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# The materiality of encyclopedic information: Remediating a loved one – Mourning Britannica

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## ABSTRACT

This paper presents a qualitative thematic analysis of reader comments posted in connection to a series of articles published after *Encyclopaedia Britannica*'s announcement to forego its print edition. It shows how ideas of what information is, are entangled with ideas of what a certain medium is and does. Two research questions guide the analysis: 1) How are encyclopedias as information sources imagined in contemporary public discourse? 2) How does the materiality of encyclopedias shape ideas of knowledge, information and memory? A theoretical basis is the distinction between an epistemological discourse and a practice discourse of science as proposed by Bernd Frohmann. Furthermore, the concept of remediation as developed by Jay David Bolter and Richard Grusin is drawn on. The analysis maps out different functions encyclopedias as information sources and external memories are assigned in contemporary society and in the recent past. It shows how these functions go into one another and how they are entangled with certain social practices. Through this it makes visible how understandings of information at a personal level are entwined with ideas of materiality, technologies, and culture that are formed in conjuncture with larger historical and societal shifts.

## Keywords

Encyclopedias, materiality, remediation, practices, Encyclopedia Britannica.

## INTRODUCTION

When in 2012 *Encyclopaedia Britannica* announced that they would stop their print edition, emotions went high. All

over the web people reminisced about this traditional encyclopedia, which appeared in no fewer than 15 editions since it was first published in 1768-1771 and which in many ways has become a symbol of "what an encyclopedia is" (Yeo, 2001, p. 170; cf. also Collison, 1964, pp.138-155). In online forums accompanying the news people commented and shared stories, not least on the important roles the *Britannica* had played in their lives and in their homes. The impression one got was that the encyclopedia would cease to exist entirely, when in fact it just went exclusively to where its users already were: online. The public imagination of what an encyclopedia is and what role it should perform is still closely tied to the medium it has been bound up in for centuries, the book (Schopflin, 2014). At the same time, digitization has meant that certain characteristics of encyclopedias as up-to-date reference works and information sources have been foregrounded in the discussion.

Today, encyclopedias hold ambivalent positions. They are relics from the past, from a time when information was a rare 'commodity', at the same time as they are – in the form of *Wikipedia* – amongst the most popular sites on the web (Haider & Sundin, 2014). This is an interesting friction that brings to the fore how ideas of what information is are entangled with ideas of what a certain medium is and specifically also of what it does. This has implications for how we think of the materiality of information and in turn for the role of encyclopedias as institutions that work for stabilizing information and knowledge in society. The paper at hand investigates this by addressing the following questions:

- How are encyclopedias as information sources imagined in contemporary public discourse?
- How does the materiality of encyclopedias shape ideas of knowledge, information and memory?

The research questions are addressed by means of a thematic qualitative analysis of reader comments, which were posted in connection to a series of articles published online after *Encyclopaedia Britannica*'s announcement to

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discontinue their print edition. The material will be presented in detail after the following two sections outlining the study's background, theory and earlier research.

## BACKGROUND

Since over at least a decade, the Internet is the uncontested main arena, not just for *Wikipedia*, but also for all major professional encyclopedias. During this time professional encyclopedias have co-evolved with the web as it changed. Starting out as simple websites imitating the printed original, by now, many have turned into fully-fledged online services and can be accessed through applications on smartphones, e-readers, tablets and whichever new device pops up on the market. They continue to capitalize on the traditional values vested in trustworthy, vetted expert knowledge, which is, after all, professional encyclopedias' "unique selling point" (Sundin & Haider, 2013). This also sets them apart from their most talked about competitor, *Wikipedia*. Yet, in other ways they are far removed from the original printed volumes that could be owned, inherited and given away as decorative and symbol laden gifts. The techniques for preserving, organizing and communicating information change the preconditions for the circulation of encyclopedic information in society.

*Encyclopaedia Britannica* published its first digital encyclopedia on CD-ROM in 1994. Already the same year a subscription-based online version, *Britannica Online*, was rolled out (Clark, 2001). Five years later, and two years before the birth of *Wikipedia*, the company made the entire database available online for free (Clark, 2001). From then on *Encyclopaedia Britannica* had appeared in print in parallel with its digital version for over a decade. Although from 2001 onwards it offered two online versions, a premium service covering its complete database for which they charged a fee and an ad-financed free version with shortened articles (Clark, 2001). In March 2012 the company behind *Encyclopaedia Britannica* sent out a press release announcing the end for *Encyclopaedia Britannica*'s print edition in favor of a continued focus on the online edition. The 32-volume edition from 2010 was to be the last one to be printed. From one perspective, nothing much has changed apart from a business decision to cut off the non-profitable branch of distribution for encyclopedic content that hardly anybody had demanded for years. From a practical and a business point of view it is nowadays almost impossible to compete with the digitally distributed encyclopedia that includes multimedia, where articles are updated instantaneously and regularly, which is easy to access and all that at a lower price for the user. Yet, from another perspective everything has changed. The announcement that came in March 2012 created a flood of nostalgia, sometimes verging on despair, which became visible not least in the comment fields of established media. Clearly, the physical, printed volumes of an encyclopedia had other functions than being just an outdated distribution channel for printed databases for people to look up facts in. Rather, the stories told revolved around materials, places,

emotions and personal relations. It became clear how much encyclopedias shape our cultural imagination of information and how this imagination is materially and socially bound. This is what is in focus from here on.

## THEORETICAL FRAMEWORK AND EARLIER RESEARCH

This study is carried out in a socio-material tradition that foregrounds the interdependence of society, technology and information. Accordingly, information is not seen as something that simply is, de-coupled from its context, situation, technology or medium, but something that arises in and out of social practices involving technologies of various kinds. We draw on two theoretical devices for the structuring of the study. Firstly, in order to situate the investigation we draw on the distinction between an epistemological discourse and a practice discourse of science as proposed by Bernd Frohmann (2004). Secondly, for the purpose of focusing the analysis we engage the concept of remediation as developed by Jay David Bolter and Richard Grusin (2000).

Frohman (2004) distinguishes an epistemological discourse and a practice discourse of science, where the first relates to the communication of the epistemic content of science and the latter to the stabilizing of science and the scientific system of establishing trustworthiness. He develops this distinction based on a discussion of the role of the scholarly literature. Yet it can with advantage also be applied to encyclopedic information and encyclopedic systems of stabilizing public knowledge. Numerous studies of *Wikipedia* and traditional encyclopedias, especially when comparing the two, have been situated within an epistemological discourse, concentrating on the content that is communicated in the encyclopedia. Consequently, research has oftentimes foregrounded various aspects of the correctness of information (e.g. Fallis, 2008; Giles, 2005). However, there are also examples of studies on encyclopedias carried out within a practice discourse. Here the interest lies often with information practices on the production side and the values created in these. Studies exist mostly in relation to *Wikipedia* (e.g. Bilic & Bulian, 2014; Reagle, 2011; Sundin, 2011) but also of professional encyclopedias (Sundin & Haider, 2013). The study at hand is situated within a practice discourse at the same time as it focuses on the user perspective. In accordance with the research questions, our interest lies with the dynamics, specifically material and social dynamics, that underlie the stabilization of encyclopedias as reliable/trustworthy information sources, that is dynamics whose main leverage is located outside the encyclopedia's epistemic content.

In order to get to terms with how socio-material dynamics can be thought of in a situation of media change, we draw specifically on the notion of remediation which describes "the formal logic by which new media refashion prior media forms" (Bolter & Grusin, 2000, p. 273). The notion describes how new media is linked to earlier media through properties and functions of visible remediation,

what Bolter and Grusin refer to as hypermediacy or by making the medium of representation invisible, immediacy (Bolter & Grusin, 2000). While remediation often relates to structural properties of interfaces or narration, there exists also a more metaphoric level of remediation, where we can see practices, values and institutions being transferred from one media form to another. For instance, *Wikipedia* takes cue from traditional printed encyclopedias through many of its principles and practices of knowledge organization (e.g. the alphabetical order of its articles and the taxonomy approach) but it remediates also a general encyclopedic ideal as captured already in its very name, *Wikipedia*. There is continuity regarding systems of knowledge production from traditional encyclopedias to *Wikipedia* (Reagle & Loveland, 2013) and also the striving to become an exhaustive resource for all notable knowledge which *Wikipedia* stands for (Roblimo, 2004-07-28) can be traced to traditional encyclopedias as typified by the printed volumes of the past. When studying remediation, the medium as such is in focus. Oftentimes, remediation brings something new to a medium, at the same time as it continues a tradition. For *Wikipedia*, “as the remediation of printed encyclopedia, promises its reader the immediacy that is made possible by linking /.../ (Zhang, 2006; see also Bolter & Grusin 2000, p. 202; Hartelius, 2008, p. 215). To this could be added free access, popular culture content and the way *Google Search* functions as the de facto search engine for encyclopedic knowledge (at least for *Wikipedia*). The multimedia functions, on the other hand, which created a lot of attention when the first generations of CD-ROM encyclopedias were published, are interestingly not significant in *Wikipedia*. Remediation has also another side, namely that of the user, the self and through this processes of remediation have ramifications for the formation of contemporary identities. As Bolter and Grusin (2000, p. 231) put it: “we employ media as vehicles for defining both personal and cultural identity”. And “because we always understand a particular medium in relation to past and present media” (Bolter & Grusin, 2000, p. 231), the mediation of identity means that there is also a remediation

The study at hand centers on how people perceive the remediation of encyclopedias. To explain, remediation is employed as a theoretical device to interrogate the material, however we look at it from behind rather than from upfront. Hence, we examine how users describe their experience of media loss and through this of remediation – often experienced as ‘flawed’ – in one particular case that captures the transformation of print encyclopedias, that is of books, into digital services. Furthermore, in order to shed light on encyclopedias’ different roles as information sources aside from an emphasis on epistemic content, the roles of social practices, values and institutions for structuring ideas of information are teased out in the material.

## METHOD AND MATERIAL

The material consists of reader comments that were posted in connection with a series of articles in the *New York Times* “*Media Decoder*” and the *New York Times* “*Room for Debate*” in March 2012. The lion share (341 comments) was posted subsequent to an article headlined “After 244 Years, Encyclopaedia Britannica Stops the Presses” that appeared in *The New York Times Media Decoder*. The *Media Decoder*, now discontinued and merged with the *New York Times* media and advertising section, was a type of media industry blog with a general interest angle and it was published free online. On its website it was described as follows:

Media Decoder is an insider’s guide to the media industry that tracks the transformation of the movie business, television, print, advertising, marketing and new media. It’s a showcase for the extensive media coverage throughout The New York Times and a window on how the business of connecting with consumers is changing in the digital age. (Media Decoder Blog n.d.)

A further 206 comments were retrieved from the *New York Times Room for Debate*, an online commentary section where a more extensive discussion of topical news can take place than is possible in the regular newspaper. The debate analyzed, was entitled “Britannica: Define Outdated”. It was linked from the original article and introduced by the following lead: “When Encyclopaedia Britannica forgoes its print edition, will a sense of wonder be lost?” The reader comments were posted in connection to five shorter articles by five different authors representing different viewpoints on the issue.

Since the news of *Encyclopaedia Britannica*’s foregoing its print edition circulated widely, not least in social media, it is safe to assume that not only persons directly connected to the media industry would have commented on the article. This assumption is also confirmed in the comments’ content. In most instances they advance what could be called a ‘personal’ rather than an industry or work perspective. Furthermore, the material does not provide demographic information on those that posted comments. However, from the way in which many write about quite extensive first hand experience of using print encyclopedias, how they relate to the past and to society at large, we can assume that the majority – although not all – are older than 35 years and that they are based in the USA. This background colors the discussions and what we present in the analysis relates to those views which are however an important part of public discourse. The table below contains an itemization of the material included in the analysis:

Article	Source	Date	Comments: number (date)
After 244 Years,	NYT:	13.03.	341 (13.–21.

Encyclopaedia Britannica Stops the Presses (A1)	Media Decoder	2012	03. 2012)
I'll Miss the Miscellany (A2)	NYT: <i>Room for debate</i>	14.03. 2012	91 (15.–30. 03. 2012)
The Set Is a Relic: Now We Google (A3)	NYT: <i>Room for debate</i>	14.03. 2012	12 (15.–19. 03. 2012)
If You Liked Britannica, You'll Love Wikipedia (A4)	NYT: <i>Room for debate</i>	14.03. 2012	41 (14.03 – 02. 05. 2012)
Crowdsourcing Is Great, but So Are Experts (A5)	NYT: <i>Room for debate</i>	14.03. 2012	28 (15.– 21. 03. 2012)
Students Should Not Abandon Print (A6)	NYT: <i>Room for debate</i>	14.03. 2012	33 (15.– 21. 03. 2012)

**Table 1. Summary of empirical material**

All 547 comments were printed out and read through a number of times, highlighting and taking notes in the process. The close reading was the basis for constructing a number of themes as they could be traced in the material and related to the research questions. Significant comments were digitally grouped together in the theme and read again. One comment could appear in more than one theme. Thereafter, each theme was analyzed by comparing it with each other, earlier research and the theoretical devices as presented above. The presented themes can be seen as the product of a theoretical reading drawing out certain topics while neglecting other possible interpretations.

## RESULTS AND ANALYSIS

The original article dating from 13<sup>th</sup> of March 2012 (Bosman, 2012-03-12) contained a quote by Jorge Cauz, president of *Encyclopaedia Britannica Inc.* In it he argued for the superiority of *Encyclopaedia Britannica's* online version over the print edition as well as for *Encyclopaedia Britannica's* factual trustworthiness (in contrast to *Wikipedia*). The article also made a point of highlighting that the 2010 edition only sold in 8000 sets, in comparison with 120 000 sets that were sold in 1990 in the USA alone. There is nothing in the article indicating a demise of *Encyclopaedia Britannica* as such. Yet this is not how it is discussed in the majority of reader comments that ensued from the article. On the contrary, in those *Encyclopaedia Britannica* is primarily referred to as a print source, a set of books, first and foremost and as such it ceases to exist – at least it ceases to be 'alive'. If it is compared to a specific online source this is above all done in relation to *Wikipedia* or in relation to *Google*. With few exceptions, the reader comments do not consider the existence of *Encyclopaedia Britannica* online at all. In the following five partly

overlapping themes will be presented. They could be traced in the reader comments. A sense of loss based in experiences of remediation of encyclopedic information unites them: (1) Anthropomorphic information (2) Remembering materialities (3) The end of civilization (4) Facts, learning and reading (5) Symbolic knowledge as a marker of status and values. Subsequent to this presentation the conclusion will cut across these topical themes in order to answer the research questions that guide the analysis.

### Anthropomorphic information

One of the strongest threads that could be made out in the comments is the profound sense of loss many of the readers expressed: "It is a sad day for Knowledge" (A1), reads for instance one comment. And often this is done by humanizing *Encyclopaedia Britannica*, often as a friend, now dead: "This announcement is like losing an old friend: another victim of the Internet" (A1). Anthropomorphism, or personification, signifies the attribution of human characteristics, including the human form, to something that is not human. The most obvious examples stem from cartoons, but in our case an entire volume of encyclopedias has attained human characteristics, including the human death, as for instance is done in the following remark:

I was walking behind a middle school last summer and found a 1986 version of the Britannica in a dumpster! It was worse for me than finding a body.. well almost. I started removing the books and then went for help. (A2)

A traditional encyclopedia is made of paper, binding and a hard cover together with a specific content (now available online). Materially encyclopedias are usually not very valuable (anymore) or even irreplaceable, yet the attachments and feelings developed in relation to them are striking. The image of the encyclopedia as an old friend was also taken up in a less dramatic comment which proposed to ".../ think of it as a friend who is now available via the Web, rather than via a phone call or house visit" (A1). In some cases, the anthropomorphic interpretation of *Encyclopaedia Britannica* was done in relation to *Wikipedia*:

I loved them, they were like a friend. I find Wikipedia to be very useful. However can one ever feel the same attachment, love, or joy with a website? I seriously doubt it. (A2)

An old friend, a human, is something more and different than simply an information resource to look up facts. It is someone to ask and talk to and not least someone to touch. Necessarily who they are and how we know them shapes how we interpret what they tell us or how we trust the information we get through them. The personification and embodiment of encyclopedias, as described here, is not linked purely to epistemic content, but to the material presence such information has (or better had) in the form of

a series print books, which is developed further in the next theme.

### Remembering materialities

For many *Encyclopaedia Britannica's* announcement triggered memories of the past and many comments revolved around childhood memories. In families' everyday doings encyclopedias were given meaning. An article on for example "Space" became localized to the living room of the, in most cases, middle class families. The encyclopedia takes the role as a link between abstract information about the world and the everyday practices of the family. References to the physical books are made and tied to allusions of a happy childhood:

/.../ these books are still a treasure and seeing them makes me happy with thoughts of my childhood spent with them. However, when I want to look something up, I use wikipedia, which I also love (and for which I write technical entries). But wikipedia doesn't have the same mistery -- its not the same. (A1)

Many reader comments distinguish, as this quote illustrate, between instrumental use and emotional use, which is typically entwined with memories from the person's past. The encyclopedic sets are talked about in terms of their materiality, a physical presence that many comments refer to. The strong and mostly positive memories conjured up with memories of encyclopedias make it also emotionally difficult for people to physically get rid of the encyclopedias, even in those cases where the owner cannot motivate any practical value for keeping them:

I have a 1977 set of Britannica that, I confess, I rarely consult; I am much more likely to use Google. But I wouldn't consider discarding the encyclopedia. I once brought up that idea, and my wife's "no" was final. She was right. (A2)

For what we know, the sources the person accesses through *Google* might well be encyclopedias. In fact it is quite likely that a link to *Wikipedia* is high up on the search engine result page for most of the person's searches (Lewandowski & Spree, 2011), but for this user this is not what an encyclopedia is seen to be. Here, an encyclopedia has a certain physical shape and format and in this media format it cannot be accessed through *Google Search*. *Google* is put in opposition to the encyclopedia. If we think of how remediation puts one medium in relation to other media, past and present, this leaves us with an interesting situation of transparent immediacy (Bolter & Grusin, 2000). Although *Google* acts as a stand-in for new, networked media, here it is only through *Google* that online encyclopedias exist (professional ones and *Wikipedia*), but not visibly so. *Google* makes the encyclopedic structure invisible to the user, becoming itself the 'natural' and unquestioned gateway to information.

For another reader, the passing away of his/her mother went hand in hand with the death of the parent's encyclopedia:

One of the most difficult things I had to do when my mother died was to toss out her beloved set of World Books. She and my dad paid a lot of money to purchase them around 1964, and we all got much use from them. She had slips of paper stuck in various volumes, marking topics of interest. I buried the "E" volume with her (with the "Electoral College" page marked). And I kept the "H" volume for my own library ("Horse," "Human Body"). (A1)

What happens here is not so much an anthropomorphizing of the encyclopedia (*World Books*), as was discussed above, yet the set is so intimately connected to a person that it lives and dies with her and is even buried with her. The encyclopedia in the particular media format of the book is positioned as a vehicle of personal identity (cf. Bolter & Grusin, 2000). Interestingly, the encyclopedia, as a material object, turns from being an externalized memory with regards to its epistemic content into a different kind of externalized memory, a memento of a loved one and of times gone-by in a more personal sense. The physical volumes of encyclopedias seem for many to have a strong presence in the family, which is here also related to the sacrifice that was required to be able to buy a set. We will return to this latter point later on.

These nostalgic stories were occasionally balanced by comments shedding a different, more dispassionate, light on developments. For instance, two comments read:

Wow listening to you guys moan over the end of EB I now know what conversations between people who like horse and buggys were like when they announced they would stop making buggys. Hello it's called change I know it can be scary but it will be ok. (A1)

Some things we must accept..planes get you from NY to CA quicker than a horse and buggy; the internet provides better, faster, and more current information than a printed Britannica. Such is how life moves forward. (A3)

Yet for many others – of those who commented it is important to add – the idea of *Encyclopaedia Britannica's* going out of print is connected to notions of loss.

### The end of civilization

Many comments reminisce about the lost world of the past where expertise, knowledge and education were valued higher than is the case in contemporary society. *Encyclopaedia Britannica's* – in its book shape – is presented as constituting a remaining link to an earlier, more civilized and better educated, era and with its going out of print this tie is severed. In many cases it is the description of civilization in decline. Again, we see

examples with anthropomorphic elements, as introduced above: "It is w/great sadness that I say goodbye to a great monument to the intellect. RIP Britannica. I shudder to think of a US devoid of education." (A1), "Good night sweet Brittanica [sic!] and may flights of angels sing thee to thy rest" (A1). *Encyclopaedia Britannica* seems for many have symbolized a better society: "I still cherish those books and their window into a long gone and in many ways better world" (A1). Another reader comments:

Wikipedia is attempting to commoditize knowledge by making it so democratic that it no longer has any flavor - the flavor of a single, unifying intellect. We've already done it with consumer goods, with food, with travel, with college educations, and even with our cities, nearly all of which look as if stamped from the same strip-mall making assembly line. (A4)

For many the transition from print to digital seems to go hand in hand with alienation pervasive in capitalist society and also the transition from a perceived stability of modernity (civilization) to the shifting grounds of late modernity and is in this way connected to an increased sense of insecurity: "Solidity and respectability, the illusion of permanence and stability are replaced by the constantly updated and altered, the evanescent world of internet information" (A1). That can also be exemplified with one commentator who states that "Receiving those volumes some years later from my aunt felt like a gift from heaven. Looking at them now, I feel, restores balance to this unbalanced world of ours." (A1) The transition to digital even evoked existential thoughts:

/.../ the feeling of printed books disappearing is one of loss and even anxiety. The world as we knew it is slipping through our fingers like grains of sand. /.../ We are losing every cultural anchor we could hold on to at breathtaking speed, and there is very little anymore to hold on to. (A2)

Establishing a connection of printed encyclopedias first with solidity and then with facts and reason – which is grounded in an general insecurity that the transition to digital, networked information brings with – this remediation of encyclopedias is framed as part of general transformation of society, from a 'more civilized' modern to a 'slippery' later modern one. The tangible encyclopedia of the past represents a stable external memory, a symbol of civilization, which the digital, networked encyclopedia, whose specialty is constant change, is not seen to epitomize.

### Facts, learning and reading

Encyclopedias function as an external memory, as a technology for helping us remember, for solving disputes, for reading and for educational purposes. Such functions demand some kind of authority: "What a run, over 244 years, during most of that time it was the greatest authority

in the English language for settling disputes" (A6). In some comments, encyclopedias represent a literal measure of knowledge: "There should always - always - be a yardstick for facts - just as there is a tangible measure of time, or a measure of distance, or a measure of weight" (A1). If given "authority" and a "yardstick for knowledge", encyclopedias could function as judges or 'stabilizers' of knowledge (compare Frohmann, 2004).

"Looking up" is a term that often occurs in the material investigated. One reader referred to his/her children: "/.../ when we discussed things my favorite response was "Look it up" while pointing to the set of World Books sitting on the shelf that we purchased when they entered grade school." (A1) To "look up" seems to be the verb for using encyclopedias for finding facts in a similar way as "to google" has become the verb of the Internet. One reader reflects on this change in the following way:

Certainly this is not good news for the employees of Encyclopedia Britannica. But for the rest of us? Access to mountains of information is one of the great hallmarks of technology. Source materials are now available to us regular folk. That is progress, and sometimes, progress is progressive. (A1)

With "looking up" increasingly being replaced by "google it", it has, not least because how *Google's* algorithms rank results, been difficult for professional encyclopedias to compete with other digital sources, above all with *Wikipedia*. For almost all searches a link to *Wikipedia* comes amongst the first results (Lewandowski & Spree 2011), while other encyclopedias are typically further down in the list. At the same time, one reader emphasizes that an "An encyclopedia is not just to look things up in-- it's to gain encyclopedic knowledge of the world!" (A1). Here encyclopedias seen as external memory resources seem to be perceived as becoming more instrumental and fact-oriented than earlier with their move from print to digital.

Put in opposition to "looking up", we find "reading", which is also an activity print encyclopedias are connected with:

But one of the real benefits of my childhood perusing of WB [World Book] was that I started at the beginning of a volume and read everything to the back cover, which introduced me to things I would never have thought to look up. When I use Wikipedia, I'm only reading about something I've already selected. (A1)

Many reader comments contain reference to the use of encyclopedias for reading, as is exemplified in the following remarks:

I remember many happy days, coming home from school and grabbing a copy, any copy of the encyclopaedia and opening it anywhere and then losing myself in the world for the rest of the day. You can't really do that with an on-line

encyclopaedia despite its many advantages. I credit my early interest and now extensive knowledge of the world to those rainy afternoons. (A1)

Or “Searching for information on the computer is fine for just looking up some fact. But for me the printed encyclopedia is like sitting down and reading a good book.” (A2)

### **Symbolic knowledge as a marker of class and of values**

*Encyclopaedia Britannica* in print was not just an external memory resource to be used for accessing information; it has also a symbolic value. “The EB was a symbol of knowledge /.../” (A1) reads for instance one comment. As such it is given a cultural meaning that communicated social advancement to an aspiring middle class: “was it really the books themselves that we all loved, or the fact that we could display them to others and feel smarter because they crowded our shelves?” (A1). The volumes symbolize authority, style and class: “Although I haven’t used them in years, they still look nice and elegant” (A1). In this way, *Encyclopaedia Britannica* can be seen as a tool for identity construction: “/.../ those of us who had the EB thought ourselves superior to those who had the World Book.” (A5). An encyclopedia is here not just a resource for accessing knowledge about the world it is a mirror for others to the self.

Many of those who commented accept the advantages the likes of *Google* or *Wikipedia* have in a more instrumental sense vis-à-vis *Encyclopaedia Britannica*, yet they still want to display the books in their shelves: “A beautiful set of books always delivered an image of knowledge and curiosity even if it was not backed up by their actual usage. Something that Wikipedia just cannot do” (A2). The printed *Encyclopaedia Britannica* gave authority to knowledge, which is generally seen as a positive value. Yet some readers also have a critical perspective on this authority. Accordingly, the very end of the printed *Encyclopaedia Britannica* can also symbolize a positive development: “I don’t want to say that I’m exactly glad to see the print Britannica go, but there will be advantages -- such as an end to the fantasy that all knowledge can be canned in one fallible set of books.” (A6) In this line of reasoning *Encyclopaedia Britannica*’s is symbol of an outdated worldview, something which is also captured in the following two remarks:

Beside being classist, colonialist and racist, this tired go-to source obfuscated history and gave a one-sided story of the world’s knowledge, as though the British had a right to tell everyone else in the English language the truth of the universe. (A1)

The idea that there is one common body of knowledge to master is obsolete, so as the great Britannica disappears so does a qualitative measure of important knowledge. (A1)

In these two quotes a late modern view on knowledge in the plural – as *knowledges* – is emphasized and not only that, this plurality is also celebrated.

As a cultural marker, *Encyclopaedia Britannica* seems to have been a symbol of the aspiring middle class, believing in education, knowledge and progress. In the following quote, the middle class marker seems to be so strong it over-weights other belongings. The reference to *Google* below is used to demonstrate a difference:

I realized my boyfriend’s family would mesh with mine, despite being from a different continent, ethnicity and cultural background, when I saw their Encyclopedia on the shelf. I knew they also knew how it ended. Asking them to show me their Google search history or recent Wiki lookups wouldn’t go over so well. (A5)

According with the middle class ideal of education success and aspiration, *Encyclopaedia Britannica* was often bought as a resource for the children in order to help them achieve in school: “I was fortunate to have parents who could afford to have a set in our home when I was growing up /... /” (A1). Often, being able to buy the *Encyclopaedia Britannica* was described as connected to a sacrifice, “My mother bought a set of the Encyclopedia Britannica just before I started high school. We didn’t have a lot of money, and this was a huge sacrifice for the family.” (A1), or a kind of investment in the children,

These volumes were not simply purchased to serve as adult reference books. They were investemnst [sic!] in the children in the house, a window into all the topics that were out there to be explored, a way to seduce them into seeking knowledge about topics they didn’t even know existed. (A1)

To buy *Encyclopaedia Britannica* was for many people involved with a huge cost and not something everybody could afford:

I was in my early 20s, laboring in a savings bank on Wall Street for pennies at the very start of a career in technology; and that money represented a monumental investment by me, paid, very painfully for a long time, in instalments [sic!]. (A1).

Hence, to own a set of *Encyclopaedia Britannica*, or other encyclopedia, was not only a an identity marker, but it also meant to have access to information which was an advantage in that made your school life easier: “If you had your own set it meant your parents respected knowledge and you had a leg up on that next school project” (A1). It seems as if you literally bought a ticket to education, which confirmed your right to advance:

My parents made the considerable financial sacrifice to purchase the EB when I was a child - NOT in an attempt to gain “status” (which would



have been more easily attained by buying a new car) - but to open their children's minds and give us access to the whole world at our fingertips at any time. (A1)

However, this very real physical access to information that consulting the reference work made possible was also connected to a symbolic value and related to markers of status, such as parents respecting knowledge or by comparing it to other available markers of status and identity in a consumer society. Status is intimately connected to the material artifact and its capacity to act as a visible symbol of class and distinction. Yet, this is not remediated in the encyclopedia's transformation to digital formats where status might be connected to certain devices, but these devices are multi-functional by design and not seen as expressions of specific types of epistemic information.

### CONCLUDING REMARKS

We analyzed reader comments that the news of *Encyclopaedia Britannica* foregoing its print edition generated. By drawing on an understanding of information that complements an epistemic discourse of information with a practice discourse (cf. Frohman, 2004), it was possible to include other roles for encyclopedic information and encyclopedias as information sources than just those concerned with correctness of information and their ability to provide answers to factual questions. Instead, we have tried to capture the different roles encyclopedic information and encyclopedias as information sources can have in peoples' lives and through this how they are imagined in public discourse.

The news that started the debate analyzed did not announce the demise of *Encyclopaedia Britannica* as such. The article in question revealed that the company would end publishing new print editions and instead focus on the online version of *Encyclopaedia Britannica*. However, few readers paid any attention to that in their comments. Within an epistemic discourse this is difficult to explain. The transition from print to digital is here only a practical difference and a digital information source has many advantages – distribution, updating, access, cost and so forth. In order to make sense of these comments they need to be understood within a practice discourse of information. By doing this the ways, in which the encyclopedia as mediated in a specific material form, functions as a tool for identity construction, a tool which through processes of remediation relates cultural as well as personal identity also to other prior and present media forms, becomes understandable.

It is interesting to consider that at the time of writing *Encyclopaedia Britannica*'s website *Britannica.com* was ranked number 2881 of most accessed websites in the USA by *Alexa.com*, a service for internet statistics, while Wikipedia came in place 6. Hence, within an epistemic discourse for most people the Britannica already has ceased to be part of their lives quite a while ago. Within a practice

discourse of information this was not always as obvious until now. But this announcement officially cut the link between the two discourses and this is what our commentators are lamenting or celebrating.

Clearly, encyclopedias function as external memories. They are a resource for epistemic information that makes it unnecessary to remember details since those can be looked up. Encyclopedias, print or digital, professional ones such as *Encyclopaedia Britannica* online or user-generated ones such as *Wikipedia*, gather and organize information on different subjects in order to make that information accessible in society. Various established mechanisms are then used to create trust in the correctness of the so compiled information and to signal trustworthiness to its users and to society at large. Yet, different types of encyclopedias argue differently for how this trustworthiness, stemming from different views on expertise, is constructed (Hartelius, 2008). In traditional, professional encyclopedias, trustworthiness is legitimized by the publisher and by guaranteeing approved information written by experts in their fields, and not least by a controlled editorial process (Spree & Lewandowski, 2011). In participatory encyclopedias trustworthiness is warranted by the cooperation of many contributors – the so-called “wisdom of the crowds”, by making visible editing processes and histories as well as by references to sources in traditional scholarly publications (Sundin, 2011). It seems that different types of encyclopedias epitomize different orders of knowledge – albeit in different ways. Where in our study *Wikipedia* and *Google* (and in its wake online reference works in general) symbolizes a late modern society where knowledge(s) are seen to be multiple, *Encyclopaedia Britannica* (and other similar print resources) symbolize modernity and with it an order of knowledge based on scientific disciplines and their division of labor. In the logic of media experience, that situates media within practices of use rather than production, this is seen as embodied, as remediated in the material form, rather than in institutions and processes of vetting information and creating trust.

In a similar vein, encyclopedias are tied up with cultural and personal identities. Through their ongoing transformation they are also complicit in remediating identities (cf. Bolter & Grusin, 2000) at the watershed of print and digital. For instance, encyclopedias are tools for learning and education. There are numerous accounts on how people have used encyclopedias for formal school purposes or for self-initiated learning. Connected to this emerges another role for encyclopedias, namely as a marker of status and as vehicles for cultural and personal identity construction. Here the encyclopedia – as a print artifact – is often a symbol for an aspiring middle class, signaling stability and order or – as a digital service – a symbol for cultural shifts, which are positively or negatively charged.

The analysis maps out some of the different functions encyclopedias as information sources and external

memories are assigned in contemporary society and in the recent past. It shows how these functions go into one another and how they are entangled with certain social practices and values. Through this it makes visible how understandings of information at a personal level are entwined with ideas of materiality, technologies, and culture that are formed in conjuncture with larger historical and societal shifts.

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