Varieties of STS:
Luminosities, Creative Commons, and Open Curation

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Abstract

Four STS (science, technology and society) collectives (from Kenya, Turkey, Japan, and Ecuador) presented their archives and accounts of their collective work at two meetings of the Society for the Social Study of Science (4S) in Sydney 2018, and New Orleans 2019. These presentations are not only very interesting in themselves, but are housed on a digital platform (Platform for Experimental Collaborative Ethnography or PECE) that poses the question—and attempts to build a solution—of how ethnographic materials can be digitalized and made available for productive further activity. This text is a guiding summary for a set of further engagements published on PECE entitled: "Kenya: Techpreneur, Transnational Node, Kibera" (2023a), "Turkey. Inside and Outside the University" (2023b), "'Japan'/Japan On Line: *NatureCulture*" (2023c), and "Ecuador: Thirdspaces amidst Social Conflict" (2023d), and "Bibliography for Varieties of STS" (2023e). These engagements help to ask: do long texts such as these four parts create need to be fragmented, tagged, and curated, into perhaps GPT-4 chunks, to be useful on new digital platforms such as PECE? Will this be required for next generation literacy of humans and machines alike, or more-than-human readers, analysts, and synthesizers?

Keywords

creative commons; open curation; PECE platform; STS across borders; space and place

Advocacy With and Beyond the PECE Platform

> The question of the archive is not . . . a question of the past . . . It is a question of the future. . . . (Jacques Derrida 1995, 9–63)

> I never produce the text I planned at the start, and it always ends up being longer than I planned—and more playful than I planned. (Michael Fortun 2022a, 15)

As we move from old research reporting made available in print form (i.e. book, journal, and paper libraries in buildings) to digital worlds and multi-media formats, new challenges are presented in the third spaces between, or among, legacy faculties of writing and efforts in the sciences to build databases, in which

"context" and "provenance" and "authorship" and varied "access" or "accountability tracking" may be tagged in cross-referencing and dense modalities, but are abstracted in minimalist fashion for algorithmic searching.[1] How will meaningfulness be preserved in ways that are engaging, serendipitously discoverable, suggestive, and aesthetically provocative? Will we be able to become lost in other worlds—as we can be in richly developed ethnographies of scientific, technical engineering, political, and social horizons, or in socially inquisitive histories of the sciences and technologies in their contrasting time horizons and places— in Asia and Africa, the Amazon and the Andes, as well as in North America and Europe. How to read or weave conversational sense (or effective advocacy) across digital entries, and how not to become defeated by the multiplicity of possible rabbit holes? How, in other words, to read or use a digital platform, with reports, notes, and other archived fragments holistically—for ourselves, as perhaps opposed to for A.I. (artificial intelligence) retrieval, or for experimental re-assortment rather than empirical inquiry? Are these even useful distinctions for emergent futures?

To probe these questions with respect to the four STS collectives from Kenya, Turkey, Japan, and Kenya, I suggest two readings are necessary and imbricated. One is pragmatic and ethnographic. The other is algebraic and curatorial. I suggest "luminosity" as a transitional metaphor for the complex of search goals in archival materials: spreads light, sparks imagination, creates a smile. Luminosity is one potential answer to the key problem of today's information overloads, intensities, and sheer multiplicities. The oft invoked pluriverse, as a goal of inclusiveness, creates more problems than it solves. Everyone has their own truth(s). Partial connections short-circuit. Sociality suffers, and geopolitical conflict intensifies. But another world is possible: one of sharing or participation in creative commons (to borrow from the World Wide Web solutions to copyright, open usage with acknowledgment and regifting further contributions to the general pool), of building socialities (advocacy and politics) differently, so as to mitigate or defend against the frustrations, anger, polarizations, and inequalities with which we live. "Luminosities" evokes fires, diffractions, and reflections of the firmament: hot suns and cool moons of generation, reflection, and illumination, even drawing the spirit(s) towards enlightenment. Closed curation is the antithesis: the coercion and seductions of hegemonies, of hidden, unsituated or ungrounded naturalizations that hang for a limited time in mid-air before crashing to the ground in various forms of entropy, decreased velocity, and decay. Networks, meshworks, and other open forms require knots, relays, stations of calculation, evaluative criteria, modalities of critique, and of relational situating and grounding. Such localities of STS production and dissemination, of coming together and rediffusion, we might, at least temporarily, call luminosities, operating in degrees of more and less creative commons.

The four STS collectives—presented with others in two larger panels of "STS Across Borders" and "Innovating STS," using the PECE, the Platform for Experimental Collaborative Ethnography—provide

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[1] For an earlier reflection on these issues at the beginning of these cyber or internet processes, see [Fischer 1999](#).

their luminosities or illuminations as playful and experimental. While Kenya, Turkey, Japan, and Ecuador provide both tags (curatorial, algebraic), they do not necessarily instantiate nation-state policy, yet are inflected by national constraints and affordances (pragmatic and ethnographic loci). They can be viewed as (sometimes renewed) beachheads or seeds of genesis of STS institution building in Africa, West Asia, and East Asia, and Andean South America; that is, geographically, as a middle swath across the globe from the Andes (a geodetic hemispheric mid-point with a history to seventeenth-century geodetic expeditions) to the Kuroshio "black current" off Japan (one of the earth's most intense air-sea heat exchange regions affecting the climate across the Pacific), and from the Indian Ocean Dipole (the El-Niño Southern Oscillation) affecting climate from East Africa to Indonesia, to the edges of the Fertile Crescent and the Black Sea waters. Or they can be viewed as tokens of fab lab and digital innovation (Ushahidi, M-Pesa, i-Hub, BRCK); art-space interdisciplinarity (IstanbuLab); new journal initiation (*NatureCulture*); and intentionally constructed thirdspaces (CTS Ecuador, FLACSO) with people, artifacts, institutions, imaginaries, and sites enrolling regional networks, to stabilize new epistemic communities in academia and the policy world, and to change society. One can play up and down these macro-meso-micro luminosity scales to allow for paradoxes, contradictions and double-binds that make up the troubles of STS as object, frameworks, and quasi-discipline—as STS historically (even in its own short half century of existence as an institutional formation with journals and associations and even academic departments) has shifted about from questions of rationality and governance, to questions of justice and responsiveness, to accountability among imperatives of feminism, de-colonialism, late industrial toxicities, and post-global rearrangement.

Two of the goals of "STS Across Borders" and "Innovating STS" panels were to welcome voices from beyond those of the traditional metropoles, and to renew/expand the narrow confines of the STS field from its purified epistemological or analytic philosophy focus on categories and terminology. These goals return the STS field back onto the substantive roles of the sciences and technologies in the social, political-economy, environmental, gendered, racialized, inequality-generating, and other changes in the worlds we inhabit. Keeping these two goals in mind allows renewal and expansion of multiple genealogies and methodologies of STS (Fischer 2009). They enable using the details of scientific and engineering knowledge—ways of discovery and validation—together with the bringing to earth (reality checking) of grand theories, finding their lines of flight (creative speculation), while also revealing where they lose their grounding in rhetorically pleasing flourishes.

The sites, places and spaces that the four STS collectives present are switching points within third spaces of strategic terrains, ethical topologies, and dramaturgical arenas that have the potential for demonstrating another world is possible (Fischer 2003, 1–4). My role as a commentator is not to criticize or point out what is incomplete—new beginnings and initiatives are by definition incomplete or else they would be of little value—nor to impose a curation narrative or analytic grid. I hope, instead, to listen for what is here, what lurks, and future paths and readings that might build upon the PECE initiative, as we cautiously move forward in a world of multiplicities and information plenitudes. Multiplicities and plenitudes can both make patterns legible (redundancy) or make them invisible (overshadowing).

These four STS collectives (with their supplement artifacts and documents) can be read as exercises in using the PECE platform. This requires new forms of reading. No New Criticism here (sticking only to the given text or only internalist reading).[2] It requires playing on the platform, looking for the various ways in which the contributors use, modify, and extend the affordances of the platform, but the reader is also invited (explicitly by PECE) to engage and contribute. Valuable introductions to more than superficial engagements are provided by Michael Fortun's work on the curation of PECE ([2001](#), [2022a](#), [2022b](#)) and Angela Okune's tutorials showing how she built her own "instance" of PECE for use in a data sharing project in Nairobi in 2019 during the COVID pandemic, when in addition to its other affordances, the PECE platform enabled the research group to coalesce socially on Zoom® and via the internet, in a period of otherwise slowed down interaction and fieldwork. One begins through Okune's description to feel socially invited to join in, which is an important part of the point. PECE in a broader sense, then, is both an indexing tool for archiving and sharing — and a community building tool.

Taking up that invitation, I read the four STS collectives both ethnographically and with an eye to the two major transformations in the nature of contemporary research. First, on the technical level, there is the transformation into digital formats as we move from texts, texts with annotations, concordances and book indexes to search engines in which predictive AI and next generation GPT-4 style algorithms will mediate and aid or obscure analytics. These tools (or Friedrich Kittlerian modes of thought as per Geert Lovink, see [Fischer 2023b](#)) can potentially also obfuscate, distort, and suppress (as in the current discussions of bias and fairness in algorithms) and even turn subjectivities into entertainment, marketing, and propaganda availabilities. Continued experimentation, and vigilance, regarding what gets coded and prioritized will be required, and doing this by multiple stakeholders as Angela Okune and Leonida Mutuku's work in Kibera illustrates ([2023](#)). Because of rapid shifts in climate change and infrastructure failures, digital technologies will become increasingly mission critical as real time changes need to be integrated not only for emergency response but for flexibility in longer term responses ([Petryna 2022](#); [Özden-Schilling 2021](#); [Adornetto 2023](#)). Central to responsiveness and accountability will be the double-binds that multiple social actors' interests will require to be accommodated, a key terrain of inquiry for STS ([Fortun 2001](#), [2004](#)).

Second, on the more social level, there is the democratizing transformation of knowledge production and new communities of learning. As Okune and Mutuku observe and warn:

> Many people (both tech entrepreneurs and people living in the city's massive, under-resourced informal settlements) feel over researched, without reciprocal benefits. And the halls of the university are quiet as students and lecturers frantically churn out deliverables for development consultancy projects and strive to publish in academic journals. ([Okune and Mutuku 2023](#))

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[2] New Criticism — a school or methodology in Literary Criticism that restricted interpretation to the text, eschewing historical or other interpretative work. It was superceded by anthropologically inflected New Historicism.

The Research Data Share working group, that Okune has helped form, and coordinate, to make the vast Kibera slum more legible, is meant to recapture something of the civic vibrancy of the 1970s when Ngugi wa Thiong'o and colleagues proposed abolishing the English Department of the University of Nairobi in favor of teaching Kenyan literary forms and aesthetics (and in Kenyan languages), or more generally as Okune quotes Francis Nyamnjoh, turning accountings of Africa away from "extroverted" (metropole approval seeking) analyses to ones rooted in grounded, local experience. Nairobi's Kibera, said to be the largest slum in Africa, provides one situated knowledge setting for proof of concept for use of a PECE-like platform for community building and knowledge production outside the nexus of university, tech start-up, and commercial consultancy.

Similarly, the STS Program at FLACSO in Ecuador slowly constructs itself as a thirdplace (María Belén Albornoz's preferred usage to thirdspace, and it is a university place) that can operate both betwixt and between academic disciplines or expert fiefdoms (sometimes making them become inter-disciplines), and betwixt and between government agencies (sometimes allowing them to be more responsive to social crises), thereby adding a different space for evaluation, reflection, and social feedback.

I try to suggest some cross-readings to help make the PECE platform a venue for conversation across conceptual spaces and geographical places. If an overall theme emerges, often as an aspiration, it might be the slow movement of modes of thinking from product engineering (build, test, break, iterate) and object-oriented programming (code and tag, drag and drop) to metaphors of biological cultivation and ecological flourishing (rhizomic growth, lines of flight, profusion and weeding, responsiveness)—a movement flagged especially by Aybike Alkan, Duygu Kaşdoğan, and Maral Erol (2023), and Albornoz (2023)—and from the white noise of "concept work" and viral circulation of memes and celebrity citation to more targeted reconstructions and analyses of the assemblages and ecosystems required for growing knowledge and occasionally wisdom and restraint. The query to which, in eternal uroboros return, recurs: must long texts, such as this one, be fragmented, tagged, and curated (abstracts, blurbs, and keywords), into perhaps GPT-4 chunks, to be useful on new digital platforms such as PECE? Will this be required for next generation literacy of humans and machines alike, or more-than-human readers, analysts, and synthesizers.

If Ecuador's thirdspaces—CTS Ecuador, FLACSO—are the inverse or negative space of NatureCulture as discussed by Gergely Mohácsi, Grant Jun Otsuki, and Émile St. Pierre's essay (2023), insofar as they must negotiate among double-bind imperatives such as accommodating more and more indigenous demands while remaining beholden to a neoliberal rapaciously extractive economy, the metaphor of Ecuador as the middle of the earth is not just a historical or geodetic one, but a crucible of no exit conflict until the topologies of the cat's cradle or ethical plateaus shift. Rumiñahui versus Francisco Orellana; Dolores Cacuango versus the feudal system: things are no longer as suppressed as they once were, and tomorrow could be different from today. If the models of third places and thirdspaces are ones of creating learning communities becoming epistemic-moral ones, stabilizing and disseminating through networks and lineages within academia, government, and worlds of trade, design and diplomacy, including both defensive blockades and realist chess-like strategy (out maneuvering opponents), then there is hope.

Engaging with PECE

There are five further engagements published on the PECE platform and organized around the following themes and questions (see below) that try to do justice to the contributors. "Kenya: Techpreneur, Transnational Node, Kibera" (2023a) directly engages with Okune and Mutuku's original research article (2023), "Turkey. Inside and Outside the University" (2023b) with Alkan, Kaşdoğan, and Erol's original research article (2023), "'Japan'/Japan On Line: *NatureCulture*" (2023c) with Mohácsi, Otsuki, and St. Pierre (2023),"Ecuador: Thirdspaces amidst Social Conflict" (2023d) with Albornoz (2023), and a complete "Bibliography for Varieties of STS" (2023e) which encompasses the references for all five engagements published on *STS-I* and *ESTS.*

Conclusions

What is PECE that we should be mindful of it? At worst a capacious set of rabbit holes. At best, a platform for conversation, for comparative juxtaposition of complex and differently situated social experiments, and a place for deep ethnography to find a place in a world where publishers and readers want superficial bottom lines: "what is the takeaway message?" and "don't have the time to invest." Time it seems may be the currency of illumination, but digital means allow time to be used well. The four "instances" of PECE use, or contributions through reflections on Making and Doing exhibits at 4S meetings in Sydney and New Orleans, do provide a series of comparative juxtapositions around digital media, STS institutionalization or positioning, science city style development projects, smaller tech cluster developments, mega development projects, civil society mobilization. Overall these points of luminosity also militate against telling only deficit narratives, and for a slow and uneven shift in modes of thinking from linear project engineering or object-oriented programming to more inclusive biological cultivation and ecological flourishing. Knowledge on the PECE platform can be read in alternative ways; sense-making is situational and opportunistic, and sense making is often most clarified in the uses to which it can contribute. Multiplicities for sure. Wisdom and humility, when all else fails.

Acknowledgements

Author Biography

Michael Fischer trained in geography and philosophy at Johns Hopkins, social anthropology and philosophy at the London School of Economics, anthropology at the University of Chicago. Before joining the MIT faculty, he served as Director of the Center for Cultural Studies at Rice. He has conducted fieldwork in the Caribbean, Middle East, South and Southeast Asia on the anthropology of biosciences, media circuits, and emergent forms of life.

Data Availability

Associated commentary for this can be accessed in STS Infrastructures at:
https://n2t.net/ark:/81416/p4kg67.

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