

# *iSchools* and its need for Promoting Information-Technology-Social Interaction: Overview and Need in Indian Educational Context

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## **Abstract**

Information is treated as most important and valuable domain these days. There are many domains and fields which are closely related with information such as Information Science, Communication Science, Media Studies, Archival, Library Science, Information Technology, and Information Studies and so on. Hence a full-fledged association and foundation is established on such fields or more clearly on information fields (like the establishment of Information Schools / *I-School* caucus). The *I-School* has its own strength and specialization; together they share a fundamental interest in the relationships between information, people, and technology. The main aim and objective of this paper include Information Foundation and the domain surrounding by it. Paper talks about *I-School* organization, their main aim and objective and current activities in a brief manner. *I-School* caucus foundation plays an important role for healthy Information and Technological Infrastructure building by promoting education and research in the domain of information and technologies and allied fields.

## **Keywords**

Information, Information Foundation, Information Centre, Information Science, Academics, Association, Universities, IT, Computing, *I-School*, Information School, B-School.

## **Introduction**

The establishment on *I-School* originated during 1988, when eminent educationalist and Information Scientist, Toni Carbo, School of Information Science, *University of Pittsburgh*; Donald Marchan, School of Information Studies, *Syracuse University*, and Richard Lytle, College of Information Science and Technology, *Drexel University* joined hands for establishment of Information association called *I-School* Caucus [1], [34]. After few years in 2001, the three members' team expands to 'Gang of Five' and then in 2003 some more deans of different Information related schools joined the forum. Some Information related Schools are from- University of Illinois, University of North Carolina, Florida State University, Indiana University, and University of Texas and hence the group of ten was established. Thus after the development of the unity and big platform, such *I-School* team changes the conventional name from *I-School* caucus to simply *I-School* or *Information Schools* with new and much more wider

agenda. The *I-School* gained rapid popularity beyond directly associated Information Field and then some Computing, IT, Electronics and Telecommunication Schools are interested and joined with the *I-School* foundation [2], [34]. Please refer Fig. 1 & 2.

## Objective

The main aim and objective of this study includes but not limited to as follows-

- To know basic about *I-School or Information School* establishment and evolution;
- To know basic about the main aim and objective of *I-School* caucus foundation and *I-School* organization;
- To learn basic about *I-School* and its basic features and function;
- To know about the comprehensive list of *I-School or Information Schools* with current nomenclature and name of the universities;
- To know about the common and popular courses and strategies of Information Schools or *I-Schools* listed on their official websites.

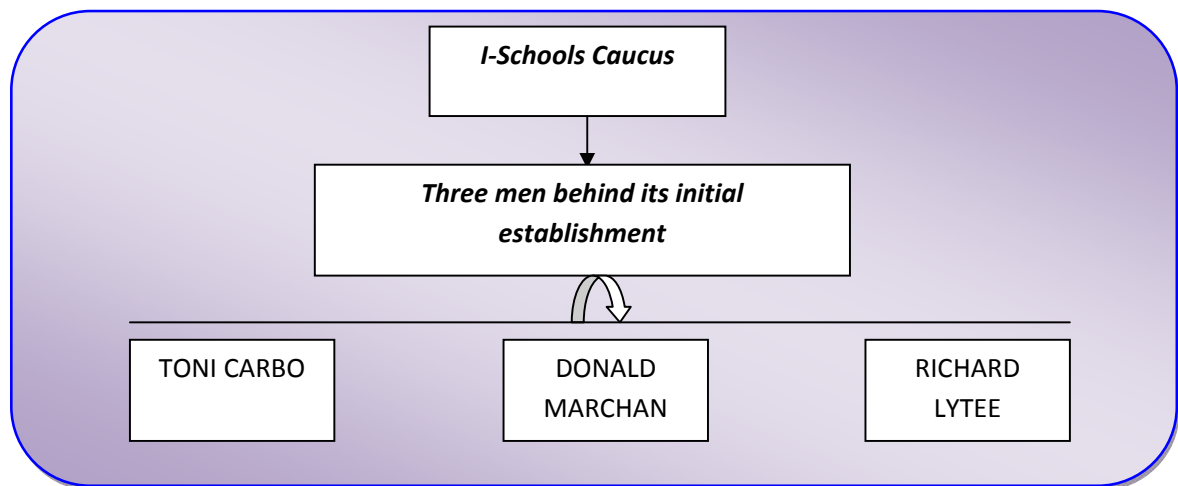


Fig: 1- Depicted the persons behind establishment of *I-School* caucus [22]

## *I-School* Caucus Foundation and their aim and objective

The main aim and objective of *I-School* caucus foundation are including available and making a common platform for information field and its development [3-4], [8]. The main intention of this forum includes but not limited to—

- Understanding of the uses and users of information, the nature of information, data and similar content and aspects.
- Understanding of Information Technology and Computing and their uses in industry, institutions, and academic venture including Information Foundation such as Data Centre, Information Centre and so on.
- The *I-Schools* have organized to pursue common objective with a collective commitment of resources [10, 12].

- According to *I-School*, the concerned school should engage in the training of future researchers usability through an active, research-oriented doctoral programme and a commitment to progress in the information field.
- Keep coordination among the related departments in one single platform and such departments are Computer Science, Electronics, Telecommunication, Media Science, Archival Studies; apart from the conventional department such as Information Science, Library Science, and Documentation and so on [13].

### Activities, Features and Function

According to *I-School* some of the features and function of this Foundation are including but not limited to—

- Criteria for being recognized as an *I-School* are not rigid, but schools are expected to have substantial sponsored research activities [at least an average of 1 million Dollars of research expenditure per year over the years].
- The participating schools need to keep the intention of the programme towards building a relationship between Information-Technology-People. Hence the programme and research should be based on research activities for the Information and Technological application to the wider community and organization.
- Building *I-School* with the Foundation affiliation needs the payment of a modest annual administrative fee by every affiliated member.
- Each and every school will designate a representative for the purposes of voting and participate in a Conference for *I-School* members, to be held monthly.
- For a modest annual administrative fee, the concerned School may contribute a brief description of their student, trainee, faculty and teachers, researcher and other academic details in the programmes [15-19].

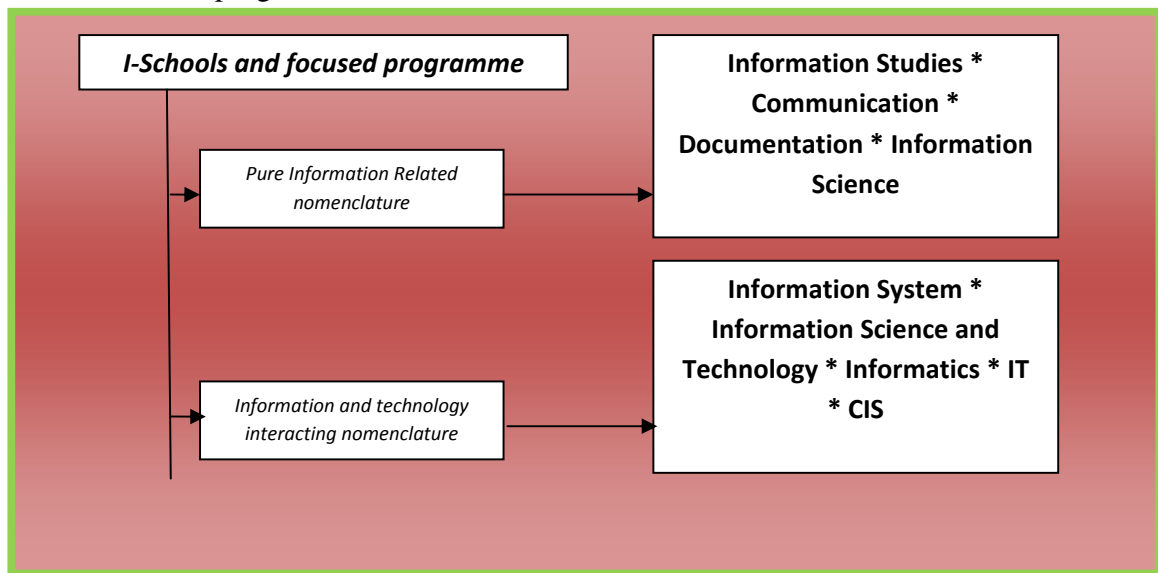


Fig: 2- Depicted Information Schools and Two focus on offering programme.

## Some Pioneer Information School and popular programme of Study and Research

The revolution and establishment of Information School or *I-School* started from United States and after few years's the concept and strategies was adopted by many Information Schools [6], [11]. Such Schools are established in the faculty of Science, Faculty of Engineering and Technology, Faculty of Information Sciences, and Technology around the world [21]. The most common name of the department / Schools deals with the aim and objective is- *School of Information/ Information Sciences*. However, some are also have nomenclature with Computing and Technology term [7], [20]. While some uncommon nomenclature are as follows—

- Department of Telecommunication, Information Studies and Media, Michigan State University.
- Department of Logic Uses, Social Science and Information, Telecom Bretangne.
- Graduate School of Humanities, Archives and Information Studies.
- Humanities Advanced Technology and Information Institute, University of Glasgow.
- Schools of Information Science and Learning Technologies, University of Missouri.
- Institute of Media Research, University of Siegen. *However, the list of 65 institute, with current departmental nomenclature is listed in the Table: 1—*

Table: 1-Showing current listed Information School of I-School Caucus/ Foundation [22].

SI No	Name of the Schools	University	Country
1	Department of Information Science.	Bar-Ilan University.	Israel.
2	School of Information Systems and Management, Heinz College.	Carnegie Mellon University.	USA.
3	School of Information Studies	Charles Sturt University.	Australia.
4	Institute of Information Studies and Librarianship	Charles University in Prague.	Czech Republic.
5	College of Computing and Informatics.	Drexel University.	USA.
6	College of Communication and Information.	Florida State University.	USA.
7	College of Computing.	Georgia Institute of Technology.	USA.
8	Department of Information Management, Faculty of Letters.	Hacettepe University.	Turkey.
9	Berlin School of Library and Information Science.	Humboldt University of Berlin.	Germany.
10	School of Informatics and Computing.	Indiana University.	USA.
11	The College of Computing and Information Sciences (Uganda).	Makerere University.	Uganda.

<b>SI No</b>	<b>Name of the Schools</b>	<b>University</b>	<b>Country</b>
12	School of Information Studies (Canada).	McGill University, Montreal.	Canada.
13	Department of Telecommunication, Information Studies, and Media.	Michigan State University.	USA.
14	School of Information Management.	Nanjing University.	China.
15	iSchool.	Northumbria University.	UK.
16	School of Statistics and Information Management.	NOVA University of Lisbon.	Portugal
17	Information and Communications Science Studies.	Open University of Catalonia.	Spain.
18	College of Information Sciences and Technology.	Pennsylvania State University.	USA.
19	School of Informatics.	Polytechnic University of Valencia.	Spain.
20	Department of Information Management of Aberdeen Business School (UK).	Robert Gordon University.	UK.
21	School of Communication and Information.	Rutgers, The State University of New Jersey.	USA.
22	School of Convergence Science and Technology.	Seoul National University Korea.	Korea.
23	School of Library and Information Science (USA)	Simmons, Boston.	USA.
24	School of Information Systems.	Singapore Management University.	Singapore.
25	School of Information Management (China).	Sun Yat-sen University, Guangzhou	China.
26	Library and Information Science Department.	Sungkyunkwan University, Seoul, Korea.	Korea.
27	School of Information Studies.	Syracuse University.	USA.
28	Department of Logic Uses, Social Sciences and Information.	Télécom Bretagne.	France.
29	Department of Library and Information Sciences (Spain).	Universidad Carlos III de Madrid.	Spain.
30	School of Information and Library Studies.	University College Dublin.	Ireland.
31	Department of Information Studies.	University College London.	UK.
32	Graduate School of Humanities, Archives and Information Studies	University of Amsterdam.	Netherland.
33	The Swedish School of Library and Information Science.	University of Boras.	Sweden.
34	School of Library, Archival and Information Studies.	University of British Columbia.	Canada.

<b>SI No</b>	<b>Name of the Schools</b>	<b>University</b>	<b>Country</b>
35	School of Information.	University of California, Berkeley.	USA.
36	The Donald Bren School of Information and Computer Sciences.	University of California, Irvine.	USA.
37	Graduate School of Education and Information Studies.	University of California, Los Angeles.	USA
38	Department of Archivistics, Library and Information Science.	University College: Oslo and Akershus.	Norway.
39	Royal School of Library and Information Science	University of Copenhagen.	Denmark.
40	Humanities Advanced Technology and Information Institute.	University of Glasgow	UK.
41	Graduate School of Library and Information Science.	University of Illinois.	USA.
42	College of Communications and Information Studies.	University of Kentucky.	USA.
43	College of Information Studies.	University of Maryland.	USA.
44	Department of Information Systems.	University of Maryland, Baltimore County.	USA.
45	Melbourne School of Information.	University of Melbourne.	Australia.
46	School of Information.	University of Michigan.	USA.
47	School of Information Science and Learning Technologies.	University of Missouri.	USA.
48	School of Information and Library Science.	University of North Carolina.	USA.
49	College of Information.	University of North Texas.	USA.
50	School of Information Sciences.	University of Pittsburgh.	USA.
51	Faculty of Engineering in cooperation with the Faculty of Arts.	University of Porto.	Portugal.
52	Information School.	University of Sheffield.	UK.
53	School of Media and Information Science.	University of Siegen.	Germany.
54	School of Computer and Information Science.	University of South Australia.	Australia.
55	Department of Computer and Information Science.	University of Strathclyde.	UK.
56	School of Information Sciences.	University of Tampere.	Finland.
57	School of Information Sciences.	University of Tennessee, Knoxville.	USA.
58	School of Information.	University of Texas, Austin.	USA.

SI No	Name of the Schools	University	Country
59	Faculty of Information.	University of Toronto.	Canada.
60	Graduate School of Library, Information and Media Studies.	University of Tsukuba.	Japan.
61	Information School.	University of Washington.	USA.
62	School of Library and Information Studies.	University of Wisconsin, Madison.	USA.
63	School of Information Studies.	University of Wisconsin, Milwaukee.	USA.
64	School of Information Management.	Wuhan University.	China.
65	Library and Information Science.	Yonsei University.	Korea.

The most common and popular academic programme in the Information Schools are listed in the *I-School* are as follows—

- MS/MSc-Information Science.
- BS/BSc [Hons]- Information Science.
- MSc/MS/BSc/BS- Information Management.
- BSc/MSc/BS/MS- Information Science and Technology.
- MS-Information/ Information Literacy.
- MSc/MS-Computer and Information Science.
- BS/MS-Informatics.
- MSc/MS- Information Science [*with specialization in Health Informatics/ Geo Informatics/ Telecommunication/ Web Based Systems/ Information Management*].
- BSc/BS/MSc/MS-Information Systems.
- BSc/MSc- Communication Systems.
- MS- Health Informatics/ Business Informatics/ Music Informatics.

### **India's Need and Possibilities**

As far as India is concerned, India is the largest educational system in the world with 750+ universities, 40000+ colleges, 90+ Institute of National Importance, 200+ Central Research Institutes which is listed in the fig. 4 with several level of academic and research programme such as in Engineering [BTech/MTech/BE/ME], Sciences [BSc/MSc], Management [PGDM/BBA/BBM/MBA/MMA], Arts and Humanities [BA/MA], Modern Medicine [MBBS/MD/MS] and so on [8], [22], [30], [31]. Refer Table: 2.

Table: 2- Showing Indian Higher Educational Institutes at a glance [13,14].

<b>Universities/ Higher Educational Institutions</b>	<b>In Numbers</b>	<b>Location</b>
Central Universities	44	Pan India with 28 States and UT
State Universities	370	Pan India with 28 States and UT
State Private Universities	290	Except some states and UT
Deemed Universities	130	Except some states and UT
Indian Institute of Technology [IITs]	23	Bhubaneswar, Chennai, Delhi, Gandhinagar, Guwahati, Hyderabad, Indore, Jodhpur, Kanpur, Kharagpur, Mandi, Mumbai, Patna, Ropar, Roorkee and Varanasi
Indian Institute of Information Technology [IITs]	23	Gwalior, Allahabad, Jabalpur, Kancheepuram, Sri City, Guwahati, Vadodara, Kota, Trichy, Una, Sonapat, Kalyani, Lucknow, Dharwad, Kurnool, Kottayam, Manipur, Nagpur, Pune, Ranchi, Surat, Bhopal, Bhagalpur
National Institute of Technology [NITs]	31	Agartala, Allahabad, Arunachal Pradesh, Bhopal, Calicut, Delhi, Durgapur, Goa, Puducherry, Hamirpur, Jaipur, Manipur, Meghalaya, Mizoram, Nagaland, Jalandhar, Jamshepur, Kurukshetra, Nagpur, Patna, Raipur, Rourkela, Sikkim, Silchar, Srinagar, Surat, Karnataka, Tiruchirappalli, Uttarakhand, Warangal.
Indian Institute of Management [IIMs]	20	Calcutta, Ahmedabad, Bangalore, Lucknow, Kozhikode, Indore, Shillong, Rohtak, Ranchi, Raipur, Tiruchirappalli, Udaipur, Kashipur.
Indian Institute of Science Education and Research [IISERs]	05	Calcutta, Mohali, Thiruvanthapuram, Pune, Bhopal
Other Central Funded Higher Educational Cum Research Institutes	Approximately 150+	Pan India with 28 States and UT

As far as Information Field is concerned, there is no single department or School concept till date. Most of the departments related with information working individually without cooperation and joint venture [14]. However, if we see about the Information Programmes, the most common is Library Science; which is offered by near about 300 institutes, then Communication Studies with around 100 institutes [14], [29].

However, the indirect information programmes are IT, CSE, Computer Application, and such programmes are offered in a single department. In many cases, we can see Information Science, Library Science, Information Technology and CSE and other departments in one single university; but still, the concept of merging such departments for better academic, research, and academic development is very minimum.

In India, some information related foundation are SRELS, DRTC, NISCAIR, Society of Information Science, Society of Advancement of Library and Information Science, Indian



Library Association, IASLIC and some computing related Foundations like- Computer Society of India, IEEE- Computer Society, India; IETE-Computer Society, India and so on [32], [33]. And it is expected that such organizations should take proper agenda and plan to move or merge information and technology related department under one umbrella as School of Information Science and Technology/ Information School.

However, huge potentiality is there to introduce all related departments of the university in a single department and such department by this way may improve their academic programme number, research performance, and interdisciplinary research [21, 27, 28].

### **Suggestion**

- In the Indian context, the related department may join together to boost Information Field and departmental performance towards achieving I-schools objectives.
- Association, Foundation and agencies may be established on information related domain in Indian context to develop interaction between Information-Technology-People by creating educated products and indirectly research.
- Proper funding, planning, and potentiality to introduce foundation on Information for accreditation of courses, investigation and proper maintenance, Guidelines, Cooperation and so on as like AICTE, MCI of India.
- Interdisciplinary programme may be started by joining with core information related departments and IT/ Computing related departments.

### **Conclusion**

Information is the most valuable asset in today's age. Each and every one now directly and indirectly associated with information and knowledge. And the development of information activities is only possible with proper information infrastructure and system development and; such infrastructure is possible with educational development. Hence, an educational programme on information and allied domain is positively needed for healthy information society building. Today we are surrounded with information and technology [05, 09, 12]. Information Schools thus need to join hands to establish such foundation for better future practice or another approach may join hands with US based *I-School* organization with Indian Schools; deals with Information-Technology-People interaction agenda for complete and sustainable development. However interesting to note that many IT and Computing departments (*and also other information related department and schools*) worldwide have been following *iSchool* nature in their system without joining *iSchools* Organization (*previously Caucus*) for financial benefits.

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