

Publishing *ESTS*

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Abstract

In our previous editorial ([Khandekar et al. 2021](#)), we noted the blackboxing of scholarly publication infrastructure that we encountered when we assumed editorship of the journal. We outlined several aspects of infrastructuring that we have undertaken since, with an explicit goal of supporting transnational workflows and participation in *ESTS*. In this editorial, we continue describing our infrastructural work, highlighting especially the work of content production at *ESTS*. We also discuss the relevance of our infrastructural work for open access (OA) scholarly publishing.

Keywords

open access, scholarly publishing, labor, transnational STS

Once manuscripts have been accepted at *ESTS*, they undergo a very thorough copyediting and production process. Developed iteratively as we have worked through publishing issues 7.1 and 7.2 by the managing editor, Amanda Windle, our post-acceptance checklist at present comprises 144 steps over 11 stages, all the way from initial de-anonymization of manuscripts, reference checking, inline linking, and iterative copyediting and revising of manuscripts in consultation with authors to

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production of separate PDF and HTML files, cross-checking publication metadata in indexing services, and promoting journal publications through our newsletter and Twitter account (see [tables 1–2](#)). The bulk of this work is done by Amanda, often over a period of 2–3 months.

Stages	To/From: Hours: Editorial	To/From: Hours: Research Article	To/From: Hours: Research Article	To/From: Hours: Research Article	To/From: Hours: Research Article	To/From: Hours: Perspectives
Stage 1 Manuscript Moves to Production	1 Oct 71 mins	2–5 Aug 137 mins	20–27 Jul 120 mins	12–20 Jul 61 mins	12–21 Jul 82 mins	13 Sep 63 mins
Stage 2 Refine	1 Oct 72 mins	5–13 Aug 661 mins	27–30 Jul 305 mins	20 Jul –4 Aug 632 mins	21–26 Jul 333 mins	13 Sep 171 mins
Stage 3 Mark- Up	1 Oct 38 mins	13 Aug 156 mins	29–30 Jul 152 mins	4–11 Aug 230 mins	26–27 Jul 205 mins	13–4 Sep 72 mins
Stage 4 After Author's Proof Marking Items (1 st amends)	4 Oct 8 mins	5 Sep 208 mins	31 Aug 270 mins	11 Aug– 5 Sep 16 mins	2 Sep 105 mins	30 Sep 44 mins
Stage 5 Annotations (2 nd amends)	5 Oct 2 mins	27 Sep 130 mins	30 Sep 52 mins	5 Sep 175 mins	2 Sep 9 mins	30 Sep 28 mins
Stage 6 Corrections (3 rd amends)	5 Oct 27 mins	27 Sep 300 mins	30 Sep 8 mins	30 Sep 215 mins	30 Sep 108 mins	-
Stage 7 Revisions (4 th amends)	5 Oct 10 mins	2 Oct 10 mins	-	2 Oct 10 mins	4 Oct 2 mins	2 Oct 12 mins
Stage 8 Code PDF & HTML	240 mins	5–6 Oct 60 mins	5–6 Oct 30 mins	5–6 Oct 108 mins	4–6 Oct 142 mins	6–7 Oct 35 mins
Stage 9 EiC / EC Final Proof	60 mins	25mins	40 mins	24 mins	30 mins	-
Stage 10 Create Issue (Indexing DOAJ checks— altogether 160 mins)	15 Oct 13 mins	15 Oct 13 mins	15 Oct 13 mins	15 Oct 13 mins	15 Oct 13 mins	15 Oct 13 mins
Stage 11 Promote issue (Social media, listserv, newsletter— altogether 575 mins for copyediting, picture editing, & scheduling time zones)	19–22 Oct 47 mins	19–22 Oct 47 mins	19–22 Oct 47 mins	19–22 Oct 47 mins	19–22 Oct 47 mins	19–22 Oct 47 mins
Totals (The editorial took 10 hours but in the issue modelling the editorial is adjusted to 8 hours (14.2hours per week)).	588 mins = 10 hours over a week	1747 mins = 29 hours over 2 months	1037 mins = 17 hours over 3 months	14531 mins = 26 hours over 3 months	1075 mins = 18 hours over 2.5months	485 mins = 8 hours over 1 month

Stages	To/From: Hours:	To/From: Hours:	To/From: Hours:	To/From: Hours:	To/From: Hours:	To/From: Hours:
	Engagements	Engagements	Engagements	Engagements	Engagements	Engagements
Stage 1 Manuscript Moves to Production	22 Jul–17 Aug 116 mins	20 May–17 Aug 34 mins	20 Aug 66 mins	20 Aug 85 mins	20 Jun–24 Aug 47 mins	19–20 Aug 27 mins
Stage 2 Refine	17 Aug 47 mins	17–8 Aug 65 mins	20 Aug 127 mins	20–1 Aug 218 mins	24 Aug 130 mins	20 Aug 58 mins
Stage 3 Mark- Up	17 Aug 61 mins	18 Aug 61 mins	20 Aug 38 mins	21 Aug 36 mins	24 Aug 240mins	20 Aug 33 mins
Stage 4 After Author's Proof Marking Items (first amends)	8 Sep 19 mins	7 Sep 8 mins	2 Oct 1 min	2 Oct 8 mins	2 Oct 3 mins	2 Oct 5mins
Stage 5 Annotations (second amends)	2 Oct 6 mins	7 Sep 7 mins	2 Oct 8 mins	2 Oct 4 mins	7 Oct 7 mins	2 Oct 9 mins
Stage 6 Corrections (third amends)	2 Oct 10 mins	2 Oct 12 mins	2 Oct 4 mins	-	2 Oct 40 mins	2 Oct 5 mins
Stage 7 Revisions (fourth amends)	5 Oct 5 mins	2 Oct 40 mins	-	-	-	-
Stage 8 Code PDF & HTML	6 Oct 40 mins	2 Oct 40 mins	5 Oct 8 mins	2 Oct 20 mins	-	6 Oct 60 mins
Stage 9 Eic / EC Final Proof	-	20 mins	15 mins	25 mins	15 mins	5 mins
Stage 10 Create Issue (Indexing DOAJ checks— altogether 160 mins)	15 Oct 13 mins	15 Oct 13 mins	15 Oct 13 mins	15 Oct 13 mins	15 Oct 13 mins	15 Oct 13 mins
Stage 11 Promote issue (Social media, listserv, newsletter— altogether 575 mins for copyediting, picture editing, & scheduling time zones)	19–22 Oct 47 mins	19–22 Oct 47 mins	19–22 Oct 47 mins	19–22 Oct 47 mins	19–22 Oct 47 mins	19–22 Oct 47 mins
Totals Altogether 145 hours/20 hours per week = 7.24 weeks in total.	364 mins = 6 hours over 3 months	347 mins = 6 hours over 6 months	327 mins = 5 hours over ½month	402 mins = 7 hours over ½month	542 mins = 9 hours over 4 months	262 mins = 4 hours over 2 months

[Tables 1–2](#) Galley hours tally for issue 7.1. The genre content does not correspond to the order of the issue. The timings also include time for general infrastructure maintenance like fixing corrupted files, software bugs, and refining the checklists for the 11 stage process.

From the day Amanda joined our team, we have kept track of how her time for the journal is used, and how much time various journal tasks typically take. Owing to this, we know that we spend approximately 17–29 hours post-acceptance in taking any research-length manuscript to publication

(hours vary in relation to the coordination of co-authorship for multi-authored papers, prior publication experience of authors, and availability of authors to respond to revisions); *Engagements* and *Perspectives* contributions typically require 4–8 hours of copyediting and production work (see [tables 1–2](#), and [figure 1](#)). And these numbers say nothing about the multi-skilled nature of this work, which includes, among other things, research (production processes, style guides, appropriate software and other tools for picture editing and table styling), coding (tool development for PDF to HTML conversion, hardcoding some attributes into each HTML file), accessibility amends, close reading and careful reviewing of each manuscript as it advances through the production process, and planning and tracking the impact of our promotion work.

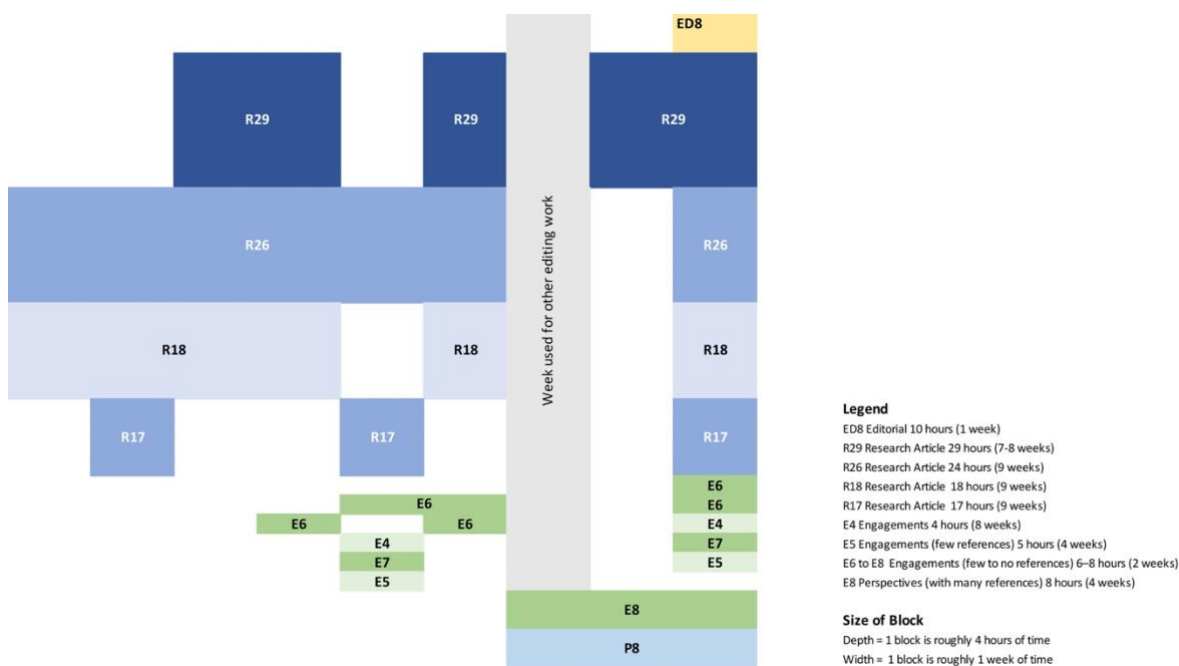


Figure 1. A visualization of ESTS’s issue 7.1 from October 2021 showing production labor by genre—measured in both hours (by depth), and weeks (by width). A single block is the depth of an engagement piece.

To put the above numbers into context, it is worth noting that the managing editor position at ESTS is half-time, i.e. 20 hours/week; all other labor is voluntary. At present, the Editorial Collective (EC) is responsible for organizing the review and evaluation process for manuscripts from initial submission all the way through making final decisions on manuscripts and communicating them to authors; the managing editor is responsible for taking manuscripts from acceptance to final publication and subsequent promotional work. In a best-case scenario publishing an issue like 7.1 takes us about an average of 7.2 weeks (this is total hours taken over 2–3 months working on average of 20 hours per week), *after* manuscripts have already successfully moved through the peer review process. This has significant implications for what and how frequently we can publish in ESTS, a subject of deliberation for our EC of late.

To give readers a sense for current editorial discussions at the journal: presently, we have a pipeline comprising in excess of 70 active manuscripts at various stages of review (the bulk of which are research-based articles). As some of these manuscripts move through acceptance, we know now how

to plan our production work. Even a preliminary estimate suggests a full publication schedule at least through the next volume, if not beyond.

Then there is the associated discussion about publication frequency. As readers are aware, starting with the current volume (Vol 7), we moved to an issue-based (rather than continual) model of publishing at ESTS. At present, we publish two issues annually. After analyzing the opportunities and trade-offs of increasing issue frequency (see [figures 2, 3, and 4](#) modeling different scenarios), we are hoping to extend this to three issues per year. This approach allows us to plan journal activities better; and as we have recently confirmed, it also helps promote journal content more effectively. In October 2021, the month in which issue 7.1 was published, the *ESTS* website had an increase of 4,000 users, the largest number of new users in a month to the journal’s website ever. Increasing publication frequency thus potentially increases the impact of the journal as well (per our understanding, this is also a result of publishing in HTML in addition to PDF, because increased density of content impacts how Google ranks our website). And it allows us to publish more content.



[Figure 2](#). A scenario model of *ESTS*’s issues (8.1–8.3) for 2022 based on issue 7.1. This model consists of publishing three issues which altogether include the following genres: research articles (12), engagements (18), perspectives

(3), and editorials (3). This takes roughly a total of 426 hours, that’s 142 hours of production time which is about 17.8 hours (per week) over eight weeks.

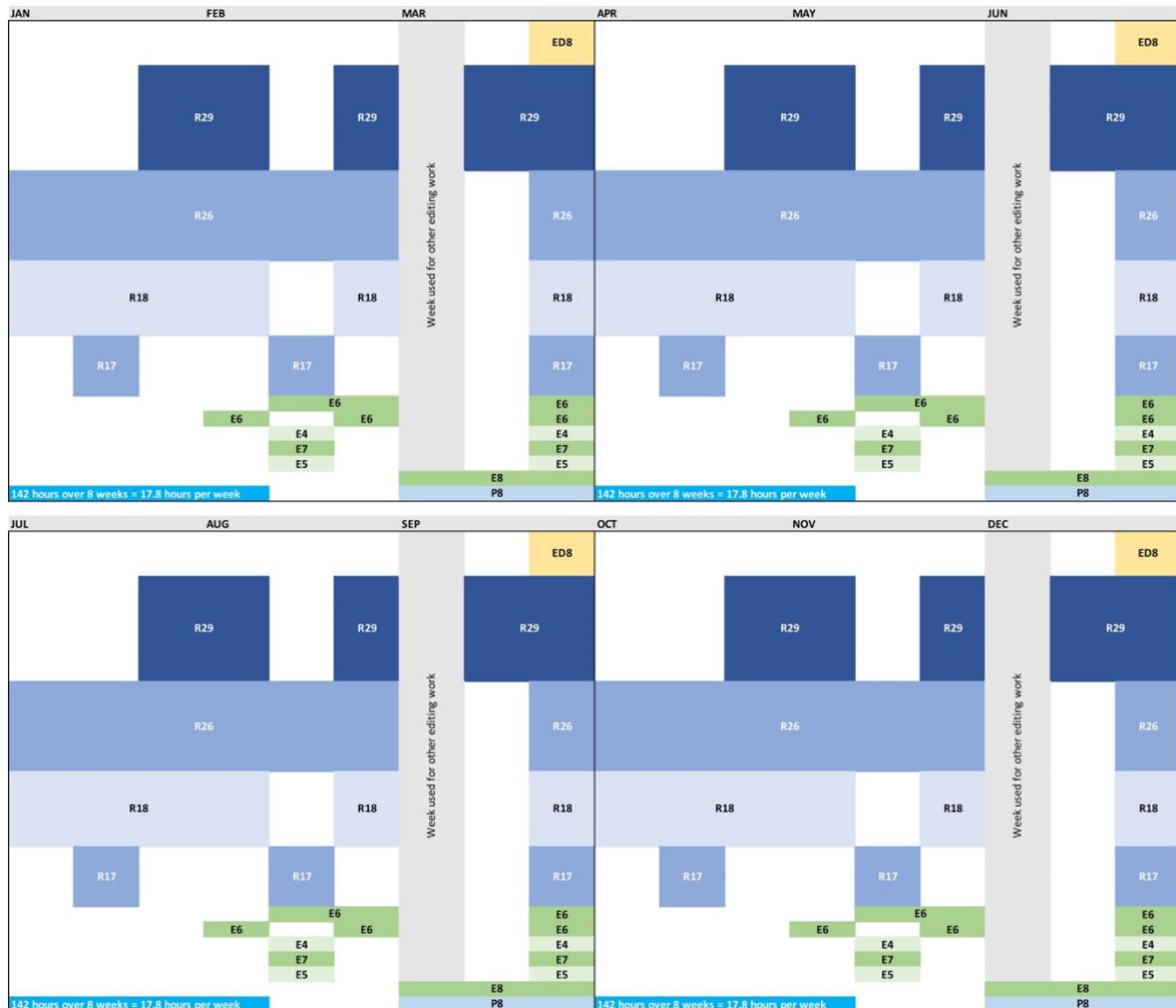


Figure 3. A scenario model of *ESTS*’s issues (8.1–8.4) for 2022 based on issue 7.1. This model consists of publishing four issues which altogether include the following genres: research articles (16), engagements (24), perspectives (4), and editorials (4). This takes roughly a total of 568 hours, that’s 142 hours of production time which is about 17.8 hours (per week) over eight weeks.

This enthusiastic appraisal of increasing publication frequency has been tempered by a few different considerations. First, as we note above, we can publish only as much content as we can produce. Here, we are constrained by how much support is available to us at present. Second, submissions to *ESTS* follow patterns that we can evidence in most STS journals—they come predominantly from authors located in Euro–American centers. This isn’t a problem in itself, but it does suggest a need for dedicated efforts aimed at diversifying our authorship in terms of their intellectual genealogies and geographical locations. Increasing publication frequency will not by itself result in a more transnationalized STS, an important goal for our EC. Third, focusing solely on publishing more leaves little room for undertaking new projects and experimental work that will be necessary in order to

realize our aspirations for *ESTS* to become a vital space for figuring out next-generation STS, including as a venue for cultivating transnational STS.

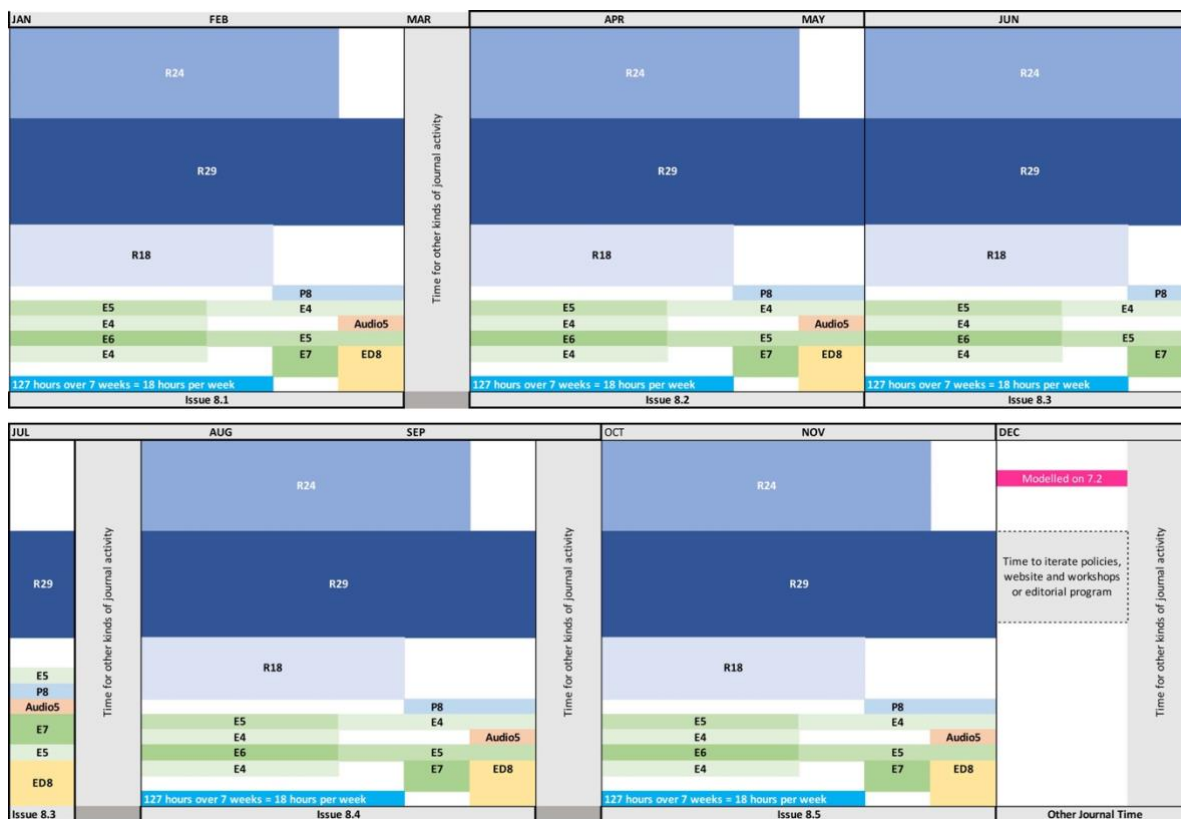


Figure 4. A scenario model of *ESTS*'s issues (8.1–8.5) for 2022 based on issue 7.2 (modelled prior to completion of the issue so the estimates are therefore subject to change). This model consists of publishing five issues which altogether include the following genres: research articles (15), engagements (25), perspectives (5), and editorial (5). This takes roughly a total of 635 hours, that's 127 hours of production time which is about 18 hours (per week) over seven weeks.

These, of course, are ongoing discussions that we will continue working through. Several resolutions, not mutually exclusive, are possible. We can ask authors, for example, to work through the production process more carefully in order to reduce demands on our editorial capacities. We can organize workshops, at the annual 4S meetings for example, that offer guidance for publishing in *ESTS*. We can seek additional support for the journal while still maintaining our commitment to a diamond open access model of scholarly publishing. We can host special calls for drawing in authors from more diverse locations. And we can, as we have done recently, be more selective in accepting proposals for Thematic Collections unless they clearly align with our editorial thrusts. There may be other resolutions still. And we are committed to finding them: we know that scientific publications are important markers of professional accomplishment, especially for early career researchers, and that they are a key venue for authorizing and communicating our findings within our scholarly communities and to broader audiences.

These considerations will shape our editorial policies in the coming year. In the meantime, our goal in this editorial is to give readers a window into the world of OA publishing. The most common refrain against OA that we have encountered even among otherwise sympathetic colleagues is the concern that OA is financially nonviable, one, if not the, reason why we must remain beholden to corporate publishing structures despite all our criticisms of them. More than a year into running *ESTS*, however, we are still unable to evaluate this claim, because we do not have the kind of data necessary to do so. In a context of increasing cooptation of OA by corporate publishers,¹ we are working to understand and develop the social, technical, financial, infrastructural, and other bases through which OA can be independently sustained. Tracking time, skills, tools, finances etc. closely and experimenting with different workflows are important aspects of this work. Documenting our findings in editorials like this one, we hope, helps open the blackbox of scholarly publishing infrastructures and enroll our readers in our efforts to support and deepen OA.

Let us end by acknowledging another important pillar that sustains *ESTS*: the journal community. We are very grateful for the goodwill extended to the journal by readers, authors, and reviewers alike. The redesign of the journal's website, for which we have received much encouraging feedback, would not have been possible without inputs gathered from our readers via the survey we hosted last year. We are also fortunate to share strong collegial relationships with other STS journals and look forward to capacity-sharing and developing new collaborative projects with them in years ahead. In particular, we would like to acknowledge past *ESTS* president, Joan Fujimura, for supporting the incoming EC as we worked to establish the journal's infrastructures and mourn with her the passing of her partner, Kjell Doksum. Thanks also to our Editorial Board (EB), some of whom we have had to periodically rely on for seeking last-minute peer reviews, especially in pandemic contexts. We look forward to working with our transnational EB, especially to extend *ESTS*'s reach and diversify its content.

Last but not least, we would like to acknowledge the work of reviewers who have been so generous with their time and engagement in offering constructive and generative feedback to our authors. Below, we name reviewers who have undertaken peer review for *ESTS* for all manuscripts for which we have communicated final editorial decisions.

¹ Consider, for instance, the recent acquisition of the Germany-based OA platform, Knowledge Unlatched, by Wiley Blackwell.

Javiera Barandiarán	Emma Garnett	Cristina Mejia Visperas
Kristen Bell	Renan Gonçalves Leonel da	Camille Nurka
Michael Bennett	Silva	Thao Phan
Monamie Bhadra Haines	Ming-sho Ho	Anders Rhiger Hansen
Cal Biruk	Kelly Ann Joyce	Camilla Røstvik
Peter Darch	Sanneke Kloppenburg	Dibyadyuti Roy
Sarah Davies	Marjolein Lanzing	Stephen Sparks
Maral Erol	Max Liboiron	Damien Williams
Kim Fortun	Elizabeth Lunstrum	Natasha Zaretsky
Mike Fortun	Anindita Majumdar	Teun Zuiderent-Jerak

Issue 7.2

Our year-end issue includes two original research articles. Matthew Mayernik's essay, *Credibility via Coupling*, investigates the development of Model Intercomparison Projects (MIPs), a method first developed in climate science for evaluating and comparing disparate climate models, "as one example of a coordinated approach to establishing scientific reliability." Mayernik develops the notion of Institution and Infrastructure Coupling (IIC) in order to draw out the different technologies, mechanisms, norms, strategies, and governance structures—different infrastructural and institutional couplings, that is—that must be evolved in order to articulate trust and validation in MIPs and MIP-like projects. Jalbert et al.'s essay, *Engaged STS in Arizona's Helium Extraction Boom*, describes collaborations between STS researchers at Arizona State University and residents of North-East Arizona's Holbrook Basin. In the context of an ongoing helium boom in the region, the essay describes a series of collaborative workshops aimed at understanding and navigating the complexities of potential helium extraction in local communities. Based on this work, Jalbert et al. propose a framework, A Capabilities Model for Social Learning, as a possible model for pursuing "engaged STS."

Like issue 7.1, the current issue also hosts a Bernal Lecture Forum. In this issue, we celebrate the work of co-winner of the 2020 Bernal Prize, Sharon Traweek. The forum includes the original text of Traweek's Bernal Prize acceptance speech. It is followed by responses to Traweek's scholarship by Banu Subramaniam, Sandra Harding, Koichi Mikami, Jorge Nuñez and Maka Suarez, and Knut Sørensen. The forum concludes with an interview with Traweek by Duygu Kaşdoğan and Kim Fortun as a supplement to Traweek's Bernal Prize lecture. We are pleased to publish the original audio with an edited transcript of the interview. The audio publication of Traweek's interview in *ESTS* inaugurates our efforts to publish in multi-media formats.

References

Editorial Collective: Khandekar, Aalok, Noela Invernizzi, Duygu Kaşdoğan, Ali Kenner, Angela Okune, Grant Jun Otsuki, Sujatha Raman, Amanda Windle, and Emily York. 2021. "Infrastructuring ESTS." *Engaging Science, Technology, & Society* 7.1: 1–11. <https://doi.org/10.17351/ests2021.1275>.