

The Strengths and Limitations of Wikipedia in Teaching History of Education

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ABSTRACT: Wikipedia is one of the most commonly used resources by university students, often as a reference and source to write essays and assignments. This article aims to analyse Wikipedia's strengths and limitations in teaching history of education, based on reference bibliography. It provides a critical examination of Wikipedia's role in the context of public history and public uses of history. In turn, it looks at didactic experiences with Wikipedia and, more specifically, those undertaken by historians or individuals with history training. Finally, it sets out a case study looking at students' use of Wikipedia at the University of the Balearic Islands on history of education subjects.

EET/TEE KEYWORDS: History of Education; Wikipedia; Public History; Educational Experiences.

Introduction¹

As one of the most visited sites on the internet year in, year out, it is no exaggeration to state Wikipedia has become an essential online reference source. When making almost any online query, the Google algorithm places Wikipedia articles at the top of the list. In this sense, a vicious circle is almost assured: content in the free encyclopaedia feeds a huge number of blogs and sites, and these blogs are often used to check information that appears on Wikipedia. Consequently, we are trapped in a loop of both quality and incorrect information. Mainly current studies on Wikipedia set out different problems², including vandalism³, inequalities⁴, editing battles⁵, neutrality⁶, reliability⁷, and the gender⁸ or race gap⁹, to name just a few examples. Scientific studies on education are much more limited and most look into practical education projects in classrooms around the globe¹⁰.

¹ This work has been carried out under project PID2020-113677GB-I00, funded by MCIN/AEI/10.13039/501100011033. The authors are members of the ISCHE Standing Working Group Public Histories of Education [<https://www.ische.org/about-ische/standing-working-groups/>].

² Á. Obregón Sierra, N. González Fernández, *La Wikipedia en las facultades de educación españolas. Diseño y validación de herramientas diagnósticas cuantitativas y cualitativas*, «Revista Iberoamericana de Educación», vol. 77, n. 2, 2018, pp. 55-76.

³ A. Kittur, B. Suh, B.A. Pendleton, E.H. Chi, *He says, she says: Conflict and coordination in Wikipedia*, in *Proceedings of the 25th Annual ACM Conference on Human Factors in Computing Systems*, New York, Association for Computing Machinery, 2007, pp. 453-462.

⁴ A. Lanamäki, N. Iivari, M. Rajanen, H. Hedberg, *Battle over media choice: Multiplex tensions in the online community of Wikipedia*, in *Twenty-Third European Conference on Information Systems (ECIS)*, Münster, Germany, 2015.

⁵ G. Iñiguez, J. Török, T. Yasseri, K. Kaski, J. Kertész, *Modeling social dynamics in a collaborative environment*, «EPJ Data Science», vol. 3, n. 1, 2014, pp. 1-20.

⁶ S. Göbel, S. Munzert, *Political advertising on the Wikipedia market place of information*. *University of Konstanz*, «Social Science Computer Review», vol. 36, n. 2, 2016.

⁷ F. Rodrigues, *Mass collaboration or mass amateurism? A comparative study on the quality of scientific information produced using Wiki tools and concepts* (PhD thesis), University of Évora, 2012.

⁸ J. Antin, R. Yee, C. Cheshire, O. Nov, *Gender Differences in Wikipedia Editing*, in *Proceedings of the 7th Annual International Symposium on Wikis and Open Collaboration*, Mountain View, WikiSym, 2011, pp. 11-14.

⁹ M. Graham, *Wiki Space. Palimpsests and the politics of exclusion*, in G. Lovink, N. Tkacz (edd.), *Critical Point of View: A Wikipedia Reader*, Amsterdam, Institute of Network Cultures, 2011.

¹⁰ E. Calvo Iglesias, *Inventoras y científicas en Wikipedia: Una experiencia docente*, in E. Vaquero Tió, E. Brescó Baiges, J.L. Coiduras Rodríguez, F.X. Carrera Farran (edd.), *EDUCación con TECnología un compromiso social: Iniciativas y resultados de investigaciones y experiencias de innovación educativa*, Lleida, Edicions de la Universitat de Lleida, 2019, pp. 1285-1296; A. D'Hautcourt, *Wikipédia et FLE: exercices pour écrire en classe un article encyclopédique*, «Journal of Inquiry and Research», n. 100, 2014, pp. 339-347; E. Aibar, M. Lerga, J. Lladós, A. Meseguer, J. Minguillón, *Wikipedia in higher education: an empirical study on faculty perceptions and practices*, in *EDULEARN13 Proceedings. 5th International Conference on Education and New Learning Technologies*, Barcelona, Universitat Oberta de Catalunya, 2013; E. Martineau, L. Boisvert, *Using Wikipedia To Develop Students' Critical Analysis Skills in the Undergraduate Chemistry*

Some of the work reviewed for this study¹¹ highlights the clear conflict between normal academic procedures to build knowledge and the open peer-collaboration model underpinning Wikipedia, with a lack of trust in the editing and review system. Moreover, professional and personal uses do not match public uses. Most lecturers refuse to accept students citing Wikipedia in their work, nor do they deem it legitimate to cite or list Wikipedia in their own research or teaching work. Although they may use it in their private lives, most lecturers believe their colleagues frown upon Wikipedia being considered a reliable information source. Therefore, whilst they find it useful in certain aspects, they do not usually recommend students use it, and much less their colleagues¹².

All this is linked to what Claes and Tramullas¹³ term the main bone of contention with Wikipedia: the quality and reliability of its content. Many academic publications and opinion articles in different media have looked into this issue. One of Claes and Tramullas' publications¹⁴ (which includes a systematic literature review we recommend for comprehensive information) focuses on content credibility in Wikipedia articles. Their conclusions highlight that individual users judge and evaluate the encyclopaedia's credibility by applying their own heuristic criteria, influenced by their own socio-cultural and educational backgrounds, as well as the type of information they have available to them at the time. This credibility is continuously assessed and its value may change depending on users' expectations being met.

The blurring of proof and hearsay in our post-truth, fake-news era make it ever more difficult to separate fact from fiction. In this vein, as historians we have a duty to the society in which we live. This article is framed within our civic commitment and aims to analyse the possibilities and limits of Wikipedia as a medium or tool for teaching history of education. It provides a critical examination of Wikipedia's role in the context of public history and public uses of history. In turn, it looks at didactic experiences with Wikipedia and, more specifically, those undertaken by historians or individuals with history training.

Curriculum, «Journal of Chemical Education», n. 88, 2011, pp. 769-771; A. Sarasa, *Usando la Wikipedia como motivación en el proceso de aprendizaje*, «Revista Latinoamericana de Tecnología Educativa», vol. 5, n. 2, 2006, pp. 433-442.

¹¹ H-L. Chen, *The Perspectives of Higher Education Faculty on Wikipedia*, «The Electronic Library», vol. 28, n. 3, 2010, pp. 361-373; H. Eijkman, *Academics and Wikipedia: Reframing Web 2.0+ as a Disruptor of Traditional Academic Power-Knowledge Arrangements*, «Campus-Wide Information Systems», vol. 27, n. 3, 2010, pp. 173-185; E.W. Black, *Wikipedia and Academic Peer-Review. Wikipedia as a Recognized Medium for Scholarly Publication?*, «Online Information Review», n. 32, 2008, pp. 73-88; Aibar et alii, *Wikipedia in higher education*, cit.

¹² *Ibid.*, p. 7.

¹³ F. Claes, J. Tramullas, *Wikipedia y comunicación: perspectivas del conocimiento libre*, «Área Abierta. Revista de comunicación audiovisual y publicitaria», vol. 21, n. 2, 2021, p. 119.

¹⁴ F. Claes, J. Tramullas, *Estudios sobre la credibilidad de Wikipedia: una revisión*. «Área Abierta. Revista de comunicación audiovisual y publicitaria», vol. 21, n. 2, 2021, pp. 187-204.

Finally, we are approaching the perception of our students about Wikipedia in the History of Education courses at the University of the Balearic Islands.

1. *Wikipedia: between the use of history and public history*

Roy Rosenzweig explored the idea of whether history could adopt an open-source approach and, depending on what we understand as history, his response was clear:

Professional historians need not fear that Wikipedians will quickly put them out of business. Good historical writing requires not just factual accuracy but also a command of the scholarly literature, persuasive analysis and interpretations, and clear and engaging prose¹⁵.

Despite this, the author does see a world of opportunities with Wikipedia and reflects on the potential positive impact for the encyclopaedia if each member of the Organization of American Historians spent a day improving articles related to their specialisation. Moreover, he asks how collaborative narratives could be established outside Wikipedia. This begs the question of whether Wikipedia represents a type of public history. The answer would surely be similar to Rosenzweig's: it depends on what we consider to be public history.

One possible debate centres on the diversity of interpretations of the term «public». According to Cauvin, the word «public» takes on different connotations depending on the language. For example, «histoire publique» in France contrasts with private history and is related to analysing public space or institutions¹⁶. In other languages, «public history» can refer to any historical representation in the public sphere, such as historical novels or on video platforms such as YouTube. This interpretive ambiguity has led Italian historians specialising in public history to retain the original English term instead of translating it.

Thus, since the meaning of «public» differs from language to language, we could see different interpretations of what «Public History» actually means. Although no unanimous definition has been reached, there is consensus regarding certain elements of public history when taken as a sub-discipline of history¹⁷. Perhaps the most important element of public history is the need for it to apply the historical method:

¹⁵ Rosenzweig, *Can History Be Open Source? Wikipedia and the Future of the Past*, cit., p. 129.

¹⁶ T. Cauvin, *Public history: a textbook of practice*, New York, Routledge, 2016.

¹⁷ These features may be viewed on many websites from public history associations and reference works in the field. For example, the National Council On Public History <https://ncph.org/what-is-public-history/about-the-field/>; the Australian Centre for Public History (ACPH) <<https://www.uts.edu.au/research/australian-centre-public-history/about-acph/what-public-history/>>; T.

La investigación histórica – a la que pertenece la erudición académica – constituye una parte importante de la historia pública. De no existir investigación original, la historia pública no contaría con ninguna metodología rigurosa para el análisis crítico de las fuentes primarias, ni con credencial alguna para abordar el pasado¹⁸ (Historical research – where academic scholarship sits – is an important part of public history. Without original research, public history would not have a rigorous methodology to critically analyse primary sources or any validity to look into the past).

È una pratica scientifica della storia e dei metodi storici, è soprattutto la capacità di offrire una profondità analitica agli eventi da contestualizzare e da documentare con le fonti; si tratta con il metodo storico di rendere più problematica l'analisi degli eventi¹⁹ (It is a scientific practice of history and the historical method. Above all, it is the ability to offer in-depth analysis of events, contextualised and documented with sources. The historical method is used for a more elusive analysis of events).

Public history does not aim to simply provide accessible information to a wide audience, but rather present it after a rigorous analysis and interpretation of primary sources (material and oral), which may even include testimonies from individuals involved in a specific event from public history. Moreover, public history requires involvement from those who at least have some experience in history as a discipline, and who are able to play a role as mediators between memory, opinion and the past.

Public history currently and actively promotes public participation in research and outreach activities. This collaboration may arise from preserving and generating sources either by contributing historical material or through oral testimony. In this vein, public history has close ties to oral history, microhistory and ethnography. By involving the public in interpreting sources, history transforms into an awareness-raising and empowerment tool. Nonetheless, historians must retain a role as mediators between collective memory, opinion and history itself. Nowadays, regulating how public historians and the wider public collaborate is based on what is known as shared authority²⁰.

The civic and public role of historians is not to hide behind the myth of equal validity for personal interpretations of the past. There is a gap between the need

Cauvin, *Public history: a textbook of practice*, cit.; S. Noiret, *Public History e storia pubblica nella rete*, «Ricerche storiche», n. 2-3, 2009, pp. 275-327. Since this article looks at Wikipedia, it is useful to see what it says about public history, although the entry does not differ from the ideas set out in the sources above: Wikipedia. Public History, <https://en.wikipedia.org/wiki/Public_history> (last access: 26.09.2023).

¹⁸ C. Thomas, *Campo Nuevo, prácticas viejas: promesas y desafíos en la Historia Pública*, «Hispania Nova», n. 1 extraordinario, 2020, pp. 7-51.

¹⁹ Noiret, *Public History e storia pubblica nella rete*, cit.

²⁰ For information on shared authority, please see M. Frisch, *A Shared Authority: Essays on the Craft and Meaning of Oral and Public History*, Albany, SUNY Press, 1990; Id., *From a Shared Authority to the Digital Kitchen and Back*, in B. Adair, B. Filene, L. Koloski (edd.), *Letting Go? Sharing Historical Authority in a User-Generated World*, Philadelphia, The Pew Center for Arts & Heritage, 2011, pp. 126-138; J. Gardner, *Contested Terrain: History, Museums, and the Public*, «The Public Historian», vol. 26, n. 4, 2004, pp. 11-21.

to foster participatory construction of public history and the absence of any critical interpretation of the past²¹.

The concise table below shows a comparison between Wikipedia and public history, understood as a sub-discipline of history.

Table 1. *A comparison between Wikipedia and Public History*. Produced by the authors. Optional but recommended in line with current approaches in public history

	Wikipedia	Public History
Epistemology	5 pillars and content policies	The historical method
Stakeholders	The general public	Trained historians (+ experts in other fields and the general public)*
Result	A story based on facts and events	An interpretive story

Despite Wikipedia's collaborative nature and its public dominance, it cannot initially be considered a product of public history within the framework of a sub-discipline of history. Nevertheless, and depending on how one defines «public» in different languages, it could be categorised this way. History is clearly gaining a presence in public spaces, especially on digital platforms. Many academic historians have acknowledged this trend and included edits to Wikipedia in their course programmes²². These initiatives could be deemed public history practice. Although we cannot interpret history on Wikipedia as an exercise in public history – understood as a sub-discipline of history –, it is possible to undertake public history practice within the context of Wikipedia.

Wikipedia and public history represent two different approaches to the spread and understanding of history. Whilst Wikipedia is based on its own epistemological corpus and presents factual, episodic and anecdotic history, public history focuses on the historical method, interpretation and outreach to many audiences. Despite their differences, both play a critical role in how the public understand history. Moreover, the ambiguous definition of «public» highlights the different perceptions of «public history» in different contexts. Although Wikipedia is not a direct manifestation of public history, both are able to co-exist and complement one another, fostering a worthwhile dialogue on historical topics.

²¹ Cauvin, *Public history*, cit., p. 17.

²² Some of these experiences are described below. It is useful to be aware of the proposals set out in I. Dussel, *Cultura participativa y producción de los saberes: reflexiones sobre los usos pedagógicos de Wikipedia*, «Educ.ar: Wikimedia argentina», n. 15, 2010.

2. *Exploring Wikipedia: scope and limits for teaching history of education*

Wikipedia has been subject to both admiration and criticism in equal measure across many different areas²³. The Wiki-verse is associated with a wide range of perceptions: from mistrust and a refusal to accept its didactic possibilities, to a utilitarian framing of its huge potential. As academics in the field of history of education, it is essential for us to acknowledge the tool's prevalence in education. It makes no sense to deny that until the emergence of AI, Wikipedia has been one of the most commonly used resources amongst university students, often as a reference and source to write essays and assignments²⁴. In light of this, we should approach its use from a critical and educational perspective. As Briseño states, «los estudiantes han debido incursionar de manera autodidacta al mundo digital, y que la academia no ha propuesto cambios teórico metodológicos para su enseñanza y práctica»²⁵ (students have had to approach the digital world in a self-taught manner, and academe has failed to put forward theoretical or methodological changes for teaching and practice). These two realities raise the question of Wikipedia's potential for history of education didactics.

Despite its popularity and accessibility, Wikipedia faces scepticism in the academic sphere. The main concern revolves around its collaborative model, where several authors contribute to content without having to validate their credentials. Whilst this feature may democratise information, it raises doubts regarding reliability and the possible influence of hidden agendas.

It is also no more immune to human nature than any other utopian project. Pettiness, idiocy, and vulgarity are regular features of the site. Nothing about high-minded collaboration guarantees accuracy, and open editing invites abuse. Senators and congressmen have been caught tampering with their entries; the entire House of Representatives has been banned from Wikipedia several times²⁶.

Wikipedia has also been criticised for its biased perspective. Its tendency to reflect an overarching western, white and masculine perspective has been spotlighted²⁷. A 2011 study from the University of Oxford revealed that 84%

²³ To understand how Wikipedia works, see: J.M. Reagle, *Good faith collaboration: The culture of Wikipedia*, Cambridge-London, MIT Press, 2010.

²⁴ H. Brox, *The Elephant in the Room: a Place for Wikipedia in Higher Education?*, «Nordlit», n. 30, 2012, pp. 143-155.

²⁵ L. Briseño, *Los retos de la historia académica en la era digital*, «Historia y Memoria», n. 22, 2021, pp. 161-195.

²⁶ S. Schiff, *Know It All: Can Wikipedia Conquer Expertise?*, «The New Yorker», last updated: July 31, 2006, <<https://www.newyorker.com/magazine/2006/07/31/know-it-all>> (last access: 26.09.2023).

²⁷ T. Simonite, *La agonía de Wikipedia*, «MIT Technology Review», last updated: October 23, 2013, <<https://www.technologyreview.es/s/3836/la-agonia-de-wikipedia>> (last access: 26.09.2023).

of geographic articles in Wikipedia focused on Europe or North America²⁸. With regard to gender bias, Wikipedia itself undertook a study showing 84.7% of editors were men, 8.8% women and 1.7% who were categorised as other²⁹.

Despite Wikipedia having developed specific tools to avoid them, these biases seem to persist. Those who aim to continue or promote bias use different techniques such as, «Delete positive material. Add negative material. Use a one-sided selection of sources. Expand or exaggerate the significance of negative material; omit or downgrade positive material. Write text so it has negative connotations or conveys incorrect information»³⁰. These and other techniques, such as authorising administrators to undo and delete edits that oppose biases contributors aim to sustain, were analysed in an article on a particularly sensitive topic – the systematic and deliberate distortion of the history of the Holocaust on the English version of Wikipedia³¹.

Based on what we have seen thus far, Wikipedia seems to prioritise western and particularly Anglo-Saxon content, and amplify popular culture. Although rich in detail, it may simplify and twist knowledge, opting for anecdote over essential facts. It thus cannot replace traditional historical writing and its in-depth analysis³².

Another recurrent criticism of Wikipedia is the inconsistent quality of writing. Since many collaborators contribute to articles, the wording and style flow more awkwardly. Although editors at Wikipedia work on improving and standardising styles³³, there is still room for improvement in terms of content coherence and clarity.

Wikipedia aims to provide general information on many different topics³⁴. The online format enables expansive information, often including more extensive details than print encyclopaedias. Nevertheless, the information is often anecdotic and incorporates popular beliefs from the public imagination, rather than having a real scientific basis. Given that it is open-source, Wikipedia's content is based on the interests and voluntary contributions from editors.

²⁸ Wikipedia, *Gender bias on Wikipedia*, <https://en.wikipedia.org/wiki/Gender_bias_on_Wikipedia> (last access: 25.09.2023).

²⁹ M. Huisman, *Teaching Wikipedia Biography: An Experiment in Public History*, «European Journal of Life Writing», vol. 7, 2018, pp. 29-43; J. Reagle, *Free as in Sexist?: Free culture and the gender gap*, «First Monday», vol. 18, n. 1, 2013, last updated: January 2013, <<https://firstmonday.org/ojs/index.php/fm/article/view/4291>> (last access: 26.09.2023).

³⁰ B. Martin, *Persistent Bias on Wikipedia: Methods and Responses*, «Social Science Computer Review», vol. 36, n. 3, 2018, pp. 379-388.

³¹ J. Grabowski, K. Shira, *Wikipedia's Intentional Distortion of the History of the Holocaust*, «The Journal of Holocaust Research», vol. 37, n. 2, 2023, pp. 133-190.

³² A. Pons, *El desorden digital: Guía para historiadores y humanistas*, Madrid, Siglo XXI de España Editores, 2013.

³³ Wikipedia, *Wikipedia: WikiProject Galatea*, <https://en.wikipedia.org/wiki/Wikipedia:WikiProject_Galatea> (last access: 25.09.2023).

³⁴ R. Rosenzweig, *Can History Be Open Source? Wikipedia and the Future of the Past*, «The Journal of American History», vol. 93, n. 1, 2006, pp. 117-146.

This means certain topics that are relevant for specific fields, such as history of education, may not be fully developed³⁵. Moreover, the content of articles can vary between different language versions. In turn, the fact that an article exists in one language does not guarantee its availability in another.

Wikipedia provides factual information and stands out for its neutral approach and lack of in-depth analysis – a trend it shares with other encyclopaedias. This objectivity is stressed through the style guide, established to promote collaboration and avoid conflicts arising from personal opinions or revisionist efforts. The Neutral Point of View (NPV) is one of the main guidelines on how to write and present information. Alongside Wikipedia's four pillars and content policies and guidelines³⁶, this principle sets out an epistemological framework that differs from historical and other scientific disciplines³⁷.

Despite all this, Wikipedia shows interesting potential as a tool for teaching history of education. There is space to create many new articles, which can be a worthwhile activity to undertake with students. These activities could include looking into material heritage, such as buildings, furniture and other school resources, or focusing on the biographies of local teachers. Writing this kind of article involves detailed research, a careful selection of information and sources, and clear objective presentation. Furthermore, students may get the opportunity to interact with the wider community of Wikipedians on the «talk pages», where objections are made about content, such as the lack of neutrality (NPV) or reliable sources, or submissions of original research not allowed on Wikipedia. These experiences would provide students with important learning opportunities.

Learning to research, select sources and write clearly are all essential. In turn, learning to negotiate content to promote collaboration and democratise knowledge is crucial when publishing on open-source sites such as Wikipedia. Nonetheless, our students need to understand that Wikipedia is just a starting point on their academic journey, not the final destination. History transcends the mere accumulation of facts or data – it is an interpretive³⁸ and contextual discipline based on a critical analysis of historical events and sources. Therefore,

³⁵ The ten most-viewed Wikipedia articles of all times over a given week in the English version are: Kobe Bryant, Jeffrey Dahmer, Elizabeth II, Donald Trump, Prince (musician), Donald Trump, Kamala Harris, David Bowie, Sushant Singh Rajput and the 2022 FIFA World Cup. *Wikipedia, The Top Report*, <https://en.wikipedia.org/wiki/Wikipedia:Top_25_Report/Records> (last access: 23.09.2023).

³⁶ Wikipedia, *Wikipedia: Content policies and guidelines in a nutshell*, <https://en.wikipedia.org/wiki/Wikipedia:Content_policies_and_guidelines_in_a_nutshell> (last access: 25.09.2023).

³⁷ S. Garfinkel, *Wikipedia and the Meaning of Truth Why the online encyclopedia's epistemology should worry those who care about traditional notions of accuracy*, «MIT Technology Review», last updated: October 2008, <<https://www.technologyreview.com/2008/10/20/218162/wikipedia-and-the-meaning-of-truth/>> (last access: 25.09.2023).

³⁸ C.C. Martell, *Learning to teach history as interpretation: A longitudinal study of beginning teachers*, «The Journal of Social Studies Research», vol. 37, n. 1, 2013, pp. 17-31.

it is not just a question of ascertaining what, how and when an event occurred as objectively as possible, but rather knowing why it happened and the historical context that led to it. Logically, the interpretation stage is the most difficult since it requires one to possess a general explanatory theory³⁹.

Another worthwhile task for students would be editing and improving current articles related to history of education content. Several experiences have already been undertaken in this vein across other areas of knowledge, which will be explained below. This activity drives a more in-depth look into the topic, moving beyond surface knowledge and attaining much more detailed understanding. Editing articles likely represents a higher-level intellectual and educational challenge than creating new ones. Editing involves enhancing current content and identifying and correcting errors. Despite Wikipedians' efforts to maintain quality, mistakes are inevitable in all human enterprises and are even more noticeable in collaborative authorship. Although the information on Wikipedia tends to be correct, the explanations of complex concepts can lack precision. In coming face-to-face with these limitations, students will recognise areas for improvement in the encyclopaedia. Moreover, by detecting errors they could spot the very same ones repeated on other websites, such as Answers.com⁴⁰, or on different blogs, since many use Wikipedia as a source. This discovery would instil a more critical approach when it comes to online information.

In short, as history lecturers we need to instil a crucial requirement to critically analyse sources and contrast information, and working with Wikipedia could well be an interesting way to do this. In turn, the type of analysis and in-depth understanding required to edit articles may help students learn how to think historically – a skill in ever-increasing demand in teaching history⁴¹.

Although Wikipedia has certain limitations, such as the lack of interest from voluntary editors in specific topics, ideological biases and an occasional lack of precision in defining complex concepts, these imperfections could be viewed as opportunities in teaching history of education. Knowing how and attempting to correct these issues could foster critical analysis and careful consideration of information. Nevertheless, it is essential to recognise the dynamic nature of content when incorporating Wikipedia into classrooms. For example, the English article on Jean-Jacques Rousseau first appeared in August 2001 with one simple sentence: «Jean-Jacques Rousseau (1712-1778). Swiss-French philosopher, writer, political theorist, and self-taught composer». Since then, the article has been modified 7,422 times by 3,619 different collaborators, and

³⁹ J. Prats *et alii*, *Enseñar Historia: Notas para una didáctica renovadora*, Mérida, Junta de Extremadura – Dirección General de Ordenación, Renovación y Centros, 2001.

⁴⁰ Rosenzweig, *Can History Be Open Source? Wikipedia and the Future of the Past*, cit.

⁴¹ S. Lévesque, P. Clark, *Historical Thinking: Definitions and Educational Application*, in S. Metzger, L. Harris (edd.), *Wiley International Handbook of History Teaching and Learning*, New York, Wiley Blackwell, 2018, pp. 119-148.

2,108 (28.4%) of these changes are categorised as minor edits. The average frequency between edits is 1.1 days. In the last year alone, 158 changes have been made⁴² and the article has expanded significantly over time.

It is important to highlight that Wikipedia edits go through continuous reviews and can be reversed or modified, whether to align with the five fundamental pillars of Wikipedia or to improve the content. Nevertheless, the reasons behind these edits are not always clear. When looking at the English article on Jean-Jacques Rousseau, there is one frequent editor whose profile provides insight into the editing process.

Unfortunately, having contributed some 50 articles, I will have to give it up. I noticed that some of my texts disappear without trace (i.e. it is not even possible to restore them). Some get distorted by not always competent editing (even though it is a great pleasure to slap in a rough formula and see someone format it nicely). This drives an endless circle of change that would require some watch-dog attitude. In conclusion, it is a fascinating project which I will keep on watching and recommending to others and linking too. My only problem is that it does not seem like a good investment of time on the contributor side. I love to contribute but if my contribution is not lasting I have second thoughts -- Piotr Wozniak⁴³.

Modifying or deleting contributions made by students does not diminish Wikipedia's educational value in the context of history of education. However, it is possible that improvements seeking to improve content quality may be overshadowed by later edits.

3. *Educational experiences with Wikipedia*

The use of Wikipedia in education has been subject to much debate since its popularity took off. According to Claes and Tramullas⁴⁴, a review of published work enables different types of studies to be outlined, from content quality issues to its integration into different syllabi, as well as how students use it, lecturers' perception of it and training activities being designed around editing Wikipedia content⁴⁵. Wikipedia use occurs in early course stages and as basic

⁴² Wikipedia. *Jean Jacques Rousseau en.wikipedia.org*, <https://xtools.wmcloud.org/articleinfo/en.wikipedia.org/Jean-Jacques_Rousseau> (last access: 23.09.2023).

⁴³ Wikipedia, *User talk: Piotr Wozniak*, <https://en.wikipedia.org/wiki/User_talk:Piotr_Wozniak> (last access: 24.09.2023).

⁴⁴ F. Claes, J. Tramullas, *Estudios sobre la credibilidad de Wikipedia: una revisión*, «Área Abierta. Revista de comunicación audiovisual y publicitaria», vol. 21, n. 2, 2021, pp. 187-204.

⁴⁵ P. Konieczny, *Teaching with Wikipedia in a 21st Century Classroom: Perceptions of Wikipedia and Its Educational Benefits*, «Journal of the Association for Information Science and Technology», vol. 67, n. 7, 2016, pp. 1523-1534.

documentation for assignments. Students find it highly useful⁴⁶ although they do not tend to consider credibility issues.

As Aibar, Lerga, Meseguer and Minquillón point out⁴⁷, despite initial scepticism amongst university lecturers regarding Wikipedia as a reliable information source – especially due to the lack of authorship details – the number of teaching experiences with Wikipedia over recent decades at different universities around the world has continually risen. According to the authors, these experiences have mostly had positive outcomes and led to a substantial improvement across different core skills, as well as a positive influence on student motivation.

An online survey of lecturers at the Open University of Catalonia run by the aforementioned authors brought to light useful information on perceived quality and usefulness, as well as teaching practices and experiences in using Wikipedia. Falling under the framework of a major project on Wikipedia, «The Use of Internet Open Content for University Education: An Empirical Study on the Perceptions, Attitudes and Practices of University Faculty on Wikipedia»⁴⁸, the survey is interesting thanks to its large sample (800 valid respondents) and the contrasting data it provides, i.e. the rather positive perception of its use for teaching compared to the relatively scarce real-world use in lecturers' teaching practice. Most lecturers stated they had never or almost never used Wikipedia for teaching activities (75%). A mere 9% stated using it often or very often for this purpose. Wikipedia is used slightly more to produce didactic material: 68% of lecturers never or hardly ever use it, whilst 11% use it often. Nevertheless, when asked whether open exchanges of didactic resources were welcome in academe, most agreed (45.3%), with only 23.5% disagreeing. One should point out that Wikipedia use is deemed less socially acceptable (at least in academe) than other open-source education resources.

The data on lecturers' perception clearly contrasts with student use of Wikipedia. Thanks to a representative online survey of 4,400 university students in Germany (with a 40% response rate), Wannemacher and Schulenburg⁴⁹ discovered 80% regularly used Wikipedia and 60% used it often or very often. The data we ourselves collected from a sample of 243 students enrolled on history of education programmes at the University of the Balearic Islands

⁴⁶ N. Selwyn, S. Gorard, *Students' use of Wikipedia as an academic resource: Patterns of use and perceptions of usefulness*, «Internet and Higher Education», n. 28, 2016, pp. 28-34.

⁴⁷ E. Aibar et alii, *Wikipedia in higher education*, cit.

⁴⁸ A. Meseguer Artola, *Wikipedia en la universidad: una guía de buenas prácticas*, «Oikonomics: Revista de economía, empresa y sociedad», n. 3, 2015, pp. 90-99.

⁴⁹ K. Wannemacher, F. Schulenburg, *Wikipedia in Academic Studies: Corrupting or Improving the Quality of Teaching and Learning?*, in M. Ebner, M. Schiefner (edd.), *Looking Toward the Future of Technology Enhanced Education: Ubiquitous Learning and the Digital Native*, Hershey, IGI Global, 2010, pp. 295-311.

show 65% always, often or sometimes use Wikipedia when writing essays or assignments.

As stated in the section one, the likely problem is Wikipedia not being known for the quality of its articles, but rather easy access to content, a hypertextual structure to aid browsing and, according to Alonso and García⁵⁰, many references and sources – albeit not in every instance, we would add, given our findings on content related to history of education. Lecturers' negative attitude towards Wikipedia is usually based on a perception of inaccurate content and its potential to deter students from using other more reliable sources of information. Dooley⁵¹ ran a survey with a sample of 105 professionals where a mere 7% stated they often used Wikipedia for teaching or research activities. In a similar vein, Chen⁵² outlined the credibility of the information published on the site as the top concern for university lecturers. This study also showed age correlated to more negative opinions, with lecturers who often used other online resources being more sceptical towards Wikipedia.

Nonetheless, this lack of credibility or the need to compare with other sources has led some lecturers to run truly worthwhile initiatives, although there may be an underlying criticism regarding how knowledge is produced in these online spaces. Seligman's⁵³ idea stands out for its three-step system in history classes: 1) Asking students to find three articles on historical topics in Wikipedia. One must be good, one bad and one excellent, based on students' own criteria and judgement; 2) Students need to find a corresponding article (as similar as possible) in a specialised encyclopaedia – avoiding general reference works – for each selected Wikipedia article. This second step aims to make them familiar with the wide range of available sources; and 3) Finally, students must write a brief assignment (2-3 pages) comparing both sets of articles and answer the following question: «What features make a tertiary source good and useful for historical research?».

Here, Seligman takes advantage of Wikipedia's strengths whilst also suggesting many students use it as a primary and, often, single source of information for their academic assignments. Nevertheless, Wikipedia is an asynchronous, non-professional community where reasoning or debate do not comprise the main objective. In other words, Wikipedia is not necessarily a space where different opinions are presented or ideas debated; rather, it is a space to provide neutral

⁵⁰ M^a.I. Alonso, J. García, *Colaboración activa en Wikipedia como método de aprendizaje (Using Active Collaboration in Wikipedia as a Learning Tool)*, «Revista Iberoamericana de Educación a Distancia», vol. 16, n. 1, 2013, pp. 13-26.

⁵¹ P.L. Dooley, *Wikipedia and the two-faced professoriate*, in *Proceedings of the 16th International Symposium on Wikis and Open Collaboration*, New York, Association for Computing Machinery, ACM, 2010, pp. 1-2.

⁵² Chen, *The Perspectives of Higher Education*, cit.

⁵³ A. Seligman, *Teaching Wikipedia without Apologies*, in J. Dougherty, K. Nawrotzki, *Writing History in the Digital Age*, Ann Arbor, University of Michigan Press, 2013, pp. 121-129.

and objective information, regardless of whether this goal is always achieved or not. The author highlights how this can be a challenge for history teachers or professionals since reasoning and debate are major skills for writing historical work.

The search for a responsible dialogue between academe and the digital world has led to several teaching projects linked to the Wikisphere and history. In 2011, Juliana Bastos Marques⁵⁴ at the Federal University of Rio de Janeiro ran an initiative to edit Wikipedia entries on ancient and Roman history. Flávia Florentino Varella at the Federal University of Santa Catarina had the same goal for her course on the history of Western Civilization. In turn, Varella and Bonaldo⁵⁵ coordinated a 2018 project at the same university with the general aim of expanding and improving Wikipedia content on the theory of history and historiography, so that a Portuguese-speaking public could access content produced by undergraduate and postgraduate students.

It would seem that most projects are centred on producing, modifying, extending or updating Wikipedia content as a teaching practice. Alonso and García⁵⁶ see editing Wikipedia entries as a constructive process in critical reasoning that builds on acquired knowledge, as well as a way to improve skills in handling and citing sources, and presenting information. A project closer to home, at the University of Salamanca, involved the subjects Labour Law II and Social Security Law on the Degree in Labour Relations and Human Resources, as well as the history subject on the specialisation in Vocational Training and Guidance on the Master's Degree in Obligatory Secondary Education, the Baccalaureate, Vocational Training and Language Learning. Students on the subjects looked at different legal concepts to then review and update Wikipedia entries⁵⁷.

Another interesting example was discussed in Calvo's⁵⁸ study on new technologies and their use to raise student awareness about gender equality. The activity ran at the University of Santiago de Compostela (Spain) over several years on the Degree in Chemical Engineering. The aim was to spotlight women who work in science and technology whose contributions to science or inventions had been overlooked. The voluntary exercise comprised writing

⁵⁴ J. Marques Bastos, *Trabajando la historia romana en Wikipedia: una experiencia de conocimiento colaborativo en la universidad*, «História Hoje», vol. 2, n. 3, 2013, pp. 329-346.

⁵⁵ F. Florentino Varella, R. Bragio Bonaldo, *Todos podem ser divulgadores? Wikipédia e curadoria digital em Teoria da História*, «Estudos Ibero-Americanos», vol. 47, n. 2, 2021, pp. 1-21.

⁵⁶ Alonso, García, *Colaboración activa en Wikipedia*, cit.

⁵⁷ R.M. Morato García, F. Moreno de Vega, *Creación y edición de contenidos en Wikipedia: valoración de una experiencia formativa en la enseñanza del derecho*, «Trabajo: Revista iberoamericana de relaciones laborales», n. 28, 2013, pp. 141-159.

⁵⁸ E. Calvo Iglesias, *Inventoras y científicas en Wikipedia: Una experiencia docente*, in E. Vaquero Tió, E. Brescó Baiges, J.L. Coiduras Rodríguez, F.X. Carrera Farran (edd.), *EDUcación con TECnología Un compromiso social: Iniciativas y resultados de investigaciones y experiencias de innovación educativa*, Lleida, Edicions de la Universitat de Lleida, 2019, pp. 1285-1296.

scientific and engineering biographies on Wikipedia and Galipedia, and produced excellent results.

Over the last few years, different publications have positively assessed collaborative work at universities through Wikipedia. As Claes and Deltell⁵⁹ state, this research was mainly based on actively motivating students⁶⁰. It also focused on using Wikipedia as a teaching tool in accordance with the European Higher Education Area education model⁶¹ and the equivalent levels in the Americas⁶². All these studies demonstrate how the use of Wikipedia in universities and at postgraduate level benefits student learning and builds a new collective, collaborative and open discourse. Motivation and greater collaborative work are highlighted as the main outcomes of educational initiatives undertaken around the world. Examples of these experiences include a French course at a Japanese university, where Wikipedia provided lecturers with a malleable tool to raise student motivation for individual and group writing exercises⁶³, as well as an initiative to produce information on algorithms in Spanish, via Wikipedia entries, on the Information Methodology and Technology course at the Complutense University of Madrid (Spain), with a view to counteracting the high student drop-out rate due to the complex nature of the theory content on the subject⁶⁴.

For Konieczny⁶⁵, using Wikipedia as a didactic tool enables us to contribute to society through service learning and participate in an online community. He believes it benefits students, lecturers and the general community in equal measure. His study is based on five years of experience teaching with wikis and

⁵⁹ F. Claes, L. Deltell, *Wikipedia en español. Comportamiento de la comunidad hispanohablante en el trabajo colaborativo en Internet*, «Estudios sobre el mensaje periodístico», vol. 25, n. 3, 2019, pp. 1357-1378.

⁶⁰ D. Jemielniak, E. Aibar, *Bridging the gap between Wikipedia and academia*, «Journal of the Association for Information Science and Technology», vol. 67, n. 7, 2016, pp. 1773-1776; A. Obregón Sierra, N. González Fernández, *La Wikipedia en las facultades de educación españolas. Diseño y validación de herramientas diagnósticas cuantitativas y cualitativas*, «Revista Iberoamericana de Educación», vol. 77, n. 2, 2018, pp. 55-76.

⁶¹ A. Meseguer Artola, *Wikipedia en la universidad: una guía de buenas prácticas*, «Oikonomics: Revista de economía, empresa y sociedad», n. 3, 2015, pp. 90-99; J. Soler-Adillon, D. Pavlovic, P. Freixa, *Wikipedia en la universidad: Cambios en la percepción de valor con la creación de contenidos*, «Comunicar», vol. 26, n. 54, 2018, pp. 39-48; S.A. Azer, *Are Wikipedia articles reliable learning resources in problem-based learning curricula?*, in S. Bridges, L.K. Chan, C. Hmelo-Silver (edd.), *Educational technologies in medical and health sciences education. advances in medical education*, Cham, Switzerland, Springer, 2016, pp. 117-136.

⁶² C. Alcázar, J. Bucio, L. Ferrante, *Wikipedia education program in higher education settings: Actions and lessons learned from four specific cases in Mexico and Argentina*, «Páginas de Educación», vol. 11, n. 1, 2018, p. 23.

⁶³ D'Hautcourt, *Wikipédia et FLE*, cit.

⁶⁴ A. Sarasa, *Usando la Wikipedia como motivación en el proceso de aprendizaje*, «Revista Latinoamericana de Tecnología Educativa», vol. 5, n. 2, 2006, pp. 433-442.

⁶⁵ P. Konieczny, *Wikis and wikipedia as a teaching tool: Five years later*, «First Monday», vol. 17, n. 9, 3 September 2012.

Wikipedia, and organising workshops on the topic. It sets out the most effective ways to include Wikipedia in course content and a set of new tools to improve the experience of «teaching with Wikipedia».

This brief overview of different standout experiences using Wikipedia as a teaching tool shows there are many possibilities and aspects to explore with regard to teaching initiatives.

4. An approach to the perception of students in the use of Wikipedia for History of Education

To round out this study, we decided to survey students in the Faculty of Education at the University of the Balearic Islands regarding their use of Wikipedia. All 243 participants in the sample were taking subjects with history of education content when they filled in the form. A brief questionnaire (via Microsoft Forms) containing nine questions was produced, with an average response time of 90 seconds. Details about age, gender or other aspects were not included. A scale of 1 to 5 was used, where 1=never and 5=always. The questionnaire was completely anonymous and voluntary. Responses were collected in the 2022/23 and 2023/24 academic years.

One of the first questions posed looked at using Wikipedia as a resource to expand on explanations provided by lecturers in the classroom. An astounding 52% stated they never used it for this purpose, whilst only 2% said they always did so. In further detail, 24% of the individuals rarely turn to Wikipedia, 16% use it occasionally, and 6% use it very often. The percentages declined for the following question: Do you check Wikipedia first if you have to do an activity or assignment to hand in? Here, 35% said never, whilst 4% replied always. For the middle-range responses, we observe that 25% rarely resort to Wikipedia, 22% do so occasionally, and 14% very often. These data coincide with the bibliography used for this article and confirm widespread student use of Wikipedia. In turn, a sizeable percentage of the sample state they are aware of how entries are created on Wikipedia (87%). Students therefore are aware of how it works and continue to use it.

The differences in percentages widen with regard to reliability. Only 1% deemed the information on Wikipedia to be reliable and truthful compared to 26% who believed the opposite. Among the more moderate views, we find that 26% consider Wikipedia to be scarcely reliable, 34% sufficiently reliable, and 13% quite reliable. The highest percentages are found somewhere in-between, where students deem only some content to be truthful quality information. Lucassen and Schraagen⁶⁶ studied how several factors influenced the reliability

⁶⁶ T. Lucassen, J.M. Schraagen, *Trust in Wikipedia*, in *Proceedings of the 4th Workshop on*

and credibility of Wikipedia, and deemed that since its authors were anonymous (article contributors can rarely be identified), users relied on other elements in articles to assess truthfulness, such as the text, references and images. They assessed the writing quality and suitable style of the text. Where users had some knowledge about a topic, they looked at the content more, as well as the quality of the references; if they had no knowledge of the topic, they placed more emphasis on visual and formal aspects⁶⁷. In our research into Wikipedia (geared towards benchmark authors in the field of contemporary pedagogy), we noted the wide range of visual content.

In turn, Luyt and Tan⁶⁸ set out how issues in the use of references for a set of historical articles impacted the credibility and trustworthiness of the content. These aspects will be analysed in our future teaching experiences with Wikipedia with a view to verifying whether they corroborate the collected data or not.

In response to the statement, «although Wikipedia is not reliable at times, I use it since the information it provides is enough to satisfy the demands of most lecturers», just 2% of our sample stated they always used it, compared to 31% who never used it. However, despite doubts about reliability, 12% frequently resort to Wikipedia, 29% do so often, and 26% rarely. With regard to specific history of education content, 21% stated they were unable to find most of the content studied on their subjects on Wikipedia, compared to 4% who were able to do so. The remaining students express that 24% rarely find the historical educational content they need, 31% do so occasionally, and 20% very often.

Two variables representing a potential issue emerge from the analysis of our sample data: firstly, is the information from students participating in questionnaires and interviews neutral, since it may be influenced by opinion? and secondly, is there a possible hidden use not reflected in the responses to the questions? This would partially impact the validity of the results.

We understand there are information checking guidelines and, although students understand the importance of verifying content by using external sources, user context, specific topic knowledge and different information requirements may affect whether this occurs. In this sense, similar heuristics cannot be generalised for different student groups or the different scenarios for how information is used. Nonetheless, these aspects can be controlled and included in the teaching process for specific use in the classroom.

Looking to the future, the UIB case study should soon progress towards creating a focus group which would involve interviewing two or more individuals at the same time to gather information. This technique aims to

Information Credibility, New York, Association for Computing Machinery, 2010, pp. 19-26.

⁶⁷ Claes, Tramullas, *Estudios sobre la credibilidad de Wikipedia*, cit.

⁶⁸ B. Luyt, D. Tan, *Improving Wikipedia's credibility: References and citations in a sample of history articles*, «Journal of the American Society for Information Science and Technology», vol. 61, n. 4, 2010, pp. 715-722.

generate different points of view whilst ensuring the group is manageable. Group discussion would aim to gather more specific information on problems detected with Wikipedia after analysing responses to the survey, such as how students view editors, how they think lecturers view Wikipedia or why they believe there is a gender gap with regard to edits (in line with the example provided by Obregón and González⁶⁹).

Conclusions

In a similar vein to other digital resources, Wikipedia has several issues, particularly although not exclusively linked to content origin and creation being dependent on a community of anonymous or hidden specialised and non-specialised editors, in opposition to classic encyclopaedias whose content is created by known groups of experts. Different academic historians and university lecturers have seized upon this initially problematic perception as an opportunity. Although we cannot interpret history on Wikipedia as an exercise in public history (understood as a sub-discipline of history), it is possible to undertake public history practice within the context of Wikipedia. Indeed, several teaching experiences around the world have used editing Wikipedia entries as a leitmotiv. Nevertheless, experiences with Wikipedia in the history of education field are still few and far between. Hence the potential for those who undertake this type of initiative.

The strengths and weaknesses of the online encyclopaedia par excellence make it a potentially valuable tool for teaching history of education. Its use in the classroom could foster critical analysis and careful assessment of information. Even so, one must recognise the dynamic nature of its content and promote a deeper and more critical understanding of historical topics amongst students. Editing and improving current Wikipedia articles could be a worthwhile activity in driving students to approach topics more in-depth, move beyond superficial knowledge and attain more detailed understanding. This would contribute to democratising knowledge and promoting a culture of collaboration and critical analysis in our digital era. Moreover, it would surely be a motivational activity since, as our sample shows, most students (87%) taking subjects with history of education content have never edited a Wikipedia entry, and only 5% declare to have ever edited a Wikipedia entry.

Wikipedia could be included in education as an appealing tool to enable us to work on contrasting information from different sources. It could thus be a further instrument used for comparison and to help develop students' critical and historical reasoning. Although some authors have dared to suggest that the

⁶⁹ Obregón, González, *La Wikipedia en las facultades de educación españolas*, cit.

lack of rigour bias regarding Wikipedia is merely the result of certain academics worrying about losing their monopoly over knowledge production (a view we do not share), the truth is any errors or limitations on Wikipedia can be used by lecturers as opportunities for learning.

We would like to end this article with an open discussion and question, as expressed by Massone:

Si son los materiales escolares los que ensamblan saberes, prácticas y vínculos entre los sujetos que habitan la escuela, los y las profesores y estudiantes, si los materiales no solo traducen la enseñanza de la historia, sino que median la práctica cotidiana de los y las docentes y la producción de los y las estudiantes, si son los y las profesores/as los que les «dan vida» seleccionándolos, usándolos, recomendándolos, recreándolos y/o reescribiéndolos, ¿Por qué no incluir el estudio [y el uso] de Wikipedia en la formación de profesores/as [y de otros profesionales de la educación]?⁷⁰ (If school material conjures knowledge, practices and links between school teachers and pupils, if this material not only interprets history teaching but also functions as a bridge between everyday teaching practice and student outcomes, if teachers «bring it to life» by selecting, using, recommending and/or re-writing this material, why not include studying [and using] Wikipedia in training for teachers [and other education professionals]?).

⁷⁰ M. Massone, *Leer y escribir Historia(s) en Wikipedia*, «Pasado Abierto. Revista del CEHis», n. 16, Julio-Diciembre 2022. The [brackets] are ours.