

Comment

MASTER IN SCIENCE COMMUNICATION: AN OVERVIEW

Masters (MSc) in Science Communication. Dublin City University

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ABSTRACT: The Masters (MSc) in Science Communication at Dublin City University (Ireland) draws on expertise from several disciplines in human and physical sciences. The programme takes a broad view of communication that includes the various kinds of interaction between institutions of science and of society, as well as the diverse means of exchanging information and ideas. Nearly 200 students from a wide variety of backgrounds have completed the programme since its start in 1996, and they work in many different types of employment, from information and outreach services, to science centres, to publishing and journalism. Through the programme, and in the dissertation in particular, students are encouraged to reflect critically on the place and performance of science in society, and on relations between the cultures of natural sciences and of humanities and social sciences.

The DCU Masters programme is unusual among European programmes in being based in a department of communications (within the Faculty of Humanities and Social Sciences). More typically, science communication programmes have been an outgrowth of departments and faculties of natural sciences. The interdisciplinary character of mass communication as an academic field is strongly in evidence in the content and in the personnel of the DCU programme. This is reinforced by the participation in the programme of leading researchers from the university's Faculty of Science and Health. Among the teaching staff are academics with qualifications and research or professional experience in communication theory, journalism, film studies, literature, philosophy, healthcare ethics, as well as several branches of natural sciences.

This interdisciplinary collaboration was complemented in the early years of the programme by the collaboration between the School of Communications at DCU and the Department of Physics at Queens University Belfast (QUB). For eight years, the programme was the only higher education qualification offered jointly by institutions on either side of the Irish border. The programme was established by the two universities in recognition of the need to support academically the emerging professional practices of science communication.

Nearly 200 students have completed the programme, most from Ireland, but also including students from Britain, France, Germany, Italy, Netherlands, Norway, Spain, Romania, Canada, China, and the United States. Since 2003, the programme has been based at DCU only.

From the start, the DCU programme has welcomed students from all backgrounds. The students who have taken the Masters include graduates of Bachelors programmes in philosophy, history, sociology, communications, journalism, anthropology, languages, literature, business, though the majority have come from the natural sciences, specifically the biological sciences (including biotechnology, biochemistry, pharmacology, genetics, zoology, environmental sciences).

A principle of the DCU programme has been the promotion of discussion and reflection on the respective contributions to the general intellectual culture of the humanities, social sciences and natural sciences. The interactive teaching style and the participation in the programme of teachers and students of various backgrounds have guaranteed that discussion and reflection. The programme aims to take students beyond inherited notions of the opposition or distance between these intellectual cultures to consider the ways in which each illuminates the other.

The 'communication' in 'science communication' is understood as encompassing the relations between the organisations and institutions of science and those of society (including politics, education and media), and the perceptions that these communities have of each other. But 'communication' also covers the practices of information services, journalism, science centres and public relations, and students also take courses that address these subjects.

The foundational elements of the programme are discursive courses in Science and Society, Science in Media, Issues in Contemporary Science and Philosophical Perspectives on Science. These examine the trends and issues in their respective fields. Related optional courses, also with an emphasis on theory, critique and analysis, include The Public Sphere and Representations of Science in Film and Television.

The lecturers teaching these courses are all active in research in these fields, contributing to journals, books, conferences and research networks on their subjects of particular interest. The foundation of the teaching on research contributes to the common critical perspective of these courses; students are encouraged to examine several possible perspectives on any topic and to assess critically the claims made by promoters or advocates of any particular institution or position. The usual form of assessment is the essay, of which there are several variants, in which students are required to analyse arguments and to develop their own.

The courses more focused on practical and professional skills also contain these critical and analytical elements: students are required to develop a brief, or assess a given brief, as part of their practical exercises. These courses include Journalism Skills, Public Relations, Presentation Skills, Publication Design and Showing Science; each of these allows the student develop their skills in written, oral, visual or other aspects of communication.

The intended learning outcomes of the programme are that students will have developed the capacity to analyse critically a given situation or phenomenon in science communication, to assess and select the techniques or methods appropriate for that situation, to apply these consistently and coherently, and to reflect self-critically on the results or outcomes achieved.

A key part of the programme is the final dissertation, representing one third of the total credits. Here, students are required to apply their accumulated knowledge and capacities to a larger-scale issue, situating their analysis within the theories of science communication or social studies of science. Past dissertations have included analyses of media representations of science-based topics and studies of policy developments and social interactions on science-related issues. Some have also been presented as media artefacts, such as series of articles, magazine or web site designs, or video documentary outlines on science topics. The dissertations are held in the university library as a resource for future students of this and other programmes.

In many cases, these final dissertations have been an important aide to the students in securing relevant employment, after completion of the Masters programme. The principal areas in which graduates of the DCU programme have found employment include: public information services, journalism, informal education, science-in-society programmes, science promotion and science policy. Of these, information services account for the single largest group of graduates of recent years.

A smaller number have continued their studies (or have returned to studies after some time in other employment) as PhD and post-doctoral researchers, some in social studies of science, and some in the natural sciences, at DCU and elsewhere. PhD projects in science communication at DCU have included studies of celebrity scientists, of public controversies on biotechnology, of young peoples' representations of newer biological sciences, and of bioscientists' attitudes to public communication.

Curiosity about science's place in society, political interest in promoting better science-and-society relations, and demand within research and higher education institutions and within science-based enterprises for specialist communicators all continue to grow. Thus, the place for Masters programmes in science communication seems reasonably assured. But, reflecting the expectations both of students and prospective employers, these programmes will need to be flexible, allowing students to choose different pathways and specialisms that suit their own interests and needs. The DCU programme will continue to accommodate a wide variety of student interests, aiming to add more strands as the field of science communication diversifies further.

Author

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