

102. Science Communication Education in North East India

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Abstract. More than half of the Indian population stays in rural areas and therefore connecting the unconnected becomes one of the primary challenges. Science and technology development and the general people's awareness are necessary for overall society development. No one can doubt the immense impact of science and technology on society today. We face the challenges of not only understanding the current multiple revolutions in science and technology, but also how they affect the future of humanity and of the Earth. So scientific information, scientific thoughts and spirit of scientific temper need to be spread across the society. Science communication can be referred to the flow of scientific information and message from its source to target audience, through some medium or mediator. Except a few very honourable exceptions, generally, scientists and technologists find it difficult to communicate with common man in common man's language. At the same time, the common man too is unable to understand the language of scientists - technical texts with technical jargon, specific to the subject area. Now, the problem is obvious, as the two are unable to communicate with each other which leaves a wide gap between the two and which is growing day by day due to rapid advancements in our scientific knowledge. The task is really very challenging and it needs proper training and education in the field of science communication.

This paper attempts the contemporary status of science communication education in NE as well as it emphasizes the analysis of relevancy of the course curriculum in modern context. The research work highlights the various constrains and challenges ahead in this regard.

Keywords: Science communication, Education, India's North East

Introduction

Dissemination of the proper scientific information among the general masses is the need of the hour. It requires proper training and education in science communication process to create the ability to understand, digest and assimilate the complex scientific information and to present it in a simple, lucid and interesting manner to the masses in the language, comprehensible to them. Indeed we need science communication training and education. The science communication education in North East India is still in very much juvenile stage. The mass communication departments of different universities and colleges have started special papers on science communication or science journalism as specialization. Let us start this discussion with a comprehensive history of mass communication education in the region—

Mass Communication Education in India's North-East

Journalism and mass communication education was started in the state in 1960's. Though a few organizations started correspondence courses in journalism, yet at that time it was not recognized as an academic discipline. Gauhati University started the first journalism course in the state through conventional education system. The Department of Communication and Journalism of the university came into existence in 1967. Being one of the first ten university departments of journalism studies in the country it was started as a part of the Political Science Dept. under the able leadership of Professor K Venkatarao who was instrumental in setting it up. At first the department offered an evening diploma course which was later upgraded to a bachelor degree level course named 'Bachelor of Communication and Journalism' in 1994. In the year 1983, the department became a full-fledged department with an intake capacity of 25 students. The department started Master degree course named 'Master of Arts in Mass Communication' in 2005. This

is a full-time four-semester two-year programme with a total of 16 papers with several options for specialization.

The department facilitates the students of masters level with a library, one computer-cum-multipurpose laboratory classroom, digital still and video cameras including handycams and PD-170, LCD projector with screen, an 11 KVA power back up system etc. The department also organized four Refresher Courses (Multidisciplinary) in Mass Communication since 2006–07 at the UGC-Academic Staff College of GU with sufficient number of participants. The department has five faculty members and a good number of guest faculties. Among them two are permanent lecturers, one is a senior lecturer under science communication project and the other two are lecturers on contractual basis.

Though the department of communication and Journalism of Gauhati University was established in 1967, but the department of Mass Communication of Assam University, Silchar started the first master degree level course in the state. This department started functioning in 1996 and since then it has been providing quality training and media education at postgraduate and doctoral levels. Prof. Partha Chatterjee, a renowned media educator of Kolkata took the initiative as the Professor and Head to upgrade the department with an excellence. The infrastructure of the department consists of a Video Studio, Audio Studio, Associated Control Rooms, and a comprehensive post production facility with audio edit suites, FCP non-linear editing, Computer Lab and screening hall. The department's TV studio is fully equipped with broadcast quality equipment coupled with online multi camera production facility. Adding yet another feather to its illustrious cap, the department has been recently granted a Major Research Project (MRP) by UGC, New Delhi on the thrust area of modern mass India.

The department has been offering four academic programmes, namely Master of Mass Communication (Four Semesters), M.Phil (three semesters), Ph.D. and D.Litt of the total seven faculties serving in the department one is Professor, one Associate Professor and the rest are Assistant Professors. Prof. K V Nagraj is working as the Head of the Department.

Established in 2001, the department of mass communication and journalism at the Tezpur Central University is one of its kind in the entire northeast to have state-of-the-art facilities with provisions for production of industry grade quality media content. The department offers a two-year (four semesters) Master's programme in Mass Communication & Journalism with an intake of 26 students. The curriculum combines theoretical studies of media with practical and skill orientation, which includes courses in Television Journalism and Production, Visual Communication, New Media Technology, Film Studies, Advertising and Public Relations, Development Communication, Communication Research Methods and Applications etc. The department also offers a Part-time Post Graduate Diploma in Community Communication from 2009.

The department facilitates the students with an exclusive computer laboratory, an audio visual studio with a fully equipped audio/video studio with digital non-linear and linear edit solutions, multi-camera set-up make learning a unique experience. The Department has two DSR digital cameras for high quality productions and three PD-150 digital cameras for ENG exercises. The post-production facility includes Apple Power Mac with the latest version of Final Cut Pro, Apple G4 with the Media 100 edit suit, professional audio production facility includes protol software with the sophisticated digital audio production units. Presently, Dr Abhijit Bora is heading the department.

Media and Communication Study Centre was started by the Entrepreneurship Development Cell in 2004 at Cotton College, Guwahati with the initiative of the Chief Coordinator and other members of the Entrepreneurship Development Cell (EDC) of the college and Dr Ankuran Dutta as its founder course coordinator. EDC was a five year project funded by the Department of Science & Technology and it was started in 2003. The media centre under the EDC initially started initially a 9 month course consisting of three level on mass communication in January 2005. Later the course became a self-financing PG Diploma programme. In 2008, the centre was renamed as Centre for Mass Communication & Journalism.

In the other seven states of the North East, Mass Communication education is comparatively new in their conventional higher education infrastructure. The Department of Mass Media, St. Anthony's College, Shillong is one of the pioneer in the field of mass communication education in the north eastern region. The Media department of the college has two separate graduate programs running. Mass Communication and Video Production were started on 14th of September, 1995 and the programme on Media Technologies was established on 13th of June 2001. St. Anthony's College started the undergraduate course in Mass Communication and Video Production in 1995, the first of its kind in the country, which has a national recognition for excellence and facility. It was in recognition to the pioneering effort of the college that the UGC sanctioned a second professional graduate course in Media Technologies in 2001. The two courses enable students to find their place among a burgeoning class of media professionals, not merely as multi-skilled technicians, but as individuals with a sound theoretical understanding of the larger social context within which the media industry functions. The department has surely prepared competent professionals in the fields of communication and journalism by instilling also a right sense of intellectual probing and responsibility.

In addition to this remarkable effort, Rajib Gandhi University of Arunachal Pradesh, Manipur University, Tripura University, Nagaland University, Mizoram University, Sikkim University and North Eastern Hills University have opened mass communication departments during past decade. The Department of Journalism and Mass Communication of Tripura University as established in 2009 at their main campus of Agartala. Mizoram University has started this department in 2010. The department in Manipur University was established in 2005.

In order to extend the benefits of the study of mass communication to any student interested in the field, the IDOL of Gauhati University started a PG Diploma programme in Journalism and Mass Communication and a two-year Master of Communication and Journalism (MCJ) programme from 2005 and 2008 respectively in open and distance learning system. MCJ is a modular yearly course. Under this scheme, a student successfully completing the first year will be awarded the PG Diploma in Journalism and Mass Communication and will be eligible for admission to the Final Year of the course. If they also successfully complete the Final Year module also, they will be awarded the MCJ degree.

The Directorate of Distance Education, Dibrugarh University also started a PGDJMC programme from 2007 for the distance learners of the state. In the next year, the university established a centre namely Centre for Studies in Journalism & Mass Communication and launched a regular P G Diploma course in conventional mode. Professor Kamala Borgohain is the Director in-charge of this centre. Earlier, the university established a Media Studies Centre in collaboration with the Vikalpa Trust of New Delhi and started two programmes, namely Animation & Digital Film Making and Digital Film Making & Recording Arts.

Meanwhile, Krishna Kanta Handique State Open University was established and its academic works started functioning from the mid of 2007. This first and only state open university of the north east launched a Bachelor of Mass Communication Programme for the first time in the region. After receiving a good response in the BMC programme, the University has started two UG level diploma programmes namely Diploma in Journalism & Mass Communication and Diploma in Assamese Journalism and two PG diploma programmes–PG Diploma in Mass Communication and PG Diploma in Broadcast Journalism. The university has also launched Master of Mass Communication from the academic year of 2010.

Science Communication Education in India' s North East

In 2005, the National Children Science Congress was organized in Guwahati. The Congress was fully covered by the students of the Media and Communication Study Centre of Cotton College. During the NSCC, the then course coordinator met Dr. Dinesh Ch. Goswami, eminent science communicator and scientist of Regional Research Laboratory, Jorhat. In a meeting, Dr. Goswami advised on the funding provisions of the National Council for Science and Technology Communication, New Delhi for the mass communication centres. Then the course coordinator immediately took the initiative and contacted to the NCSTC for funding. At that time, science communication was a new concept among the faculties of Cotton College. The new course coordinator Ms. Anamika Ray took initiative to start a special paper in science communication. Then she participated in a workshop on curriculum development of science communication at Jaipur organized by the Department of Mass Communication of Rajasthan University in collaboration with NCSTC, Government of India. After receiving the technical knowledge on the running of a science communication paper in PG Diploma course, the course coordinator of MCSC prepared a project with the help of the authorities of EDC, Cotton College, especially Dr. S K Choudhury & Mr. S K Nath. The project was sanctioned by the NCSTC, Government of India to run a special paper in science communication in May, 2007. After receiving the financial grant from the NCSTC, the Media Centre of Cotton College incorporated a special paper on science communication in second semester of the existing PG Diploma programme. Dr. Manoj Kr. Patariya, the Director of NCSTC took special care to start the project for the first time in the region. Inevitably, it must be mentioned here that, some science organizations of the state organized so many workshops and seminars on science communication or science journalism, but for the first time it has been incorporated in an academic discipline in the region.

On the other hand, with the support and help of Dr. Abhijit Bora, then Lecturer and Head of Department of Communication and Journalism, Gauhati University, a lecturer of the department Dr. Ankuran Dutta prepared a different project to start science communication special paper in the Master of Arts in Mass Communication course of the university. This project was also sanctioned by the NCSTC, Government of India in 2008, but the coordinator of the project Dr. Dutta has resigned from the department and joined the newly established K K Handiqui State Open University, Guwahati. Science Communication is running as an optional specialization in the third semester of MA Mass Communication course of Gauhati University. Assam University, Silchar has also started an optional

specialization in science and technology communication in the final semester of masters programme from 2009.

With an objective to start different courses in science communication and to pursue research in the field, K K Handiqui State Open University has planned to establish a centre. The university is offering a compulsory course in the third semester of bachelor degree programme and an optional course in the masters programme. But still the other universities have not incorporated science communication as a special course in their syllabi. In the syllabi of the maximum universities of the north eastern region, there is a provision of a small unit or a part of a unit on science reporting or beat reporting on science, but there is no separate course on it.

Course Content

After examining the syllabi of Gauhati University, Cotton College, K K Handiqui State Open University and Assam University, the researchers have found a few important topics of science communication that have been incorporated. The following are some common topics included in the syllabi:

- Definition of Science Communication
- Importance of Science Communication
- Need of Science Communication
- Concept of Science Popularization
- Various formats of Science Popularization
- Science through Traditional Folk Media
- Health Communication
- Environmental Communication
- Concept of Scientific Advertising
- Preparing for Scientific Advertising
- Laws related to Science
- Writing of Science News
- Writing of Feature and Articles on Science
- Sources of Scientific Information
- Various formats of Radio Programmes
- Various formats of TV Programmes
- Writing for Radio and TV on Science

Academic Seminars/ Conferences in Science Communication in North East

Considered as an academic activity, Seminars and Conference have been organized by different initiatives on science communication as an academic discipline. MCSC, Cotton College organized a workshop in August 2007 and after that in April 2009, Department of Communication and Journalism, Gauhati University organized a seminar.

The 9th Indian Science Communication Congress was organized for the first time in the entire northeastern region of India in K K Handique State Open University. The main aim of the ISCC 2009 was to focus on the meeting point of science and common man through communication which will be for the benefit of the society. The Congress was organized by National Council for Science & Technology Communication (NCSTC) under Ministry of Science and Technology, Govt. of India and Krishna Kanta State Open University, Guwahati, Assam in collaboration with Indian Science Writer's Association (ISWA), New Delhi. The NCSTC, Govt. of India, has been organizing ISCC since the last eight years. The ISCC started from the year 2001. The meet has been organized in several cities, like Lucknow, Ranchi, Visakhapatnam, Gwalior, Varanasi, Ahmedabad, New Delhi and Chennai. The 9th Congress was organized at Guwahati.

The 9th Indian Science Communication Congress focusing on the theme "Science meets Communication" began on 20th December, 2009 with an introductory evening session on popular talks on Science Communication and formally came to an end with field visit for the participants on 24th December 2009. Around 180 delegates and participants attended the congress from all over the country.

Challenges and Recommendations

The researchers are actively involved in the science communication education in the north east. Therefore from the experience of the last five-six years, the researchers have realized the following challenges and would like to give some recommendations:

Lack of awareness/ importance on science communication education in North East

- a. The mass communication discipline itself is comparatively new in the north eastern region. Except Gauhati University, all other universities have started mass communication courses in the last decade. So, importance on science communication is less among the institutions, who offer mass communication courses.
- b. Lack of awareness is also another barrier. The concept of science communication is a new one and it is some time difficult to make the decision makers understood about the importance of science communication in the course of mass communication.

Negligibility of science communication in the syllabi of mass communication

We have gone through the various syllabi of different educational institutes, but found that the science communication is in a negligible position in the mass communication syllabi. Science reporting is only a small topic mentioned in the syllabi of different university's courses.

So, it may be recommended that science communication should compulsorily cover in the syllabi of mass communication courses and it must be incorporate as an optional course in masters level programmes. For example, without any financial assistance from the NCSTC or any other agency, K K Handiqui State Open University has introduced a full course of 100 marks on science communication in the third year of bachelor of mass communication programme as a compulsory course, not optional. The university has also included a full course of science communication in the final semester of masters degree programme.

Inadequate Financial Assistance to the mass communication universities

NCSTC is the nodal agency and the principal funding agency to run science communication course/ paper in the mass communication programmes. But, the NCSTC has given financial assistance only to Cotton College and Gauhati University.

They should encourage the other university to start science communication courses/ papers and the funding policies should be flexible.

Lack of proper infrastructure in the departments

It is noticed that the situation of the state universities or state funded institutions is very poor in contrast to the central govt. funded institutions and central universities. So, to improve the infrastructure of the department and to run a science communication course utilizing modern equipment and technology, the govt. should give a special fund to the institutes.

Lack of proper course materials of science communication

Science communication is a new area of study in the north eastern part of the country and course material on the discipline is very limited in the libraries. Text books are not available in the market. Therefore, the universities and the NCSTC may prepare some standard text books for this area of study.

Lack of experienced and trained resource persons

Another important challenge is the lack of proper trained and experienced person in the field. Therefore, NCSTC may organize some academic programmes like refresher course on science communication for the media educators.

Lack of model syllabus

A model syllabus should be prepared for different programmes. It is required to maintain the standard of the science communication programmes in different universities.

Lack of interest among the students

In the media of the north eastern state, science communication or a page/ space on science is not much popular. Therefore, the scope of the science communicator is less than other allied profession. In this connection, the institutions of national importance and the govt. should encourage the media to cover science stories as much as possible.

For society development it is very much necessary that common people should understand the science in right

manner. This is the reason, science communication is required. But proper communication especially on science is very delicate and tough job which need proper education and training. With the help of Government and the transformation in common perception & attitude can change the scenario. And then only science communication can sustain in our society.

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