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Public Philosophy of Technology: Motivations, Barriers, and Reforms

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Abstract: Philosophers of technology are not playing the public role that our own theoretical perspectives motivate us to take. A great variety of theories and perspectives within philosophy of technology, including those of Marcuse, Feenberg, Borgmann, Ihde, Michelfelder, Bush, Winner, Latour, and Verbeek, either support or directly call for various sorts of intervention—a call that we have failed to heed adequately. Barriers to such intervention are discussed, and three proposals for reform are advanced: (1) post-publication peer-reviewed reprinting of public philosophy, (2) increased emphasis on true open access publication, and (3) increased efforts to publicize and adapt traditional academic research.

Key words: Public philosophy, philosophy of technology, scholarly intervention, activist scholarship, activist-scholar, scholarship of engagement, peer-review, tenure and promotion, impact assessment.

Introduction

The public stature of philosophy in the United States has been in unnecessary decline. To be sure, some bioethicists, notably Peter Singer and Arthur Caplan, contribute so regularly to newspapers and magazines that they have become household names. These rare public intellectuals remind us that philosophical ideas can resonate widely when expressed in the right way and given the right forum. Under present circumstances, however, their contributions to public life are utterly exceptional.

When journalists seek a source to comment on the meaning of scientific and technological development, they often turn to scientists and technologists, rather than philosophers of science and technology whose area of study is more central to the journalist's concern. When writers and editors seek commentators on normative policy matters, philosophers are rarely their top choice. Instead, preference tends to be directed at psychologists, sociologists, economists, and political scientists—academics who typically are not trained to directly and authoritatively address fundamental issues of morality and justice. And, when public discourse turns towards existential dilemmas, representatives of religious groups (or, more rarely, activist atheists) tend to be the dominant voices.

From the cloistered confines of the university, keeping the discipline insular can seem like a good thing. First of all, philosophy is a deep and rigorous exercise. To convey the requisite nuance, refined logic and language is required. By contrast, journalistic prose can appear more suited for cheap rhetorical appeals to emotion. Secondly, in a time when search engine optimization has an extensive reach, the language of journalism can seem overly contrived and hyperbolic—crafted more to meet the advertising imperative of bringing eyeballs to a page and generating social media recommendations peppered with intellectually sugary memes than conveying complex and sometime counter-intuitive truths. Thirdly, philosophical arguments tend to develop slowly, over prolonged periods of time. They are stretched across a vast communal tapestry of articles and carefully edited volumes. The speed of journalism, by contrast, is fast—conveying rapid, real-time responses—and less oriented to emphasizing citational chains.

While the insular outlook can make philosophy seem special—an untimely endeavor that is immune to contingent social pressures—it is increasingly out of sync with the practical pressures today's university administrators face. These pressures make it increasingly hard to justify hiring faculty from disciplines that are not perceived to add value to vocational training or global citizenship. In fact, these pressures also justify cutting faculty lines, including entire departments. The longer philosophers are perceived to be an esoteric community with their backs turned away from social engagement, the easier we make it to lose the very academic protections that keep the profession alive.

Beyond these bureaucratic challenges, philosophers need to do a better job of connecting with faculty from other disciplines. Due to the complexity of so many pressing social problems, multi- and interdisciplinary research is increasingly becoming identified as a key driver of innovation. Unfortunately, potential colleagues don't ask us to be collaborators because they don't know what our

research entails. Thanks in part to the perception that what we do is not accessible to non-philosophers, they suspect that even if they were clued in to our work, it would be too esoteric to be relevant.

Finally, there are the students to consider. Many of us regularly teach courses to students from across the disciplines who primarily take our classes because of the general education credit they offer. They come to our lectures and discussions with low expectations, assuming that we cater curricula to philosophy majors, treating everyone else as if they have value only when behaving as if they were philosophers in training. It is a good bet that we would get more buy-in from them if they perceived that we also wrote for them—that we considered them a valuable target audience and not mere rabble to be tolerated as a means of justifying our employment vis-à-vis being accreditation gatekeepers.

A related point is if philosophical arguments circulated more widely, new-found readers from related disciplines and professions might be willing to give guest-lectures over media like Skype. Although we can only give anecdotal testimony, personal experience suggests that these virtual visitors can boost morale significantly. When students see experts from outside of philosophy willingly donate their time to advance philosophical education, they often become more amenable to believing that philosophical analysis adds value to other fields.

Critics might argue that even if it is strategically valuable for philosophers to become more socially engaged, the hurdles are too vast to overcome. Echoing the derision that Theodor Adorno and Max Horkheimer (2002) associated with the "culture industry," they might say American culture is so bound up with facile consumerism in that it is not amenable to more philosophical engagement.

This attribution of blame is overly simplistic, and we squarely reject both its armchair sociology and predictive adequacy. Certainly, aspects of our culture exhibit widespread anti-intellectual or anti-philosophical bias. Others, however, are philosophically rich, even including many popular films, books, and television shows. Ultimately, the broad analytic category of 'culture' is insufficiently refined to bear the causal weight of substantive normative assessment. Far from being dominated by a core sensibility that reiterates monolithic values throughout all cultural forms, the ongoing American experiment gets expressed in diverse high- and lowbrow ways.

The same point can be extended to the culture of journalism. While some magazines, newspapers, and blogs are constrained by the limits identified above, others are not. Some editors are cultivating a readership that is dissatisfied with status quo reporting and editorializing.

Crucially, though, placing the blame on an external source is an exercise in bad faith. By narrating academic philosophers as victims of other people's banal sensibilities, we get to avoid confronting the troubling question of how we've contributed to this sad state of affairs—how we've fallen far short of living up to our potential. To examine this shortfall critically, we need to take a systems approach and ask how putative matters of personal choice (e.g, who we prefer to write for) are shaped by academic incentive structures—structures that exert disciplinary power by being configured to normalize certain behaviors while rendering others undesirable.

Succinctly put, the behaviors that disciplinary norms reward—tenure, promotion, and stature for contributing to top-tier philosophical journals, specialized conferences, and highly technical books—favor the self-enforced sequestration of philosophers from public discourse on philosophical issues. Within this context, effort spent on communicating with the public is seen in negative terms; it detracts from the time-intensive endeavors that the profession legitimates. Public outreach, then, becomes an opportunity cost or else is relegated to a hobby—a fun thing to do, if, against the odds, you've got spare time on your hands. And since philosophers typically are not required to do sponsored research, they are not subject to expectations like the ones imposed by the National Science Foundation's second criterion: considering broader impacts as a prerequisite for establishing a research plan.

Philosophers of technology are well suited to play an important role in reversing this ultimately self-defeating trend. Along with some other specialties within philosophy—biomedical, business, and computer ethics, for example—our research often addresses applied issues that are of direct public concern. And, perhaps most importantly, a widespread conviction exists in our field that values-based discussion should be taking place across professional and public sectors about the ethical implications of technological design and adoption. With two profound forces aligning—a natural fit based in subject matter and theoretically-based motivation—the time has come to capitalize on their synergy.

Theoretically-based Motivations for Intervention in Public Dialogue

Numerous philosophers of technology, from various traditions within the field, have put forth positions that justify intervening in public debate about the meaning, reception, and adaptation of new and emerging science and technology (NEST). Let's consider some of the classical and more contemporary views.

Herbert Marcuse (1964) called for a "great refusal" to interrupt the steady uncritical adoption of technology into ever more aspects of our lives—a social action which would require a change in the perception of technological develop-

ment as both desirable and inevitable. Without this liberatory aim, he worried that people would increasingly act less like deliberative citizens and more like one-dimensional, passive consumers.

Andrew Feenberg (e.g., 1991, 1999) builds upon Marcuse's work to put forth an idea of the democratization of technological progression and adoption through public involvement in critical discourse. Feenberg argues that not only is such democratization possible, but that it is crucial to avoid the trappings of technocracy—an ideology that subordinates value-driven politics, which are the messy frictions that lie at the heart of a vibrant democracy, to ill-fated social engineering, i.e, the hubristic attempts to solve complex social problems through technological fixes and efficiency-driven policy. These concerns, furthermore, are even present within the debate already taking place—it is not that the issues are not live ones within the public sphere, but that philosophers have failed to play a prominent role within their discussion.

This Critical Theory outlook clearly calls for the philosopher of technology to go beyond abstract theorization in closed academic spheres, and to move into engagement with and intervention in public discourse and debate. Although Marcuse made his case over half a century ago, the profession has not done a good job responding to the vocational summons.

Albert Borgmann (1984) discusses the dangers accompanying the reception and use of technology under the "device paradigm"—an eclipse of virtuous character, and, therein, the capacity to live a meaningful existence, one filled with intellectual and physical challenges that instill pride, and memorable social occasions that build solidarity and cultivate grace and gratitude. His preferred solution, "focal practices," is exemplified by the testimony of ordinary people who acknowledge the transformative power of their life-affirming activities. The more attestations of focal practices that are given, the greater the chance that their emancipatory message can be heard and guide social transformation.

Those of us who find wisdom and insight in Borgmann's post-Heideggerian analysis should be well motivated to support the numerous non-academics who keenly feel the loss of center and meaning that he identifies and theorizes. Sadly, this discussion is already taking place without us. Too often it takes the insufficiently critical form of Neo-Luddite laments and attacks upon the youth—attacks that either close off understanding and dialogue, or, through their intellectual poverty, add fuel to the fire of techno-utopianism. Even those with libertarian leanings can concede that there is room for and interest in, discussing "family values" and the good life, and that society is better off when the discussions do not degrade

into reactionary rejections of change, or the false solutions proffered by "simpler living" magazines and endlessly proliferating faddish child-rearing manuals.

Don Ihde (1998) argues that the key to doing pragmatic technological ethics is to engage technical research as it begins, during the research and development phase. The earlier one intervenes, the more opportunity there is to engage in anticipatory design—design that expresses sensitivity to the potential for innovation to be socially disruptive. As time progresses, users can develop deeply entrenched habits that are hard to break. Moreover, if technological lock-in occurs, it can become cost-prohibitive to make fundamental changes. In some cases, perceptions of economic necessity can end up crowding out ethical considerations—considerations that appear impractical and overly idealistic. Consider the prominent role in businesses played by organizational psychologists, and the role played by technocratic policy experts in design standards and regulation. If we agree with Ihde's perspective, shouldn't we seek to gain access to these backrooms and boardrooms?

Diane Michelfelder (2000) and Corlann Gee Bush (1983) have made parallel and reinforcing arguments from feminist philosophy of technology, critically extending these points in important ways. In Michelfelder's case, supporting interventions similar to Borgmann's over those of Feenberg, we see how giving proper weight to women's experiences provides an understanding of the role of technology in building relationships and a meaningful life that is all too easy to fail to notice without adopting a feminist perspective.

Bush's proposal for reformist intervention, like those of Feenberg and Ihde, falls more on the design than the adoption side. She points out that it is men who predominantly control technology in the design and development contexts, leaving women in a receptive and adaptive role, tasked with integrating technological changes into the everyday conduct of life, bearing the burden of maintaining individual, family, and cultural values in the face of a shifting landscape designed with too little thought to women's lives and experience. From this position, she proposes the idea of gender equity analyses, similar to environmental impact assessments now commonly carried out. In either case—whether on the design or adoption end of technological innovation—it is a sad but apparent fact that women's experience continues to be marginalized. Philosophers who recognize the importance of this issue and its effects may wish to bring feminist insights beyond the cloistered realm of academic discourse and into either the public sphere or the still all-too-male-dominated design context. Arguably, they might even be obligated to.

Langdon Winner's work on the political meaning of technology (e.g., 1989) provides another basis upon which we may be impelled to change public dialogue

to bring awareness to structures of oppression and discrimination within technological forms—forms that might otherwise be viewed as simple technological facts immune from public debate and scrutiny. Whether we speak of inherently political technologies, or those that take on political meanings in their implementation and realization, such analysis reaches far beyond racist bridges and nuclear reactors.

In an evocative but hardly isolated case, HP Computers recently produced a facial-recognition system that was called "racist" for its inability to recognize persons with dark skin tones (Simon 2009). In a blog post that's no longer online, an HP employee explained that, "The technology we use is built on standard algorithms that measure the difference in intensity of contrast between the eyes and the upper cheek and nose. We believe that the camera might have difficulty seeing contrast in conditions where there is insufficient foreground lighting" (Welch 2009). Such remarks appear woefully ignorant of the long and problematic history of issues of race in photographic image capture, including Kodak's failure to calibrate for dark skin tones until the mid-1990s[1] and Jean-Luc Godard's 1979 refusal to use Kodak's film, which he called "racist" (Smith 2013).

It is clear enough that even when there is presumably no racist intent, and a clear technical reason and market incentive to notice and accommodate racial differences, there are sometimes stunning failures to recognize that objects can have political meanings and impacts. Related concerns should be on the philosopher of technology's radar, too. Looking forward, for example, augmented reality raises the possibility of altering how racial minorities are perceived (Selinger 2012a). This means of exacerbating the filter bubble surely can be bolstered by other technological advances as well, which is why philosophers need constantly to challenge the conceptual biases that enable such "race blindness" to occur.

Bruno Latour's actor-network-theory (1999) notions of 'translation' and 'delegation' of intentionality also provide useful insight into how to think about the content and meaning of technical objects, especially when trying to understand and appropriately make choices related to technologically mediated actions and technology policies. As Evan Selinger argued in his general-audience article, "The Philosophy of Technology of the Gun" (2012b), Latour's theory can help us cut through heated, special interest fueled rhetoric. The wide scope of responses to this article, in blogs, on Twitter, and on MSNBC, shows that even abstract and counter-intuitive theories like Latour's actor-network theory (ANT) and his principle of symmetry can be presented to non-academic audiences in productive, appealing, and potentially influential ways.

Peter-Paul Verbeek (2011) straightforwardly calls for changing the typical design perspective, which only considers the moral values associated with professional ethics, in order for engineers to make self-conscious, deliberate choices about the broader and deeper moral values that get embedded within technologies. He claims that because "technologies inevitably play a mediating role in the actions of users . . . designing should be regarded as a form of materializing morality."

To improve upon the status quo, Verbeek contends that designers should carry out "mediation analyses" (availing themselves of various of methods, ranging from introspection to "an augmented form of constructive technology assessment") that registers values and concerns expressed by representative stakeholders. Filtering this recommendation through Plato's bivalent statement of his "philosopher king" ideal—either that philosophers become kings or that kings should adequately philosophize—society might be better off not only with technology designers who adequately philosophize, but also with philosophers of technology who meaningfully contribute to design.

Further justification for public engagement can be inferred from the writings of technology critic Evgeny Morozov. In a series of popular articles, Morozov analyzes the adverse ethical and political consequences that arise when society uncritically embraces Silicon Valley ideology. While there are explicit parallels between these problems and ones identified canonical philosophy of technology research, the fact remains that Morozov identifies a new target of concern—a problem that only recently emerged. Had Morozov waited to identify this problem in a peer-reviewed article that took considerable time to be published, neither the general public nor scholars would be put on early notice. Consequently, consumer habits would be more deeply entrenched and scholars would lack valuable pointers on where to look for contemporary technological threats to ethical-judgment and political accountability.

Ultimately, Morozov (2013) expressed his guiding ideas in book form. Thanks, in part, to his previous popular writing, he already cultivated a large audience eager to consider and assess his theses. Consequently, immense public discussion—both accolades and criticism—have been taking place over his interpretation of how technology is used and theorized. This discussion has cut across disciplinary boundaries. Arguably, it has reinvigorated widespread interest in fundamental philosophy of technology concerns.

In sum, some of the theoretical motivations outlined above call for our intervention in public dialogue. Others require greater intervention into design and policy debate. In both cases, the following questions become inescapable: Who

should bring these changes about, if not those of us whose work shows the importance of these changes occurring? In our absence, who will take up these reins, instead, and what responsibility do we have for that outcome?

And yet those of us who do theoretical NEST research are not practically and professionally encouraged to take up this interventionist work. Scholarship in traditional academic venues is insufficiently publically available, generally read, or speedily published to support timely and to-the-minute commentary. Furthermore, academic performance assessment typically either fails to incentivize or specifically disincentivizes publication in non-traditional academic venues.

If we are effectively to meet the need for scholarly intervention in non-academic dialogue on NEST, new or reformed incentive structures must be put in place to encourage writing that is: (1) sufficiently agile and efficient to allow publication on issues in NEST, while those issues are still active and in motion; and (2) sufficiently accessible and far-reaching to make a meaningful contribution to public dialogue on NEST, while relevant issues are still active and in motion.

To correct the situation, therefore, two steps must be taken: *incentive structures must be changed in order to further validate public philosophy within the field*, and *disciplinary training and culture must be changed to provide emerging scholars with familiarity and experience with the means and processes of doing public philosophy*.

Revising Incentive Structures

Before articulating proposals that are specific to philosophers of technology, it will be helpful to establish further institutional context and identify some of the central mechanisms favored in broader attempts to revise incentive structures to better support and reward publicly engaged scholarly activity.

There is a historical and general consensus that colleges and universities exist in part to contribute to our communities and to educate and serve the public. Ernest Boyer (1990) started a conversation in *Scholarship Reconsidered: Priorities of the Professoriate*, published by the Carnegie Foundation, pertaining to how scholarship is defined and rewarded in academic institutions of today. Boyer argues that four areas should be included in the definition of scholarship: discovery, teaching, application (or engagement) and integration. Since the Boyer publication, many organizations, institutions and scholars have studied and discussed this ongoing issue. Kezar, Chambers, and Burkhardt (2005) believe that public purpose of institutions of higher education is being thrown by the wayside as other goals such as increasing revenue and individual benefits take priority. Faculty members, con-

cerned with productivity expectations and tenure and promotion requirements, and seek out practical ways to measure contributions to the community (Franz 2009).

Kelly Ward (2005) indicates that there are three categories to describe faculty work: teaching, research, and service. At most colleges and universities these three categories are outlined somewhere in tenure and promotion guidelines. While some institutions value research over teaching and vice versa, as Ward states, "service, even clearly academic, institutional service, has traditionally been the underappreciated stepchild of the triumvirate of academic work" (Ward 2005: 219). Ward mentions consulting, both paid and unpaid, as one type of service to the community that is directly related to a faculty member's subject expertise that is usually not acknowledged as part of the tenure and promotion process. Committee work within institutions or as a subject expert in the community are other examples of service work that is usually expected but not rewarded. "Campuses that want their faculty to work in connection to the community must define in their promotion and tenure guidelines and faculty handbooks what this work looks like, and how it will be evaluated and rewarded" (Ward 2005: 229). If service to the community is not supported or rewarded by academic institutions, faculty members will be less likely to engage in such activities.

Recently, quantitative studies have been conducted and some universities have begun to implement measures that will recognize scholarly activities such as service learning, participation in mass media, and instruction during the tenure and promotion process. Glass, Doberneck, and Schweitzer (2011) investigated the tenure and promotion files, personal narratives and curriculum vitae of faculty at Michigan State University to determine the types of publicly engaged scholarship faculty members reported. They discovered three categories in which 72 percent of faculty members reported publicly engaged research and other creative activities: instruction, service, and commercialized activities. Types of publicly engaged scholarship were found to vary by personal characteristics such as age, gender, ethnicity, years at the institution, and rank as well as professional characteristics such as field of study. Glass, Doberneck, and Schweitzer recommend that institutions that support publicly engaged scholarship should consider these variances when creating policies, guidelines, and support allocations.

Saltmarsh, Giles, Ward, and Buglione (2009) conducted a qualitative study that examined data from universities that were identified in 2006 by the Carnegie Institute as community-engaged campuses. By reviewing documents including faculty and tenure guidelines, faculty handbooks, and interviews, they determined that almost half of the thirty-three campuses studied were in the process of revis-

ing tenure and promotion guidelines to recognize community engagement as a scholarly activity. "Regardless of the unique institutional culture that shapes the framework of engagement on a campus, clear policy formulation rewarding the scholarship of community engagement corresponds with concrete definition of scholarly engagement" (Saltmarsh, Giles, Ward, and Buglione 2009: 31). Based on their findings, Saltmarsh et al. identify three areas of focus for universities that desire to encourage community engaged scholarship: to create specific criteria for evidence of demonstration, to "create policies that reward community engagement across faculty roles so that research activity will be integrated with teaching and service as seamlessly connected scholarly activity" (Saltmarsh et al. 2009: 32), and to redefine "what is considered as a "publication" and who constitutes a "peer" in the peer review process" (Saltmarsh et al. 2009: 32).

In 1998, faculty members and administrators from the Pennsylvania State University came together to discuss the recognition and documentation of outreach scholarship in the university (Hyman et al. 2001–02). The outcome of this group's work was UniSCOPE (University Scholarship and Criteria for Outreach and Performance Evaluation). UniSCPOPE identifies three forms of scholarship: teaching, research and service, and recognizes them equally. The model also incorporates the four functions of scholarship identified in the Boyer (1990) report: discovery, integration, application and education. In addition to traditionally recognized contributions, UniSCOPE also places value on activities such as "the creation of applications in the field, active presentation of original works, utilization in practice settings, impacts in public policy, appearance of results in the media, seminars and workshops, electronic publication, technical assistance, and technology transfer" (Hyman et al. 2001–02: 45). According to their guidelines, scholarship in many forms can be assessed and rewarded.

Graeme Orr (2010) focuses on academics' participation in the media in Australia. He outlines three ways in which an academic can participate in media engagement: as a public intellectual (a generalist), as an advocate or activist, or as an educator offering an expertise in a specific discipline. Philosophers tend to fall into the public intellectual category, which is defined as "someone who can move easily between topics, drawing on a variety of philosophical positions or contextual understandings" (Orr 2010: 23). However, a philosopher with a relevant subject expertise could easily participate in media engagements as an advocate or educator as well. Orr points out that an important role of a university is not only to create scholarship, but to expand the knowledge of communities outside of universities. Through participation in mass media, scholars can contribute to

the process of engaging and educating communities. Orr also addresses the issue of "mediaphobia," or the fear of academics that their expertise may be dumbed down or distorted during the editing process. This is a legitimate concern. It is important for academics to be selective in their agreements to participate in mass media engagements.

These changes and conversations provide a good basis upon which we may advocate, in our own institutions, for reformation of incentive structures. Service-learning is increasingly accepted as academic work worthy of receiving course credit for our students, and concomitantly as activity appropriate for us, as faculty, to coordinate and assess. From here it is a very short leap to claim that such activity should be valued when engaged in by faculty outside of a classroom setting—in other words, that public engagement and activism within a faculty member's area of expertise should be regarded as legitimate scholarly activity that should be appropriately recognized. Boyer (1990), as adapted in Saltmarsh et al. (2009) and in Hyman et al. (2001–02) gives us the useful category of "scholarship of application," parallel to scholarship of teaching. Just as scholarship of teaching—including not only journal articles on subject-relevant pedagogy, but the development of teaching resources and software—is increasingly widely accepted as falling under "research" rather than "teaching" or "service," so too we may advocate for the scholarship of application to be placed under the honorific aegis of "research" insofar as we are not merely consulting with industry or speaking to the press, but pursuing goals central to and grounded within our theoretical perspectives and research programs.

While we are hopeful that these conversations may result in broader changes in recognition of public scholarly activity, they have obviously been slow in coming, and most academics remain in the position described by Ward (2005), in which public engagement falls into the "unappreciated stepchild" category of service, if promotion and tenure guidelines provide any sort of recognition for this work at all. We are, however, by no means forced simply to wait for the university climate to change its disrespect of public engagement, nor are we able to enact change only through advocating for reformation of incentive structures in promotion and tenure separately within our individual institutions. While we believe these wider programs for change are worthwhile and should be pursued, we can also engage in reforms within our own disciplinary structures in order to support and reward public engagement better, even for those whose institutions count peer-reviewed scholarly publication as the only legitimate entry within the "research" column.

Peer-reviewed Public Philosophy

One possible way of changing incentive structures is to provide validation of public philosophy through a change in the kind of work given access to traditional and respected venues for scholarly publication. Established scholarly journals could create a new category of publication: "Articles for a General Audience," perhaps, or "Public Philosophy." By publishing post-publication reprints of Public Philosophy, following peer-review, academic journals could send a message to promotion and tenure committees that this kind of work is considered to be legitimate scholarly research activity within our field. The peer-review standards would have to be uniquely appropriate to publication for a general audience, and therefore presumably of a lower expectation of completeness and rigor than that expected of a purely scholarly audience, and perhaps including other criteria absent from expectations for traditional academic articles. While institutional promotion and tenure committees would have to work out their own weighting of such publications, the value of such scholarship might appropriately be considered less than that of a traditional scholarly article, but more than that of e.g., a book review, and could be placed between these established sections by journals as an indication of their relative scholarly value. Regardless of the particular assessments within various institutions, a significant change in incentive structures would result simply from the attachment of such work to academic journals, and from the guarantee of quality provided by the peer-review process.

In January 2013, D. E. Wittkower and Evan Selinger coauthored a letter to the editors of *Techné*, requesting that the journal, as an organ of the Society for Philosophy of Technology, consider creating such a category of publication in order to better serve the public goals of our field and to better support members of the society engaged in public philosophy of technology. Additional signatories on the letter were Braden Allenby, Ian Bogost, Albert Borgmann, Adam Briggle, Charles Ess, David Goldberg, J. Britt Holbrook, Don Ihde, David Kaplan, Patrick Lin, Clark Miller, Søren Riis, Daniel Sarewitz, Shannon Vallor, and Peter-Paul Verbeek.

The proposal has been well received. However, discussion of implementation has been delayed. Editor-in-Chief Joseph Pitt is stepping down, and the editors of *Techné* decided that it is best to begin discussion of implementation once a new editor-in-chief is in place.

We hope that this model would be applicable to other journals in the discipline. While the editors of *Techné* have been appealed to in part on the basis of provincial concerns—the status of the journal as the organ of the society and

the specific valuation of public philosophy within philosophy of technology—the model is easily portable to other journals, including those within other areas of philosophy. We hope that, should this model be successful, other areas of philosophy which have their own internal and theoretically-motivated incentives for public engagement may be next to adopt a similar model. This would clearly apply to computer ethics, biomedical ethics, and business ethics.

And yet, as outlined in the introduction to this article, there are numerous ways in which branches of philosophy with less of a theoretical motivation for public philosophy are also absent within American public dialogue on issues of philosophical concern. Were this model to prove valuable within these more applied subfields, it is possible that wider adoption could assist other philosophers in becoming both better supported and better incentivized in engaging in public dialogue on issues such as scientific method, ethics and public values, economic development, distributive justice, and meaning and purpose in life.

Public Peer-reviewed Philosophy

Another possible avenue of change is placing an increased weight on ideals of open access and public outreach within traditional research publications. Here, rather than incentivizing and supporting publications for a non-scholarly audience by providing a *post facto* valorization through subsequent peer-review and republication, the structures and processes of peer-reviewed journal publication would be changed in order to allow them a potentially expanded role in non-scholarly discourse and debate. Open access (henceforth, OA) is a necessary but not a sufficient condition for this potential to be a realistic one. Additional efforts would have to be made to bring non-philosophers to the virtual pages of OA journals through back-links from other more popular presentations published in prominent blogs or mass media outlets.

True OA peer-reviewed options—that is, journals which post all material immediately on the open web with no author fees—are available for those publishing in philosophy of technology, including the *International Review of Information Ethics* and the *Journal of Evolution and Technology*. There are also numerous interdisciplinary true OA options which would be good venues for work in philosophy of technology, including *First Monday*, *Fast Capitalism*, *Digital Culture and Education*, *The Fibreculture Journal*, *Ctrl-Z*, *Digital Studies/Le champ numérique*, *NmediaC*, *Media Tropes*, *The Journal of Community Informatics*, *Cyberpsychology: Journal of Psychosocial Research on Cyberspace*, *tripleC: Communication, Capitalism & Critique*, *Online Journal of Communication and Media Technolo-*

gies, *Kairos: A Journal of Rhetoric, Technology, and Pedagogy*, *MedieKultur*, *M/C Journal*, the *International Journal of Internet Science*, *Human Technology*, and *Digital Humanities Quarterly*.

Techné currently allows free posting of pre-publication drafts. While this is a praiseworthy compromise, it does not address publicity concerns as well as true OA publication. Not all authors will take advantage of the possibility, and not all readers will be aware that articles may be available in OA format, or may have difficulty finding OA versions even when authors do choose to post them. Green OA has similar limitations, along with further diminished value from the six-month embargo usually observed on pre-publication Green OA drafts. Gold OA structures are very undesirable, as the fees demanded—for example, about $3000 USD to publish an article in OA format with *Philosophy & Technology*, *Ethics and Information Technology*, the *Journal of Computer-Mediated Communication*, or *Contunuum: Journal of Media & Cultural Studies*—are high, and institutional funding for OA fees are rarely available to humanities and social science scholars.

There are several possible ways of improving the situation of OA within our field:

1. We may push *Techné*, whose policies are already permissive and which has a particular concern for our community as an organ of the Society for Philosophy and Technology, to move to a true OA format.

2. Senior faculty, less beholden to traditional incentive structures, could organize a publication boycott of journals without true OA publication, producing a shift in which journals are best known and respected within the field.

3. Professional societies, such as the Society for Philosophy and Technology, might endorse and publish an open letter on the value of OA publication. This could be used by faculty members in the attempt to secure funding for Gold OA fees, and could be included in promotion and tenure files in order to explain why sometimes lesser-known true OA journals were chosen as venues for publication. If sufficiently strongly worded, this could help remove disincentives to true OA publication for junior faculty.

4. Similar statements supporting faculty choosing true OA publication could be pursued through other associations of broader scope and rep-

resentation, such as the APA Committee on Computers and Philosophy and the AAUP (American Association of University Professors).

Any and all of these efforts would be valuable and effective. What is currently lacking is not so much a lack of opportunity for change as a lack of collective will and solidarity. Many scholars are deeply concerned with maximizing access to their work, but neither class-consciousness nor the will to collective action has emerged. Instead, scholars are left to struggle with negotiating in isolation the terrains of incentive and assessment local to their own home institutions.

Publicizing Peer-reviewed Philosophy

The attempt to increase traffic to philosophical research, for which true OA publication represents a significant benefit, would provide no direct incentive to engaging in public philosophy (unlike what we might prematurely call "the *Techné* model," outlined in the "Peer-Reviewed Public Philosophy" section above). Instead, it only makes better and more direct use of peer-reviewed publications that are already valued as a professional activity. This outcome has both advantages and disadvantages.

One advantage is that work that is not written for a general audience (and which may in fact be written by authors who do not value public engagement at all) can still be mobilized in order to influence public debate and positively impact the public perception of the field. A notable disadvantage is that the approach may not help open up the isolated, insider-only culture that's widespread within academic philosophy. As we've been arguing, this culture needs to change, as it remains an ongoing source of our professional marginalization.

In addition to this concern about a lack of engagement with disciplinary cultures of self-isolation, there are concerns with the applicability of traditional academic research to public dialogue. Unlike the *Techné* model, this avenue of change is not ideally suited to promote engagement in debates about NEST. Indeed, the slow peer-review process reduces the agility, celerity, and relevance of scholarly intervention in public dialogue.

Fortunately, these approaches are not mutually exclusive. Both may be pursued simultaneously.

Additionally, although traffic to scholarly philosophy might be enabled or encouraged, this may do little good if the norms of peer-reviewed scholarly writing continue to tolerate or encourage obscurantist presentation of material. A potential way to overcome this problem is to modify the practice—especially common in

the European context, which is driven by a legislated culture of academic impact assessment—for journals to put out press releases. Those documents enable journalists and other non-specialists easier access to the results of peer-reviewed academic research, much of which is at least as impenetrable to the non-specialist as is academic philosophical research.

A quick review of press releases from the Taylor & Francis Group that are currently online shows a strong emphasis on biology, medicine, environmental science, and social sciences (Taylor & Francis Group 2013a). By contrast, there's not a single press release is from a philosophy journal. Remarkably, though, the way in which some articles are pitched to journalists emphasizes elements that are at least as well represented by articles appearing in philosophy journals.

For example, the press release for an article in the *International Journal of Psychology* entitled "Of Course the Tooth Fairy's Real: How Parents Lie in the US and China" does not emphasize cross-cultural issues or insights specific to the field of psychology. Instead, it offers a take-away message for journalists that is more proper to discussions emerging from virtue ethics: "Above all this study shows the need to stimulate debate about the acceptability of lying under different circumstances, and how children should be best raised to understand the value of honesty" (Taylor & Francis Group 2013b). We thus might ask why it is that Taylor & Francis—recognizing a desire on the part of journalists to access journal articles that might help them "stimulate debate" about "the acceptability of lying under different circumstances"—does not more frequently point to philosophical writing.

We might also wonder why philosophical writing is not being promoted actually to structure and inform debate—roles which philosophical writing is uniquely positioned to play. Perhaps this bias in what is promoted is part and parcel of the perception of the lack of public interest in philosophy. Or, perhaps it does not occur to those in charge of public relations that the public might be interested in what is being said in philosophy journals. Maybe these public relations staff members themselves share the public lack of awareness that philosophy has much to offer to public debate. Quite possibly, the issue is more structural and economic than cultural. It may be that journalists are more likely to make use of social science articles, and that this, in turn, makes them more important to journal groups to promote. Hence, there's a possible feedback loop that increasingly marginalizes excluded fields. No matter the reason, though, it is clear that a partial solution to the perceived irrelevance of philosophy to public debate would be to attempt to have publicly relevant philosophical research presented to the public through press releases in a similar proportion as is academic research within other fields.

Changing Our Culture of Disengagement

Even in the absence of these connections between traditional, academically validated scholarship and public philosophy, and in the absence of familiarity with and experience in public engagement as a normal and significant element of disciplinary training and culture, numerous philosophers of technology have been successful in reaching wider audiences. Philosophers of technology including Fritz Allhoff (e.g., 2007, 2012), Ian Bogost (e.g., 2012, 2013), Adam Briggle (e.g., 2010, 2012), Luciano Floridi (2011), Patrick Lin (e.g., 2009, 2013), Daniel Sarewitz (e.g., 2010, Sarewitz and Pielke 2013), Evan Selinger (e.g., 2012a, 2012b, 2013), George Teschner (e.g., 2009, 2011), and D. E. Wittkower (e.g., 2010, 2011, 2013) have given presentations and published articles, chapters, and books for a general audience with outlets including *The Atlantic*, *The Australian*, *Slate Magazine*, *Speakeasy*, *TED Talks*, *Three Quarks Daily*, *Wired*, and the Open Court and Wiley-Blackwell series on Popular Culture and Philosophy. Given increased validation and valorization of public philosophy within the field, we can expect that further pathways to public philosophy will be built and existing pathways will be strengthened, and that, along with this, disciplinary training and culture may change so that emerging scholars will be more familiar with and better supported in doing public philosophy.

Through these means, we can advance the public agenda of our specialization, supporting philosophers of technology who take such public involvement as a proper part of their scholarly mission, and helping to reclaim philosophy's proper place in our culture and society. As Nigel Warburton said recently in an interview with *The Philosopher's Magazine*,

> Philosophers today have mostly got their heads down. They're concerned with writing for a journal which will publish work that takes them two or three years, and only five people will read it. These are people who could be contributing to something that's incredibly important. Gay marriage is just one example of many. I don't think philosophers responded particularly well to 9/11. Issues about free expression, all over the world, are not just academic. They're matters of life and death. There are exceptions, but philosophers are by and large more interested in getting a paper in *Mind* or *Analysis* than they are in commenting on the major political events of our time. (*The Philosopher's Magazine* 2013)

It is our belief that this attitude is one which has been learned—that it emerges from our disciplinary culture, training, and incentive structures—and that once we change

incentive structures to support public philosophy adequately, our practices, habits, and ultimately even our training will change. Can it really be that philosophers are happy and fulfilled as voices in the wilderness, and do not desire to come down from the mountain to speak among the people? Are we really not the mouth for these ears?

Note

1.   Lorna Roth (2009) notes that Gold Max, a "leap forward" in accurate representation of non-white skin tone, was "referred to initially as being as able 'to photograph the details of a dark horse in low light'" which she "[takes] to be a coded message, informing the public that this is 'the *right* film for photographing 'peoples of colour.'" As Roth also notes, it is also around this time, in 1995, that Kodak produced its first multiracial norm reference card for photograph processing labs to use in properly color-balancing photographs of non-whites.

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