

PROFESSION: SCIENCE COMMUNICATOR



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In the UK, science communication has become a legitimate, though challenging career path. In Poland, it remains largely a hobby. How do these two realities compare?

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At the outbreak of the pandemic, I participated in discussions held in two groups of science communicators, one Polish and one British. The Polish group was bursting with energy: members exchanged ideas for online workshops, sought ways to engage children and young people, shared contacts with journalists, and developed educational materials. In contrast, the atmosphere in the British group was considerably more subdued. Due to the lockdown, ticketed shows, festivals, and performances were canceled, causing many communicators to lose their primary source of income.

This highlights an important difference between the two countries. In Poland, science communication is often pursued “after hours,” in a hobby-like manner. Meanwhile, in the United Kingdom, it is a recognized career path – full-scale science communication has been developing there for at least three decades, supported by institutions such as the National Co-ordinating Centre for Public Engagement, a Professorship in Public Understanding of Science at the University of Oxford, and numerous training courses and conferences. At first glance, such professionalization may seem like a clear advantage, since in Poland public engagement with science is still largely a grassroots effort led by journalists, enthusiasts, or academics. However, the bottom-up nature carries enormous potential and creates a considerable space for action, in particular in the context of educational materials for children: there is still a shortage of such resources in Polish, whereas in English, virtually everything has already been produced.

Three Types of Communication

How does science communication work in the UK? To begin with, it is worth noting that English distinguishes three pathways, which in Poland are collectively referred to as “popularizing science”. This distinction influences how specific initiatives are approached.

The first pathway is science communication – a one-way process in which an expert transfers knowledge

to the audience. The second is scientific outreach, i.e., actions aimed at engaging a specific group of recipients, such as young people, to foster interest in future studies or research. The third is public engagement, a two-way process in which non-scientists influence science – through participation in consultations, co-deciding on research directions, or involvement in citizen science projects. Such consultations are particularly prominent in medicine, where they are known as patient and public involvement; here, patient organizations may present specific needs, which can then guide future research focus. Meanwhile, citizen science allows the audience to contribute to research – a solution especially popular in ecology (see more on pages 38–41 – editor’s note).

In Poland, all these areas are treated collectively as popularizing science, which can obscure some of the nuanced distinctions in methods and goals (are we informing, creating opportunities, or inviting co-creation?). When we hear “popularizing science,” we often think of science fairs or dancing on TikTok – yet it is important to remember that it can also involve writing popular science articles, collaborating with museums or businesses, developing spin-off companies, or engaging in other strategic activities. At the same time, I realize that the distinction among the three areas in English primarily concerns the practitioners (i.e., the communicators) themselves; I suspect that most people in the broader academic environment do not pay much attention to these nuances.

Who Do We Speak To – and How?

The area of public engagement in particular requires careful consideration of the target audience. It is not uncommon to see scientists, who are often required by funding bodies to demonstrate the societal impact of their research, panic and organize a visit to their child’s school simply to “tick the engagement box”. Such an approach is a wasted opportunity – unless, of course, pupils ARE the researcher’s intended audience. At this point it is worth asking the fundamental questions: *Why do we engage in outreach? Why do we talk about science?* Naturally, our goal is to reach society – however, this should not boil down to stating that “science is important”, full stop. Instead, we ought to demonstrate the real impact of research and what can be achieved through it.

Ideally, public engagement activities, regardless of their specific orientation, should be deliberate,



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strategic, and beneficial to all parties involved. Take the example of communication efforts around leukemia – a topic relevant to a broad segment of society, requiring a targeted outreach approach aimed specifically at young adult men from minority communities. In the United Kingdom, for instance, this includes the South Asian community, where bone marrow donation rates remain low despite significant need. The ability to reach a particular audience, capture their interest, and effectively influence social attitudes or behaviors, is key to effective engagement.

When planning outreach activities, think strategically. First, what is your objective? Whom do you want to persuade, what do you aim to change or influence? Second, who is your audience? What will capture their interest and persuade them? What motivates them, and how much do they already know about the topic? Third, what is your message? What should the audience take away from a lecture, article, or film? Should they acquire new knowledge, change their behavior, or participate in a project? Analyzing the audience is crucial, as this will direct how key messages are adapted, what level is the activity pitched at, or what metaphors can be used.

Against the backdrop of all these dilemmas, enter: science communicator.

The Science Communicator: Role and Remuneration

A science communicator is an individual who supports scientists in conveying their research and helps audiences understand scientific knowledge. This role may be fulfilled by a scientist, a journalist, or a professional operating at the intersection of these two domains.

In the United Kingdom, science communication can be pursued as a full-time profession in universities, research institutes, or non-governmental organizations, as well as on a freelance basis through activities such as conducting workshops, delivering science shows, or producing media content. Freelance work offers a high degree of independence but also entails financial instability. For this reason, many science communicators combine freelance activities with stable academic positions or full-time employment in organizations – a solution that I consider optimal. Full-time freelancing can be financially precarious, especially since a substantial amount of time has to be devoted to securing the next gig. Moreover, competition in the UK is intense, considerably more so than in Poland, where, because of its relatively niche status, it is generally more valued. A few years ago, I ran a range of workshops for Polish organizations and was paid an amount comparable to that in the United Kingdom, despite lower average salaries and living costs. Breaking into the UK market is more challenging, and requires competitive rates and developing a highly distinctive professional profile – for example, by creating original formats such as scientific songwriting. It is a demanding and highly competitive field; consequently, when students ask me about pursuing this career path, my initial advice is simple: *don't quit your day job*.

It is also possible to have a dual career, combining a conventional academic post with science communication activities. This has been my experience when I worked at the Department of Paediatrics at the University of Oxford as a communications and public engagement officer: I split my week between this job and an academic position elsewhere. In my role, I was responsible for both internal and external communication: writing website content and press releases, preparing scientists for interviews with journalists, and managing relationships with the media. My tasks also included public engagement activities, such as planning and supporting projects designed for wider audiences. At the same time, my task was primarily to plan and generate ideas for events, while making sure that the scientists conducting the research remain in the spotlight, for a more impactful and authentic outcome.

When students ask about pursuing a career as a freelance science communicator, my response is always the same: *Don't quit your day job*. It's a demanding and highly competitive tough market.

Scientists often hesitate to engage in science communication, particularly in media appearances, because they feel insufficiently competent to address topics outside their narrow area of specialization. They ask themselves: *Can I go beyond my own expertise?* Reliability and honesty must always remain paramount. In live interviews, I am sometimes asked questions that fall outside my remit; in such cases, I would openly acknowledge that I do not know the answer or refer to a related topic with which I am more familiar. When it comes to interviews prepared in advance, I approach them much like a literature review: I consult relevant publications ahead of time, prepare thoroughly and communicate knowledge to the audience in an accessible manner. At times, however, it is necessary to simply say “I don't know” or even to decline participation altogether, which can be tough when the request comes from a prominent journalist or when the appearance could generate substantial publicity. Just set aside your ego and don't claim to be the expert on every subject.

However, there are situations in which scientists, for various reasons, are unable to maintain direct contact with the media – a circumstance that became particularly apparent during the COVID-19 pandemic. The largest group at the Department of Paediatrics at the time was the Oxford Vaccine Group, responsible for the development of the Oxford-AstraZeneca vaccine. This resulted in an exceptionally heavy workload and a surge of inquiries from journalists across multiple countries. Expecting researchers who were already operating at full capacity to respond to every email was unrealistic. To alleviate the pressure on my lab-based colleagues, I worked as part of a five-person team, with areas of expertise ranging from biology and immunology to non-biological backgrounds, to respond to media queries, curate and synthesize information, and determine which content could be shared directly and which required consultation with subject-matter experts.

While we made every effort to ensure that scientists remained at the center of public attention, we also knew that not all of them have the time, skills, or experience required to develop engaging educational or public-facing initiatives. For this reason, I would argue that science popularization should be mandatory for scientists only if it is accompanied by robust institutional support. Top-down directives with no appropriate assistance or tools are unlikely to be effective.

Supporting Scientists in Communication

In Poland, communication support for scientists is still, as far as I can tell, in a relatively early stage of development, and the improved relationship between the scientific community and mainstream media has taken off in the past few years. Back in 2014, I won the FameLab competition, and, together with other FameLab finalists founded *Stowarzyszenie Rzecznicy Nauki* (Association for Science Advocates). I quickly noticed that journalists were very pleased to finally be able to call up people who could explain science in a relatable way. In the United Kingdom, this is pretty much the default: when journalists contact a university department, someone, either the relevant researcher or a dedicated science communicator, will be on hand to answer questions or relay relevant information to the media.

I am a firm believer that effective science communication can be learned. This conviction led me to collaborate on *The Communicating Scientist: A Practical Handbook*. The book's idea came from Olle Bergman, a Swedish science communicator and coach who recognized the challenges faced by scientists, particularly doctoral and post-doctoral researchers across Europe. He was joined in this project by Sarang Park, and later myself.

I recall the British Ecological Society conference in December 2023 – a major event with several thousand participants and hundreds of lectures, workshops, and poster presentations. Observing the scale and intensity of the conference, I felt compelled to write to Olle to emphasize just how necessary his book was. What I witnessed was, at times, deeply discouraging. Scientists often assume that other scientists will tolerate almost any presentation in the pursuit of new knowledge – but we too are human! We experience boredom; we grow weary of dry, impersonal communication. Science does not suffer when it is conveyed in vivid, accessible language; on the contrary, this is when it becomes truly effective. I intended to share these reflections with Olle, but I did not do so in time. It was then that I learned he had passed away unexpectedly. Despite this loss, our project was ultimately brought to a successful completion.

The book we created consists of three parts: from the basics of communication, through practical guidelines on speaking, writing, and visualization, to specific communication scenarios. It includes advice on networking, engaging with industry, preparing post-

In the United Kingdom, breaking through is particularly challenging. Success requires competitive rates and, often, a highly distinctive professional profile or original concept.

ers, or writing grant proposals, and serves as a guide to effective scientific communication for everyone who wishes their work to not only be rigorous, but also visible and well understood.

Scientists, like most people, spend a substantial portion of their day on broadly-defined communication: writing e-mails, delivering lectures, preparing publications, and speaking with both colleagues and friends outside academia. At the same time, scientists are stereotypically perceived as poor communicators. I argue that scientists – both at the individual and institutional levels – should actively develop communication skills directed not only inward, toward academic audiences, but also outward, as part of broader public engagement. These skills can be learned, and investing in them is worthwhile – not only to explain to one's grandparents at the Sunday dinner table what one actually does at work, but also to exert greater influence on policy-making, to build public trust, and to secure broader support for scientific research. ■

Further reading:

www.big.uk.com/

www.publicengagement.ac.uk/

www.medsci.ox.ac.uk/research/patient-and-public-involvement