

Wikimedia and universities: contributing to the global commons in the Age of Disinformation

In its first 30 years the world wide web has revolutionized the information environment. However, its impact has been negative as well as positive, through corporate misuse of personal data and due to its potential for enabling the spread of disinformation.

As a large-scale collaborative platform funded through charitable donations, with a mission to provide universal free access to knowledge as a public good, Wikipedia is one of the most popular websites in the world. This paper explores the role of Wikipedia in the information ecosystem where it occupies a unique role as a bridge between informal discussion and scholarly publication. We explore how it relates to the broader Wikimedia ecosystem, through structured data on Wikidata for instance, and openly licensed media on Wikimedia Commons. We consider the potential benefits for universities in the areas of information literacy and research impact, and investigate the extent to which universities in the UK and their libraries are engaging strategically with Wikimedia, if at all.

Keywords

Wikipedia; Wikimedia; Wikidata; information literacy; research impact; strategy



MARTIN POULTER

Website Editor and
Technical Developer
University of Bristol



NICK SHEPPARD

Open Research
Advisor
University of Leeds

Introduction

'The original idea of the web was that it should be a collaborative space ... by writing something together [people] could iron out misunderstanding.'

Tim Berners-Lee¹

The world wide web has both fulfilled and fallen short of its early promise. Its impact on how we access and share information has been revolutionary. Individuals and society have undoubtedly used it to 'cross barriers and connect cultures' as its inventor hoped.² However, the web has also become a tool of capitalist hegemony and political disruption, where a small number of powerful corporations control information on an unprecedented scale and conspiracy theories can propagate with potentially damaging consequences for democracy, ecology and global equality.³ Meanwhile 'experts' are derided⁴ and climate change deniers and other contrarians can reach huge audiences via online platforms.⁵

2 In March 2017 Berners-Lee himself expressed concern about the web's future, highlighting how easily misinformation can spread, due in part to corporations harvesting and abusing personal data.⁶ Disparate platforms with different agendas, in some cases outright disinformation, can result in users retreating into a 'filter bubble' of trusted friends and family on social media, thus making them vulnerable to algorithmically targeted messages with a political or commercial agenda. In November 2019 Berners-Lee announced a new initiative from the World Wide Web Foundation proposing a set of principles for governments, companies and citizens to 'make our online world safe and empowering for everyone'.⁷

In principle, we should be the most well-informed population in history with more peer-reviewed research produced and published online than ever before.⁸ Yet, this research often fails to reach the wider public. Much research is still behind paywalls,⁹ or is not translated into other languages or summarized in plain language for a lay audience. As disinformation becomes more aggressive, it has never been more urgent to actively communicate the results and methods of research to the public and to better equip them with digital and information literacy skills. With these goals in mind, this article considers ways that universities can promote a web in line with Berners-Lee's original vision.

The free encyclopedia that anyone can edit

'Imagine a world in which every single person on the planet is given free access to the sum of all human knowledge.'

Jimmy Wales¹⁰

There is one domain on the web where the utopian vision of the early years still applies: Wikipedia. 'The free encyclopedia that anyone can edit'¹¹ is currently the tenth most popular website in the world and the fourth most visited 'Western' domain behind Google (1), YouTube (2) and Facebook (7), ahead of major online service destinations including Amazon (13), Netflix (21) and Twitter (35).¹²

As one of the most recognized brands on the web, Wikipedia's mission and policies are in marked contrast to nearly all other online media. The other Western sites in the top 50 are sustained either through advertising revenue (Google, Facebook, Twitter) or by providing a commercial service (Amazon, Netflix, PayPal). Wikipedia is a charitable project driven by a belief in universal free access to knowledge as a public good.

'Wikipedia is a charitable project driven by a belief in universal free access to knowledge as a public good'

At the time of writing, English Wikipedia comprises just over 6 million articles¹³ with more than 38 million registered users. Only a minority of users contribute regularly, however: in the region of 100–150,000 and fewer still, usually cited at around 3,000, are considered to be 'very active Wikipedians' with >100 edits per month.¹⁴

Of course, Wikipedia is far from unique in relying on user-generated content. Its contributing user base is a fraction of the big social media sites like Facebook and Twitter, which have 2.4 billion and 330 million users, respectively.¹⁵ These obviously facilitate the exchange of information but in a manner that is largely ephemeral, algorithmic and with no systematic checking of its veracity. Wikipedia, by contrast, is a permanent and evolving source of verified information that retains a transparent record of edits over time and is predicated on a set of fundamental principles.

Recently, Facebook has in fact committed to independent fact-checking of news on the site but has been criticized for not extending this to political advertising.¹⁶ Meanwhile, Twitter announced that they have banned paid political content¹⁷ which nevertheless does not preclude unverified or ideologically motivated misinformation from propagating organically.

- 3 Universal access to a summary of all human knowledge is an aspiration, and Wikipedia is clear that it falls short in several respects. Only 18 per cent of biographies on the site are about women and there are major discrepancies in geographical coverage, with more articles about the Netherlands than the whole continent of Africa.¹⁸ These inequalities are due to both the culture of the site and to wider social issues, such as patriarchal society or the availability of broadband internet. Moreover, gender inequality is also a feature of professionally published sources, with women only accounting for eight per cent of biographies in the *Oxford Dictionary of National Biography*, for example.¹⁹

Wikimedia

Wikipedia is just one of 16 interconnected projects that are also linked to a wider ecosystem of sites and apps. Wikimedia Commons is a repository of openly licensed media files including photographs, diagrams, video and audio. Wikisource is a free library of out-of-copyright texts, while Wikiversity and Wikibooks encourage collaborative creation of open educational resources (OERs). The fastest growing Wikimedia project is Wikidata, a store of structured data that can be read and edited by humans or machines. See Figure 1 for the full family of Wikimedia projects.

Whereas commercial sites aspire to traffic and 'clicks', the goal of Wikimedia is to freely share knowledge in the most convenient form for its users. So, these platforms encourage reuse of text, images and data in other sites, publications and printed material, even in CD-ROMs or USB drives that are sent to schools in remote areas of the world.²⁰



Figure 1. The icons of the 16 Wikimedia projects²¹

The fundamental principles of Wikipedia

'Wikipedia ... is not the bottom layer of authority, nor the top, but in fact the highest layer without formal vetting.'

Casper Grathwohl²²

Like any encyclopedia, Wikipedia's role is tertiary. It does not collect or analyse raw data to draw conclusions, which is the role of researchers and traditional peer review. Contributors are explicitly forbidden from posting their own opinions or theories²³ at least until they are published in the peer-reviewed literature. Rather than deciding what is true, the Wikipedia community arbitrates on what is verifiable from reputable sources.²⁴ While

4 there are formal review processes, they do not evaluate the underlying research, they merely assess whether an article fairly summarizes its sources and if those sources are high quality.

Wikipedia, therefore, does not compete with the scholarly literature but makes it accessible to the widest possible audience. Improving an article means that more, not fewer, people read the peer-validated literature because readers follow links to cited sources.²⁵ It is a founding principle that academic consensus reflected in peer-reviewed literature is the best available claim to knowledge. This pro-expert, pro-scholarship ethos contrasts with many other media sources and online communities, both in their editorial line and invitation to contribute personal comment and opinion.

Wikipedia ... does not compete with the scholarly literature but makes it accessible to the widest possible audience'

Unlike traditional academic publication where the reader is shielded from the editorial process, Wikipedia is entirely transparent. Each article has a 'Talk page' for contributors and editors to publicly discuss how it can be improved, with discussions permanently archived and available for scrutiny. (See Figure 2 for an example.)

Date	Process	Result
October 19, 2013	Peer review	Reviewed
November 30, 2013	Good article nominee	Listed
January 22, 2014	Featured article candidate	Not promoted
April 21, 2014	Featured article candidate	Not promoted
August 1, 2014	Featured article candidate	Not promoted
October 8, 2014	Featured article candidate	Not promoted
January 14, 2015	Featured article candidate	Promoted

Current status: **Featured article**

Amphetamine has been listed as a level-4 vital article in Biology. If you can improve it, please do. This article has been rated as FA-Class.

Figure 2. The 'Article milestones' section on the Talk page shows the formal reviews to which the Amphetamine article was subjected before earning its 'featured article' badge. Screenshot with article milestones expanded²⁶

Wikipedia is particularly sensitive about conflict of interest. It would be inappropriate for an editor affiliated with Nike to contribute to the sweatshop article,²⁷ to remove or mitigate reference to anti-sweatshop protests directed against the corporation, for example. This sensitivity can cause frustration for university staff who might find their motives questioned when writing about their institution or their own work. Fortunately, there are ways to suggest improvements to an article while being open about any potential conflicts of interest. It is worth working with the system rather than against it.

'Wikipedia is particularly sensitive about conflict of interest'

Education and information literacy

'For God sake [sic], you're in college; don't cite the encyclopedia.'

Jimmy Wales²⁸

A 2011 investigation in the UK and US found that many students used Wikipedia for their homework, often with a sense of guilt because they had been advised against it by teachers. Yet, Wikipedia helped them to find information that would be marked as correct. Teachers who warned against its use merely pushed the practice underground.²⁹ Treating Wikipedia as an unconditionally reliable source is no more desirable and goes against the purpose

5 of the site as an accessible summary of reliable sources. A better approach is to treat Wikipedia's variable quality and open editing as an educational platform. By taking part in the codification of knowledge, students experience for themselves the debate and judgement involved.

Assignments to improve Wikipedia are already used at universities around the world. North American students have added 60 million words³⁰ and similar work in many other countries, including the UK, has added greatly to its content. When you read about a psychological or management theory, or a rural English parish, you are very possibly reading student work that was assessed for their degree.³¹ These assignments are often for final-year undergraduates in lieu of a dissertation. They can also be introduced earlier to encourage good habits of fact-checking, citation and giving constructive feedback. Translation assignments are another educational opportunity because it is easy to find articles in a given topic area and language that lack English equivalents, or vice versa.

'By taking part in the codification of knowledge, students experience for themselves the debate and judgement involved'

Usability and documentation of the Wikimedia platforms can be frustrating and, in addition to the editing process itself, new users need to learn how the community works. Like any publisher, Wikipedia has a scope (what it will or will not publish), a house style and standard ways to resolve disagreement. It is advisable to engage an experienced trainer who can also help to identify articles to improve. Wikimedia UK, the national charity supporting the Wikimedia projects, has a roster of trainers and maintains an informal network of academics running Wikipedia assignments for mutual advice and support.

'to encourage good habits of fact-checking, citation and giving constructive feedback'

Many organizations go a step further and employ a Wikimedian in Residence (WiR) to deliver training within and outside the organization and liaise with the online community. They are not paid to directly improve Wikipedia but to share skills and content that empower others to do so. Organizations including the National Library of Wales, the Royal Society of Chemistry, the Scottish Library and Information Council, the Wellcome Library and Jisc all employ, or have employed, WiRs.

Wikimedia and universities

We have seen how Wikipedia occupies a distinctive place in the information ecosystem, linking informal discussion to scholarly publications. Universities can build this bridge by adding links to open access (OA) versions of cited articles in their repositories or linking digitized theses from biographies of notable alumni. OA papers or lay summaries which review a topic rather than presenting original research can even be used wholesale to create new articles.

A WiR can help to embed the practices described in Table 1.

Universities want:	... and can:
impact for research projects	share openly licensed text and images to improve Wikipedia articles.
use of institutional repositories	make sure links are included in Wikipedia citations and Wikidata bibliographic records.
	create researcher profiles in Wikidata.
engaging assessment for students	use Wikipedia or Wikibooks as a platform for writing assignments.
use of library special collections	share images and data to help create educational materials and encourage incoming links.
use of specialist databases	share surface-level data from the database with Wikidata and create links.
public engagement	run events or campaigns where attendees improve coverage of a topic on Wikimedia platforms.

Table 1. The goals of universities and how they can utilize Wikimedia

6 The University of Edinburgh and Coventry University both currently employ WiRs, while the University of Oxford employed one for four years ending in 2019. The University of Bristol was the first, hosting a summer placement in 2011.

Of course, university staff are likely to be engaged as volunteer contributors in their own right, citing primary research on Wikipedia, for example. Academics are obviously well-placed to improve the encyclopedia. Indeed, as domain experts they might reasonably be expected to do so, albeit with some nuance around potential conflicts of interest, if exclusively and cynically citing their own or their institution's research.

'university staff are likely to be engaged as volunteer contributors in their own right'

Copyright and the importance of open access

'A measure of a paper's standing may be conveyed by the number of links it is away from an encyclopaedia.'

Tim Berners-Lee³²

Given the broad audience for Wikipedia, it is especially important that cited research is available OA, and preliminary research across the White Rose Consortium (Universities of Leeds, Sheffield and York) has found that approximately half of citations are behind a paywall.³³ At the time of writing, there are over 600 links³⁴ to records in White Rose Research Online (the institutional repository shared by the three universities) and Wikipedia is a significant referrer to the repository.

Openly licensed research outputs make it much easier to add scholarly information to Wikipedia which itself uses an Attribution-ShareAlike (CC BY-SA) licence. Text or figures with this or a more liberal licence (i.e. CC BY or CC 0) can easily be used with appropriate attribution. Some academic journals have adapted their papers into Wikipedia articles by this method.³⁵

'Openly licensed research outputs make it much easier to add scholarly information to Wikipedia'

Knowledge as a service

The Wikimedia Foundation strategy uses the phrase 'knowledge as a service'³⁶ to describe how the Wikimedia projects can improve other sites, databases and apps. This reuse means that beyond its headline readership, there is an even larger audience who encounter content from Wikipedia on other platforms. Facebook and YouTube use extracts to provide contextual information about videos and news outlets,³⁷ while Google extracts text and key facts for the boxes that appear alongside search results.³⁸ Voice assistants like Siri and Alexa mine Wikipedia and Wikidata to answer questions.³⁹ These services sometimes strip extracts of vital context or fail to make clear the provenance of the information.⁴⁰

The latest Wikimedia tool to make knowledge freely available to sites and apps is Wikidata, an example of a *knowledge graph* that represents knowledge through the connections between things. For example, a paper has an author who has a nationality, a name and date of birth; they graduated from a particular university, which in turn has a geographic location, a vice-chancellor, other notable alumni, and so on. As with Wikipedia, Wikidata is not meant as a platform for original research; all information must already have been published by a reliable source.

'there is an even larger audience who encounter content from Wikipedia on other platforms'

Where Wikipedia has multiple language versions, Wikidata is a single site with contributors in hundreds of languages, making it a hub connecting identifiers from thousands of disparate systems that can be queried, using the database query language SPARQL, to answer all manner of questions and build data visualizations.

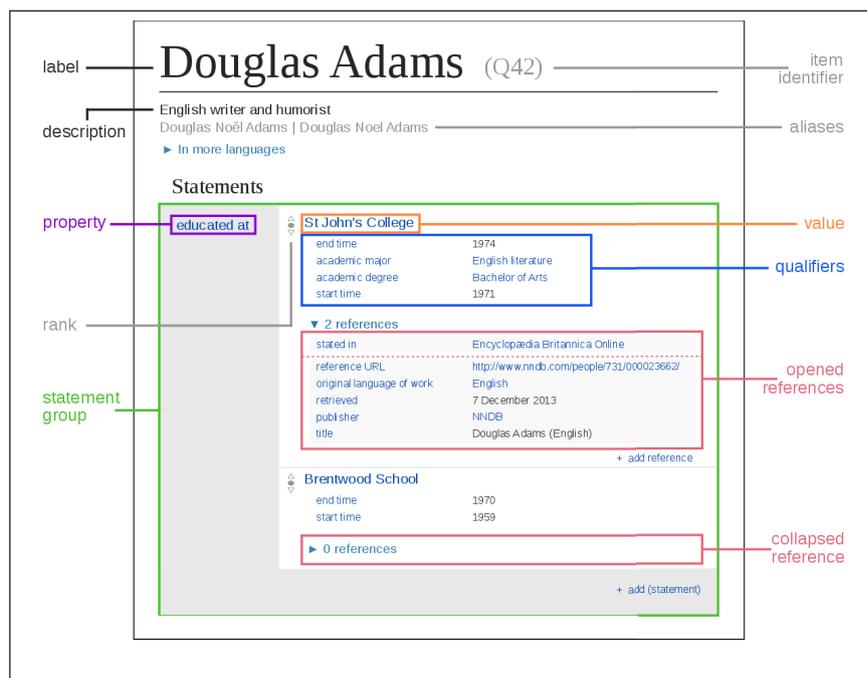


Figure 3. Datamodel in Wikidata⁴¹

An unusual aspect of Wikidata is that it does not aim for consistency. Where a fact is contested in the scholarly literature – multiple possible birth years for a historical figure, for instance – it can hold each contradictory statement and link to its source reference. So, a query could return statements from just one type of source, for example papers published in peer-reviewed journals from the last decade.

Open scholarly profiles

One significant use of Wikidata is for citation data. A SPARQL query can generate a list of the most cited authors on climate change, or generate a timeline of papers about the 2019–20 Coronavirus outbreak. The Wikidata entry for a paper can describe its copyright status and provide multiple links including preprints, making it easier to find an OA version.

Wikidata differs from a purely bibliographic database in that researchers and their publications are described on the same platform as the things – people, places, genes, species, compounds – that the papers are about. A claim that a pharmaceutical is effective for a given disease in a given species can be linked to papers that establish that statement. As these data become more complete, literature reviews can be semi-automated, saving time.

One application that explores this data set is Scholia⁴² which, in addition to individual researchers' profiles, can display papers relating to a given topic, published in a particular venue or originating with researchers at a given institution. It can also highlight collaborations or other links between researchers. While platforms like Elsevier's Scopus or ResearchGate also collect this type of information, Scholia is distinctive in that the data are free and open and not monetized in any way. In 2019 the Sloan Foundation announced half a million dollars of funding to further develop the platform.⁴³

Universities can improve Scholia by adding repository links to the Wikidata records for published papers and tagging with appropriate topics. Where publishers have added data with 'author name strings', links can be added to authority files such as ORCID. Author profiles can be improved with the addition of profile links (ORCID, ResearchGate, Google Scholar, Twitter, etc.).

A 2019 report by the Association of Research Libraries recommends Wikidata as an authority hub, a platform for community outreach and for representation of diverse communities beyond the Western canon.⁴⁴ The Library of Congress now makes Wikidata

8 links visible in its authority file⁴⁵ and VIAF, the Virtual International Authority File, also harvests information from Wikidata.⁴⁶ Gradually, the site is becoming a hub connecting thousands of other databases and knowledge systems.

Community engagement

Being open and community based, Wikimedia is effective in engaging students or a wider public around a particular topic. Events or campaigns can be organized around a goal for participants to work towards, or present a new research resource to improve free knowledge.

Examples that have been run in UK universities include:

- **Editathon:** improve Wikipedia articles by adding cited facts. This can include creating new articles, but requires a combination of skills that people do not normally pick up in one session.
- **Transcribe-a-thon:** Wikisource, 'the free library', is a platform on which users create definitive electronic versions of public domain texts by correcting errors in optical character recognition (OCR). One event celebrating women in science created a text version of a paper and a booklet by the 19th-century scientist Mary Somerville.
- **Image-a-thon:** participants make use of images from a freely licensed collection by identifying Wikipedia articles to add them to with an appropriate caption.⁴⁷

'Wikimedia is effective in engaging students or a wider public around a particular topic'

Promoting engagement in universities

'Universities really can't afford not to have a Wikimedian in Residence these days. It still surprises me how few do.'

Melissa Highton, Director of Learning, Teaching and Web Services,
University of Edinburgh⁴⁸

With over 150 higher education institutions in the UK, it is notable that so few currently, or have ever, employed a Wikimedian in Residence. Other universities are undoubtedly exploring these tools without a formal role, though it is difficult to quantify this activity. From October-December 2019 we ran an informal survey to gauge attitudes to Wikimedia in universities. Summary data is presented in the appendix. The evidence is that very few institutions have Wikimedia as part of their strategy and, anecdotally at least, there are still negative attitudes to student engagement with Wikipedia in particular. Nevertheless, there is evidence that university collections are increasingly linked across Wikipedia, if not strategically by universities themselves, then organically by virtue of being easily discoverable and openly licensed from research repositories.

'there is evidence that university collections are increasingly linked across Wikipedia'

Using the 'insource' parameter on a special page to search across all of Wikipedia, it is possible to easily search for links to the URL of any domain, including institutional repositories. The linked data set⁴⁹ indicates that there are currently around 6,500 links from Wikipedia to Russell Group institutional repositories as well as 1,200 to theses from the British Library EThOS service (snapshot data from 8 December 2019; an attempt was made to crowdsource across all UK-based repositories, but this is incomplete). The best-linked repositories are UCL and White Rose with 844 and 829, respectively. Repositories of OA publications and/or theses are well linked, with very few links to data repositories (excepting the Zenodo repository with nearly 8,000 links, greater than any other repository by a factor of ten).

'there are currently around 6,500 links from Wikipedia to Russell Group institutional repositories'

Using these data as a starting point, we describe below a brief case study of grass-roots activity through several Library-based initiatives at the University of Leeds to engage staff and senior management.

Case study: Leeds University Library

There is increasing emphasis on open research practices in universities, focused on ensuring research outputs are freely available to reuse and redistribute.⁵⁰ While this agenda is driven largely by the replicability crisis,⁵¹ it also contributes to the impact of research and its broader contribution to society. It enables other organizations and the public to actively engage in knowledge production through collaboration and contribution of their own expertise, for example through citizen science projects. Wikimedia taps directly into this movement through its open infrastructure that easily enables research outputs, media and other digital assets to be distributed at scale with clear provenance and copyright information that can be linked back to institutional systems via persistent identifiers (PIDs) such as DOIs.

It was this principle that underpinned a successful proposal in 2018 to encourage good practice in research data management. With the support of co-sponsors Jisc, SPARC and the University of Cambridge, the project has sought to identify suitable media from research data repositories to upload to Wikimedia Commons. It has explored how this material can be used to improve Wikipedia to promote a cycle of sharing and reuse. The project has been challenging due to a still limited culture of sharing research data and lack of strategic engagement with Wikimedia, across the university and the sector at large. It has been valuable, however, to tease out synergies across the Library and the wider University and to consider 'research data' from a broader conceptual standpoint. The Special Collections and Research Support teams have begun to explore how their disparate collections can be brought together, for example, or presented in novel ways using Wikidata.

'An academic library is well-placed to foster collaboration across its academic community'

An academic library is well-placed to foster collaboration across its academic community, with connections to schools, research centres and other departments across campus. It is responsible for curating institutional collections, including OA research repositories and archival material, with related expertise in copyright, metadata and use of PIDs. In a large research-intensive university, however, the library itself can be prone to operating in its own silos, with ostensibly similar material managed by different teams with discrete workflows.

The data management engagement award has been a springboard for more strategic engagement across the Library, with colleagues from research support, Special Collections, metadata and collections development liaising on several projects and events. In 2016–2017 Special Collections ran an internship that created a Wikipedia article for its Cookery Collection,⁵² one of five designated collections held at Leeds. With the support of Wikimedia UK, the Research Support team ran an editathon in October 2019 and has liaised with several research projects, collaborating on an event with colleagues from the School of Media and Communication. In addition to staff members from the University of Leeds, events have included external colleagues from other organizations with a community of people interested in Leeds' cultural institutions beginning to develop, working together on Wikimedia projects across the city.⁵³

'it requires a paradigm shift for libraries to accept unpredictability, imperfection and diminished control'

Next steps

We hope this article will go some way to encouraging universities to consider more strategic engagement with Wikimedia in the contexts of information literacy, public engagement and the developing open research agenda. As a form of crowdsourcing, it is the 'net change over time' that gives 'the wiki way of working' its power though it requires a paradigm shift for libraries to accept unpredictability, imperfection and diminished control.⁵⁴

Over half a decade on from the Jisc report *Crowdsourcing – the wiki way of working*⁵⁵ it is clear that there is yet to be such a paradigm shift. Options going forward might include more focused liaison with Wikimedia UK and developing a toolkit to help universities engage with the Wikimedia suite of tools.

- 10 To explain how a seminar room in a university supports learning, we would have to not just talk about its whiteboard and WiFi but the fact that people use it in particular ways. Similarly, Wikimedia projects are not just sites or software, but communities that create and transform text, images, or data. This has implications for how universities engage with the projects and become active participants within those communities. While an individual academic might run their own impromptu seminar, adding some educational value for a small cohort, it works much more effectively if seminars are properly planned and part of an integrated curriculum with standardized pedagogical methods. Unlike a physical whiteboard in a seminar room, the virtual whiteboards of Wikimedia are never erased, just continually edited and improved.

'the virtual whiteboards of Wikimedia are never erased, just continually edited and improved'

Appendix

Survey overview:

Title: Wikimedia in Universities

Dates run: 10/10/2019–31/12/2019

Responses: n = 50

Questions:

1. University or organization
2. Do you have any experience of Wikimedia? Tell us more ...
3. Does any part of your university or organization formally engage with Wikimedia? (Yes, no, not sure)
4. Which part(s) of your university or organization engages with Wikimedia? (Library, Faculties and Schools, Archives or Special Collections, Other professional services [IT, Web team], Other)
5. What type of activity does your university or organization undertake? (Regular editathons, Occasional editathons, Training on Wikimedia tools, Use in teaching and assessment, Other)
6. Please tell us a little more about how your university or organization uses Wikimedia
7. What do you think are the barriers and/or incentives to your university or organization using Wikimedia?
8. Would you be interested in a toolkit to help your university or organization engage with Wikimedia?
9. Would you be interested in a toolkit to help your university or organization engage with Wikimedia?
 1. Support from Wikimedia UK to run an editathon
 2. Overview of the different Wikimedia tools
 3. Case studies from other universities and organizations
 4. Resources to support copyright, IPR and licensing as they relate to Wikimedia
 5. Opportunity to attend an editathon at another university or organization
 6. Ideas and support to promote cultural change at your university or organization
10. Any further comments?
11. Contact details (optional)

Summary data

N = 50

Unique organizations = 44

Universities (UK) = 30

Universities (non-UK) = 10

Other organizations = 4

11 Experience of Wikimedia:
 Yes (significant experience) = 7
 Yes (limited experience) = 27
 No experience = 16

Does any part of your university or organization formally engage with Wikimedia?
 Yes = 8
 No = 18
 Not sure = 24

Which part(s) of your university or organization engages with Wikimedia?	What type of activity does your university or organization undertake?	Please tell us a little more about how your university or organization uses Wikimedia	What do you think are the barriers and/or incentives to your university or organization using Wikimedia?
GLAM Division (Libraries, Museums and Gardens)	Sharing content on Wikidata and Wikimedia Commons	There is a Wikimedian in Residence, hosted by the Bodleian Libraries but working across the wider university, especially with museums. We've done editathons in the past, but not recently. I run training events and presentations to different categories of staff	Barrier: misgivings about sharing intellectual property on free platforms. Incentives: enormous reach that outstrips the platforms created by the University
Learning Technologies, students' associations, equality and diversity teams, staff development teams, development and alumni.; Library; Faculties and schools; Archives or Special Collections; Other professional services (IT, Web team)	Publishing library and archive collections as Wikimedia and Wikidata; Regular editathons; Training on Wikimedia tools; Use in teaching and assessment	In support of our digital transformation, civic engagement and open educational resources activity	We have more demand than we can currently satisfy
Faculties and schools; Archives or Special Collections	Use in teaching and assessment	I know there is a (just the one!) lecturer who uses Wikimedia in his courses and gets students to actively engage but I'm unclear on the specifics. I'm in the University Archive and tend to take part in things like 1Lib1Ref and do intend to try and rustle up an editathon/train up some staff/interested parties on how to edit Wikipedia	I think no-one really sees it as a priority or sees the use of engaging with it? I ran a talk for academics on why they should be engaging and engaging students too which went well message-wise but was poorly attended
volunteers (students); Library; Faculties and schools	Occasional editathons; Training on Wikimedia tools	The University Library conducts a GLAM project and organizes training on Wikimedia tools for librarians. Wikimedia Serbia has a network of Ambassadors at faculties. They organize training for students and staff	the main barrier: prejudiced senior academic staff

Which part(s) of your university or organization engages with Wikimedia?	What type of activity does your university or organization undertake?	Please tell us a little more about how your university or organization uses Wikimedia	What do you think are the barriers and/or incentives to your university or organization using Wikimedia?
Library; Faculties and schools; Archives or Special Collections	Use of, linking to and enhancement of open access resources in research projects; Regular editathons; Training on Wikimedia tools; Use in teaching and assessment	editathons as engagement for 'Women in Red', exposing collections, improving digital skills for staff, assessments using wikipedia editing, enhancement of research resources using wikimedia content and contributions back to wikimedia, semantic web access and linking, etc.	There is still some prejudice around use of Wikipedia as a source, misunderstanding as to its role as a secondary/ tertiary source rather than primary; Wikipedia as a peer-review system is gaining ground
Researchers, visitors; Library; Archives or Special Collections	Uploads to Commons; Regular editathons; Training on Wikimedia tools	Editathons on themes coinciding with exhibitions, editathons (which we call diversithons) to increase the visibility of women/ LGBTQ+ people/BAME people/ people with disabilities. We've previously had a mass Commons upload and will do again soon when our catalogue data is improved. We are planning a Wikidata upload and looking at how Wikidata will enable us to link our collections information with that of other organisations. We have Wiki-training sessions for staff (especially library staff) and for people coming in on the Graduate scheme, and are about to launch training specially for visitor experience assistants. We offer training to researchers who receive funding from us and to researchers at local universities and organisations and often host events at these places as well as in our own buildings	We had an IP block for a long time that prevented people from being able to create accounts, which was very frustrating and put some people off. Time is the biggest barrier though – people often say that they would do more if they could. They are incentivised to find the time and make Wikimedia a priority when events or training have an explicit focus on diversity
Library; Faculties and schools	Occasional editathons; Use in teaching and assessment	Publishing recently delivered an entire module structured around the use of Wikipedia, as a way to teach the students about content creation, editing content, working in a collaborative environment, research and writing skills	Still some scepticism about the value of Wikipedia within education

Which part(s) of your university or organization engages with Wikimedia?	What type of activity does your university or organization undertake?	Please tell us a little more about how your university or organization uses Wikimedia	What do you think are the barriers and/or incentives to your university or organization using Wikimedia?
Faculties and schools	Occasional editathons; Training on Wikimedia tools;	As part of one doctoral researcher's funded project, a sort of substitute for a Wikimedian in Residence	Wikipedia is (sadly with justice) associated with lazy student research; we don't like to model its use because students tend to use it badly. Its avoidance of original research also makes it bad for those who are genuinely expert and contributing to knowledge; it favours use by the educated, not the educators. The Commons resources, on the other hand, are an absolute godsend, but not always as copyright-free as their contributors think ...

Would you be interested in a toolkit to help your university or organisation engage with Wikimedia?

Yes = 31

No = 4

Maybe = 15

Cumulative rank of responses:

1. Case studies from other universities and organizations
2. Overview of the different Wikimedia tools
3. Resources to support copyright, IPR and licensing as they relate to Wikimedia
4. Ideas and support to promote cultural change at your university or organization
5. Support from Wikimedia UK to run an editathon
6. Opportunity to attend an editathon at another university or organization

Data accessibility statement

Wikimedia Links to UK Repositories (snapshot from December 8, 2019) available from Zenodo <https://doi.org/10.5281/zenodo.3567963>.

Raw Altmetric and Unpaywall data available from Sheffield Online Research Data (ORDA) <https://doi.org/10.15131/shef.data.12097797.v1>.

Abbreviations and Acronyms

A list of the abbreviations and acronyms used in this and other *Insights* articles can be accessed here – click on the URL below and then select the 'full list of industry A&As' link: <http://www.uksg.org/publications#aa>.

Competing interests

Martin is former Wikimedian In Residence at the University of Oxford and former Wikimedia Ambassador at Jisc.

In 2018 Nick was awarded a project exploring linking research data with the Wikimedia suite of tools via a series of 'editathons'. The 'Data Management Engagement Award' was co-sponsored by Jisc, SPARC and the University of Cambridge and was entitled 'Manage it locally to share it globally: RDM and Wikimedia Commons'.

References

1. BBC, "Web's inventor gets a knighthood," *BBC News*, December 31, 2003, <http://news.bbc.co.uk/1/hi/technology/3357073.stm> (accessed 9 March 2020).
2. Tim Berners-Lee, "Web inventor: Online life will produce more creative children," *CNN*, October 10, 2005, <http://edition.cnn.com/2005/TECH/internet/08/30/tim.berners.lee/> (accessed 9 March 2020).
3. Michela Del Vicario et al., "The spreading of misinformation online," *Proceedings of the National Academy of Sciences*, 113(3), (January 2016): 554–559, <https://doi.org/10.1073/pnas.1517441113> (accessed 9 March 2020).
4. Leighton Andrews, "How can we demonstrate the public value of evidence-based policy making when government ministers declare that the people 'have had enough of experts'?", *Palgrave Communications*, 3, no. 11, (October 2017), <https://doi.org/10.1057/s41599-017-0013-4> (accessed 9 March 2020).
5. Alexander Petersen et al., "Discrepancy in scientific authority and media visibility of climate change scientists and contrarians," *Nature Communications*, 10, no. 3502, (August 2019), <https://doi.org/10.1038/s41467-019-09959-4> (accessed 9 March 2020).
6. Tim Berners-Lee, "Three challenges for the web, according to its inventor," *News and blogs (blog)*, *World Wide Web Foundation*, March 12, 2017, <https://webfoundation.org/2017/03/web-turns-28-letter/> (accessed 9 March 2020).
7. "Principles," *Contract for the Web*, <https://contractfortheweb.org> (accessed 9 March 2020).
8. Esther Landhuis, "Scientific literature: Information overload," *Nature*, 535 (July 2016): 457–458, <https://doi.org/10.1038/nj7612-457a> (accessed 9 March 2020).
9. Heather Piwowar et al., "The state of OA: a large-scale analysis of the prevalence and impact of Open Access articles," *PeerJ* (February 2018), <https://dx.doi.org/10.7717/peerj.4375> (accessed 9 March 2020).
10. Jimmy Wales, "Wikipedia Founder Jimmy Wales Responds," Robin 'Roblimo' Miller, *Slashdot*, July 28, 2004, <http://interviews.slashdot.org/article.pl?sid=04/07/28/1351230> (accessed 9 March 2020).
11. "Wikipedia," *Wikipedia*, <https://en.wikipedia.org/wiki/Wikipedia> (accessed 9 March 2020).
12. "List of most popular websites," *Wikipedia*, https://en.wikipedia.org/wiki/List_of_most_popular_websites (accessed 9 March 2020).
13. "Size of Wikipedia," *Wikipedia*, https://en.wikipedia.org/wiki/Wikipedia:Size_of_Wikipedia (accessed 9 March 2020).
14. Ed Erhart and Aaron Halfaker, "Wikipedia's very active editor numbers have stabilized—delve into the data with us", *Wikimedia blog*, September 25, 2015, <https://blog.wikimedia.org/2015/09/25/wikipedia-editor-numbers/> (accessed 9 March 2020).
15. "Social media – Statistics & Facts," *Statista*, <https://www.statista.com/topics/1164/social-networks/> (accessed 18 March 2020).
16. Siva Vaidyanathan, "The Real Reason Facebook Won't Fact-Check Political Ads," *New York Times*, November 2, 2019, <https://www.nytimes.com/2019/11/02/opinion/facebook-zuckerberg-political-ads.html> (accessed 9 March 2020).
17. Jack Dorsey, (@jack), "We've made the decision to stop all political advertising on Twitter globally. We believe political message reach should be earned, not bought," *Twitter*, October 30, 2019, <https://twitter.com/jack/status/1189634360472829952> (accessed 9 March 2020).
18. Mark Graham, Ralph Straumann, and Bernie Hogan, "Digital Divisions of Labor and Informational Magnetism: Mapping Participation in Wikipedia," *Annals of the Association of American Geographers*, 105, no. 6, (September 2015): 1158–1178, <https://doi.org/10.1080/00045608.2015.1072791> (accessed 9 March 2020).
19. Anders Ingram, "Coverage of Women in the ODNB: A Balancing Act?," *Conference presentation, Women & Power: Redressing the Balance*. St Hugh's College, University of Oxford (March 2019).
20. "Wikipedia for Schools," *SOS Children's Villages*, http://eastafricaschoolserver.org/Wikipedia/wp/w/Wikipedia_For_Schools.htm (accessed 9 March 2020).
21. Wikimedia, screenshot of Wikimedia project icons, <https://www.wikimedia.org/> (accessed 9 March 2020).
22. Casper Grathwohl, "Wikipedia Comes of Age," *The Chronicle of Higher Education*, January 7, 2011, <https://www.chronicle.com/article/Wikipedia-Comes-of-Age/125899> (accessed 9 March 2020).
23. "Wikipedia is not a publisher of original thought," *Wikipedia*, https://en.wikipedia.org/wiki/Wikipedia:What_Wikipedia_is_not#Wikipedia_is_not_a_publisher_of_original_thought (accessed 9 March 2020).
24. "Wikipedia: Verifiability," *Wikipedia*, <https://en.wikipedia.org/wiki/Wikipedia:Verifiability> (accessed 9 March 2020).
25. Grathwohl, "Wikipedia Comes of Age".
26. "Amphetamine (Talk page)," *Wikipedia*, <https://en.wikipedia.org/wiki/Talk:Amphetamine> (accessed 9 March 2020).
27. "Sweatshop," *Wikipedia*, <https://en.wikipedia.org/wiki/Sweatshop> (accessed 9 March 2020).
28. Jimmy Wales, "Wikipedia Founder Discourages Academic Use of His Creation," *The Chronicle of Higher Education*, June 12, 2006, <http://chronicle.com/wiredcampus/article/1328/wikipedia-founder-discourages-academic-use-of-his-creation> (accessed [via web archive] 2 March 2020).

29. David White et al., "Digital Visitors and Residents: What Motivates Engagement with the Digital Information Environment?," *Jisc* (June 2012), via <https://webarchive.nationalarchives.gov.uk/20140703041918/http://www.jisc.ac.uk/whatwedo/projects/visitorsandresidents> (accessed 9 March 2020).
30. "How do students change Wikipedia?," *Wiki Education Foundation*, <https://wikiedu.org/changing/wikipedia/> (accessed 9 March 2020).
31. Humphrey Southall, and Martin L. Poulter, "Telling the stories of rural England with Wikipedia," *Wikimedia UK blog*, January 24, 2014, <https://blog.wikimedia.org.uk/2014/01/telling-the-stories-of-rural-england-with-wikipedia/> (accessed 9 March 2020).
32. Tim Berners-Lee, "Electronic publishing and visions of hypertext," *Physics World*, 5, no. 6 (June 1, 1992), <https://iopscience.iop.org/article/10.1088/2058-7058/5/6/16> (accessed 9 March 2020).
33. Andrew Tattersall et al., "Exploring open access coverage of Wikipedia cited research across the White Rose Universities (raw data)," *Figshare, data set*, 2020, <https://doi.org/10.15131/shef.data.12097797.v1> (accessed 8 April 2020).
34. Wikimedia search results [insource: "eprints.whiterose.ac.uk"] <https://en.wikipedia.org/w/index.php?sort=relevance&search=insource%3A%22eprints.whiterose.ac.uk%22&title=Special%3ASearch&profile=advanced&fulltext=1&advancedSearch-current=%7b%7d&ns0=1> (accessed 9 March 2020).
35. Kaden Hazzard, "Peer-reviewed physics for Wikipedia: PLOS ONE Topic Pages," *PLOS Blogs*, January 4, 2019, <https://blogs.plos.org/everyone/2019/01/04/onetopicpages/> (accessed 9 March 2020).
36. Wikimedia, "Strategy/Wikimedia movement/2018–20," *Wikimedia Meta-Wiki*, https://meta.wikimedia.org/wiki/Strategy/Wikimedia_movement/2018-20 (accessed 9 March 2020).
37. Noam Cohen, "Conspiracy videos? Fake news? Enter Wikipedia, the 'good cop' of the Internet," *The Washington Post*, April 6, 2018, https://www.washingtonpost.com/outlook/conspiracy-videos-fake-news-enter-wikipedia-the-good-cop-of-the-internet/2018/04/06/ad1f018a-3835-11e8-8fd2-49fe3c675a89_story.html (accessed 9 March 2020).
38. Caitlin Dewey, "You probably haven't even noticed Google's sketchy quest to control the world's knowledge," *The Washington Post*, May 11, 2016, <https://www.washingtonpost.com/news/the-intersect/wp/2016/05/11/you-probably-havent-even-noticed-googles-sketchy-quest-to-control-the-worlds-knowledge/> (accessed 9 March 2020).
39. Rachel Withers, "Amazon Owes Wikipedia Big-Time," *Slate*, October 11, 2018, <https://slate.com/technology/2018/10/amazon-echo-wikipedia-wikimedia-donation.html> (accessed 9 March 2020).
40. Heather Ford, and Mark Graham, "Semantic Cities: Coded Geopolitics and the Rise of the Semantic Web," (28 October 2015), in *Code and the City*, ed. Rob Kitchin and Sung-Yueh Perng (Routledge, 2016) <https://ssrn.com/abstract=2682459> (accessed 9 March 2020).
41. Charlie Kritschmar, "Datamodel in Wikidata," https://commons.wikimedia.org/wiki/File:Datamodel_in_Wikidata.svg (accessed 9 March 2020).
42. Scholia, <https://tools.wmflabs.org/scholia/> (accessed 9 March 2020).
43. Alfred P. Sloan Foundation, "Grants: University of Virginia," <https://sloan.org/grant-detail/8961>, 2019 (accessed 9 March 2020).
44. "ARL White Paper on Wikidata: Opportunities and Recommendations," *Association of Research Libraries*, April 18, 2019, <https://www.arl.org/resources/arl-whitepaper-on-wikidata/> (accessed 9 March 2020).
45. Meghan Ferriter "Integrating Wikidata at the Library of Congress," *The Signal* (blog), Library of Congress, May 22, 2019, <https://blogs.loc.gov/thesignal/2019/05/integrating-wikidata-at-the-library-of-congress/> (accessed 9 March 2020).
46. Thom Hickey, "Moving to Wikidata," *Outgoing* (blog), March 26, 2015, <https://outgoing.typepad.com/outgoing/2015/03/moving-to-wikidata.html> (accessed 9 March 2020).
47. Martin L. Poulter, "Wikimedia for public engagement," *Bodleian Digital Library* (blog), Bodleian, Oxford, March 23, 2017, <https://blogs.bodleian.ox.ac.uk/digital/2017/03/23/wikimedia-for-public-engagement/> (accessed 9 March 2020).
48. Melissa Highton, Survey response, "Wikimedia in Universities," December 12, 2019.
49. Nick Sheppard, "Wikimedia Links to UK Repositories (snapshot)," December 8, 2019, <http://doi.org/10.5281/zenodo.3567963> (accessed 9 March 2020).
50. "What is Open Science? Introduction," *FOSTER Open Science*, <https://www.fosteropenscience.eu/node/1420> (accessed 9 March 2020).
51. Marcus Munafò, et al., "A manifesto for reproducible science," *Nature Human Behaviour* 1, no. 0021 (January 2017), <https://doi.org/10.1038/s41562-016-0021> (accessed 9 March 2020).
52. "Leeds University Library's Cookery Collection," *Wikipedia*, https://en.wikipedia.org/wiki/Leeds_University_Library%27s_Cookery_Collection (accessed 9 March 2020).
53. "Wikipedia:GLAM/Leeds," *Wikipedia*, <https://en.wikipedia.org/wiki/Wikipedia:GLAM/Leeds> (accessed 9 March 2020).
54. Martin L. Poulter, "Crowdsourcing – the wiki way of working," *Jisc*, February 14, 2014, <https://www.jisc.ac.uk/guides/crowdsourcing> (accessed 9 March 2020).
55. Poulter, "Crowdsourcing – the wiki way of working".

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Corresponding author:

Nick Sheppard

Open Research Advisor

University of Leeds, GB

E-mail: n.sheppard@leeds.ac.uk

ORCID ID: <https://orcid.org/0000-0002-3400-0274>

Co-author:

Martin Poulter

ORCID ID: <https://orcid.org/0000-0002-8738-9498>

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