

Chapter 14 Communicating the social sciences and humanities

Specific challenges - and broader insights for research communication

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Introduction

Science communication – in research, professional practice, and indeed in much of this volume – can be strangely unreflective about what exactly this ‘science’ is that we should be communicating. By default, the field tends to refer to the communication of physical, chemical and biological sciences, plus disciplines as medicine, mathematics and engineering. Therefore, relatively little attention has been paid by public communication of science and technology (PCST) to how disciplines across the broader research landscape - including the social sciences, arts and humanities - are communicated (Schäfer 2012). In this chapter, I will overview scholarship addressing public communication of the humanities and social sciences (PCHSS), which remains scattered across many disciplinary areas, and as we will explore, does not always think in terms of ‘communication’ in the first place. I will consider whether PCHSS poses a particular ‘special case’ of PCST and instead will argue that the differences observed provide crucial insights into broader questions of how knowledge circulates and how expertise is constituted in the changing public sphere of the 21st century.¹

The initial impetus for research into *science communication* and the *public understanding of science* arose from specific concerns about the public position of the natural sciences in the UK (Bodmer, 1986): while the field has greatly diversified since that time, this limited remit has persisted. While the lack of attention to humanities and social sciences (HSS) in related fields such as science and technology studies may also contribute to the problem (Camic *et al.* 2011; Hallet *et al.* 2019), this cannot fully account for the continuing low profile of PCHSS as a research topic. Traditional media formats (e.g. newspapers, television and radio) have continued to converge with each other and with newer online platforms over the past decade, media continue to produce specialist ‘science’ outputs - and popular science as a genre is thriving. Science journalism faces serious challenges in this changing media environment, but continues as an established journalistic specialism, providing content for both specialist and generalist media outputs (Schäfer, 2017). As we will explore here, most of this coverage tends to be of natural sciences disciplines, although quantitatively oriented disciplines such as psychology and archaeology tend to receive more attention. However, there is little or no

¹ This chapter updates and extends the Handbook’s earlier reviews of the literature on the public communication of social sciences (PCSS) (Cassidy 2008; 2014), highlighting areas of change. This version has been substantially revised to fully consider humanities scholarship alongside the social sciences, alongside the broader implications of this work for research communication across the academy.

corresponding journalistic specialisation for social sciences or humanities, suggesting that the tendency of PCST research to focus on science, medical and environmental *specialists* may also be a factor.

Paradoxically, those studies which have taken the time to explore PCHSS suggest that research, expertise and ideas arising from these disciplines can be covered widely across the broader, non-specialist media and provide major contributions to the content of specialist areas such as political, economic and lifestyle journalism. Crime figures, historical analysis, demographic data, opinion polls, archaeological findings, educational research, economic analysis, political theory and literary analysis are all examples of HSS research which appear routinely in both news and broader media coverage. HSS researchers and scholars provide policy, personal and lifestyle advice and analysis in multiple media domains and across the wider public sphere. The idea of the *public intellectual* originates in the humanities (e.g. Said, 1994) and until the mid-1990s popular science boom was primarily occupied by social sciences and humanities scholars (Fahy, 2015). Social research contributes to the core activity of many think-tanks - active by definition 'in public' (Gregory and Miller 1998) - and of policymakers and politicians in and beyond government. Social scientists and humanities scholars themselves conduct most PCST research, generating classic critiques of deficit approaches to science communication, precipitating widespread change in communication policies and practices across the board. Despite (or perhaps because of) the seemingly obvious societal significance of their work, HSS scholars, including those researching PCST, have paid relatively little attention to how it comes to be communicated in public.

Research literature on social sciences and the media

The disparate nature of research considering PCHSS makes it particularly difficult to find relevant scholarship: it is scattered across a wide spectrum of research fields, and searching academic databases tends to surface many conflating hits such as '*social science* approaches to science *communication*' or 'the *economics* of the *media*'. Scholarship directly addressing PCHSS includes quantitative and qualitative studies of media content; surveys of and interviews with academics and journalists; theoretical arguments; personal experiences and material discussing the public promotion of HSS disciplines, including 'how to' guides for academics interacting with mass media. The last of these are most common, recalling early literature on PCST: the widespread growth of 'impact' agendas (institutional incentives for academics to engage with industry, policy and wider society) have boosted this trend.

In English-speaking countries, distinctions are widely drawn between the natural sciences and those disciplines investigating human, society and culture), with *science* generally used to denote the former but not the latter. Popular ideas about the nature of 'science' therefore boost the status of subjects which use quantitative, experimental or technological methods, such as economics and psychology. By contrast, in continental Europe and elsewhere in the world, ideas about what 'science' is are more flexible and include all forms of scholarly research (as in the German term *Wissenschaft*), although this does not mean that disciplinary rivalries are

absent (Sala, 2012). While more work is still needed before we have a coherent understanding of cross-cultural differences in PCHSS, these variations in public cultures of ‘science’ probably shape which disciplines are more likely to have media visibility and status in different countries.

A great deal of PCHSS literature is written from within specific disciplinary contexts, much of which resembles the early literature on PCST in emphasising successful communication. Many articles are written by individuals, drawing upon their own communication experiences, with a central emphasis on how to get the *correct message across* (Tropp, 2017). The public image (and status anxieties) of discipline or field X are discussed, while strategies for improvement can still centre on upbraiding journalists for sensationalism and inaccuracy and/or publics for their misunderstandings (e.g. Ferguson, 2015; Yettick, 2015). However, in the wake of institutional impact agendas, SSH disciplines are taking engagement more seriously, while longstanding science communication organisations have broadened their remit, making skills training and information more widely available (e.g. Bastow et al, 2014; Carrigan, 2019; NCCPE, 2020; Wilkinson and Weitcamp, 2016). As the term suggests, impact concerns remain very ‘deficit model’: the *promotion* of research activity, one-way *communication* and (as the term suggests) facilitation of *impacts upon* wider society (Chubb and Reed, 2018; Terämä et al, 2016). That said, how impact is interpreted, conceptualised, measured and operationalised varies wildly across disciplines. An analysis of the ‘impact case studies’ submitted to the UK’s Research Excellence Framework (REF) 2014 evaluation exercise found that clinical applications were most associated with submissions from the life sciences and ‘enterprise’ (new technologies) with physical sciences. Education and policy activities were most associated with impact in social sciences disciplines, while public engagement/arts collaborations were most common in the humanities (Terämä et al, 2016).

A second theme of discussion involves content analyses of media coverage about research. The wider lack of reflection, definition or consistency about what is meant by ‘science’ means that relatively few content analysis studies can provide insights into what media coverage of HSS looks like (Summ and Volpers, 2015). A few studies have pursued this question and their findings will now be reviewed. Weiss and Singer (1988) carried out an extensive study of social sciences coverage in the American news media during the 1980s, comprising parallel content analysis and interview studies. They found that most coverage concentrated on the research topic (e.g. crime, parenting, relationships), with the research itself appearing in an ancillary role; of these topics economics received the most attention. Furthermore, only 7 per cent of the stories found were written by specialist science journalists, with most coverage authored by generalists, or specialists in other areas. A similar approach, was taken to investigate the British situation in the following decade (Fenton *et al.* 1997, 1998) and this study reveals an interesting pattern of similarities and differences between the USA and UK. Social sciences were also rarely covered by science journalists in Britain: in fact, only one such example was found. In contrast to the US study, social issues was the most popular topic in British coverage, with economics coming next; while psychology was the most frequently represented discipline. Unlike the USA, social research was itself the main focus of most stories, rather than being mentioned in passing. Most of the coverage appeared as features rather than news reports and social scientists more often appeared reactively as commentators and advisers on specific

issues according to the news agenda, rather than being the principal sources of stories. Both these studies looked at how much, and where, media coverage of social sciences appeared: once again, transatlantic differences are apparent. In the US, coverage was distributed evenly across all forms of media, and levels of reporting found were far higher than in Britain, where coverage was heavily concentrated in the broadsheet (or *quality*) press.

However, without meaningful comparisons, it is difficult to draw useful conclusions from these figures: are they high or low, and on what terms? Similarly, it is difficult to distinguish whether many of the issues raised by these studies are specific to the social sciences or are broader concerns shared in the public communication of all research. A study by Evans (1995) deals with this problem by directly comparing US media coverage of social and natural sciences. Of the total sample of research coverage, 36 per cent was of social sciences subjects, although this was not broken down into disciplinary groupings. The Science Museum Media Monitor (Bauer *et al.* 1995), one of the largest studies of its kind, applied a continental European definition of *science* as including the social sciences and reported a gradual increase in the proportion of social sciences coverage over the second half of the twentieth century, by the 1990s reaching similar levels to that found by Evans. A smaller study carried out by Hansen and Dickinson (1992) found only 15 per cent of coverage was of social sciences, but related topics such as market research, human interest and science policy/education were separated out from this, leading to a combined figure of 28 per cent. Overall, these studies suggest that through the 1980s and 1990s social sciences provided a substantial proportion of media coverage of research in both the US and Britain, overtaken only by health and biomedicine. While Böhme-Dürr (1992) reported that social sciences in German print media were relatively under-represented, a more recent and comprehensive analysis by Summ and Volpers (2015) found 21% of their sample covered social sciences and 17% humanities – between them attracting just as much media attention as the biomedical sciences.

These findings point towards significant variations in how media cover the broader spread of disciplines across the academy, particularly once researchers start looking beyond frequencies into the distribution and nature of this content. Evans (1995) reported that social sciences were much less likely to appear in specialised science sections than natural sciences and were instead more likely to be in generalised media, as did Summ and Volpers (2015) for SSH. Directly comparing evolutionary psychology with evolutionary biology, Cassidy (2005) found that the field was covered less often by science journalists and more by non-specialists, appearing frequently in features, supplements and commentary pieces and rarely in specialist science sections. These differences are reflected in corresponding disparities in media attitudes. Dunwoody (1986) found that US science journalists looked down on social sciences research as less scientific, expressed little interest in it, and did not think it required specialist training to cover. Yettick (2015) explored how HSS relevant specialist journalists - in this case US education correspondents - rarely engage with academic experts or cite peer reviewed research in the field. Schmierbach (2005) and Seale (2010) observe that disciplines employing quantitative and/or experimental methods, such as psychology, economics or social statistics, are more likely to be taken seriously by generalists. Evans also found that social scientists were accorded a lower epistemic status in media reports, with natural scientists more often referred

to as ‘researchers’ or ‘scientists’, and social scientists more likely to be referred to in terms such as ‘the authors of the study’ (Evans 1995: 172). Similar status issues are reported by Knudsen (2017) about the humanities, while Huber et al (2019, p) analysed user comments in online newspapers, finding that HSS disciplines were often framed as irrelevant or deficient.

Fenton *et al.* (1997, 1998) also investigated the relationships between social scientists and media professionals, noting that social sciences were usually covered as part of broader media agendas, by journalists with no specialised understanding of research. They describe the relationship between social sciences academics and the media as “formal, distant and highly reliant on the role of facilitators” (Fenton *et al.* 1998: 70). Thirty per cent of the researchers they interviewed had only worked with communications professionals, a pattern reflected in tense and distanced interactions between researchers and journalists. By contrast, Peters (2013) found less strict demarcations between professional and popular communication in Germany than other countries, and much higher rates of interaction between HSS scholars and journalists than natural sciences researchers. These contradictions can in part be explained thinking about the multiple roles played by researchers in public communication – on the one hand as originators of research findings – and on the other as public experts (Peters, 2014; this volume). Specialist science media orients towards new research ‘findings’, more easily supplied by natural sciences research; while the broader media landscape (particularly beyond news) needs ‘experts’ able to go beyond specific findings and narrow specialisms. Peters (2013), Wien (2013) and Knudsen (2017) all find that social sciences and/or humanities scholars are more likely to act as commentators on pre-existing news stories across a range of topics, rather the originators of coverage through the publication of research findings.

Once researchers look beyond the traditional ‘science beat’ and news, they find coverage of SSH spread widely across other media locations including commentary, reviews, lifestyle, politics and arts/culture coverage (Summ and Volpers, 2015). Research literature on this ‘soft’ media (Reinemann *et al.* 2012) may therefore point towards fruitful new lines of enquiry. The apparently contradictory nature of all these findings may also be attributable to cross-cultural factors. Alongside Peters’ (2013) work suggesting that SSH-media relations are better in Germany than the USA, Šuljok and Vuković (2013) report similar findings for Croatia, while Vestergaard, and Nielsen (2016) find SSH is covered more extensively and positively in Denmark compared to the UK. Explanations are highly variable, including post-socialist bias towards SSH disciplines, ‘closed’ media markets and European, inclusive understandings of ‘science’: at present the paucity of studies still makes it difficult to draw firmer conclusions.

Reflexive scholarship?

So why do the SSH disciplines seem to approach and experience public communication so differently to those in STEM? Attending to the subject matter of SSH scholarship offers an important clue towards understanding how and why these disciplines are communicated and perceived. Because they investigate the realm of the *human* – people, their minds, societies, money, politics, histories, and cultures – the subjects, investigators, communicators and

audiences of SSH research start merging, or at least overlapping. Unlike most natural sciences, where the specialist training, knowledge and equipment of scientists grants them largely uncontested expertise, social scientists' expertise is often about matters of everyday experience and common-sense knowledge. As suggested by the studies described above, this has a palpable effect on the status and legitimacy of SSH, whereby journalists and media audiences do not make clear distinctions between 'expert' scholarship in these disciplines and 'lay' opinion and experiences. As psychologists McCall and Stocking (1982: 988) put it:

Everyone, including journalists and editors, fancies himself or herself something of a psychologist, but not an astrophysicist. Results from psychology, but not physics, must therefore square with experience to be credible.

Fenton *et al.* (1998) further discuss the overlaps between professional roles of social scientists and journalists, arguing that this results in further under-reporting of social sciences, as journalists often felt it was little different from their own work. Cooper and Ebeling (2007) studied the working practices of specialist journalists and similarly argued they have a great deal in common with the analytical processes of sociology. Similar legitimacy issues have also been seen in studies of social scientists' role as expert witnesses. Legal definitions of *science* tend to be oriented toward the natural sciences, leading at times to SSH expertise being judged as questionable or even inadmissible in court (Lynch et al, 2010; Rathus, 2018).

Following historian of psychology Graham Richards (2010), I argue that the complex overlaps between SSH scholarship, journalism and everyday knowledge can be helpfully denoted by the term 'reflexive science' (Cassidy 2003: 236). Richards describes this as follows: "To put it bluntly, psychology is produced by, produces and is an instance of, its own subject matter." (Richards, 2010, p9). Unlike many writers on this topic, I do not think that these reflexive properties create a fundamental divide between the natural and human sciences, although they are clearly central to the distinction between quantitative and qualitative research methodologies (Cohen, 2001; Denzin and Lincoln, 2017). I argue that there is instead a continuum of reflexive overlap, with SSH and STEM disciplines tending towards each end. However, this does not line up neatly with the traditional demarcations drawn between the natural sciences, social sciences and humanities. Therefore, SSH disciplines like economics or archaeology occupy more 'science-like' roles in the public sphere; while STEM topics such as public health or human evolution find they are routinely weighed against everyday experience and opinion (Cassidy, 2003; 2005; Cooper and Ebeling, 2007; Declerq, 2016; Mata and Scheiding, 2012; Stojanowski and Duncan, 2016;). These properties can also have positive implications for PCSSH, as topics with a lot of reflexive overlap tend to be highly compatible with media 'news values'. Examples include *relevance* (to daily life), *consonance* (with existing beliefs), *topicality*, *controversy* and of course *human interest* (Fenton *et al.* 1998: 103–113; Gregory and Miller 1998: 110–114). As changing media generate new 21st century news values, including *drama*, *power elites* and *celebrity*, the public visibility of SSH may continue to increase (Harcup and O'Neill, 2017; Vestergaard, and Nielsen, 2016). Reflexive overlaps can also help to explain attitudes why journalists think they do not require specialist training to report social sciences and humanities topics. Generalist journalists rarely have training in

natural sciences, and neither do editors, increasing the chances that SSH will make it through editorial selection where STEM does not. In processes of public communication, reflexive overlaps bring with them advantages and disadvantages, and so SSH scholars engage in strategic ‘boundary work’, emphasising similarities or differences between their research and common sense at different times to their rhetorical advantage (Derkson 1997; Mata and Scheiding, 2012; Shapin, 2007). Park (2004) compared the discourses of popular psychiatrists with those of psychoanalysts, arguing that the two groups strategically position themselves against each other as medical/scientific specialists versus broader intellectual authorities. He connects these opposed (yet complementary) strategies to differing forms of *public intellectual* in popular culture.

Disciplinary status and public expertise

As we have seen, social sciences and humanities research is often regarded as less authoritative than that coming out of the natural sciences, and SSH scholars can therefore struggle with the epistemic status of their disciplines, particularly when trying to communicate about new findings. However, the studies reviewed above also highlight that researchers from SSH disciplines also take on a broader range of expert roles less readily available to their STEM colleagues. The literature on the ‘public intellectual’ – understood as a person of learning (although not necessarily an academic) who uses their knowledge to engage with (and comment about) society in the public domain – has expanded and broadened in recent years. ‘Classic’ examples of public intellectuals might include SSH scholars such as Michel Foucault, Edward Said, Noam Chomsky, Susan Sontag and Angela Davis; but increasingly natural scientists such as Jane Goodall, Jocelyn Bell Burnell, Richard Dawkins and Neil deGrasse Tyson also occupy this role (Fahy, 2015). The research literature on public intellectuals has moved on from a focus on charismatic individuals to broader approaches exploring public scholarship from a wide range disciplinary perspectives. This includes work on ‘public sociology’ (Burawoy, 2005; Schneider and Hanamaayer, 2014), ‘public anthropology’ (Borofsky, 2018) and ‘public geographies’ (Ward 2006). Long preceding these conversations - as well as PCST itself - was ‘public history’, which explores both the public roles *of*, and the role of publics *in*, historical scholarship (Kelley 1978; Cauvin, 2016). These have become well-developed research fields, with ongoing and lively discussions often centring on the role of the public scholar as an active contributor and campaigner in social and political debates. Alongside these disciplinary approaches, previously disconnected scholarship on public intellectuals, PCST and popular science has now started to come together to consider the public roles of scholars across the academy (Desch, 2016; Peters, this volume; Weitcamp, 2017); a discussion sharpened by concerns about ‘post-truth’ dismissals of experts and expertise (e.g. Grundmann, 2017; Shapin, 2019).

However, it is less clear that the growth in academic citations about public scholarship have led to an equivalent increase in public visibility for the social sciences and humanities. This may be because much of this literature can be quite inward looking, directed at other academics

rather than wider publics, and tends to use academic rather than everyday language. Psychologist Michael Billig's (2013) challenging critique of writing traditions in the human sciences argues that these disciplines actively encourage wordiness, neologism and obscurantism, impeding the clear communication of ideas. Following - or travelling alongside - Billig, linguistic analyses of journal articles support the idea that SSH writing may be more wordy than other disciplines (Okulicz-Kozaryn 2013, Lei, 2016), philosophers debate the nature of bullshit (Ivankovic, 2016), and communication studies scholars examine how to improve their own communications practices (Boczkowski and Carpini, 2020).

Other models for public SSH include the wider turn across academia towards more applied modes of research, oriented to the needs of social movements, policymakers and industry (Nowotny, Scott and Gibbons, 2001). Such approaches create new dilemmas for SSH, as seen in the embedding of field anthropologists and archaeologists in warfare and other highly 'applied' situations (Pollock, 2016; Denny and Sutherland, 2016); or debates over the ethics of social research conducted from within social media, business or political organisations (Flick, 2015; Lin et al, 2017). An alternative vision of what it means for research to be public has been offered by researchers drawing on participatory and public engagement research. Rather than advocating for academics as authoritative experts, instead these approaches aim to undertake research *in public*. This involves direct collaboration – co-creation or co-production of research - with participants, including local communities; involved or concerned stakeholders; and media or cultural organisations (Holliman et al, 2017). Such models of 'engaged research' draw on and have fostered developing practice in cross-, multi-, inter- and trans-disciplinary research (Frodeman et al, 2017). These new forms of collaboration have led to SSH and STEM researchers working together more often, prompting debates about how researchers can best communicate across multiple disciplines; and highlighting similar concerns about disciplinary status to those discussed above (Balmer et al, 2016; Barry and Born 2013).

Public scholarship across the changing academy

The literature on PCSSH continues to be sparse, scattered across multiple disciplines and suffers from a lack of reliable comparative evidence – while what exists is becoming increasingly outdated. Despite the knowledge gaps outlined here, the topic continues to be neglected by researchers in PCST. With so little research to draw on, it is difficult to reach firm conclusions about PCSSH, and so my conclusions remain provisional and subject to further investigation. The criteria used to define 'science' in PCST studies tend to be so variable that it is difficult to draw meaningful comparisons across the literature (Schäfer 2012). Studies that do address PCSSH often focus on specific cases, or have been conducted across different countries and time periods, and have used variable methodologies. The varying and contradicting findings reported here across studies of PCSSH may be due to cross-cultural differences, changes over time or methodological artefacts. However, without further studies taking a more consistent and preferably comparative approach across a broad spread of

disciplines, we cannot reach a better understanding of how disciplinary topic shapes public communication. Despite this, one thing seems clear: social sciences and humanities research seems be *everywhere and nowhere* in public communication. SSH disciplines generally have a lower epistemic status than STEM, are less likely to prompt news coverage via their findings, do not merit media specialisation and are sometimes seen as indistinguishable from journalism itself. Yet at the same time, the topics of SSH research routinely generate lots of coverage, are seen as relevant to audiences and easy to understand, and appear across a broad range of media content rather than being confined to an area of special interest. As such, SSH scholars have in the past and continue to play significant roles as public intellectuals - expert commentators and advisers - on many social, political and personal issues across public life.

The reflexive nature of research scholarship exploring the human experience, and how this relates to differences between the public communication of STEM and SSH disciplines, also requires further investigation and analysis. As I argue above, these reflexive overlaps do not create fundamental divides between the ‘natural’ and ‘human’ sciences, or in how they are communicated. Instead, I posit that the public communication of any given research topic will be shaped by a combination of three factors: i) the degree of resonance with everyday experience; ii) societal ideas about disciplinary hierarchies, which translate into journalistic practices, divisions of labour and decisions about what scholarship to cover; and iii) varying disciplinary cultures of public communication and connection with wider society (Davies and Horst, 2016). All three of these factors will vary across cultures and over time – on which point I note the extreme rarity of studies investigating PCSSH outside of Europe or America (Ho et al, 2019). Alongside the obvious problem of a sparse evidence base, this could explain why studies using the inconsistent, contingent and strategically constructed (Gieryn, 1999) categories of ‘natural sciences’, ‘social sciences’ and ‘humanities’ have produced such inconsistent findings. Investigating the issue along new lines can also cast light on what makes communicating natural sciences so difficult at times - in subjects very far from human experience – as well as in highly controversial and contested topics of all kinds.

While SSH researchers have started debating the roles their disciplines can and should play in wider society through the literature on public scholarship, this shift seems to have been driven by bigger changes in the relationship between society and academia. The increasing importance of metrics, the inclusion of ‘impact’ in research assessment, alongside contractions in research funding have meant that academics in all disciplines must explain and justify the work they do, more than ever (Chubb and Reed, 2018; Terämä et al, 2016). At the same time, the shift towards mandatory open access publishing in many countries is also fundamentally changing research communication – and perhaps disproportionately so for SSH disciplines where journals are run by scholarly societies and monographs are a critical publication format (e.g. Finn, 2019). Finally, the convergence and movement of mass media to online platforms and the wide usage of social media by institutions and researchers alike have probably facilitated and accentuated the above trends (Carrigan, 2019). In the UK, for example, resources to help academics engage with media, policy and wider publics (and to promote disciplinary interests) have become much more widespread over the past decade (e.g. Bastow et al, 2014; NCCPE, 2020; Wilkinson and Weitcamp, 2016). The ‘impact agenda’ in the UK has also motivated researchers of all

disciplines to interact with people beyond the academy. However, how impact has come to be defined and operationalised varies – with natural sciences orienting toward clinical and industry applications, social sciences to policy, and humanities towards museums and culture (Terämä et al, 2016). This may have had the effect of demotivating researchers in STEM and social sciences disciplines, while providing direct reasons for humanities scholars to involve themselves in public engagement (Burchell et al, 2017). Across the board, much of the impact debate continues in what PCST scholars would describe as a deficit or diffusion communications model.

This raises the question of why much of the literature I have reviewed here remains distinct from PCST, with little evidence of interchange on either side. In part, PCST scholars have not been that interested in PCSSH, in part there is more funding available to research STEM engagement. However, this continued lack of interchange also raises further questions about the ability of PCST researchers to communicate beyond their own research field. Since the first edition of this Handbook I have posed a challenge to PCST scholars and professionals alike: how do we communicate about our work on communication, and publicly engage about public engagement? The multiple layers of reflexivity involved (communicating about research which is about communicating about research) present new challenges for engaging beyond the field, particularly with policy and mass media – and indeed for bridging theory and practice. If we aim to advise other researchers, policymakers, journalists and publics about these issues, then surely we must practice what we preach. Recent years have seen a more reflective turn, particularly considering these challenges in terms of the interactions of PCST research with science policy (Marris and Calvert, 2020; Chilvers and Kearnes, 2015; Pallet, 2019). Others have taken a more practical turn, working with media, designers, artists and museums to develop new communications practices which involve - and learn from - publics throughout (Bandelli and Konijn, 2015; Horst, 2013; van der Meij et al, 2017). Beyond the domain of PCST, some social scientists are starting to collaborate with media and publics in developing new forms of knowledge production (e.g. Haslam et al, 2018); while scholars in fields such as public history have long experimented with such hybrid forms of knowledge production (Cauvin, 2016).

Beyond these practical challenges, the key message for PCST to draw from this review is the need to broaden definitions of ‘science’ to routinely include SSH disciplines (Davies and Horst, 2016, p4-5). Following Wilkinson and Weitcamp (2016), the subtitle of this chapter adopts the term ‘research communication’ as an elegant yet inclusive substitute for the proliferating alphabet soup of acronyms used across the field (Bucchi and Trench, 2017). Such a broadening of terminology should be done with care, encouraging consideration of fine grained differences in communication challenges across a range of topics, rather than enabling lazy generalisation from existing (natural science dominated) thinking. Such a move will open up the field for more rigorous investigation: of how and why public communication varies across the disciplines; the significance or otherwise of reflexive overlaps between expert and experiential knowledge; and the broader public communication, creation and legitimisation of knowledge and expertise (Grundmann, 2017; Hallett et al, 2019).

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Online resources for PCHSS:

- LSE Impact of Social Sciences project: <http://blogs.lse.ac.uk/impactofsocialsciences/>
- Ethnography Matters: <http://ethnographymatters.net/>
- History and Policy: <http://www.historyandpolicy.org/>
- National Centre for Public Engagement: <https://www.publicengagement.ac.uk/>
- Somatosphere: Science, Medicine and Anthropology: <http://somatosphere.net/>
- Being Human: UK national festival of the humanities: <https://beinghumanfestival.org/>
- Parliamentary Office of Science and Technology: <https://www.parliament.uk/post>

HSS led responses, experiments, and interdisciplinary engagements with Covid-19

- Somatosphere, ‘Dispatches from the Pandemic’: <http://somatosphere.net/series/dispatches-from-the-pandemic/>
- International Network for Government Science Advice. ‘Science Advice and COVID-19’: <https://www.ingsa.org/covid/>
- Epidemic Response Anthropology Platform: <https://www.epidemicresponse.net/>
- STEPS Centre (University of Sussex), ‘Research and Resources on Epidemics and Pandemics’: <https://steps-centre.org/covid-19-coronavirus-resources-research-epidemics-pandemics/>
- British Society for the History of Medicine, ‘History of Medicine in a Covid World’: <https://bshm.org.uk/covid-19-history-links/>
- ‘Exploring Society with Covid-19’: <http://blogs.exeter.ac.uk/covidsociety/>
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