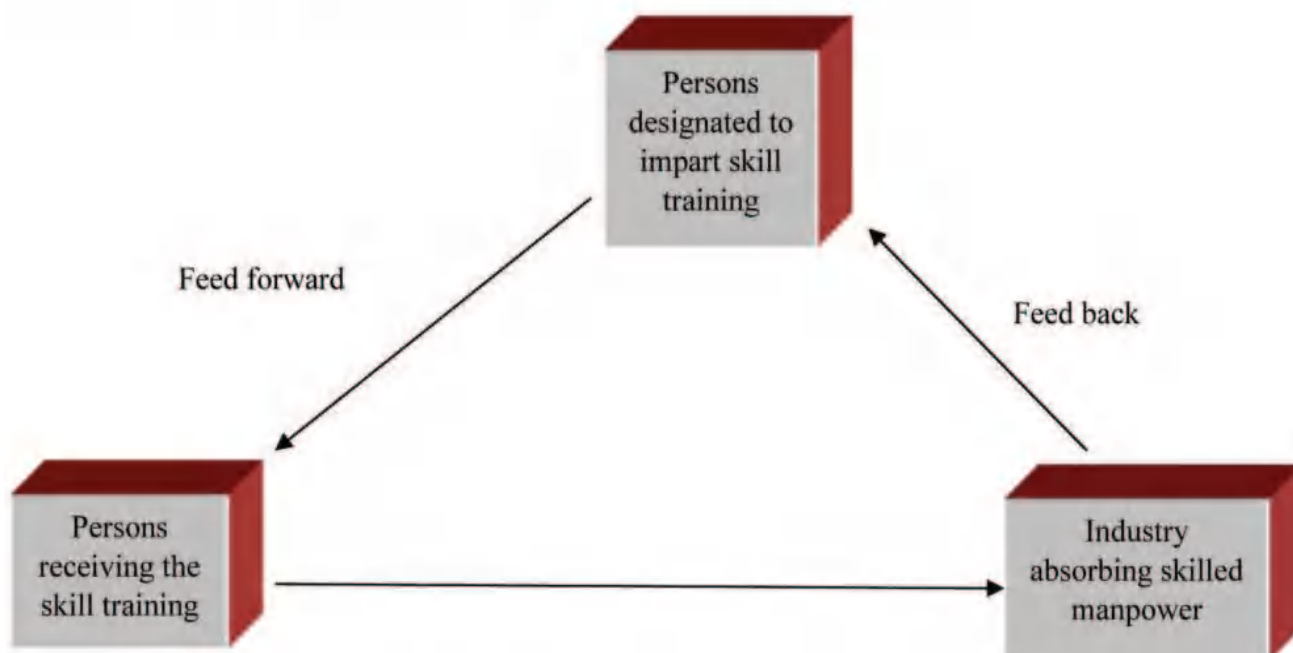


Figure 2: Trinity of the major stake holders

Vocational education, being a need-based education, can convert the unskilled, inexperienced, and low-literate population of the nation into human resources. Developing a skilled workforce that can contribute to the country's self-reliance and economic growth, can have a major impact on socioeconomic development. By focusing on vocational education and skill development, India can build a strong and self-reliant workforce that will contribute to the vision of Atmanirbhar Bharat.

Conclusion:

Following the unveiling of the National Education Policy 2020, many deliberations have been undertaken by scholars with a special focus on vocational education, and critical discussions are still ongoing to realise the significance of NEP 2020 in the present socio-economic context. The responsibility of skilling India is not at all a game to be played by an individual stakeholder; rather, it needs to be a trinity of those who are designated to impart skill training, those who will receive the training, and the industry that is supposed to absorb the skilled manpower. All the three components form a continuum. Isolating the industry would lead nowhere, and at the same time, updating the knowledge of those responsible for imparting skill training is of utmost importance. On the other hand, what is required among students in present times is a mindset that will create an urgency to go beyond/alongside bookish knowledge to skill oneself with the available tools, techniques, and real-life application under the guidance of an able body. As a ship without a proper navigational system may drift away from its path on a vast ocean, a much-cherished dream of a trillion-dollar economy may get derailed without proper interpretation and application of NEP 2020, along with the absence of synergy among different stakeholders belonging to the larger context of skilling India to become Atmanirbhar Bharat.

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NEP-2020 vis-à-vis Online Learning Part-I&II (National Education Policy 2020 vis-à-vis Online Education)

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Former Director, Centre for Online Education (COE) at IGNOU

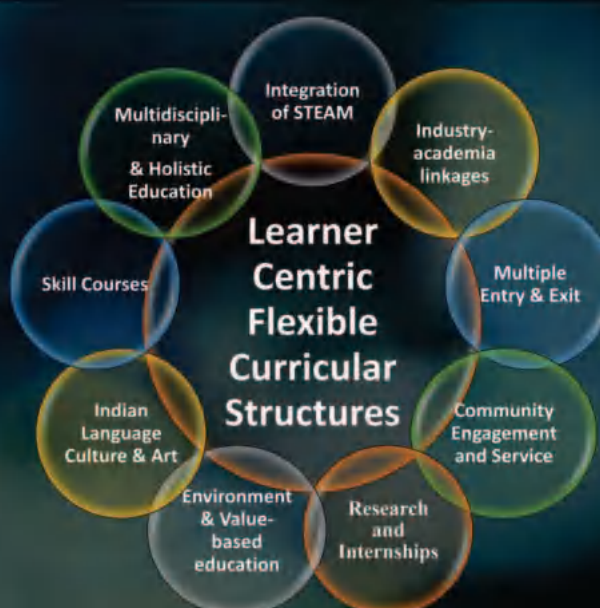
National Education Policy 2020

Vision of NEP

Aims to bring transformational reforms in school and higher education and shape India into a global knowledge superpower.

Built on the foundational pillars of Access, Equity, Quality, Affordability and Accountability, the policy is aligned to the 2030 Agenda for Sustainable Development (SDG).

National Education Policy 2020



National Education Policy 2020

N

- Seeks to reform the Higher Education system
- Offers flexibility to students in terms of choice of subjects
- Facilitates a combination of disciplines for study

E

- Allows multiple entry and exit points
- Gives an opportunity to learn from anywhere, anytime
- Facilitates adjustments in the structure and lengths of degree programmes

P

- Emphasises research-based specialisation & opportunities for multidisciplinary work
- Aims to establish an Academic Bank of Credits (ABC) to ensure seamless student mobility

"Teachers have the power to change lives. They can empower students and help them realize their true potential."

A.P.J. Abdul Kalam

NEP 2020 envisions all higher education institutes being multi-disciplinary by 2040 - Prioritize Multi-disciplinary thinking



Learners at present study in silos, acquiring education in a single stream viz, arts, science, engineering, commerce etc.



Need of the hour is teaching them to see the big picture, connect the dots and analysing problems through an integrated approach to learning.



Emphasis on conceptual understanding creativity and critical thinking.



Guide learners to embrace multi-disciplinary approach and eventually lead them to more career opportunities.

Multi Disciplinary/Inter Disciplinary UG Programme

Nature/Type of Courses	Relative Credit Weightage
Discipline Specific Courses	~ 50 % of total (~ 120 / 160 cr.)
Vocational/Skill Courses	~ 16 cr.
LSC/EVS/VAC/GE	~ 16 cr.
Field Projects/Internship/ Apprenticeship	~ 20 cr.
Research Project	~ 18 cr. (only for 4 yrs. UG)

FYUGP Structure - UGC

Semester	Nature of Courses
I, II and III	Courses from Disciplines and major areas of learning viz. Natural Sciences, Social Sciences, Humanities, Mathematical and Computational Thinking and Analysis, Creative Expressions, Vocational Education etc.
IV, V and VI	Sufficient number of courses in the chosen disciplinary/interdisciplinary areas of study.
VII and VIII	Advanced disciplinary/interdisciplinary courses, Research Methodology Course(s) and Research Project.

Academic Bank of Credits (ABC) for Learner Mobility

- 1 • National level mobility of students
- 2 • Facilitate MD higher education
- 3 • Enables break in studies
- 4 • Enables Credit Transfer
- 5 • Multiple-Entry and Exit
- 6 • Extensive choice of courses to students

ACADEMIC ASPECTS OF ABC

- 60% of credits in Degree awarding HEI
- Must earn Minimum Credits in the Core subject area necessary for a Degree
- Credits accumulated in ABC are valid for a maximum of 7 years.
- Redeemed Credits to be irrevocably debited

Create Multiple Entry and Exit System

Reduce Drop-out Rates

Enable Flexible Course Completion Period

Permit transdisciplinary combinations

Value Learners' choice of courses

- Faculty to Design and Structure Curriculum Provisioning Multiple Entry and Exit System
- Adoption of NCrF and NHECF (FYUP)
- Facilitate Course Based Registration
- Ensure Credit Mobility

NEP 2020 and Vocational Education

01

NEP 2020 set a target to provide exposure to at least 50% of student to Vocational Education in Higher Education by 2025, Whereas at present less than 5% of total workforce get formal Vocational training.

02

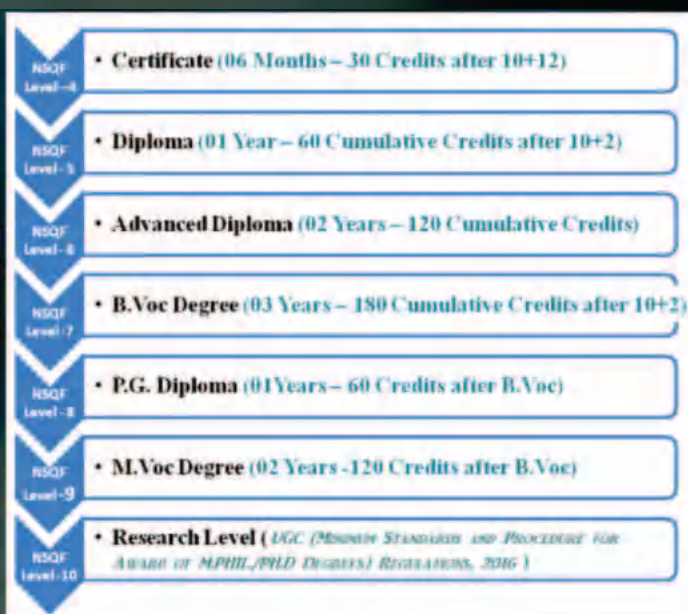
Policy further stated that "beginning with vocational exposure at early ages in middle and secondary school, quality vocational education will be integrated smoothly into higher education".

NEP 2020 and Mainstreaming Vocational Education

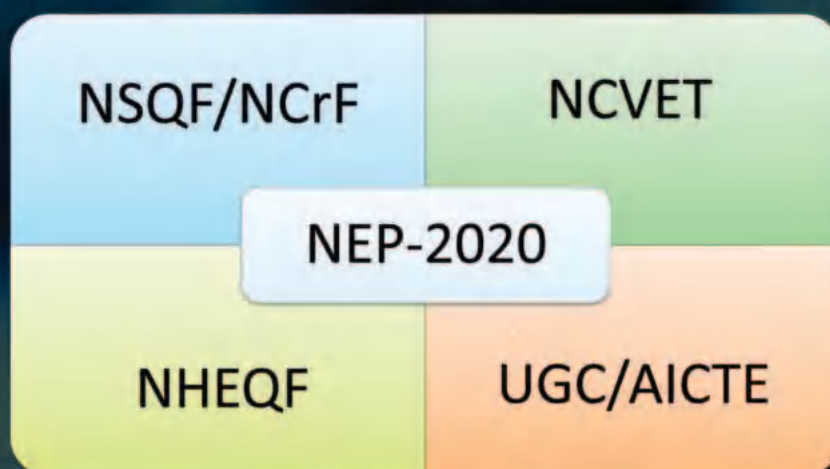
NEP,
NSQF
&
NHEQF

- A *National Higher Education Qualifications Framework* (NHEQF) formulated in *sync with the National Skills Qualifications Framework (NSQF)* to ease the integration of vocational education into higher education.
- It points out that "higher education qualifications leading to a degree/diploma/certificate shall be described by the NHEQF in terms of such **learning outcomes**."

NEP 2020 and Mainstreaming Vocational Education



Regulatory Framework



NEP 2020 and Vocational Education

3 Dimensions of NCrF



Respect for Diversity and Local Context

Facilitate education in the mother tongue/ local language- medium of instruction in the mother tongue, translation of textbooks in regional languages, promotion of multilingualism etc.

Imbibe first-hand knowledge of the rich diversity of India to learners through simple activities, like study tour to different parts of the country to understand and appreciate diversity, culture, traditions and knowledge of different parts of India.

Promote knowledge of local culture, literature, art, crafts and lifestyles integrating them as compulsory elements of learning

Inculcate Indian Values and Ethos through Courses in Indian Knowledge System

Section 24
of the NEP
is dedicated
to the
“Online and
Digital
Education”

Pilot studies to be conducted for online education

Building robust digital infrastructure

E-learning platforms like SWAYAM and DIKSHA to be extended further

Developing engaging e-content including games, simulations, Augmented Reality, Virtual Reality etc.

Adding more virtual labs

Addressing the digital divide issues through appropriate technology infrastructure

Capacity building of the teachers for using online platforms

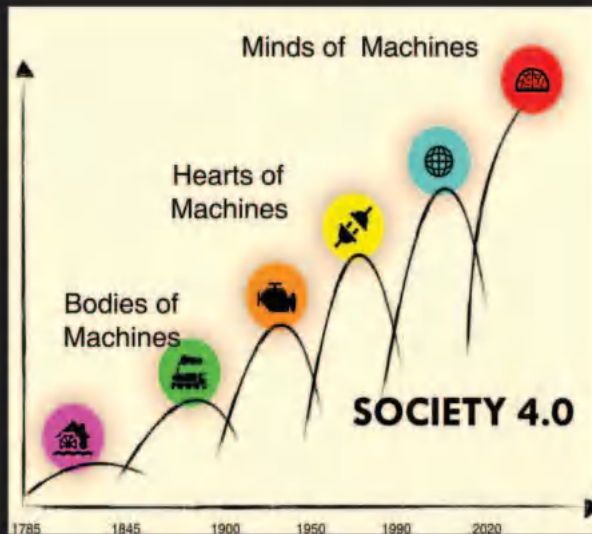
Proper Online assessment mechanisms to be developed.

setting up a National Education Technology Forum for the exchange of ideas on the use of technology to enhance learning.

We Are Living in *Exponential Times*



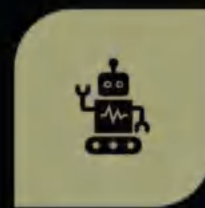
https://www.slideshare.net/MeTheMedia/society-40-46525365?from_action=save



https://www.slideshare.net/MeTheMedia/society-40-46525365?from_action=save

Waves of *Innovation*

**Education
Technology
Trends-
Education 5.0
(Interaction of
man and
machine)**



Technological Interventions- Disruptive Technologies

The AI bucket consists of:

- Big data
- Analytics
- Machine learning
- Natural language processing
- Data visualisation
- Decision logic

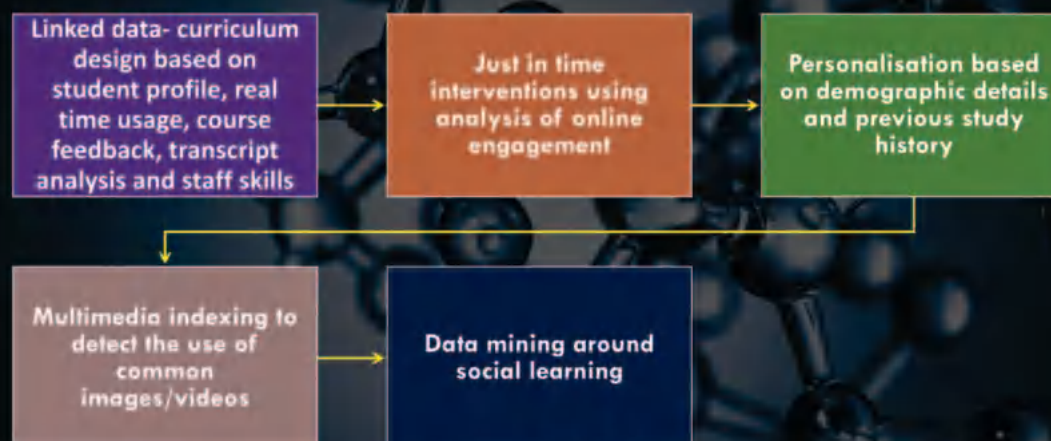


Artificial Intelligence in Education

- Intelligent Tutoring Systems
- Personalized Learning,
- AI Tutor/Teaching Assistant
- Adaptive Learning Approaches
- Natural Language Processing
- Chatbots or Conversational AI
- Big Data
- Educational Data Mining etc.

Most of the LMSs and MOOCs platforms are having these features and are being extensively used for online/ virtual learning environments

Big Data & Learning



Technological Interventions- Disruptive Technologies

AR and VR in Education

- **Second Life**- platform to create virtual campuses, universities, colleges, libraries.
- **360Cities Free apps**- 360degree panoramic images and videos for VR
- **TimeLooper App** -VR time travel App to visit locations through a historical lens, such as Delhi in medieval times
- Teachers can use platforms like **Immersive VR Education** and **Nearpod** to develop lesson plans.



Blockchain use in Education

Used for badging, certification with blockchain as a trusted academic ledger.

Technological Interventions- Disruptive Technologies

Blockchain Technology- improve record keeping and maintenance, seamless payment transactions- can be appropriately used for **Academic Bank of Credits (ABC)**

Credit: Knowledge Media Institute, The Open University

ICT Interventions @ IGNOU



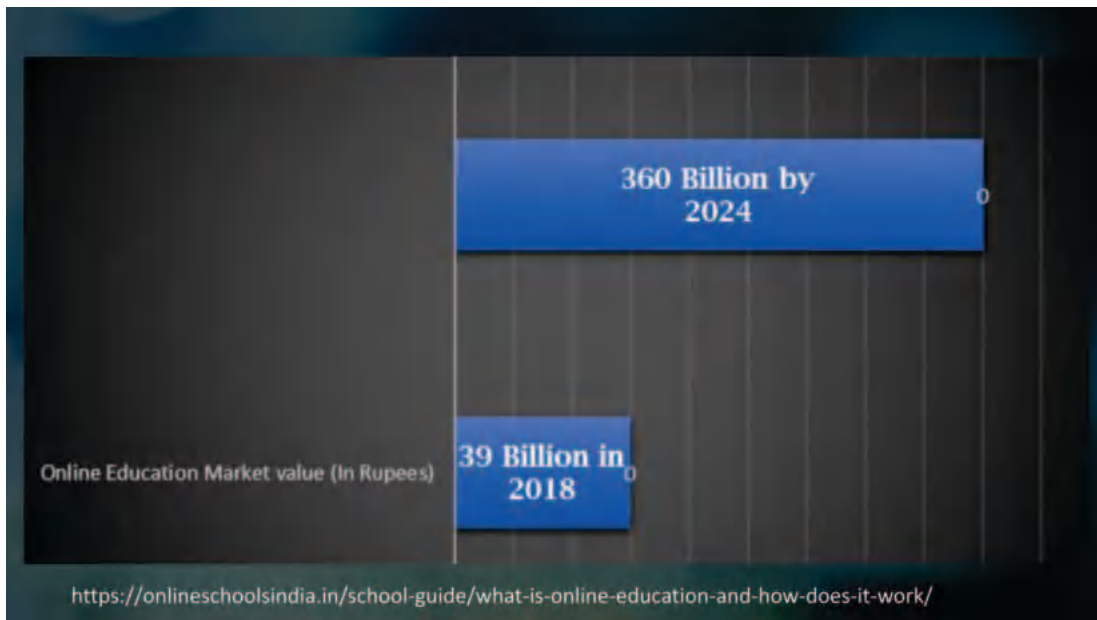
Block Chain Based Degrees issued on 35th and 36th Convocation of IGNOU



Key Trends Emerging Across The Global Higher Education Sector

- **Open Educational Resources (OER)**- OCW, OpenLearn, WikiEducator
- **Massive Open Online Courses (MOOCs)** based on collective intelligence principles and crowdsourcing philosophy (EdX, Coursera, Udacity, SWAYAM etc.)
- **Cloud-based computing** – LMS's in the cloud as opposed to being hosted on site
- **Virtual reality and virtual worlds** –augmented reality (Second Life), virtual labs, robotics
- **Low-cost mobile computing devices** – BYOD





Online Learning Global Trends

- **Gamification** - game elements within courses such as giving points to students for participating or a game with a specific learning goal or as elaborate as an extensive simulation / case study.
- **Online video**- expert talking heads, screen casts, lectures etc. With inexpensive video capture tools and the speed with which videos can now be captured and published usage of video remains firmly on an upward trend.
- **M-Learning with tablets** – using smartphones to access online materials and study is in. BYOD (Bring Your Own Device) has information on demand and expectations of learning anywhere, anytime, on any device, especially on their own tablets and smartphones.
- **Digital Textbooks** - Apple iBooks, Google Books, Amazon Kindle, etc.

Technology & Changed Educational Landscape

- Learning environments now outside the institutional structure (no longer confined single institutional framework)- **credit mobilization, Academic Bank of Credits**
- Informal and self-directed learning- no longer requires a trusted educator for support in the learning endeavour – **the teacher is seen as a motivator, and facilitator. Sage on the stage to guide on the side**
- Access information, work and learn together with others in a creative global collaboration outside the educational structures.

Importance of Virtual Education in India

1

Inclusive growth – equity, access and quality education

2

Support Literacy drive – general as well as digital literacy

3

Skill training – developing trained human capital for enhancing the productivity level of a nation

4

Develop the life skills of the people – enabling life-long learning

DEPLOYMENT OF VIRTUAL LEARNING IN INDIA IS A CHALLENGE

The unreached remain unreached due to challenges that include geographical context, remoteness and other socio-economic factors

Thrust for Technological Interventions (Section 3.5)

01



Improving teaching-learning & evaluation processes

02



Supporting teacher preparation & professional development

03



Enhancing educational access

04



Streamlining planning, management, & administration

Technological Interventions (Section 3.6)

Rich variety of educational software will be developed and made available for students and teachers

Available in all major Indian languages

Accessible to a wide range of users including students in remote areas and Divyang students.

Teaching-learning e-content will continue to be developed by all States/ Institutions in all regional languages



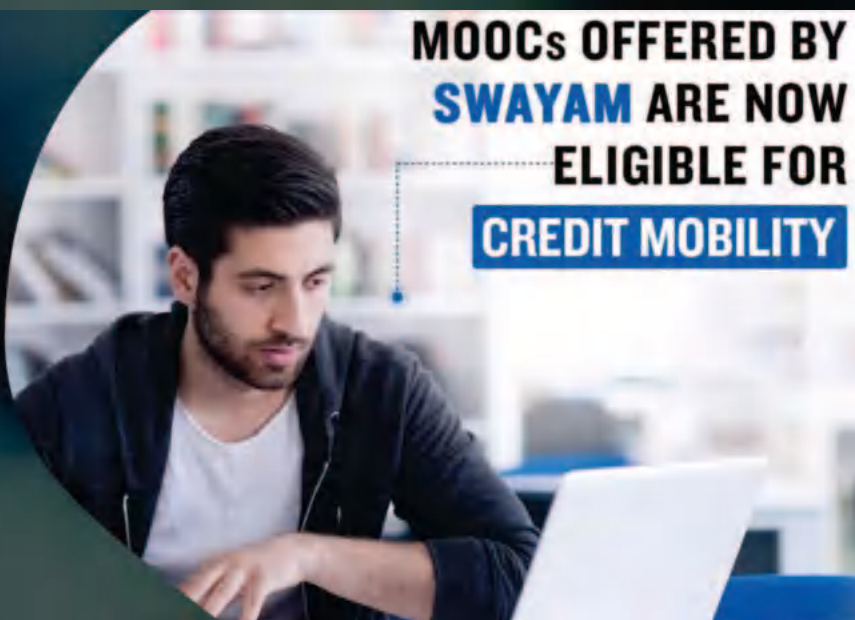
SWAYAM (Study Webs of Active-learning for Young Aspiring Minds) World class 'Made in India' MOOCs platform



SWAYAM Vertical 2 for online programmes

- Total Courses Developed (Unique Courses) : 2,888 (till January 2023 since inception)
- Total Courses Delivered (listed on SWAYAM) : 9299
- Total Enrollments – 3,16,82,626 (3.16 Cr)
- Total Unique Users/Registrations on the portal – 99,11,133 (99.11 Lakh)
- Total Certificate issued- 16,59,689 (16.59 Lakh)
- Total Universities approved credit transfer- 289

SWAYAM Courses in the process of integration with the ABC Portal



**MOOCs OFFERED BY
SWAYAM ARE NOW
ELIGIBLE FOR
CREDIT MOBILITY**

SWAYAM PRABHA: Educational Channels

The GSAT-15, India's Communication Satellite launched on November 11, 2015

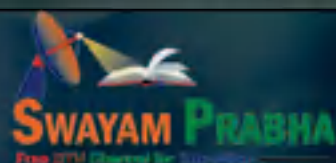
Out of 24 transponders on GSAT-15, two allotted to MHRD in June, 2016.

These channels telecast high quality programme on 24X7 basis

Test run telecast was started on August 15, 2016

Formal launch on July,9, 2017.

Now extended to 40 Channels
(All for Higher Education)



Partners

BISAG

Electronics Corporation of India Limited (ECIL) and Bhaskaracharya Institute for Space Applications and Geo-Informatics (BISAG) set up the Uplinking station at BISAG

INFLIBNET

Portal for Programme schedule and video archival.

Dept. of Space

Department of Space allocated two transponders in GSAT-15

Content (NPTEL, IITs, UGC, CEC, IGNOU, NCERT, NIOS)

Content Providers: 4 hour of content everyday for each channel

SWAYAM PRABHA IGNOU Channels: Unique Initiative of Teaching in the Mother Tongue

Channel 11: Social Sciences and Humanities

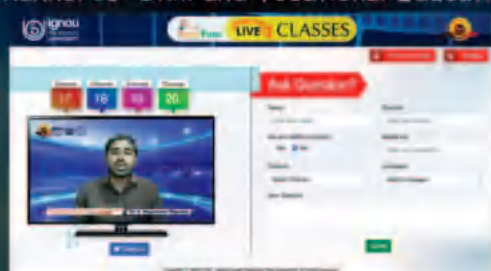
Channel 12: Basic and Applied Sciences

Channel 13: Professional Education

Channel 14: SOUs and Gyandarshan

Channel 15: Capacity Building & Teacher Education

Channel 16: Skill and Vocational Education



Live Sessions in Regional Languages
(Conducted 5500+ sessions since January 6, 2022)

- Hindi
- Assamese
- Bengali
- Odia
- Tamil
- Telugu
- Kannada
- Malayalam
- Gujarati
- Marathi
- Punjabi
- Urdu
- English



<http://iitd.vlab.co.in/index.php#>
www.vlab.co.in

Over hundred Virtual Labs are currently ready for use. These labs were dedicated to the nation on 23 February 2012.

The Virtual Labs comprises a user-friendly graphical front end, working in synchronisation with a backend, consisting of a simulation-engine running on a server or actual measurement data or a remotely triggered experiment.

IIT Delhi, IIT Kanpur, IIT Bombay, IIT Madras, IIT Kharagpur, IIT Guwahati, IIT Roorkee, IIIT Hyderabad, Amrita University, Dayalbagh University, NIT Surathkal, COE Pune



SAMARTH PORTAL

Project Initiative By

MoE, Ministry of Education,
Government of India

Designed & Developed By

Institute of Informatics & Communications,
University of Delhi

Project under National Mission in Education through ICT

- Open Source, Open Standard enabled Robust, Secure, Scalable and Evolutionary Process Automation Engine for Universities and Higher Education Institutions.
- automation engine designed for various HEIs across India to help them migrate from paper, unreliable third-party ERP systems to a system that is more secure, reliable and scalable.

09

Essential
Packages

40+

Samarth
Modules

40+

Central Universities
Selected

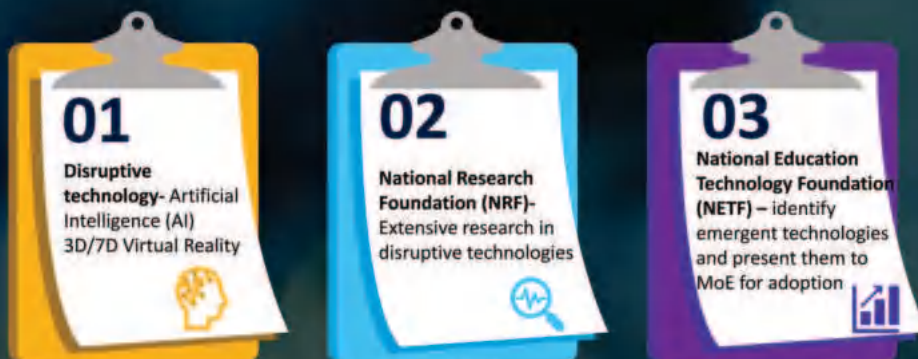
100%

Automation Engine
for Universities

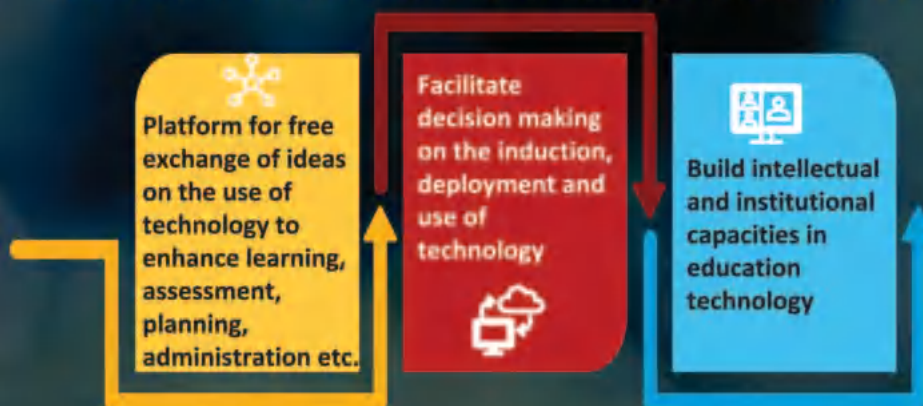
Union Budget 2022 Announcements for the Education and Skilling Sector Focused on Setting up of Digital University to:

- Expand Reach,
- Improve Quality Education,
- Build Capacity, and
- Strengthen the Digital Education Ecosystem.

Technological Interventions- Disruptive Technologies



Technological Interventions- autonomous body - **National Educational Technology Forum (NETF)**



Virtual education is expected to be a game changer in the country which can:

Increase	Enhance	Expand	Raise
access to basic education, skill-based education and life-long learning, both formal and non-formal.	the quality of teaching and learning to improve the relevance and effectiveness of basic education.	virtual learning opportunities, especially for disadvantaged groups in remote areas.	GER from 27.6 % to 50 % by 2035

Hence, the overall government policy in higher education is directed toward promoting digital education.

Embrace Technology in the Teaching Learning Process

- Teachers can elevate their impact by exploring aspects of a hybrid classroom to build engagement through technology interventions.
- Technology can solve the problem of one-size-fits-all learning through AI-based learning tools- tailor instruction and assessments for every single student, personalize assignments so students learn according to their strengths, create learning paths unique to each student.
- **Maximise reach through channel based teaching using SWAYAM Prabha.**
- Motivate learners to take SWAYAM Courses for wider choice of Multi-Disciplinary and Interdisciplinary Subjects.
- 24*7 support through technology interventions.



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Prof. Uma Kanjilal

Prof. Uma Kanjilal is presently Pro- Vice Chancellor of Indira Gandhi National Open University (IGNOU). Prior to this she was the Director of Centre for Online Education (COE) at IGNOU

She is Professor and Head in the Faculty of Library and Information Science at IGNOU.

She has more than 34 years of experience in the Open and Distance Learning System. She earlier also served as University Librarian, Director School of Social Sciences, Director Advanced Centre for Informatics, Innovative Learning (ACIIL) and Director Inter University Consortium for Technology Enabled Flexible Education in the University.

Prof. Kanjilal is one of the National Coordinators of SWAYAM (India MOOCs) and SWAYAM PRABHA (Educational DTH Channels) of the Ministry of Education. She was a PI of the National Virtual Library of India (NVLI) Project of Ministry of Culture.

At IGNOU she spearheaded major projects like eGyanKosh (Digital learning Resource Repository), E-content APP, Online Question Paper Delivery System (OQPDS), online programmes of the University and many other digital initiatives of the University.

She was a Fulbright Scholar in University of Illinois, Urbana Champaign, USA in 1999- 2000 where she worked on Multimedia courseware development. She was recipient of other international fellowships like Australia India Council fellowship in 2009 for a Study visit to Australian Universities and DANIDA Grant for participation in IFLA Convention in Denmark in 1997. Her other international engagement includes scoping study to develop digital library for Palestinian Refugees for United Nations Relief and Works Agency (UNRWA) in Jordan during 2011, developing 2 modules for CCNC programme in WikiEducator for Commonwealth of Learning (COL), Vancouver, Canada in 2007, Consultancy for Commonwealth Educational Media Centre for Asia (CEMCA) for NSOU OER Project in 2016.

Prof. Kanjilal received Manthan Award for eGyanKosh in 2008 and recognition from President of India for SWAYAM and SWAYAM Prabha in 2017.

Her specialization includes e-learning, multimedia courseware development, ICT applications in Libraries and Digital Libraries.

Photos of Day 12

Day 12: 15.12.2023 Friday
VENUE: NSOU-HQ, Saltlake, Kolkata



Photos of Day 12

**Day 12: 15.12.2023 Friday
Participant Certificate Distribution**



