NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT www.abhinavjournal.com

# INFORMATION SCIENCE: THE CHANGING SCENARIO OF NOMENCLATURE IN INDIAN UNIVERSITIES EMPHASIZING NEW TREND IN WEST BENGAL

#### Prantosh Kumar Paul

FBAS, Bengal Engineering & Science University, Howrah, West Bengal, India Email: prantoshkpaul@gmail.com

### ABSTRACT

'Changes' refers several things in academic community, academic innovation changes nature of Degree, Duration, and credit and syllabus systems and so on. Information Science- its meaning, nature, scope and nomenclatures are also changing. Information Science and its several attributes really controversial; it is an interdisciplinary field, information field, technology field, and so on. Information Science originated during 1960's after introduced the 'Information'. Initial Information Science and today's Information Science changes are rapid. Earlier Information Science was treated as study and practice field of information activities but today it is an interdisciplinary information-technology-people interacting field. Information Science is responsible for information and documentation automatically. Today it is very much tough to identify main difference between Information Science and Information Technology. Because Information Science degree holders are absorbed in IT and Computer Science industries which are includes information industries and sector. In so many states of India introduces Information Science with computing focus but out of 28 states, West Bengal may be treated as pioneers in Information Science education. This paper talks about such matter, briefly.

*Keywords:* Information, Information Science, Information Technology, Academic Programme, West Bengal, information world, 'People-Information-Technological' interaction, Universities, India, Documentation

### INTRODUCTION

Information Science is an academic and professional domain able in several things; from Information Solutions, documentation solution to technology solution, community solution, development solution. Information Science and the field is uses in synonymous with Computer Science and Information Technology, ICT and so on, due to its computing and technological solution [12,22]. Today Information Science degree holders and computing related degree holders are employed in same organization and profession like- IT company, MNC, as IT Manager, Systems Engineers, Usability Engineering, Database Developer but practically Information Science students are able in some more job position in information

**VOLUME NO.2, ISSUE NO.9** 

### NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT www.abhinavjournal.com

field. The additional job and course gradients are main difference IT with other computing domain and degree holder. Today, Information Science is treated as allied domain of IT, Computer Science. 20 years back both was considered as different field. Information Science is a field of fields; the root of the field was Information related domain, such as Documentation Science, Library Science, Information Studies. Today it is stay in the middle stage between Information and Technology domain. Though, it is much more biased in IT and Computing [24].



Fig: 1 Some popular Information Subjects with two foci

# OBJECTIVE

The main aim and objective of this study is includes:-

- To learn basic about Information Science and its basic nature;
- To find out root, and contemporary direction of Information Science academics around the world;
- To learn the related nomenclature, related field of Information Science; changing perception;
- To find out changing perception of professionals, academics to towards Information Science degree programme;
- To find out main problems in Information Science education;
- To find out main situation of Information Science education and nomenclature uses in India emphasizing West Bengal, briefly.



Fig: 2 Depicted core Information Programmes

**VOLUME NO.2, ISSUE NO.9** 

**ISSN 2277-1166** 

**94** 

### NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT www.abhinavjournal.com

### **Information Science: Basics**

Information Science is a field which is incorporated with so many other domains such as Computer Science, Information Technology, Management Studies, Cognitive Science and Psychology and so on. Information Science initially treated as information field; mainly responsible for the information activities such as collection, selection, organization, processing, management and dissemination. Thus, information processing and management treated as main domain of Information Science. Thus, today's Information Science close to two things one is Information and related activities; where as another is Technology and IT. Today, Information Science ask for IT jobs and professionals; both in Government and Private Industries along with Information professions. Information Science was earlier treated as humanities and social science field due to information solution to the library and similar foundation or directly to the society; but today it is an important Applied Science and Technology field around the world [23].

### Information Science: Nomenclature, Related Cluster and India:-

Information Science all over, earlier treated as information field which we already discussed. But after invention and development of Information Technology and Computing the information professionals and information academician integrates these gradients in information academics. Thus, the traditional nature and course gradients are gradually changes and come to today's shape and periphery. Information Science was earlier mainly taught in Information departments such Information Studies and Documentation. Thus they change the department name to Information Science, after integration of IT and computing in the traditional Information Field. Similarly, many universities launched MSc/MS-Information Science and switch off MA-Information Studies. The faculty and school system also changes under Science or Applied Science or Technology faculty from Humanities and Social Science faculty. Information Science also integrated several other department and some new nomenclature and academic domain was results; such as Library and Information Science, Computer Science with Information Science by merging Library and Computer Science with Information Science [12,24,18].



Fig: 3. depicted some available Information Degrees in India

Thus, apart from separate Information Science nomenclature in degree and department some integrated programmes and department have been started. Recently some more departments and fields also interact with Information Science such as Chemistry, Health Science, Medical Science, Geological Science and respectively new nomenclature originated such as Chemical

#### **VOLUME NO.2, ISSUE NO.9**

### NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT www.abhinavjournal.com

Information Science, Health Information Science, Medical Information Science, Geological Information Science though these types of interdisciplinary Information Science programmes are very minimum in India and South Asian countries.

In India, the close Information Science fields (having Information concentration) are Library and Information Science where as very minimum used nomenclature is Computer and Information Science. LIS programme is offered in around 280+ universities and colleges with Bachelor/Master degree and mainly (96%) come under faculty of Arts/Humanities in the universities; due to its nature [25]. Though apart from LIS some university also offered Information Science programme in concentration of computer and named as CIS. The western countries offer Medical Information Science and Health Information Science; however in India Information Science term used in Informatics. Simple nomenclature biased on any other domain or field as 'Information Science' initiated 20 years back by BIT Mesra with MSc- Information Science. Today some other institutes also offered such programme like, MCIS-Manipal, IEM-Kolkata, Periyar University-Salem and others.



Fig: 4. Two main dimension of Information Sciences at glance

### IS: Two symptom and view emphasizing West Bengal

Information Science has two flavours one is Computerised or Automated or Technology powered where as another is manual knowledge organization based Information Service or Information Management. The course gradient in *first foci mainly of Computers and IT* like, DBMS, Web Technology, Networking and Communication, Multimedia and Graphics which are deals with Digital Information and some papers/gradients are from core Information Science such as Information law and policy, Knowledge Management, Knowledge Organization, Information Professional and Studies. Though the first foci is included both Computer and Knowledge Organization but computer and IT gradients are nearly 70-75%; where as *Second Foci* is just opposite where traditional knowledge management, information

**VOLUME NO.2, ISSUE NO.9** 

### NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT www.abhinavjournal.com

studies, knowledge organization tools are main gradients and course focused on information and library aspects. Though this foci based programme initiated by Madras University as MSc- Information Science, Dr. BR Ambedkar University, Lucknow as MSc- Information Science. But now discontinued and come to 'Library and Information Science'. The reason may be that, course gradients are deals with traditional information management programme.

Like this, perception of common people and even academician also difference on Information Science. Many advertisements appear in Newspaper for admission on Information Science; where in bracket Computer Science is noted. Even some university not at all included any information and knowledge management gradients and they does not follow either first or second. All the papers are from IT or Computer Science. Perivar University mainly offers courses on such style, here faculty member of such courses also from CS/IT Fields and degree holders. Even the Board of Studies of MSc-IS/BSc-IS of Periyar University also included all the experts are from Computer Science/ IT departments. Out of 28 states only 4-5 states offers General Information Science with out any connection,( like- Library[Library and Information Science], Computer[Computer and Information Science], Health [Health Information Science] and so on), these states are Karnataka, Jharkhand, Tamilnadu, West Bengal. Out of these states West Bengal is the pioneers to offer Information Science nomenclature (MSc- Information Science) as on July, 2013 total 7 institutes offers MSc- Information Science and this number is higher in combining all others states offering. The institutes are IEM-Saltlake, Techno India-Saltlake, Techno India-Hooghly, DSMS-Durgapur, KITM-Buniadpur, DATM-Jalpaiguri, Dr. BC Roy Engineering College, Durgapur. Thus, the symptom is clear that, West Bengal is moving towards Information Science degree and academic programme. But it is a fact that, concept on Information Science not cleared among the people or academician; thus we may find in bracket IT/CS name to highlights Information Science course and even when students say what they studying, they say IT or Computer Science. In engineering colleges and universities AICTE not included Information Science as BTech/MTech programme; however one institute VTU. Karnataka offered Information Science with Technological concentration as Information Science and Engineering (ISE) as BE Degree. This symptom is good for Information Science as it is deals with Engineering colleges and universities. The Trends of Information Science is still on MSc degree and where pioneer is West Bengal. It is important to note that AICTE Extension of approval for the academic year 2013-14 for BIT Mesra approved a first programme in Country with AICTE approval on Information Programme in MTech-Information Science and Technology [IST]. The academician and Engineering colleges faculty members are doing better for Information Science promotion. Though, the main initiative in WB of MSc-IS course was initiated by IEM, Saltlake and WBUT from then other institutes are inspired and offered this programme as alter of MCA/MSc- Information Technology/ Computer Science[16].

### **FINDINGS**

- Information Science has so many focus one is traditional and another is computational; second one is subject focused and extra subject focus less;
- Information Science in India mainly offered as MSc; only one university offers BSc-Degree programme;

**VOLUME NO.2, ISSUE NO.9** 

### NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT www.abhinavjournal.com

- Information Science with subject concentration mainly offered as LIS and CIS;
- Awareness on Information Science programme still limited and mistakenly treated as IT/CS.



Fig: 5. depicted the availability of Information Programme at a glance

## SUGGESTION

- Information Science programmes need to introduced all degree such as MSc/BSc/MPhil/PhD and others;
- Proper awareness and initiative need to establish from academician and university level.
- A separate information school may be introduced for over all information science development;
- Proper funding and finance are also essential to avail.

## CONCLUSION

Information science has wonderful roll for information and technology solution. It believes on IT application to society and industry rather than development and investigation of new IT product development. Sophisticated Information Science programme are responsible for healthy information infrastructure building and development. Indian universities are doing well; India has largest educational institutes around the world. Here several engineering, computer, management colleges are there ; as an interdisciplinary programme Information Science may be introduced such department/ colleges several way as full-fledged programme or by specialised programme.

## REFERENCES

- 1. Bangalore Declaration (2006): A National Open Access Policy for Developing Countries. Retrieved February 01, 2011 fromhttp://www.ncsi.iisc.ernet.in/OAworkshop2006/pdfs/NationalOAPolicyDCs.pdf
- 2. Crow, Raym. (2002). The Case for Institutional Repositories: A SPARC Position Paper. Association of Research Libraries. Retrieved April, 2010 from http://www.arl.org/sparc/IR/ir.html.
- 3. Directory of Open Access Repository (2011). Home page of DOAR. Retrieved January 21, 2011, from http://www.opendoar.org/countrylist.php?cContinent=Asia

**VOLUME NO.2, ISSUE NO.9** 

#### NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT www.abhinavjournal.com

- 4. Johnson, R.K. (2002). Institutional repositories: partnering with faculty to enhance scholarly communication. *D-Lib Magazine*, 8 (11). Retrieved April 21, 2010, from http://www.dlib.org/dlib/november02/johnson/11johnson.html
- 5. National Knowledge Commission (2007). Report of the Working Group on Open Access and Open Educational Resources. New Delhi: National Knowledge Commission. Retrieved January 05, 2011 from http://knowledgecommission.gov.in/downloads/documents/wg open course.pdf
- 6. Registry of Open Access Repositories (2011). Home page of ROAR. Retrieved January 21, 2011,fromhttp://roar.eprints.org/index.php?action=search&query=india
- 7. University Grants Commission (2005). UGC (Submission of Metadata and Full-text of Doctoral Theses in Electronic Format) Regulations. Retrieved April 10, 2010 from www.ugc.ac.in/new\_initiatives/etd\_hb.pdf.
- Prantosh Kr Paul, Kalyan Kumar "Green Computing Vis-à-Vis Information Science -Indian Perspective" International Journal of Computer Science and Engineering Systems, Vol. 6, No. 4, October 2012, Page-167-171, CSES International, ISSN 0973-4406, July-Dec, 2012, Serials Publications, New Delhi, India
- Prantosh Kr. Pau1, KL Dangwal, "Green Computing: Opportunities and Problems in the perspective of Developing Countries" Asian Journal of Applied Science and Technology, Vol.1. No.2, ISSN-2249-0698, Page- 15-19, The Research Publication, Coimbatore, India, EIC-B Ramachandran, Nicholls State University Thibodaux, Louisiana, USA
- Paul, Prantosh Kumar, Dipak Chaterjee and Bhaskar Karn "Information Science Education and Research: emphasizing contemporary Indian scenario- an overview" in IEM/IEEE sponsored international conference proceedings (IEMCON-12). P-349-353. [indexed, abstracted in Google Scholar[USA], Cite Ceer, EBSCO]
- 11. Prantosh Kumar Paul, Dipak Chaterjee, K V Sridevi, K L Dangwal, "Computer and Information Science (CIS) Education in the Universities of India: Emphasizing Central Universities – A Brief Study" in International Journal of Marketting and Trade Policy, Page-277-284, July-Dec, 2012,ISSN-0975-6132 Serials Publications, New Delhi, India. Chief Editor- P Arunachallan, CUSAT. Kerala
- Prantosh Kr Paul, K V Sridevi, "Information Science (IS) Education: Challenges, Issues and Opportunities in Indian context" International Journals of Mathematics and Engineering with Computers, Vol. 3. No.2, July-Dec. 2012, ISSN-2230-8911, Page-87-93, International Science Press, Haryana, India, EIC- R Panalagusamy, Tamilnadu
- Prantosh Kr. Paul, "Information Science and its increasing scope and utilization in Geo Sciences for sophisticated Sustainable Development" International Journals of Neural Networks and Applications, ISSN-0974-6048, Vol. 5, No. 2, Page-85-89, International Science Press, Haryana, India, EIC- Angela Slavoa, IMI-BASc, Bulgaria
- Prantosh Kr. Paul, "Information Science (IS) and Information Technology (IT): Fundamentals emphasizing Comparative Study" International Journal of BSP [IJBSP], Vol. 3, No. 1, January-Dec-2012, ISSN-0975-8186, Page-33-37, International Science Press, Haryana, India, EIC-N Sriraam, SSN College, Chennai, India

**VOLUME NO.2, ISSUE NO.9** 

### NATIONAL MONTHLY REFEREED JOURNAL OF RESEARCH IN COMMERCE & MANAGEMENT www.abhinavjournal.com

- 15. Prantosh Kumar Paul, Ashok Kumar, Dipak Chaterjee "Health Informatics and its Practice: Emerging Domain of Information Science-Indian Scenario" in Current Trends in Biotechnology and Chemical Research, Vol. 2 No. 2, July-Dec, 2012, Page- 83-87, ISSN-2249-4073 [Indexed in DOAJ, Index Copernicus, Google Scholar, CAS-USA]
- Paul,Prantosh Kumar, D Chatterjee, M Ghosh "Medical Information Science: Emerging Domain of Information Science and Technology (IST) for sophisticated Health & Medical Infrastructure Building — An Overview" in International Scientific Journal of Sports Science, Vol.1 No. 2, July-Dec, 2012, Page-97-104, ISSN-2277-2804, New Delhi Publisher, New Delhi.
- 17. Raftery, Tom, "Is Coud Computing Green", http://www.enterpriseirregulars.com/44736/is-cloud-computing-green.
- Roy S. and M. Bag, "Green Computing New Horizon of Energy Efficiency and Ewaste Minimization – World Perspective vis-à-vis Indian Scenario", Emerging Technologies in E-Government.
- 19. Salmal, Soumitra, AB Das, AK Sarkar, " E Governance should better be implemented using Green ICT" in Education Technology and Content Management, Page 160-163, Techno India, 2-3 March, 2012., Page-34-41
- 20. San Murugesan, "Harnessing Green IT: Principles and Practices," IEEE *IT Professional*, January–February 2008, pp 24-33.
- 21. "TCO takes the initiative in comparative product testing".http://www.boivie.se/index.php?page=2&lang=eng.

### Web Pages

- 22. www.en.wikipedia.org
- 23. www.infosci.cornell.edu/
- 24. www.ischools.org
- 25. www.ugc.ac.in

#### **VOLUME NO.2, ISSUE NO.9**