

PCST 2018 Roundtable: The role of professional science communication associations in supporting science communicators and legitimising communication practices

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Science communicators have important and emerging roles to play as curators of research content, catalysts to engage the public in science concerning their health, wellbeing and prosperity, and even advocates for improved science and evidence-based policies. The “social” web has also mobilized bloggers, vloggers, and social media practitioners; these communicators may not be trained or identify as science communicators but they can have a substantial impact on the direction of the public’s engagement with science. If trust in science relies on trust in science communication (Weingart and Taubert, 2017), then there may be a role for professional member organisations to support ethical practices and professional codes of conduct. National associations of science communication may have important roles to play in attracting new classes of communicators engaged in the participatory and pluralistic media landscape, and promoting ethical communication practices.

This paper, developed from a roundtable discussion at PCST 2018, addresses the following questions: What role can national science communication associations and networks play in legitimating and supporting the many and diverse forms of science communication? What is the

¹ An initiative from researchers of universities and applied universities and scicom.professionals. A core team reflects these blood groups and is temporarily - depends on running cases - supported by science communication students and staff from other (applied) universities and organisations. Hence, the network bonds and bridges social networks of science communication.

potential for national science communication associations to recognise and support the activities of non-conventional science communicators who are engaging with publics and policy makers? Where are the boundaries of association membership? What image of science communication are these associations communicating? How do professional science communication associations support those entering the field to be most relevant for both science and society? How can associations attract writers with other areas of expertise to engage in evidence-based reporting?

The answers to these questions and others have important implications for professional practices, ethics, training, and mentoring in the field of science communication.

Associations in the Netherlands /The SciCom.Lab Initiative

The Netherlands is among of the most 'associated' countries in the world (CBS, 2018). Most Dutch citizens are members of five or more associations professionally, privately, payed and voluntarily. This holds for the Dutch science communication domain as well. The Netherlands has an association for public information officers (PIOs) called the PWC, an association for anyone doing something with science (SciCom.NL), a science journalist association (VWN), an association for science centres (VSC), an association to inform the lay audience about developments in science and technology (NCWT) and an association for university lecturers in the field of science communication (C-overleg). And, of course, there are cross-sectional and cross-organisational meetings where people with common interests get together. The national science communication conference (WTC-vakconferentie) brings people together once each year, and there is also an annual national conference for students of science communication (associated with the aforementioned association of university science communication lecturers, C-overleg).

While there are many associations and mingling during national gatherings, this does not necessarily lead to much collaboration between these groups or members. This might have to do with the Dutch ambiguity between group effort and individual challenges (Hofstede, 2005). So, on the one hand, Dutch science communication professionals and researchers want to organise themselves, but they still like to do their own research and develop their own practice. Effective knowledge exchange coming from this perspective is the best they can achieve. The boundaries of the aforementioned associations are quite strict and this helps to focus their efforts, but this might also lead to tunnel vision and groupthink (Burt, 2000; Wenger, 2000). This situation holds for both the associations of professionals and the association of researchers and lecturers in the field. Inevitable exceptions to this 'rule' are: the Dutch book on shared knowledge on science communication as a conceptual field (Van Dam, Bakker, & Dijkstra, 2016) and the successful Dutch bid for PCST 2022.

Four years ago, to further the collaboration for the future for Dutch science communication, Dutch science communicators started the idea of a SciCom.Lab to cross the borders of the relevant associations, the various disciplines and practices. The SciCom.Lab Initiative (part of SciCom.NL) is an open innovation network of practitioners, researchers and students in science communication in the Netherlands that stimulates co-design across science communication disciplines and domains, connects science communication practice and theory and furthers the relations between

science, technology and society. The network itself changes over time depending on the questions that are being researched and designed for. This makes the network adaptive and resilient and hopefully less susceptible to groupthink. The network sees science communication as a continuum of practices, design and research from the very onset of science and technology developments (upstream), the interaction with stakeholders in policy and industry (midstream) and the interaction with target audiences and markets (downstream) (SciCom.Lab, 2018).

SciCom.Lab is best described as a professional learning community stimulated by a small hub of practitioners and researchers. There was a long and winding road towards defining its role, openness, motivational issues and 'what's in for me'? In June 2018, this group organised their first SciCom.Lab gathering for people outside the network of SciCom.Lab. They questioned, in interactive sessions, new ways of innovation for science communication, partly based on what was discovered in the SciCom.Lab community by working across science communication disciplines and domains together with science communication students (minor and masters) and various stakeholders.

Future questions to research and design for the network of SciCom.Lab that came out of this interactive session were: how to further the critical role of science communication towards new and emerging science and technology; and how to preserve the idea that for researchers, policy makers and audiences that you are 'a person and not a role'. The latter might help finding new ways to scientific authority on a human measure. Most importantly, this session motivated other practitioners to join the network, or to think along with the SciCom.Lab Initiative in various stages.

The rise and fall of science communication associations in South Africa

Public communication of science took off in South Africa after the country became a democracy in 1994. The new government's policies emphasised the importance of a society that understands and values sciences (DACST, 1996) and positioned societal engagement with science as part of its democratic agenda. Policymakers at the Department of Science and Technology now wants to make public engagement a mandatory activity for all publicly funded scientists and are intent on seeking increased societal input when research priorities are set (DST, 2017).

SASCON came and went. The launch of the first science communication association in the democratic South Africa, on 16 January 1998, signalled Africa's entry into the global network of science communicators (Boshoff et al., 2000). With the iconic Professor Phillip Tobias as its founding patron, the Southern African Science Communication Network (SASCON) got off to a strong start. With both journalists and communication professionals as members, SASCON set out to promote public interest in science, increase the visibility of science in the mass media, and nurture science communication as a profession. However, science communication in the country—and across the African continent—was just emerging at the time. The volunteers who ran SASCON were new to this field and had no funding for networking events. A listserv was created to facilitate contact between members, but that was not enough to keep SASCON going. The organisation survived for about ten years, mostly as a virtual network. The last trace of SASCON was the network's listing in the 2007 Science Journalist Association Guide (White, 2007).

An uncertain future for SASJA. In 2008, the South African Science Journalists Association (SASJA)² was established as a country chapter of the World Federation of Science Journalists (WFSJ). National and regional associations who are WFSJ members³ include organisations that cater to science journalists and science communicators (or both). In the case of SASJA, its constitution refers to “science media practitioners” (Smallhorne, 2018), which is sufficiently broad to include journalists and communication professionals.

However, tensions about the competing versus complementary roles of journalists versus communicators as members of SASJA continue to simmer. Some feel that the goals of journalists are frequently at odds with those of communicators and that, by accommodating both professions, the interests of journalists are not served well. Others argue that there are many advantages to including both journalists and communicators, and that many SASJA members straddle science communication and journalism. This debate flared up (again) recently when freelance journalist and SASJA member Sarah Wild protested about a press release from a local university (The University of the Witwatersrand) that was published—virtually unchanged—as editorial copy in a local daily newspaper (Business Day).

“Putting the name of the communications officer at the bottom is not enough of an indication for the reader that they are reading a press release,” Wild argued. “This is what is happening to science journalism in South Africa, and part of the reason why newspapers are not prepared to pay for stories; it is putting journalists out of work.” This is not the first time that Wild has spoken out about this issue. In December 2017 she participated in a panel discussion about science journalism at the South African Science Forum where she talked about the dangers of conflating science journalism and science communication. “Pretending that they are the same thing is what has masked the implosion of science journalism,” she said.

Realistically however, if SASJA membership were to be restricted to full time science journalists, the association would probably dissolve. SASJA currently has only 58 members⁴, which is probably, at least in part, a reflection of current uncertainties about the benefits and nature of membership. Sadly, ten years since it was formed, SASJA is not in an ideal position to support diverse forms of science communication or to contribute to developing science communication as a profession in South Africa. Perhaps, despite the administrative difficulties and costs it may imply, it is time to give the association a new name that will reflect its inclusive nature, followed by a membership drive aimed at journalists and communicators who buy into the benefits of one association for both professions.

Other networks for science communicators in South Africa. The bulk of science communication activities in South Africa are aimed at the school-going youth and take place in schools or informal learning environments. Therefore, many local science communicators find

2 <https://www.facebook.com/SASJA.Science/>

3 <http://www.wfsj.org/about/>

4 Aboud, T. 2018. Personal communication with SASJA secretariat. 13 July 2018. Cape Town, South Africa

professional networking opportunities in education-focused networks, such as the Marine and Coastal Education Network (MCEN)⁵, the Pan-African Association of Zoos and Aquaria (PAAZA)⁶ and the Southern African Association of Science and Technology Centres (SAASTEC)⁷. Communication practitioners based within universities have a mandate to promote their institutions via public communication of science (some call this “science PR”) and many of them belong to a network called Marketing, Advancement and Communication in Education (MACE)⁸.

The Science Communicators' Association of New Zealand

In New Zealand, science communication is represented by the Science Communicators' Association of New Zealand (SCANZ). However, other groups such as the Public Relations Institute of New Zealand (PRINZ) and the Australasian Medical Writers Association (AMWA) also have clear overlap.

SCANZ was formed in 2004, originally arising out of interests in science journalism, especially agricultural journalism. Membership is offered to any and all who wish to be involved, although SCANZ is constitutionally mandated to:

- promote science communication
- foster professional communication of science and technology, especially through high standards in the crafts of journalism and other forms of communication.
- promote awareness and understanding of science and technology
- celebrate achievements in science and science communication
- encourage discussion and debate of ethical, policy, economic and social issues related to science and technology
- provide opportunities for dialogue between science and technology communicators

Since its inception, SCANZ has transformed significantly, largely reflecting the state of science communication in New Zealand, including the emergence of academic programs and departments in science communication from the late 2000s onwards (Fleming & Star, 2017). In its current state, SCANZ is a broad, inclusive association reaching across all sectors of sectors, from journalism to academia to government to museums and so forth. Increasingly, the prevailing purposes of the association have become acting as a focal point of contact and facilitating networking for those involved in science communication, and being a source of on-going learning for practitioners. As a result, SCANZ holds regular events to promote such interaction.

⁵ <https://sancor.nrf.ac.za/SitePages/SANCOR%20Groups.aspx>

⁶ <http://www.zoosafrica.com/>

⁷ <https://saastec.co.za/>

⁸ <https://mace.org.za/>

The association holds a well-attended yearly conference, as well as a number of networking events and professional development workshops. The association also supports its members by the way of scholarships and bursaries to attend conferences (mostly targeted at graduate students), and through a biannual prize worth NZ\$1000. The networking events are good examples of how SCANZ promotes collegiality and inclusivity. At these events, members and anyone else interested gather at various locations across the country at the same pre-arranged time. Everyone interacts with the local community in person and with the broader community through a national Twitter chat.

SCANZ has changed substantially from its inception, and the image of what 'counts' as science communication has morphed through the years, both as a result of the increasing academic take on science communication, and as a result of government strategic funding for science communication and engagement. While originally coming with an affiliation to journalism and focused on informing, two-way engagement has increasingly been a feature, especially in the form of participatory science. For example, the 2016 conference had keynote presentations and a whole stream dedicated to citizen and participatory science. SCANZ has also increasingly turned a critical gaze to its own interaction and that of institutional science more generally, as reflected in the theme for the 2018 conference: Diversity and Community. While this is broadly seen as a positive, changes also give rise to some tension and debate, such as whether the association should be more academically focussed or more practically focussed (or something else).

Arguably, one of the most defining traits of SCANZ is how central generosity and inclusivity are to the association, and this reflects in the way such tensions are dealt with: by allowing and welcoming all aspects, and not demanding or forcing one dominant approach or worldview. This may not please everyone, but has, on the ground, led to an association growing in membership, in stature, and in resources.

In many ways, SCANZ is a product of its environment, both intellectually and culturally. The intellectual pursuits of the association, and the increasing attachment to two-way engagement reflect the current intellectual landscape of science communication. The inclusiveness, collegiality and generosity of its diverse membership reflect its imbedding in the New Zealand cultural landscape.

Embracing the diversity of science communication practices in Canada

In 2016, the Canadian Science Writers Association changed its name to the Science Writers and Communicators of Canada Association (SWCC) and updated their constitution. SWCC now describes itself as a national alliance of professional science communicators in all media. Their stated mission is to cultivate excellence in science writing and science journalism in Canada. Science writers and communicators engaged in significant debate prior to these changes (see, for example, Bajak, 2016; Dunn, 2016) highlighting the organisation's 45-year history as the professional body representing English-speaking science journalists in Canada, and what might be lost as well what would be gained through changes.

SWCC President Tim Lougheed pointed to prestigious publications like *Scientific American* that now have a massive online presence. He argued that multimodal publications require communication specialists of all kinds to produce blogs, podcasts, online videos, and interactive websites. The bulk of SWCC members take on multiple professional roles and many have “gone digital” in their communication. Out of the 603 paid members in 2016, only 159 people identified themselves exclusively as science journalists (Lunau, 2016). In just a few short years, science communication has moved online. Schiele, Landry & Schiele’s 2011 inventory of major PCST initiatives carried out in Canada does not mention Facebook, Twitter, Instagram or YouTube and only touches on blogging efforts. But, since that time, a growing population of freelance bloggers, vloggers, and social media personalities, sometimes with no mainstream media training or organisational gatekeeping oversight makes up a significant proportion of SWCC’s membership.

The SWCC Board is yet to determine how to best support their diverse membership and to address what Bucchi describes as “a crisis of mediators” (Bucchi, 2017, p. 890). For example, should the organisation take on gatekeeping and accreditation functions for science communication in Canada? SWCC already has a strong focus on advocating for freedom of science communication expression. In 2010, Kathryn O’Hara, Chair in science journalism at Carleton University and President of the Canadian Science Writers Association, started a concerted campaign with a number of others to draw attention to scientists’ freedom to speak (O’Hara, 2010). Without the organisation’s efforts, little media attention would have been drawn to this issue. More recently, in early 2018, the SWCC Board publicly supported University of Toronto doctoral student, Samantha Yammine, who was criticised in an editorial published in *Science* for being too personal in her science communication on Instagram (Wright, 2018). President, Tim Lougheed wrote an open letter to *Science* that was posted on SWCC’s website (Lougheed, 2018). Lougheed argued that Yammine successfully responds to the Instagram medium in her communication and SWCC endorses social media forms of communication. *Science* has since indicated that they are reviewing their editorial policy around discussions of social media communication.

SWCC’s history of advocating for freedom to speak provides a strong foundation for bringing together Canada’s diverse assortment of science writers and communicators. The organisation recognises that excluding particular kinds of science communicators will not stop posts, Tweets, podcasts, blogs and vlogs about science circulating. The boundaries for new and emerging science communication practices are yet to be drawn.

Conclusion

It is clear that national associations and networks of science communication are playing important roles in legitimising and supporting particular forms of science communication that have national cultural, political and economic foundations. In order to stay relevant and offer their members meaningful benefits, these associations and networks have to adapt to keep up with changes in the science communication ecosystem—nationally and internationally.

The Netherlands has developed a network of networks to help legitimise as well as traverse existing strong disciplinary and practice borders that are maintained through multiple well-established science communication associations in the country. This model shows much promise for legitimising and supporting emerging forms of science communication in the country but relies on the willingness of professionals to associate themselves with multiple member organisations and networks—a distinctive cultural feature of the Netherlands. In contrast, both New Zealand and Canada have developed dedicated national science communication organisations that have increasingly adopted a “broad brush” approach in response to the changing landscape of science communication in these countries. In the case of New Zealand, the association aims to attract the growing number of academics and public engagement practitioners in the country, and in the case of Canada, the association aims to attract the growing number of communicators working in new media and science PR environments. These approaches to inclusiveness and diversity have helped both organisations grow their membership bases. South Africa has not had a dedicated national science communication association since 2007, which points to a limited capacity to support emerging forms of science communication with publics and policymakers. South African science communicators can choose to associate themselves with organisations that focus on science journalism, science education or science PR, and there are ongoing tensions associated with membership affiliations. It is possible that changing the name of the South African Science Journalists to make it a more inclusive association may help to clarify its role and enable a broader and more inclusive membership drive.

The images of science communication communicated by these national organisations are important to consider as these have consequences for innovation in both research and practice areas. For example, in the Netherlands, SciCom.Lab participants are engaging in important discussions around the need to encourage communicators to communicate as people—for science communication to be considered as a claim to personal identity (i.e. communicators to be seen on a human measure as people with a professional task and responsibilities which develop over time) rather than science communication as a performance (as determined roles communicators perform). Canada’s national organisation is putting more focus on what science communicators “do” in science communication rather than what communicators call themselves in efforts to broaden the image of science communication; the organisation is built on a foundation of advocacy for freedom of communicate science, which is compatible with this direction. New Zealand’s focus on inclusiveness, collegiality and generosity assists the organisation in mitigating tensions arising around what could be legitimately called science communication. These approaches, in different ways, communicate something important about who will be supported when entering the field, and how communicators can be most relevant for both science and society.

In discussions about the various efforts these associations take, and learning from their potential for change, we recognise that science communication associations can be viewed as significant contributors to social or cultural “movements”. They do more than bring the ‘happy message’ of the world of wonder. They do more than start dialogue. They act as probes for future societal conversations around new and emerging (or yet to be developed) science and technology. As “powerhouses”, or “trailblazers”, these associations look for ways to work effectively with various stakeholders. They probe what ‘being personal’ might mean in science communication. They show where tensions between the research and practice of science communication, and between

journalism, social web-based communication and public relations exist. They make spaces for these tensions and show what can be learned and usefully shared with other stakeholders in the development of science and technology. Struggling to address these tensions is not something science communication associations need to apologise for. If these associations are to support contemporary science communication research and practice, AND look ahead, then they must anticipate and engage with the ambivalence and ambiguity associated with the current “crisis of mediators”. Science communication organisations offer a unique space for interaction on these issues that adds significant value to the human core of science and technology development itself. Moreover, making these struggles apparent may help others in science and technology-related fields engage more seriously with these issues, and encourage writers and communicators with other areas of expertise to engage in evidence-based writing and communication.

If we view science communication associations from the perspective of social or cultural movements, then researchers could learn more about the potential of these associations through social network analyses and national comparisons. Future research in this area could help identify the nature of connections within these associations, and situational analyses of what these associations and members actually do might elicit important insights regarding their societal roles, potential influence, and future directions.

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