OPEN LETTER

The Index of Evidence: speculative methodologies in response to the post-truth era [version 1; peer review: 1 not approved]

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Abstract

The past year has shown that even the fundamental idea of 'evidence' – in health contexts, but also more broadly - is coming under increasing strain. This open letter argues that the current crises of evidence and knowledge in which we find ourselves demands new speculative methodologies. It introduces the Index of Evidence – a Beacon Project funded by Exeter University's Wellcome Centre for Cultures and Environments of Health - as one example of such a methodology, outlining its theoretical foundations and process. The key innovation of this project is to rethink the form and presentation that research can take. Using the conceptual and material affordances of the index, it merges the creative and critical in ways that aim to make an important contribution to more inter-connected, theoretically sophisticated thinking around evidence.

Keywords

Evidence, Fact, Methodology, Index, Creative-Critical

Open Peer Review

Reviewer Status

Invited Reviewers

1

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Any reports and responses or comments on the article can be found at the end of the article.

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Introduction

The coronavirus disease 2019 (COVID-19) pandemic has presented itself as an epistemological as well as an epidemiological crisis, demonstrating just how fraught and contested questions of evidence have now become. Most obviously, it has highlighted the degree to which trust in top-down expertise has fractured, and the growing power of social media to generate what the World Health Organisation (WHO) dubbed an ‘infodemic’: widespread misinformation, false claims and conspiracy theories about the causes of COVID-19, remedies, vaccination, mask-wearing etc. But, at a more fundamental level, it has brought the very notion of evidence itself into question, exposing its equivocality, fault-lines and complexities. Despite the government mantra, ‘following the science’ has never seemed less simple or straightforward. What are the processes through which raw data (assuming such a thing exists) is translated into usable evidence, into epidemiological models, or narrative shape? And if disciplines and fields of knowledge construct and mobilise evidence differently, how do we negotiate between these sometimes incommensurate forms? What of the relationship between scientific expertise (be it from laboratories, *in silico* models, various disciplines, or advisory panels), clinical or practice-based insights, and the first-hand experience of patients? Who decides what kinds of evidence counts? How can evidence be effectively mobilised in our current, post-truth context, while still acknowledging its limitations or incompleteness?

Understanding how these challenges are being felt in health contexts should be a priority for the medical humanities and social sciences, but they are by definition complex, broad-based phenomena, scattered across multiple cultural locations and diagnosed under a shifting set of terms: the ‘post-factual’, ‘the misinformation society’, ‘fake news’, ‘information disorder’ and that most widespread neologism, ‘post-truth’. New kinds of methodology are needed, capable of thinking across disciplinary and cultural boundaries, but also across media. In this Open Letter, we introduce one such response to this problem – the Index of Evidence – a Beacon Project situated in the Wellcome Centre for Cultures and Environments of Health at the University of Exeter. As the interdisciplinary group of scholars leading the project, we explain the rationale behind this unusual and exploratory initiative, which approaches these 21st century questions and contexts of evidence by repurposing a distinctly old-fashioned print device. It puts the alphabetical index to creative use as the starting point for a co-authored, open-ended and evolving text. While a definitive account of our current upheavals can’t yet be written, this index is instead a work in progress. It traces the shifting dynamics of evidence, mapping the connections and disjunctions between disparate kinds of knowledge, tracing and materialising an emergent network of new concepts, terminologies and ways of thinking.

Overview

The Index of Evidence is an initiative begun in late 2019 that entails an exploration of the ways evidence is constituted, contested, mobilised or undermined - in relation to the formation of ‘Healthy Publics’. The project recognises that we are in a historical, socio-cultural, material and political moment where the question of what constitutes a ‘fact’ and how evidence might legitimately be used to address health problems has come to a point of crisis. While the task of understanding, mapping and intervening in this situation is an urgent one, the question of how it should be approached is complex and difficult. The dangers of health misinformation and misleading evidence have been widely recognised and analysed, as has its remarkable resistance to disproof, refutation or debunking. This project is an intervention of a different kind, however. Instead of adding to an already burgeoning literature on evidence in theoretical or socio-historical terms, or simply attempting to shore up the truth status of scientific facts, it is a performative response to the complex terrain in which we find ourselves. It unfolds the new ontology of evidence using more formally innovative and speculative methods. It begins with the index to an imagined, but unwritten book. It invites academics in diverse disciplines as well as non-academic publics to respond to its entries, encouraging them to follow and elaborate on their own areas of interest, to think in both disciplinary and in speculative ways, and to value and use multiple registers and voices.

The Index of Evidence is thus a decentralised, multi-authored text-in process. Its online index terms link to short entries that unpack particular corners, lines, or questions of evidence. Some entries seem obvious: ‘alternative facts’; ‘evidence-based medicine’; ‘big data’; ‘qualitative’; ‘quantitative’; ‘randomised control trial’; ‘vaccination’. Others are much more unexpected and speculative: ‘genre’; ‘badgers’; ‘gold’; ‘anomaly’; ‘pattern’; ‘circumcision’. The index allows readers to take unexpected journeys, piecing together a picture of what is happening to evidence across a range of cultural contexts, from online populism and social media controversies to institutional and scientific debate. It explores what forms evidence now takes, the terminology and concepts that surround it, and the ways it is mobilised and circulated. The Index of Evidence is a tool for orientating and disorientating ourselves within this new territory. It explores our predicament from fresh angles, asking what new understanding might be gained from recent upheavals, and what routes forward can be plotted. It aims to become both an example of and resource for thinking about the intersecting complexity of evidence, alongside the affective and conceptual bonds that are involved in the formation of healthy (and sometimes unhealthy) publics. The index will necessarily remain unfinished and will have a lifespan beyond the funding period for the Wellcome Centre for the Cultures and Environments of Health.

Theoretical contexts

Responses to the destabilisation of fact and evidence from scholars and those working in health contexts have typically taken one of three forms: ‘big data’ studies analysing the scale and nature of the problem, polemics railing against pseudoscience or irrationality, or direct, localised fact-checking interventions intended to combat online misinformation. The Index of Evidence approaches this problem from a different
angle, deploying the insights of cultural and critical theory to better understand the new ontology of evidence. It takes its cue from theoretical work in the humanities and social sciences that allows for more speculative thinking about evidence, and ways to model its relations, associations, and patterns. The project is informed firstly by Latourian ideas of the network – the idea that knowledge is produced through the interplay of actors, both human and non-human, through material and media objects17. Secondly, we attend also to Michel Serres’s notion of the passage between, and the complex, twisting topologies that can connect apparently distant points19, and thirdly to the concept of the rhizome, as elaborated by Gilles Deleuze and Felix Guattari25. A rhizome resists the arborescent (root and branch) model or organisation, where causality can be pursued in chronological terms to an origin or where there is a teleological movement towards a conclusion. Instead, a rhizome resists the genealogical – it also resists the idea of a centre – to present a flat landscape which presents the possibility of all points connecting to all others on one plane. In Deleuze and Guattari’s terms: ‘A rhizome has no beginning or end; it is always in the middle, between things, interbeing, intermezzo. The tree is filiation, but the rhizome is alliance20. In its online form, the Index of Evidence might be said to resemble a rhizomatic structure in its possibility of multiplicity; its not-completely rather than absolutely non-hierarchical entry and exit points; and its demand for non-linear writing and reading strategies that represent and subsequently interpret the data it gathers.

Equally importantly, the project draws on historians of the book and information, who have highlighted how evidence and fact have always been shaped by technologies of media and communication, well before the advent of social media. Adrian Johns shows how the authority of factual knowledge in print was hard-won, constructed through the book’s conventions, its presentation and material organisation14. Ann Blair and Anthony Grafton have examined the history of the book’s referencing conventions and footnotes – the paratextual apparatuses which function not only to order information but also as forms of evidence in themselves, tools to authorise and codify disciplinary knowledge22,27. The index is one of the most fundamental of these print ordering devices, as Dennis Duncan has shown, one which not only enabled the printed book to be used as resource of factual knowledge, a reference work for information, but also – more indirectly – as a signifier of reliable knowledge itself24.

The index as method
This project appropriates the index creatively, as a genre of writing: one that presents possibilities that a conventional scholarly book or article cannot. The term index itself derives from the Latin verb indicare or ‘indicate.’ It designates a sign or measure of something, a device that points towards a particular page, allowing you to find your way around quickly and easily. Traditionally, the index oriented readers in a world of printed fact, but this one is different. It explores how we might find our way through the shifting, uncertain terrain of a multi-media digital era. And while a conventional index is the last word to a book, compiled only after the text has been written, this one is only the starting point. The Index of Evidence begins with a list of terms that resonate in the contemporary moment. These are terms which recur around questions of evidence in science, medicine and academic debate, but also in popular culture and on social media. Cumulatively, they may suggest the ways knowledge is being transformed. But initially they are entries that point nowhere. They are an index to a book about evidence, but one that has yet to be written.

The Index of Evidence exploits and subverts the potential of the index as a form. On the one hand, it initially appears to be a highly disciplined object, promising order and completeness, and providing orientation around a known terrain. But on the other, it produces its own powerfully excessive operations and translations. The index scrambles the linearity of a book, rendering visible new points and practices of contact between knowledges and ways of knowing. As Dennis Duncan notes in his forthcoming book on the topic, ‘the chief mechanism of the index is its arbitrariness in relation to the work’25. It allows things that might seem conceptually far apart to be rendered suddenly and unexpectedly proximate, therefore exceeding the reader’s intentions too. An index allows ‘deconstruction’ to sit blithely next to ‘dialectic’; ‘ethics’ to cosy up to ‘eugenics’; ‘habit’ to be visually linked to ‘Holocaust’; while prompting the reader to join the dots of the relation between the terms. This index uses these aleatory qualities of alphabeticisation and the non-linearity of a digital environment to suggest that we are always in the middle of things when we aim to understand and use evidence.

In strategically repurposing this print codex device, the Index of Evidence follows the example set by writers and artists who have appropriated it playfully, showing that the index can be a powerful device, with the capacity to point us in new directions, send us on unexpected journeys of discovery, or tell us things that the main text itself cannot. Mark Danielewski’s House of Leaves (2000) and Vladimir Nabokov’s Pale Fire (1962) are novels that use indexes to distinctive rhetorical effect, operating as part of their elaborate narrative games26,27. Artists, too, have put it to new uses. Nick Thurston has republished the index to Nietzsche’s Gay Science as a standalone text28, and Alejandro Cesarco produces indexes to imaginary books29. In these cases it becomes an oddly suggestive and poetic form, telling stories of its own.

We deploy an analogous creative strategy in the current, uncertain context of evidence. What can the index do that more orthodox academic argument or refutation cannot? What can its workings tell us about the processes through which we filter information, choosing what – or whom – to trust? What can it reveal about how evidence is produced and
how it gains traction? What effect does its discorssing shift from page to screen have? By thinking together about these issues we aim to create an evolving map of evidence.

Process
Simply put, the Index of Evidence is an online text. It began as merely a list of words – an index of terms that pointed nowhere. Over the course of the project, contributors from diverse disciplines and fields of expertise have been invited to respond to one or more of these index terms, or ‘heads’. At the time of writing there are nearly 40 such contributions from established academics, early career researchers, artists, health advocates and other stakeholders. The index has a global perspective, with contributions drawn from institutions as far apart as India and the USA, and varies widely in terms of register and style. Its contributions are sometimes dense and scholarly, and sometimes more provocative, elliptical and creative. They incorporate not only text but visual material, audio recordings of oral testimony. They can be brief thoughts, anecdotes, images, diagrams, sound and video. The Index of Evidence is thus a collaborative project, a text that is collectively written, dispersed, fragmented and on-going, incorporating diverse voices and viewpoints and ways of writing.

These parts do not – and are not intended to - add up to a whole, however. Instead, the index is an ever-evolving, incomplete picture of our new situation. Just as in a conventional index, there are page numbers pointing the reader to a destination (but not necessarily where they expected), and from there, they can follow other, sideways chains of links to explore a network of other, related terms and their meanings. But as hyperlinks, these page numbers also point playfully to the incommensurable logic of page and screen. A ‘book’ of sorts is taking shape around the index, but unlike a print book it can never be assembled in the correct order, or read sequentially. It is virtual, open-ended and necessarily unfinished. From a user perspective, the index is an interactive tool, inviting readers to explore and reflect on how they navigate their way through information – what links they follow, what kinds of signals, cues and paratexts lead them to trust or mistrust, believe or disbelieve.

Most crucially, the index is a research methodology that is fundamentally iterative. Its logic is emergent and contingent rather than pre-planned or encyclopaedic, and its rules and conventions are still developing in response to the new entries added. As the work on the building of the Index of Evidence has shown, the index as object (which is also, necessarily, the index as practice or strategy), permits the map to become the process of the passage. Although it began in the months before the current health crisis, it has been caught up in the middle of it, responding in real time to the unfolding debates around evidence and health. This responsiveness and ability to develop in relation to ongoing events is the index’s major advantage. Its entries reveal how far the terms ‘COVID-19’ and ‘pandemic’ and ‘virus’ have come to intersect with existing concerns about evidence.

Conclusion
The Index of Evidence puts the navigational tool of the print index back into play in the unbound, networked environment of the internet to see where it leads us. It thinks about how to respond to the seeming crisis of evidence without simply replicating the narrative structure of crisis itself. The project asks what new understanding might be gained from recent upheavals, and what routes forward can be plotted. Its aim, ultimately, is to assemble a new public around the question of evidence – one that will model the diverse and the sometimes contradictory voices needed to take account of the complexity of how evidence comes to be constituted as such and then used to make decisions about health.

Data availability
No data are associated with this article.

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- The paper is insubstantial. It states in the title that it is about an "Index of Evidence" but nowhere states clearly what that is. It appears to be a list of 40 terms that may have something to do with evidence.

- The abstract gives no clear summary of an argument, proposition, or of research.

- The reader needs to know at the outset exactly what this index is, and how it is considered to address the issue of false claims.

- The paper, especially on page 2, appears to confuse false/fake claims (undesirable) with disputed claims on the basis of evidence (an important part of social science).

- By the end of the paper, it is still no clearer what the index is and how it might be useful.

- The paper would need to be completely rewritten to be clear to a reader, assuming that there is indeed anything of substance here at all.

Is the rationale for the Open Letter provided in sufficient detail?
No

Does the article adequately reference differing views and opinions?
No

Are all factual statements correct, and are statements and arguments made adequately supported by citations?
No

Is the Open Letter written in accessible language?
No

Where applicable, are recommendations and next steps explained clearly for others to follow?
No

**Competing Interests:** No competing interests were disclosed.

**Reviewer Expertise:** Social science research methods, and the use of evidence.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to state that I do not consider it to be of an acceptable scientific standard, for reasons outlined above.