

Georgia Institute of Technology

From the Selected Works of Diana Hicks

2017

The Impact of Philosophy: Evidence from the UK Research Excellence Framework

Diana Hicks

J. Britt Holbrook, *New Jersey Institute of Technology*



Available at: https://works.bepress.com/diana_hicks/48/

The Impact of Philosophy: Evidence from the UK Research Excellence Framework

Diana Hicks¹ & J. Britt Holbrook²

¹School of Public Policy, Georgia Institute of Technology, Atlanta, GA

²Department of Humanities, New Jersey Institute of Technology, Newark, NJ

Abstract

Should philosophy help address the problems of non-philosophers or should it be something isolated both from other disciplines and from the lay public? This question became more than academic for philosophers working in UK universities with the introduction of societal impact assessment in the national research evaluation exercise, the REF. Every university department put together a submission describing its broader impact in case narratives, and these were graded. Philosophers were required to participate and to produce narratives describing such impacts.

The resulting narratives are publicly available and provide a unique resource permitting a more detailed, empirically based consideration of philosophy's societal impact than has hitherto been possible. This paper takes advantage of this to examine the many cases of documented societal impacts produced by philosophers. The analysis also benefits from being contextualized by comparison with cases in a patenting field, inorganic chemistry, and a medical field, dentistry, two fields in which it is easy to imagine pathways to impact. Both chemists and dentists discover useful things, patent and license them. Also dentists might develop a new treatment that could end up recommended in the treatment guidelines issued by professional organizations and they would train others in the new technique through professional education programs.

In this paper we develop a taxonomy of the ways in which philosophers have societal impact as reported in REF case studies. We find five types of impact: dissemination, engagement, provocations, living impacts, and philosophy of X. We compare each to the characteristics of the field philosopher as proposed by Frodeman and Briggie. We conclude that there are multiple ways of being a field philosopher that vary in their emphasis. This pluralism bodes well for the expansion of societal impact from philosophy as there are routes available to suit different approaches.

Think of organic chemistry; I recognize its importance, but I am not curious about it, nor do I see why the layman should care about much of what concerns me in philosophy.

– W.V.O. Quine

Philosophy recovers itself when it ceases to be a device for dealing with the problems of philosophers and becomes a method, cultivated by philosophers, for dealing with the problems of men.

– John Dewey

Two of the most prominent philosophers of the 20th Century, Willard Van Orman Quine and John Dewey, took opposing positions on the proper relations between philosophy and the wider world. Though this issue has not been of great concern to philosophers over the years since Quine and Dewey offered their thoughts, Robert Frodeman and Adam Briggie recently entered the fray with the most sustained criticism to date of philosophy's lack of broader societal impact: *Socrates Tenured* (where we found the Quine and Dewey quotations). Frodeman and Briggie (2016) suggest that these two quotes “represent not just two different attitudes, but two different models for how (and where and with whom) to conduct philosophical thinking” (17). Dewey suggests, at least, that philosophy ought to be done as a way to help address the problems of non-philosophers. For Dewey, then, philosophy “recovers itself” – is philosophy as it should be – when it attempts to have an impact on societal problems. For Quine, philosophy clearly ought to be conceived as something isolated both from other disciplines and from the lay public. Where Dewey thought philosophy should address the public and *its* problems, Quine thought philosophy should address its *own* problems, the chemists theirs, the dentists theirs, and so on. Where the Deweyian philosopher is engaged with the public, the Quinean philosopher sits in his armchair by the fire or around a seminar table with other philosophers.

This debate, such as it is, has become more than academic for philosophers working in UK universities. UK universities are subject to periodic national evaluations of research quality, which for the first time in 2014 incorporated assessment of the broader societal impact of research. This exercise, the Research Excellence Framework (REF), helps allocate core university funding. Every university department puts together a submission describing its efforts, and these are reviewed by disciplinary panels who award a grade. Broader societal impacts were evaluated using case studies. Impact was defined as any effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia. The humanities panel customized their taxonomy of impact to include: civil society, cultural life, economic prosperity, education, policy making, public discourse, and public services. Philosophers were required to participate and to produce narratives describing such impacts.

The resulting narratives are publicly available and provide a unique resource permitting a more detailed, empirically based consideration of philosophy's societal impact than has hitherto been possible. This paper takes advantage of this to examine the many cases of documented societal impacts produced by philosophers. The analysis also benefits from being contextualized by comparison with cases in a patenting field, inorganic chemistry, and a medical field, dentistry, which permits identification of unexpected alignments between their impact pathways with those in philosophy. This is possible because in the REF data we see non-patented impacts in inorganic chemistry and non-clinical intervention advances in dentistry that bear some similarities to the philosophy cases.

1 Theory

Frodeman and Briggie (2016, Chapter 6) take the two basic orientations to philosophy, internal and external, and expand them into the ‘disciplinary philosopher’, the ‘field philosopher’, and the ‘philosopher bureaucrat’. The latter two both take a Deweyian approach, while the former sticks with Quine. The disciplinary philosopher, that is, thinks and writes and speaks about philosophy, mostly with other philosophers, who are, of course, institutionally housed in a philosophy department. The field philosopher also engages in such behavior, but only periodically. The rest of the time, the field philosopher engages academics in other disciplines and non-academic members of the lay public. For the field philosopher, the philosophy department serves as more of a home base from which to sally forth than an institutional home from which one never ventures. The philosopher bureaucrat, on the other hand, has gone native. Although trained as a philosopher, she works in a non-academic environment – say in a government agency

or a business – and deals mostly with non-academics. On this account, whereas the disciplinary philosopher and the philosopher bureaucrat tend to stay in one place, the field philosopher serves as a sort of nomadic go-between, moving from department to department, from university to society, and back again.

Expanding on the three characteristics of the field philosopher laid out previously in Frodeman et al. 2012, Frodeman and Briggie (2016) suggest that there are, in fact, six “definitive characteristics” of the field philosopher:

- *Goal: help excavate, articulate, discuss, and assess the philosophical dimensions of real-world policy problems.*
- *Approach: pursue case-based research at the meso-level that begins with problems as defined and contested by the stakeholders involved.*
- *Audience: the primary audience consists of non-disciplinary stakeholders faced with a live problem. Knowledge is produced in the context of use.*
- *Method: rather than a method, we speak of rules of thumb, a pluralistic and context-sensitive approach with a bottom-up orientation.*
- *Evaluation: context-sensitive standards for rigour, and non-disciplinary metrics for assessing success, which in the first instance is defined by one’s audience.*
- *Institutional placement: field philosophy resides on the margins of existing institutions, shuttling between the academy and the larger world; but also seeks to institutionalize itself both within academia and different communities of practice. (124)*

Although Frodeman and Briggie are quite partial to the field philosopher, their argument is avowedly pluralistic. The point is not to train all philosophers to become field philosophers (Deweyans on steroids), but rather to open up a space for the sorts of goals, approaches, and audiences that field philosophers seek to achieve and engage. Since the REF assesses the impact of academic researchers and their research on society, the field philosopher represents the model most likely to have broader societal impacts.

Above all, however, the concern of Frodeman and Briggie (2016) is to convince philosophers to take the question of the impact of philosophy seriously, which is to say as itself a philosophical question. Their concern is both pragmatic and existential:

The STEM disciplines (science, technology, engineering, and math) can make arguments concerning their contributions to health care, technological advance, economic growth and the like. But this isn’t the case with philosophy and the humanities. (22)

Soon enough, they warn, society will come to the philosophers and ask us to account for our activities. What, pray tell, is the value of philosophy?

The REF, of course, has actually mandated that philosophers in the UK make the case for their broader societal impacts. Of course, when assessment of impact was introduced in the REF consultation process in 2009, philosophers (and many others) were generally unhappy. Philosopher James Ladyman started a petition to the UK government to “allocate funds for academic research solely on the basis of academic excellence and not on the basis of ‘impact’ or the judgments of ‘users’” (Smith, 2010). In spite of the petition, the impact assessment went ahead and philosophers submitted cases, leading one to wonder: when actually faced with the existential crisis Frodeman and Briggie theorized, how did they respond?

2 Methods

The strength of the REF case studies is their breadth; all fields were required to submit cases. This enables a comprehensive overview across scholarship, which contrasts with the literature on impact, which can be a bit narrow. A great deal of impact literature has been generated in two areas: fields that patent and medical fields. Because patents are visible they have been studied. Because there is a great deal of money devoted to medical research, and an equally great concern to see patient care improve as a result, there is a vast literature concerned with the diffusion, or lack thereof, of medical advances. In contrast, REF data also include the hitherto almost invisible impact of the arts, social sciences, and humanities.

For the REF, departments were required to write one narrative describing a broader research impact for every 10 staff. Narratives were 1,350 words or less describing impacts that occurred between 2008 and 2013 from research conducted in the 20 years prior. 6,975 impact case studies were submitted and reviewed by 26 disciplinary panels, which also included non-academic research users as reviewers. The cases are publicly available in a searchable

database (<http://impact.ref.ac.uk/CaseStudies/>). Our discussion is based on our reading of 108 cases in three fields: philosophy, dentistry, and inorganic chemistry. Philosophy cases were found by selecting Unit of Assessment 'Philosophy', and within that 'research area philosophy', yielding 58 cases. For dentistry, 21 cases in research area 'dentistry' were read. Inorganic chemistry cases were found by selecting Unit of Assessment 'Chemistry' and within that 'research area inorganic chemistry', yielding 29 cases.

In the discussion, cases are referenced by number, for example 3585 or 44195. These are the numbers assigned to cases in the case database. To see a case, go to the case website and follow the case selection instructions above. In downloaded results the files will be named using these case numbers. Alternatively, substitute a case number for "XXXX" in this URL: <http://impact.ref.ac.uk/CaseStudies/CaseStudy.aspx?Id=XXXX>.

3 A typology of impacts of philosophy

In many cases, exercises assessing societal impact from research fall into the trap of seeing only impact on the economy (Frodeman, 2017). The REF did not do this. In fact, the comprehensive approach of the REF required generating a typology of impact, called 'Summary Impact Types' in order to provide "an indicative guide to aid text searching and ... not a definitive assignment of the impact described" (REF FAQs):

There are eight Summary Impact Types. These follow the PESTLE convention (Political, Economic, Societal, Technological, Legal, and Environmental) widely used in Government policy development. For the purposes of introductory guidance in REF impact searching, Health and Cultural impact types (otherwise subsumed within Societal) have been added to the six standard categories. (REF FAQs)

The 58 philosophy cases produced mostly societal (37) and cultural (16) impacts, with one or two cases classified into political, legal, health and environmental. In contrast the 29 chemistry cases produced 23 instances of technological impact, 3 economic and 3 societal. The 21 cases in research area dentistry produced mostly health (12) and technological (7) impact with one societal and one political impact case.

Wanting to gain more insight into the nature of societal impact in philosophy, we developed a more fine-grained typology of the impacts of philosophy. Our typology differs from the REF's Summary Impact Types in another way, as well. Whereas the Summary Impact Types focus mainly on the sector of society impacted, we try to categorize *how* the philosophers made their cases for impact. In other words, we were less interested in the sector of society the philosophers impacted than we were in how they went about having an impact.

In this we were somewhat hampered by the nature of the case narratives. The writers of REF case studies were mostly concerned to establish *that* impact had happened. Therefore, case studies meticulously document each and every activity outside the scholarly world that can be associated with the research result being put forward as having had impact. However, they do not bother describing in detail *how* those activities came about. So for example, 'productive interactions' is a concept put forward in the literature as a pathway to impact (Spaapen and Van Drooge 2011; Mollas-Gallart and Tang 2011). But the chance meetings, follow up conversations, negotiations, etc. that led to an invitation to participate in a working group are undocumented in REF case studies. Nor do the cases usually mention where the idea for the question came from, though this is an important element in the field philosophy framework.

In reading the philosophy cases we tried to group the impacts described in the cases into what we thought were the most natural types. We identified five main strategies by which philosophers had broader impacts, each with at least 2 or 3 cases. In brief, the strategies are:

1. Impact as dissemination
2. Impact through engagement
3. Provocations for impact
4. Living impacts
5. Philosophy of X

In what follows, we describe each strategy and offer examples. We apply Frodeman and Briggie's (2016) framework to each strategy to assess how well they express the characteristics of the field philosopher as well as how well the framework describes the impact process in philosophy. In the conclusion, we offer an overall account of the relationship between our categories and the framework put forward by Frodeman and Briggie.

3.1 Impact as dissemination to the public

The first strategy is to go about one's scholarship as usual, i.e. examining big questions "in which any thinking person must take an interest" (44195) and give lots of talks to which the public are invited. In this way a case is built that thinking people, the intelligentsia, are engaged. Beyond a university's public lecture series, philosophy café, or lifelong learning day, some were able to land a spot in Oxford's Continuing Education program. A variation on this theme is to give lectures in local schools (12157). British philosophers benefit from media also aimed at the intelligentsia. BBC4's history of ideas program *In our Time* averages 2 million listeners (Wikipedia), providing any case involving an appearance with a high number of people engaged (36405, 44195). The Philosophy Bites podcast also made frequent appearance in philosophy cases, and download numbers provide a measure of engagement. Public lectures and intelligentsia media can be supplemented with writing for the enlightenment literature, that is for periodicals directed at the non-scholarly audience, for example the *Times Literary Supplement* (44195) or the *New York Times* opinion section (4872, 36405). Several cases were built on lectures to school teachers (27169, 35315).

How does "a determined campaign of public engagement" (44195) based entirely on public lectures, intelligentsia media, and enlightenment literature align with Frode and Brigg's six definitive characteristics of the field philosopher? The goals of the determined campaigner remain the same as those of their non-campaigning colleagues, because the assumption is that thinking people must be interested in what philosophers do. Nor do the approach or method differ from those of non-campaigning fellow philosophers. All the cases reference many erudite books and philosophy journals as sources for the research. The only attempted change is to extend the audience by inviting in outsiders, not because the philosopher is addressing their problems, but because they surely take an interest in the interesting questions asked by the philosopher. Of course there is a difference in evaluation imposed by the REF which pushed the philosopher to try to engage the broader audience and report on the size of the audience reached. Overall, the alignment with the characteristics of the field philosopher is a minimal response to the imposed REF evaluation criteria.

These cases remain subject to a classic criticism:

Scholars want to talk, not listen. Scholars want to lecture, not converse. Scholars want to tell you why their work is important – not ask if you find it important. Scholars want to tell you what they know – and are wary of acknowledging what we do not know. (Susan Fitzpatrick, SciSIP list, December 12)

In other words, impact as dissemination tends to be a one-way street, where scholars cast their pearls of wisdom before swine. If the public is lectured to rather than engaged in a conversation, in what sense can we really say that the academic has had an impact on society?

3.2 Impact through engagement

In contrast, one case was notable for its commitment to conversation with the public. The University of Aberdeen's NIP Public programme sought to propagate the benefits of its collaborative discussion, hosting guided discussions of philosophical issues in HM Prison Aberdeen, in a charity helping homeless and unemployed youth, in a Philosophy Café, and in schools. In each case the groups were involved in collaborative discussion, where views are put forward, revised and sharpened in the light of friendly criticism in order to reach a deeper understanding of genuinely puzzling issues. These conversations engage the public, and so move closer to the second type of impact. Though since the point was not to produce new knowledge, there are other cases that better exemplify this category.

The second strategy stands in contrast to the first in originating in conversation with potential users. Philosophers at Cardiff University developed a booklet to be used in A-level (high school) philosophy classes in response to a problem identified by teachers during an outreach consultation.

They had reported that while independent critical engagement is strongly emphasised in the A-level Philosophy marking criteria, the available teaching materials do not foster this skill. The booklet contains essays summarising research papers from three members of the Unit that represent opposing views of Nietzsche's critique of morality. Through questions and puzzles, students are able to compare the claims and take up critical positions. The booklet has contributed a new type of educational material for developing critical thinking in A-level Philosophy and has been used in the UK and overseas. (3585)

The booklet was developed through close discussion with two A-level teachers, one of whom had originally proposed the booklet.

A second example concerns 'best interests decision-making'.

The principle of beneficence has long been recognized as a fundamental principle of medical ethics. The primary aim of medicine is to benefit patients; doctors and other care-providers must therefore act in the best interests of care-recipients. However, as soon as one moves beyond this intuitive and universally agreed principle, problems arise both in theory and in practice. In 2005, a new Court of Protection for adjudication of disputes over best interests decisions taken on behalf of care-recipients was established. The Essex Autonomy Project (EAP) has studied the philosophical, ethical, and legal problems that arise in the cases that have been brought before the Court of Protection. Three problems in particular have loomed large in recent legal controversies:

1 To what extent can or should the assessment of the best interest of P (the care-recipient) take into account the interests of family, care-providers, etc.?

2 When and under what circumstances does best interests decision-making amount to an objectionably paternalistic intervention in the autonomy rights of P?

3 Is best interests decision-making ever permissible, or is it always an inadmissible restriction of P's autonomy? (43992)

The EAP engaged practitioners in roundtables, produced technical reports mounted on their website and worked with public organizations and officials to inform professional and public discussion of the law of best interests. The EAP had an impact on the development of public policy guidelines for implementing legal requirements and played a role in the reform of existing regulatory frameworks (43992).

A third example coupled philosophical analysis of the concepts underlying debates on religious discrimination, and participatory research involving stakeholders employing these concepts - religious and legal practitioners and policy makers. The result was a book entitled: *The Right to Wear Religious Symbols* (7831).

Notable in these cases is the conversation with practitioners at the beginning and throughout the projects. Such conversation began with problems defined by the stakeholders and so exemplified the approach of Frodeman and Briggie's field philosopher. The goal in these cases was to excavate, articulate and discuss philosophical dimensions of real-world policy problems teaching critical thinking in one case and dealing with disputes in the Court of Protection in another. The audience for the work was non-disciplinary stakeholders faced with a live problem – teachers and students, the judicial system and religious practitioners. The method in the teaching case combined traditional and field methods. The three philosophical works used were all published in traditional philosophical journals or books. After their publication they were re-presented as high school teaching material through work which certainly aligns with the field philosopher's context-sensitive, bottom-up approach. The method in the judicial case is less clear. The references to the research in this case were one chapter in the *International Yearbook of German Idealism*, three working papers and a paper in the *British Medical Journal*. The religious discrimination case developed a monograph. So evidence of traditional philosophical method is limited. The dissemination was certainly non-traditional, involving roundtables and technical reports. Evaluation by the audience occurred in each case, indicated by broad usage of the teaching material in classrooms and influence on guidelines for implementing legal requirements and reform of regulatory frameworks. In these cases, institutional placement remained the same, the philosophers were located in philosophy departments. Overall, the cases show a strong alignment with Frodeman and Briggie's characteristics of the field philosopher, exemplifying the approach they advocate.

3.3 Provocations for impact

The third approach shared by several successful philosophy impact cases was to engage in provocation. For example, Oxford University's Julian Savulescu has advanced ethical arguments in favor of sports doping and human genetic enhancement, i.e. "designer babies" (4872). He coined the term "procreative beneficence" and argues that all forms of enhancing human beings are not just morally permissible but morally obligatory. The provocative nature of this stance is confirmed by the polling conducted before and after public debates held by intelligence² debates. On both designer babies and sports doping, a majority of the audience was against Savulescu's view both

before and after the debate, though the debate shifted opinion in favor of his view. In this case, enlightenment literature and media coverage such as a *New York Times* opinion piece, a *New Scientist* article, coverage in *Wired* and *The Huffington Post* all resulted in extensive online debates in the comments. This online commenting demonstrates active public engagement with the ideas. The case demonstrates impact on public policy with a workshop organized for the Norwegian Directorate of Health as well as citations in the report of the U.S. Presidential Commission for the Study of Bioethical Issues. Public lectures in this case include programs at the Said Business School in Oxford organized for State Farm Insurance Company and for SABMiller, a workshop led by Richard Branson on Necker Island, and two lectures at the World Economic Forum in Davos in 2009.

Another provocation was issued by Nick Bostrom, of Oxford University who in 2003 published an argument that took what had been a Cartesian thought experiment and, using conceptual and empirical considerations, showed that we are almost certainly living in a computer simulation (3701). Subsequent work has refined and developed the idea in response to counterarguments by philosophers and in debate with the public. The work inspired a play that ran in both New York and Paris as well as two novels and an attempt by a physicist to provide an empirical test. Websites have been set up to track the argument, including a wiki to which readers contribute their essays that had been accessed 200,000 times as of 2013. There was extensive media coverage both in the popular press and popular science and philosophy press (i.e. *Philosophy Bites* podcast, *Philosophy Magazine*) some of which provoked lively debates in online comment forums.

These cases illustrate a third type of alignment with field philosophy. They focus on the real world, though from a somewhat exotic perspective. Thus the problems were not defined by contesting stakeholders, nor are they clearly problems central to philosophy. Nevertheless, the topics resonated with a non-academic audience because of their controversial, counter-intuitive claims about aspects of everyday life, and were likely chosen with a broader audience in mind. The method appears to be traditional in that the work was published in traditional journals. The references to underpinning research in the Savulescu case include one paper in *Journal of Applied Philosophy*, three in ethics journals/edited book, and three authored books on the topic of human enhancement. Savulescu's work on "procreative beneficence" is widely cited in the biomedical ethics literature. The references to the research underpinning Bostrom's case include two papers in *Philosophical Quarterly* and two papers in *Analysis* as well as less traditional resources – a website and *New Scientist*. Bostrom's core paper: *Are we living in a computer simulation?* is widely cited outside philosophy, garnering as many cites from engineering and scientific journals as from philosophy journals. This hints at the extra disciplinary success achieved by Bostrom's case. Of course, the case narratives detail copious evidence of impact outside the academy. Both Savulescu and Bostrom are professors at Oxford and so do not reside on the margins of existing institutions. Nevertheless, their work has taken them out of the academic environment, with Savulescu lecturing at Davos and Bostrom involved in a play and with websites. Overall the provocations read like traditional philosophy in innovative application, and so perhaps less aligned with field philosophy than the engagers but more aligned than the disseminators.

Successful provocations demonstrably engage the public. Press coverage widens beyond enlightenment media aimed at the intelligentsia or science media to popular media. Lively commenting and debate in online forums provides evidence that a philosopher has engaged the interest of society. Such online forums provide a method for the public to debate ideas that has only recently become available but seems to be of particular value to philosophers. The link between traditional publication venues and provocations for impact also suggests that Frodeman and Briggles' tendency to wed disciplinary publication venues with disciplinary (as opposed to wider) audiences and impacts may need rethinking. As long as the topic is provocative enough to engage other audiences, and the philosophers follow up by engaging further, these cases suggest that one can still publish first in disciplinary journals and have broader societal impacts.

3.4 Living impacts

The fourth approach shared by several successful philosophy impact cases was to leverage one's own life. In these cases a person's scholarly work was related to their life outside academia, creating a natural link to broader impacts. In the first example, Toby Ord of Oxford University investigated consequentialism, arguing that long-term commitments, not individual acts, should be assessed with this framework. Furthermore, "he discovered powerful and compelling new arguments why those of us who enjoy a certain basic quality of life should give a significant proportion of our income to poor people in developing countries. . . . This led him to the idea of setting an achievable public standard of giving away 10% of one's income." Such a standard, "creates a fixed allowance within which to live, free of the guilt and self-censure that accompanies a life that is a constant and frequently unsuccessful struggle to avoid luxuries. It is more intuitive in the sense that it chimes better with our pre-theoretical convictions

about how we should live.” In subsequent work he “came to acknowledge a significant moral imperative to donate to the most effective organisations, which led him to investigate the cost-effectiveness of various interventions” (8843).

In 2009, coincident with HEFCE’s consultation process for devising the impact assessment, Ord pledged to donate 10% of his income to charity, or £1 million over his lifetime (Allen, 2009). He also founded the organization Giving What We Can dedicated to fighting poverty in the developing world. “Its members pledge to give at least 10% of their income to aid and to direct their giving to the organisations that have a demonstrated ability to use their incomes most efficiently. [As of 2013] The most significant impact of his research is the amount of money pledged by the 326 members of this organisation: over US \$130,000,000” (8843).

A second example of this approach is Labour Councillor and Professor Beverley Clack’s work, which includes reflections on religion as a form of ethics and providing intellectual support for an ethical socialist vision as part of the Labour Party think tank, Labour Left (15866). A third example is the work of Rai Gaita of King’s College London, whose distinctive conception of good and evil were brought “to bear on a range of central and abiding moral questions” in a narrative form. In particular, his biography of his father was made into a film. Both the book and film were well received in Australia (41288).

These cases are distinguished by the variety of means by which philosophers have integrated their scholarly work and their non-academic lives to the benefit of both. Ord established a non-profit. Clack works for a political party. Gaita produced a biography which became a film. They exemplify the field philosopher’s differing institutional placement by shuttling between the academy and larger world, a characteristic of field philosophy not present in the other cases. The method used appears to be non-traditional in that no philosophy journals are referenced as sources for the research. The Ord case references to research mention a website but no philosophy journals. The Clack and Gaita cases reference books, not philosophy journals, though Clack’s book was titled *The Philosophy of Religion*. The evaluation of these cases also differed in that Ord and Raita use money as a metric. Like the provocation cases, the choice of problem does not seem to be defined by stakeholders, rather the problem chosen has practical import, realized by the philosopher through more than public lectures. This approach enabled the work to influence broader society and reach a much wider audience than that of typical philosophers.

3.5 Philosophy of X, where X is something relevant outside academe

The fifth approach leverages scholarship focused on areas of broader interest, such as philosophy of information technology, food, health or art. For example, Luciano Floridi’s work on the philosophy of information has led to consulting for Capgemini, Google and the European Commission (44492). E.J. Lowe’s arguments for a four-category ontology has influenced designers of information systems (11832). Peter Millican’s examination of issues that arise from the power of computation to mimic important intellectual feats led him to develop a program to perform stylistic analysis and comparison of texts to identify authors, useful in cases of disputed authorship (19240).

In food, Barry C. Smith’s work on the philosophy of wine, in particular his argument for the objectivity of taste, led to consulting for large drinks firms, public lectures at wine industry conferences, contributions to popular books on wine, press coverage, an experiment at a high end restaurant, and contributions to a film and app produced by a drinks firm (18036).

In the health arena, Daniel Hutto and Shaun Gallagher at the University of Hertfordshire have developed the Embodied and Narrative Practices framework for understanding how we relate to others without resorting to a theory of the mind. Their work is being used to improve diagnosis and treatment of schizophrenia and autism spectrum disorders in the UK (44491).

Working on the scope and limits of responsibility, Bennett Foddy and Julian Savulescu, Oxford, have argued that, contrary to the commonsense view, an addictive desire is simply a very strong appetitive desire, on par with hunger or thirst; thus the autonomy of drug addicts is not compromised nor is addiction a disease (3702). Addictive desires tend to be socially unacceptable for one reason or another, but that is the most that can be said. Concerned with effective treatment, Hanna Pickard furthers this work by establishing the basis for encouraging people to take responsibility for their actions without blaming them, which is detrimental to treating them. This work has led to training for prison staff in responsibility without blame, to public lectures for a forensic psychotherapy workshop, prison officers, the House of Lords and videogame developers. The work has been cited in World Health Organization treatment guidelines. The work has also stimulated engagement on blogs and in discussion threads.

Philosophical work on art has similar potential to engage with society. Matthew Kieran at University of Leeds has developed a virtue approach to artistic appreciation and creativity – putting character at the center of understanding human engagement with the arts (6401). He has run workshops at the Tate, International Miami – Basel art fair, Crunch Art Festival, Hay on Wye, National Centre for Craft and Design, the Henry Moore Institute and the Leeds City Art Gallery. In addition to philosophy and popular media coverage, he helped Channel 4 develop its Hidden Talent program, in which Kieran worked with a factory worker who had left school at 15 and never been in an art gallery to develop his art appreciation skills. The program reached an audience of almost 2 million viewers.

In a second example, a philosopher at Warwick, Diarmuid Costello and an art historian at Essex, Margaret Iersen, collaborated to overcome the limits inherent in the isolation of art historical and philosophical debates over aesthetics of photography. They argue that contemporary photography is art in every sense of the term. This sparked public debate about the status of photography as an art and:

raised the profile of modern British art photography, contributed to the position of independent galleries, and influenced curatorial ideas about the nature of photography. These impacts have been achieved through an exhibition of an under-exposed contemporary British photographer, workshops with gallery curators and conservators, public events, and through non-academic publications such as books, exhibition catalogues and podcasts. (7434)

Public lectures include events for art theorists, curators, critics and photographic artists as well as an oversubscribed public conference at the Tate Modern. Costello was also invited to curate an exhibition at the Warwick Arts Centre.

Philosophy of X often leads to invitations to become engaged. Professor John Broome's work on the ethics of climate change led to an invitation to serve as Lead Author for Working Group III of the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (4873). Work at the University of Leeds on professional ethics led to an invitation from the Royal Academy of Engineering to develop its *Guide to Ethics in Engineering Practice* and funding from the Institute of Chartered Accountants for a project on *Promoting Integrity in Organizations* (6402). Work on the philosophy of neuroscience led to an invitation to join the Church of Scotland's Society, Religion and Technology working group and request for advise on issues surrounding the importance of neuroscience for free will and moral responsibility (24029).

The 'philosophy of X' approach enables a philosopher to engage with industry (information, wine), service providers (health) or cultural institutions (art) in the area of interest. It presents as Frodeman and Briggles' "new Republic of Letters" in which society's problems have philosophical aspects philosophers could and should address. Frodeman and Briggles (2016) write: "The dynamism of this modern-day Republic of Letters stands in stark contrast to the inward-looking conservatism of contemporary academics. This new Republic of Letters offers philosophizing on the fly, in response to a variety of game changers that have deeply philosophical elements – issues like climate change, artificial intelligence, globalization, new forms of media, and the potential remaking of the human genome"

By engaging with X, the philosopher is by definition engaged with real world problems – perceptions of the taste of wine, addiction, art appreciation. The case narratives do not provide enough information to determine how the problems were chosen, and whether stakeholders were involved. The audience clearly includes those in the field – wine industry, art critics, information scientists, psychiatrists. Often, the mechanism of engagement includes early press coverage and public lectures engaging the public. In each case the research was published in a mix of philosophical books and journals and field books and journals - *Alan Turing His Work and Impact, Art History, Proceedings of the Conference Wine Active Compounds, Behavioural and Brain Sciences, Nature*. The method thus seems to meet both standards of philosophy and to offer something to the field. The work produces results outside academia sufficient to create compelling impact narratives – experiment at a restaurant, use by psychiatrists, citation in treatment guidelines, and a television program. The philosophers are also shuttling between the academy and the larger world – consulting for the wine industry, training prison staff, teaching in art galleries, curating exhibitions. Engaging with institutions in the area of interest provides a kind of multiplier effect that extends the reach of philosophers across a broader slice of the public than could be reached by public lectures or internet forum engagement alone.

Of course, these categories are not entirely mutually exclusive. The provocations of Savulescu over sports doping and designer babies are in the realm of health, and Savulescu's position on addiction is somewhat provocative. Similarly, Bostrom's idea that we are living in a simulation could be classified as provocative philosophy of information technology.

4 Conclusion

We can contextualize these results in two ways. First, we can compare them with methods of achieving impact in two very different fields, dentistry and inorganic chemistry. There is not much mystery involved when inorganic chemistry, which is largely industrial catalysis, or dentistry are asked to submit examples of impact. One assumes that over the 20 years in question at least 1 in 10 inorganic chemists managed to discover something useful to industry, patent it and either license it to a big firm or start a firm. Indeed, most cases read like that, though the details are sometimes interesting. Similarly in dentistry, somebody develops something, patents it and licenses it to the likes of Colgate or Proctor and Gamble. Alternatively, dentists might develop a new treatment that could end up recommended in the treatment guidelines issued by professional organizations and they would train dentists in the new technique through professional education programs. Therefore, assessment of research impact does not seem like a big stretch to inorganic chemists or dentists.

Nevertheless, the pathways to impact observed in philosophy are not entirely absent in dentistry or inorganic chemistry. Connections with clinical trials, treatment guidelines and professional education seen here in the philosophy of health cases are important components of many dental cases. In chemistry, the main route to impact lies through patents and licensing or startups, of which there is no evidence in philosophy. However, there are a few philosophy-like cases in inorganic chemistry. Coincident with HEFCE's consultations about the design of the REF, the School of Chemistry at the University of Nottingham began outreach activities to stimulate public interest in chemistry, motivated in part by a philosopher-like desire to "enable the public to debate scientific issues of societal importance" (31280). The school started a YouTube channel that has garnered 47.5 million views and a Royal Society of Chemistry prize for education. They have developed public exhibits, including one entitled "Wonder in Carbon Land" to communicate the School's work in nanotubes. Public lectures at the Royal Society Summer Exhibition also played a role in their outreach efforts. Similarly, the Department of Chemistry at University College London has engaged in outreach emphasizing work in schools but also involving work with the BBC, public lectures at science festivals and online videos (35405). Chemists at Oxford working on the chemistry of natural products extracted from plants have collaborated with the University's Botanic Garden on multiple outreach exhibits, events and lectures (18144).

We can also contextualize the results by assessing their fit with theory, or the characterization of field philosophy proposed by Frodeman and Briggie (2016). Table 1 summarizes the discussion of the five broader impact strategies in philosophy revealed in this analysis of REF cases.

Table 1 – Impact strategies in philosophy and field philosopher characteristics

	Goal	Approach	Audience	Method	Evaluation	Institutional placement
Dissemination	✗	✗	✓	✗	✓	✗
Engagement	✓	✓✓	✓	✓	✓	✗
Provocation	✓	✗	✓	✗	✓	✓
Living impacts	✓	✗	✓	✓	✓	✓✓
Philosophy of X	✓	?	✓	?	✓	✓

The Impact through Engagement type very much resembles the approach of the field philosopher presented by Frodeman and Briggie (2016). In particular, both begin with engagement with others and their problems. In contrast, the Impact as Dissemination to the Public type seems not to care about the public and its problems so much as demonstrating that the philosopher has the answers, should anyone be asking those particular questions. The other three types (Provocations and Living Impacts) seem to be more oriented around making connections with non-philosophers, without necessarily beginning with the non-philosophers and their problems. The Philosophy of X approach exemplifies the proposed "new Republic of Letters." The Living Impacts type is uniquely strong in the dimension of shuttling between the academy and the larger world.

Frodeman and Briggles framework provides dimensions relevant to understanding cases of societal impact reported in REF case studies of philosophy. In turn, the types of impact discussed here suggest that there are multiple ways of being a field philosopher that vary in their emphasis on these dimensions. The pluralism exhibited here bodes well for the expansion of societal impact from philosophy as there are many routes available to suit different approaches. Indeed, there are no doubt other pathways to societal impact from philosophy yet to be revealed as our work cannot claim to have discovered them all.

Acknowledgement

This work was supported by NSF award number 1445121.

References

Allen, Vanessa (2009). I will give £1m to charity, says Oxford don on £33,000 salary. *The Daily Mail*, 16 November.

Frodeman, Robert and Adam Briggles (2016) *Socrates Tenured: The Institutions of 21st-Century Philosophy* (Collective Studies in Knowledge and Society) Rowman & Littlefield International.

Frodeman, Robert (2017) *The Impact Agenda and the Search for a Good Life*, *Palgrave Communications*, volume 3

Molas-Gallart, Jordi, and Puay Tang (2011). "Tracing 'productive interactions' to identify social impacts: an example from the social sciences." *Research Evaluation* 20.3: 219-226.

REF Case Studies <http://impact.ref.ac.uk/CaseStudies/>

REF FAQs, Research Excellence Frequently Asked Questions <http://impact.ref.ac.uk/CaseStudies/FAQ.aspx>.

Smith, Rebecca. (2010) "The impact of impact" *The Biochemist*, 32:3, June, pp. 46-48

<http://www.biochemistry.org/Portals/0/SciencePolicy/Docs/The%20impact%20of%20impact.pdf>.

Spaapen, Jack, and Leonie Van Drooge (2011). "Introducing 'productive interactions' in social impact assessment." *Research Evaluation* 20.3: 211-218.