## STS in Practice Ad Hoc Committee Report
August 19, 2018

### CURRENT STATE OF THE FIELD AND RECOMMENDATIONS FOR FUTURE DEVELOPMENT

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<th>Committee chair and members:</th>
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<td>Stephen Rea, Technology, Law, and Society Institute, UC-Irvine (Chair)</td>
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<tr>
<td>Elizabeth Reddy, Colorado School of Mines</td>
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<td>Emily Brooks, US National Park Service</td>
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<td>Taylor C. Nelms, Filene Research Institute</td>
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<td>Suzanne L. Thomas, Intel</td>
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### Background

The STS in Practice committee’s goal is to research and recommend ways that 4S can support and connect STS practitioners in a variety of different professional roles—academia, industry, public policy/government, international NGOs and other non-profits—and around the world. We understand STS in practice to be, first and foremost, about an orientation toward the world that is shaped by and actively draws upon specific critical theoretical and methodological literacies. As *bricoleurs* and boundary-crossers, STS practitioners focus on complex relationships among material and social worlds and the generation and dissemination of knowledge, and in so doing put empirically and critically-informed methods into action for not just academic research, but also designing new policies, tools, products, and services that take those complex relationships into account.

*Foundational questions:* There are two related sets of questions that we believe are most pressing at this stage:

1) What kind of organization does 4S want to become over the next 5 to 10 years?; and
2) What is the benefit of 4S membership for STS practitioners who are not working in primarily academic settings?

The answers to these questions depend on a fundamental assessment of 4S’s organizational identity and strategy. Understanding that 4S cannot do everything—nor should it aim to—the following questions are pertinent for how the organization imagines pursuing STS in practice in both the near and longer term:

- What kinds of practical translation work should 4S engage in to bridge all of the different sectors where STS practitioners work? What forms might those translations take?
- What is the relationship between 4S-as-event (i.e., the annual meeting) and 4S-as-community? And how can 4S most effectively balance these two aspects of the organization so that practitioners in a variety of professional roles benefit from participation?
Finally, there are some more practical questions to consider:

- What can 4S do to support its members at different career stages:
  - Graduate students learning about STS and/in practice?
  - Early career practitioners trying to move between different sectors?
  - Practitioners who are working increasingly common, but often quite unique hybrid positions that move among different sectors?
  - People who are mid-to-late career STS practitioners, particularly those working in non-university settings?
- How can the 4S proceedings be more accessible to the community beyond single events like the annual meeting?
- What can 4S do to support practitioners in industry, policymaking, planning, etc. who need ongoing certification, or who might benefit from research state-of-the-field summaries or methodological and conceptual toolkits?
- How can 4S better support participation from practitioners around the world, especially in the global South, as well as members of marginalized communities in the global North?

**Survey**

We developed a survey instrument to collect information on STS practitioners’ different professional roles; their participation in the 4S annual meeting, initiatives, and community; and the sorts of tools and services that they would find useful.

We disseminated the survey through some of the professional networks that the STS in Practice committee members belong to: the Committee for the Anthropology of Science, Technology & Computing (CASTAC); the Algorithm Studies Network; CTS Latinoamérica; the Association of Internet Researchers (AoIR); and the Ethnographic Praxis in Industry Conference’s (EPIC) Slack channel “Ethnography Hangout.” The survey was also announced in May’s 4S President’s Message.

87 practitioners completed the survey. The respondent population skewed towards US-based academics who participate in both STS and Anthropology communities, most likely due to the networks through which we distributed the survey and the fact that the survey was written in English. Despite these limitations, the survey results provide some useful insights into the current state of STS training and careers, as well as suggestions for initiatives that 4S could undertake in the future.

**Demographic profiles**

The majority of survey respondents (72%) have either a primary or secondary professional role in academia; within this group, 31% are students, 11% of respondents work in industry, 6% work for a nonprofit, and 6% work in government. Two respondents are currently unemployed.
An additional four respondents work in other sectors, including commercial research, science communication, freelance consulting, and independent scholarship.

A plurality of respondents (27%) have been working in their primary professional roles for less than one year, while an additional 23% have been working for between one and three years at their current position. 57% of respondents had held a similar or equivalent role in another organization for between one and five years before starting their current position.

The majority of respondents (51%) are based in the United States, with an additional 6% working in either Mexico or Canada. 20% are based in South America (Argentina, Brazil, Chile, and Colombia), 16% in Europe (Denmark, the Netherlands, Spain, Sweden, Switzerland, Turkey, and the United Kingdom), and 5% in either Australia or New Zealand. One additional respondent was based in India, the only respondent working in Asia.

**Participation in 4S**

A plurality of respondents (37%) had not attended any of the 4S annual meetings for the past five years. Only four respondents (5%) had attended all five annual meetings in that time period. Among those who had not been to any meetings, the most cited reason for not attending was cost (36%), followed by not having enough time/scheduling conflicts (32%). Four respondents noted that they did not know about 4S as an organization or had not received any information about the annual meeting. Other reasons for non-attendance included: having too many commitments to other professional meetings; not feeling part of the field of STS, or a sense of not having anything to contribute to STS; and the meeting being irrelevant for career and/or interests.

Although many respondents had not attended a 4S meeting in recent years, 50% report that they interact with other 4S members either frequently or very frequently outside of the context of the annual meeting. Only 20% of respondents said that they rarely or never interact with 4S members. Additionally, many respondents use or have used 4S tools, services, and programs. The most used tool is 4S’s social media accounts, followed by the blogs that are included in 4S’s “Web Resources” tab on its website, then the 4S mentorship program, the job board, and finally 6S (the student section). However, 20% of respondents also reported never having used any of these tools, services, or programs.

**Participation in other professional organizations/societies**

We were interested in learning more about the respondents’ involvement in organizations other than 4S—and especially the tools, services, and programs offered by those organizations that they find most useful—in order to suggest potential models for future 4S initiatives. Respondents belong to a large number of other organizations and societies, but the most commonly cited are the American Anthropological Association (24%), the European Association for the Study of Science and Technology (8%), the American Sociological Association (6%), and CTS-Chile (6%). 10% of respondents do not belong to any professional organizations or societies.
Respondents indicated that the most helpful services offered by these organizations/societies are conferences and access to meetings. The second most cited service was access to either a digital library, academic journals, and/or conference proceedings, followed by blogs, mailings and/or listservs, publications (e.g., a monthly magazine, the organization’s official journal), job boards, networking services, mentoring opportunities, workshops, topic groups and/or working groups, the organization/society’s official website, and travel support for events. The following services were also named by at least one respondent as a service that they found helpful: discounts on registration for affiliated conferences; a Slack channel (specifically for EPIC); an organizational email address (specifically for the National Coalition of Independent Scholars); regional member networks; manuscript review; webinars; a membership directory; syllabi; and paper prizes.

Potential 4S initiatives
We also asked respondents to choose from a list of potential initiatives that 4S could offer in the future that they believed would be helpful either for themselves or someone they know, including non-members of 4S. These initiatives were developed in a brainstorming session among the members of the STS in Practice committee and do not have any official endorsement from 4S at this time, nor are there any plans to develop any of them. The purpose of including this question on the survey was to gauge interest as a means of suggesting initiatives that 4S may want to explore. Our proposed initiatives included: certification programs that offer credentialing in STS research topics and methods; reviews of research tools (e.g., Ethnio, dscout Diary, Respondent.io); a handbook for translating STS terms, concepts, and methods across sectors; brief summaries and/or literature reviews of current, state-of-the-art STS research; webinars on STS research topics and methods that are relevant for different sectors; different sector-oriented tracks at the 4S annual meeting; and making 4S conference proceedings available in a more substantive published form. Respondents were allowed to select multiple options.

The most popular option was the idea of producing and making available brief summaries and/or literature reviews of current, state-of-the-art STS research, which was selected by 42 respondents (48% of the survey population). Other popular ideas were the handbook for translating STS terms and concepts (37 selections, 43%), webinars on STS research topics and methods (33 selections, 38%), and reviews of research tools (28 selections, 32%). The other options were less popular; 20 respondents (23%) liked the idea of making 4S conference proceedings available in a more substantive published form, 20 respondents (23%) were interested in certification and/or credentialing programs, and only 18 respondents (21%) saw the usefulness of different sector-oriented tracks at the 4S annual meeting. Six respondents also suggested initiatives that we had not considered, including: a greater focus on STS careers outside of academia and outside of the United States; a context-driven STS and inequality think tank; funding for local 4S events; virtual meetings; and a free, fully open-access journal. Two respondents did not think that 4S could offer any new initiatives that would be helpful.

Current students’ perspectives
In order to better understand STS practitioners’ transitions from school into professional sectors, we asked current students which sector(s) they felt that their studies were best preparing them for, and how they could be better prepared for their careers. Given that we did not ask about specific fields of study nor type of degree program in which respondents were enrolled, we cannot assume that all of the respondents belong to a dedicated “STS” program; in fact, it is likely that most do not. Nevertheless, their responses are indicative of how students understand their future career prospects and how they relate to what they are studying.

Students represent 25% of the total survey population. We asked them to rank order five sectors—academia, industry, nonprofit, government, and other—from 1 to 5, with 1 being the sector they felt their graduate training was most well preparing them for and 5 being the sector they felt least prepared to enter. All but one of the students ranked academia at the top, with the lone outlier selecting industry as the sector that they felt most well prepared to enter. This was the clearest selection of the five, as the remainder of the selections were distributed more evenly across the other four sectors. Government had a narrow edge over industry and nonprofits as the sector that students felt second most well prepared for, and also received a plurality of selections for the number four spot. Industry and nonprofits received an equal number of selections as the third most well-prepared sectors. Industry, government, and other each also received selections as the sectors for which students felt least prepared.

By contrast, 36% of the student respondents expressed a desire for more preparation in their studies for entering industry, the most of any of the five sectors. 23% want better preparation for working at a nonprofit, 14% for working in academia, and 9% for a role in government. 23% also reported that they were satisfied with their current level of preparation. Two respondents selected “Other,” and when asked to elaborate both answered that they wanted better preparation to work in media.

*How do STS practitioners put STS knowledge and skills to work?*

Finally, we were curious as to how practitioners make use of their STS-informed knowledge and skills in their professional roles. Our hope was that these responses would provide insight into some of the ways in which STS is applied that might be overlooked, and which could inform both training in STS programs and 4S initiatives.

Since the overwhelming majority of respondents work in some sort of academic role, it is no surprise that a number of responses cited research and teaching as areas in which STS is applicable. Others explained that STS afforded them a perspective that could be applied broadly. One respondent wrote, “For me, STS is an orientation that I bring to all of my work – a sensitivity to the materiality of practice and the power structures that shape everyday life.” Similarly, another wrote, “[STS] helps sharpen my vision so that I’m able to step back from the daily details to see the larger picture.”

A few responses revealed some of the practical ways in which STS is used outside of the academy. A respondent shared, “Possibly the clearest practical influence is in my discussions with research partners in industry, using STS concepts and methods to begin deliberative
discussions around what the ‘problem’ actually is and what kinds of knowledge might speak to it.” On a related note, another respondent explained, “I do not work with STS people, at all, so I do not explicitly use it all the time, but it is in the back of my head in the choice of methods, approaches, how we process data, and allows me to look for new and nuanced views on issues in technology and society pertaining to policy making.” One wrote, “I utilize critical code studies and critiques of scientism to weigh data-driven decision making in the hospitality industry,” while another responded, “I am from design, so I use STS to think on the role that artifacts play in society.”

**Potential ways forward**

We recommend that 4S identify and interview key stakeholders in the different sectors that we have identified: academia, industry, nonprofits, and government. The purpose of these interviews will be to complement the data gathered through the survey instrument. Another survey could then be commissioned that would seek data to answer any lingering questions.

Additionally, given what we have learned about STS students’ needs and desires and the current state of graduate training in STS, 4S has an opportunity to recommend “best practices” or something similar for STS programs around the world. This would likely involve a review of existing STS programs and curricula, and graduates’ matriculation pathways.

Finally, based on the results of our survey, the following are some potential initiatives that 4S could begin developing, listed in order of priority:

- Brief summaries and/or literature reviews of current, state-of-the-art STS research
- A “glossary,” or translation booklet, with keywords from STS and how they are applied in different sectors
- Webinar series in STS research and methods
- Crowdsourced reviews of research methods software, or simply an overview of what is available and how it is being used
- Publishing conference proceedings in some form that is accessible to non-attendees, or providing alternative participation formats (e.g., live-streaming)
- Credentialing activities and/or certification programs broadly construed (e.g., open-access online courses that offer credentials for completion, webinars, opportunities to network in order to establish credentials, etc.)
- Different tracks—“multiple flavors”—at the annual meeting proceedings with incentives for practitioners in different sectors and at different career stages to attend

Additionally, the following are ideas to consider based on the STS in Practice committee’s brainstorming sessions, including some practical steps that could help make 4S a more inclusive community for practitioners outside of Europe and North America:
• Discounts on industry-standard research software (e.g., Ethnio) for 4S members
• Workshops--either at the annual meeting, other 4S-sponsored events, or remotely/online--in effective “storytelling” for different audiences (e.g., the “3-minute thesis”)
• Workshops on writing for different genres and audiences (e.g., how to write a policy brief, how to write a Medium post, how to write an executive research summary)
• Mentoring programs--beyond the current student section-led 4S Mentorship Program--that match practitioners at different career stages and afford more advanced practitioners opportunities to find collaborators with similar career trajectories and/or meta-level concerns
• Remote networking opportunities (e.g., occasional call-in conversations organized around different topics in STS practice)
• Including a section for non-academic job openings on the Positions section of the 4S website
• Opportunities for methods training, or at least a clearinghouse website for such opportunities
• A survey of practitioners who don’t renew their 4S membership asking why they have decided not to renewed, what needs of theirs are not being met by 4S, and where they are going instead to meet those needs
• Providing travel funding and visa support to practitioners in need, particularly from the global South