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Down the rabbit hole
Literature’s adventures in e-readerland

Kathryn Knight

Abstract

In this article I will examine the impact of new reading technologies on the semiotic and phenomenological meaning produced by texts that originally existed in print format. Through a process of literary comparison between a print version and an electronic version of the same literary text, I will try and determine what the effects of this translation are; that is, what are the differences between text printed on a page and text retrieved and displayed electronically, and how do these factors influence the reading of literary work?

Keywords: e-book, e-reader, iPhone, Stanza, semiotics, phenomenology

In her book My mother was a computer: digital subjects and literary texts, N. Katherine Hayles argues that the “transformation of a print document into an electronic text” can be regarded “as a form of translation, which is inevitably also an act of interpretation” (Hayles 2005, pg. 90). In this article I will examine the effects of this translation on the reading experience of a text that originally existed in print form when it is converted to an electronic format. In particular, I am interested in the differences in narrative structure and the de-
velopment of literary techniques that the new technology might engender. My scope in this examination is purposefully narrow – I will make a comparison between a print version of the text *Alice’s adventures in Wonderland* and the electronic version published by Feedbooks, available for download and use on the Apple iPhone with the use of the Lexcycle Stanza application.

The specific ideas that I am using to aid my examination are semiotics and phenomenology. Put simply, semiotics is “the theory and study of signs and symbols, especially those with social relevance” (Macquarie Dictionary 2009). It is a basic facet of semiotics that all visual components of a text have meaning that exists separate to the ideational meaning of the text (Kress and van Leeuwen 2006, pg. 4). In the case of a written work, for example, this theory asserts that visual components contain meanings above and beyond the meaning of the words that are presented on the page.

In psychology, the term phenomenology refers to the study and theory of subjective experience. This idea is often applied to the act of reading, for example in the application of reader-response literary criticism. In terms of my discussion of e-readers, the subjectivity of a reader’s response to a text is intensified in an environment where they are given options to change the display of the text.

I will begin my discussion by justifying the texts I have selected to study, before moving on to a discussion of my selected e-reader technology in section two. In section three I will discuss the advantages and disadvantages of Stanza’s unfixed page size. In section four I will consider Alice’s question “What is the purpose of a book without pictures?”, and discuss the absence of illustration in the electronic format. I will then consider the semiotic consequences of the capability to change the font in which a text is represented in section five, before concluding my analysis in section six.

I have selected *Alice’s adventures in Wonderland* as the text for comparison because it is brief but at the same time comprises a number of the traditional elements of print-based text, including type, images, cross-references and varying paragraph alignment. I hope to determine how effectively these aspects are translated into the e-format. For the purposes of this essay I have chosen to work with Feedbooks’ current version of the text because it is an unabridged version, it is the most visually attractive of the free versions of the text locatable through the iTunes store, and because it takes advantage of many of Stanza’s distinctive customisation options.
Stanza

Stanza is a free e-reader program designed by Lexcycle Inc. for computer desktops and, more recently, the Apple iPhone. It has been the focus of much recent discussion due to its increasing market dominance in the field of e-readers. In its 2008 technology round-up, Stanza was voted one of the top eleven iPhone apps by *Time* magazine (*Time* 2008).

Stanza’s popularity is in no small part due to the fact that it is free, which gives it a great advantage over many of the competitors in the e-reader market. The most popular dedicated e-reader products are Amazon’s Kindle and the Sony Reader, both of which retail for over US$350. In using the iPhone as its platform, Stanza is also able to take advantage of the huge number of iPhone users across the world, reaching consumers who already possess the basic requirements to begin using the program without any marketing effort. Its release was timely as it coincided with the removal of an unauthorised e-reader software, Books, from all standard iPhone platforms (Sorrel 2008). Further, Stanza does not have the file-format hang-ups of many other readers. Using the Stanza desktop application, users can convert their existing e-book library to the appropriate format and add the texts to their Stanza library.

As early as 1991 advocates of the ‘electronic book’ were suggesting that the stand-alone electronic reader was infeasible. Tony Feldman, in a report for the British National Bibliography Research Fund, stated that “Ultimately, perhaps, we are moving towards the concept of a single, personal, palmtop information centre, part electronic book, part computer, part global communications centre.” (Feldman 1991). This certainly describes the trend towards technological convergence that the iPhone exemplifies. It also accounts for Stanza’s advantages over its main competitors—while many complain about the great expense incurred in purchasing a technology that performs only one function, the iPhone represents a mobile phone, an mp3 player, a portable gaming console, and palmtop computer and now an e-reader in one.

Down, down, down: Reading the endless page

In examining the phenomenological differences between reading text in print format and e-formats, one of my main queries is the way in which narrative structure is affected by the change from a full page of text in a book to
the necessarily smaller snippets of text that can be viewed on the screen of electronic readers at any one time. The size and resolution of the screen of most e-readers, iPhone included, is not sufficient to display the equivalent of an entire printed page. The smallest typical page size for literary works is the A-format or sextodecimo, measuring approximately 10x15cm; the screen size of e-readers is typically smaller than this, as their compact size and ease of transportation is one of their marketed advantages over printed works. The screen of the iPhone is about half this size, measuring 5x8cm.

The title of this section makes reference to the ‘endless page’, which I have thus labelled because the text downloaded from the Feedbooks library is not organised into pages as such (as evidenced by the fact that there are no page numbers on the screen). Rather, the amount of text that appears in the page is designated by how much can fit into the frame of the iPhone’s screen at any one time. This of course changes when the text size is altered, further complicating the issue of narrative flow; see section five below.

In the print format of the text, the chapters are kept short, as the work is a children’s fiction and must therefore be easy to read. Also, there is typically a white space of at least half a page left at the end of each chapter to signify the conclusion. In the electronic format the chapters of course remain the same length, but the reader’s subjective perception of that length, influenced by the number of ‘pages turned’ whilst reading the chapter, changes dramatically when the amount of text that fits within the frame of the screen is decreased. The difference between a very large font size and a very small one can make a chapter such as chapter nine ‘The Mock Turtle’s story’, originally of fourteen pages in default mode, cover as many as one hundred and twenty pages or as few as seven. A very large font size makes the text seem choppy and incoherent, while the very small size makes the text seem drawn-out, and is near impossible to read.

What is the use of a book without pictures?

Without doubt the most striking difference between the print- and e-formats of this text is that the e-format lacks any illustrations. Carroll’s original text featured 42 illustrations by John Tenniel, arranged throughout the text to complement the written work. In their book *Reading images: the grammar of visual design* semioticians Gunther Kress and Theo van Leeuwen argue that
images have equal meaning-making ability as the words on the page, and therefore that the images do not complement the story, but rather tell their own. Many observers have pointed out since the first electronic texts that “[p]erhaps the greatest advantage of electronic documents over paper ones is their ability to handle many more graphic elements.” (Yankelovich et. al. 1985, pg. 56). It seems strange, then, that in moving to a format that is so much more suited to multimedia the illustrations have been lost along the way.

There are obvious possible explanations for their exclusion: insufficient screen resolution, file size constraints, perhaps image clearance problems combined with the fact that the changeability of the text might prevent them from occurring in the appropriate location. Nevertheless, I argue that their absence greatly detracts from the text visually, and in some cases ideationally as well. This is because there are a number of instances when the text refers explicitly to the accompanying illustrations. For example, “If you don’t know what a Gryphon is, look at the picture.” (Carroll 2006, pg. 94), and “The judge… was the King; and, as he wore his crown over the wig (look at the frontispiece if you want to see how he did it), he did not look at all comfortable.” (ibid, pg. 111). Of course the Feedbooks e-book does not have a frontispiece, but nor is the text changed, resulting in a not only less fulfilling reading experience but also rather a confusing one. The integrity of the written text is diminished by the lack of visual texts.

On page 29 of the print text there is a large section of text that is displayed in a visual manner and again, the text makes explicit reference to the image that is unrealised in the electronic version. Alice confuses the spoken word ‘tale’ for its homonym ‘tail’, “so that her idea of the tale was something like this”, and the pursuant text is arranged so as to look like a long, curved mouse tail. It is obvious that to set out the text in this manner would be difficult in the e-format (the variable amount of text that fits in to a frame not the least of the reasons why), but perhaps there is a valid argument for slightly altering the text, perhaps to include an explanation of the original image, in these situations. As a matter of interest, the Feedbooks version does maintain some semblance of the lineation of the original print text, but the lines are not set in to create the right pattern; they remain left-aligned, and despite text alignment being one of the options for adjustment that Stanza offers, I was not able to experiment with the alignment in this title.
I should like to be a little larger…

Stanza offers display modification capabilities which the Lexcycle company describe as “Your words, your way”:

Font sizes and colors, portrait mode or landscape, justification, line spacing, and hyphenation. It’s all under your control. Customize Stanza with your preferred style and enjoy distraction-free reading. (Lexcycle 2009).

In terms of Hayles’ discussion, the transformations that a text undergoes in the shift from print to electronic formats are further compounded when readers are given multiple options for personalising their text. “In most contemporary electronic literature, screen design, graphics, multiple layers, color, animation, etc. are signifying components essential to the work’s effects.” (Hayles 2005, pg. 94; my emphasis).

In light of Hayles’ analysis, we might consider the ontological status of the text has changed so dramatically in the translation from print- to e-formats that small changes to the font size, typeface and background will not have much further impact. However, semioticians and certainly Hayles herself would argue the opposite: “All fonts are significant… Thus, locating the meanings in a visual text involves more than reading images; it also means an awareness of visual conventions—and of the meanings associated with those conventions.” (Cranny-Francis 2005, pp. 34-35). In choosing their preference for a particular font or text colour, the reader will choose those that speak to them personally, and therefore we can consider that they are aware of the wider social meanings attached to such sign-symbols, or that they have their own meanings attached to them.

This process could be quite liberating—the reader chooses the kind of connotative meanings that will be present in the text when juxtaposed with the written words. But what if a reader chooses a font with a connotative meaning that clashes markedly with the literal meanings present in the book? This confusion could conceivably ruin the entire reading experience. It is a fact that publishers and designers work long and hard to find the best way to present a particular text. Perhaps, as readers revelling in a new technology, we might tend to be too dismissive of the decisions made by professionals.
Conclusion: Would you tell me which way I ought to go from here?

So asks Alice of the Cheshire-Cat when she tires of her strange adventures in Wonderland. And the Cat’s reply—“That depends a good deal on where you want to get to” (Carroll 2006, pg. 63)—is just as relevant to our discussion of electronic formats. Where we ought to go from the basis of these observations depends greatly on our purposes for the texts that we are reading. An understanding of the possibilities and limitations of print and electronic formats will aid us in choosing the appropriate format for our purposes—be they entertainment, portability, modifiability (for which e-formats are most suited), or study of literature, stability and interaction with an artefact (for which purposes print formats are uniquely suited).

Even the most fervent proponents of electronic text formats have never gone so far as to suggest that e-formats are the best way to read literary texts (except those created specifically for e-formats: the computer-based hypertext narratives of the mid-nineties and the keitai shousetsu ‘mobile phone novels’ currently experiencing popularity in Japan). However, I believe that while the new technology offered by the iPhone (and other electronic readers with similar limitations) allows for a different reading experience to hard-copy formats, it is one that is no less enjoyable or worthwhile to readers. I was surprised that the e-format I examined did not exploit its unique capabilities for image display and multimedia presentation; with time and further development, however, I believe that the Stanza format would be able to make the most of this.

The different formats have different advantages and disadvantages and, as a result, different situations to which they might be best employed as a form of reading. From my experience with this essay I would not recommend the use of the current Stanza software to anyone looking to analyse a text for academic purposes, due to the unstable page numbers and to the fact that print format texts are more readily available for other to locate your references. At the same time, I would highly recommend the Stanza software as an alternative to carrying heavy books for providing reading options when taking a holiday. While the current software does not allow for the display of images, the customisation abilities would perhaps offer more enjoyment to a reader who is familiar with the text. Like Alice’s decision to follow the White Rabbit, it is all a matter of choice.
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Ditching the dead-tree medium

Heidi Cassell

Abstract

New Media has been successfully and permanently changing everything in its path since the 1980s, when it all began. Today, new media has become immensely popular with mobile phones, e-books, e-zines, and multiple other forms of digital media. The use of computerized devices has transformed the old media into the new media. The term “new media” is meant to encompass the emergence of digital and computerized information and communication technologies in the latter part of the 20th century. More specifically, e-books have made their way into the new media scene and have become the newest and most technologically advanced way to get printed material in digital form. The digital material can be accessed through personal computers, Personal Digital Assistants (PDAs) or on designated hardware devices called e-book readers.

Keywords: New Media, e-book Readers, Hard-copy Publishing

For both the author and publishing industry, the e-book has just as many known disadvantages as it does advantages, which can be seen as a major drawback of the digital media. Since the idea of the e-book came about, it has been a niche market tool. Increasingly, people are becoming more aware of the tool and the devices are becoming more marketable. The long unanswered question is whether or not people prefer e-books to printed books, and if so,
are they willing to ditch the paper and go completely digital? And, what would it take for the e-book industry to take off, so to speak? After several years of being “the next big thing” and not living up to its title, it’s hard to know if it will ever be the next big thing. Television is now satellite television, digitally broadcast around the globe. Paper maps have nearly become extinct with Global Positioning System (GPS). CDs are nearly obsolete with the invention MP3s, and appropriately the MP3 players. Radio is now moving towards the podcast editions of recordings. Movies have been digitally re-mastered and have been developed from VHS to DVD. In four words: everything is going digital. The logical step, following suit of the other forms, would be for the book to go digital with the e-book and the e-book reader. However, as the market is finding out, people have not been as receptive to this new media as the other forms that have advanced seamlessly in the past few years.

Initially, the e-book genre was targeted towards academic and professional usage. The market for the e-books rose significantly and is highly successful in businesses and in scholarly settings. Handbooks and manuals use the e-book format for on-the-job training and teaching employees many different skill-sets necessary to perform well at the company. Similarly, academic writing and scholarly journals are available to students through e-books. JSTOR, and other academic journal databases, have digitized journals with the e-book format for students to access from home. These e-books, however, are typically accessed through personal computers and not through the e-book reader devices. The other issue with this niche market is that it is closed, making it small and unpopular for the general public, keeping it from becoming “the next big thing.” This is the biggest issue facing the e-book and e-book reader market. Recently, producers of e-books and the manufacturers of the e-book readers have tried to gain access to the mass markets with the e-books and reading devices, but have struggled immensely to break into the medium.

Latest technological developments for e-book readers: price, compatibility & marketability

There are several portable e-book reader devices on the market today. However, the focus will be on the three most popular devices: Amazon’s “Kindle,”
iRex’s “iLiad,” and Sony’s “PRS-500” Reader. The three of these e-book readers have been leading in sales, development and production from 2006-2008.

Price

The Amazon Kindle e-book reader currently sells for $359, a drop of $40 since its launch in November 2007. The iLiad sells for $499, down $200 from $699 when it launched, and Sony’s PRS-505 currently sells for $299 (USD). Most people cannot afford to buy these devices. Roughly, $385 (the average price of the devices) would buy you 20 paperback books from online sites or retail stores. These devices are seen more as a luxury item than something that most people would typically own. Each of these readers have both unique and similar qualities. The specs, comparisons and contrasts between each of the three readers can be seen in Figure 1.1, located at the end of this study. Screen size, battery life, capacity, compatibility and physical weight are all important features of the e-book readers that need to be studied and decided upon for which are best for the product. Price plays a significant factor in the features of the e-books. Making costs to both the producer and consumer minimal, while continuing to develop the readers, is essential for the manufacturer’s success of the e-book reader.

Amazon retails bestselling books, in the form of e-books, for its device as well as other e-book readers at $9.99, as opposed to the paperback price, ranging on average anywhere from $15-$30. Newspapers can be purchased for a monthly fee of $9.99, with the anomaly being The New York Times at $13.99. Magazines are sold for a monthly premium of $1.25-$2.50 for complete access through an e-book reader and access to blogs is on average $.99 a month. Typically, readers can subscribe to these newspapers and magazines online for free when reading the sites from a personal computer, PDA or mobile with Internet access. There is not much of an incentive for people to pay for monthly subscriptions to magazines and newspapers through an e-book reader when they can be read for free through other sources, mostly which they already have access to and no purchase is necessary. However, some people may be willing to pay the premium to have complete access to these products virtually from their pockets on a device that is more suited for reading than a PDA or mobile.
Marketability

There is a lot of hype looming over the e-book industry and the e-book readers. In many respects the new e-book readers are like the once upon a time unpopular Apple iPods. The difference being the Apple iPods became an overwhelming sensation overnight, and the e-book readers are taking much longer to get off the ground. E-books have been available for personal computers since 1977 and to PDAs since 1990; however, the e-book readers did not become available until 1998. The technology is not as new as people might think. The e-book readers have had time to develop and evolve for ten years, but have yet to make a mark on the industry or market. It wouldn’t necessarily be a bad thing for e-book reader manufacturers to take a few notes from Apple. The sensation happened more or less overnight, once the college-aged demographic got hold of it and made it a popular, must-have item. It could bear to be repeated that Apple is now producing the iPhone, which has e-book reading capabilities, and is doing quite well in 2008 sales (see figure 1.4).

One of the major problems facing the e-book reader’s popularity is the classic conundrum – which comes first, the chicken or the egg? In order for the e-book readers to become popular, there needs to be a way for the general public to easily and affordably access them. Similar to other new media and technological developments, the price will not decline and availability will not become more widespread until the item becomes popular on the markets and has a high demand. In this aspect, the e-book reader can be looked at from an economic standpoint of the basic supply and demand equation. Both the supply and demand need to meet an economic equilibrium, where price, supply and demand all meet at an agreeable position. Currently, the devices are too expensive for the mainstream market, being the general public, to buy and the availability lacks for what is defined as a mainstream item. The best, if not only, way to purchase the reader is online through a manufacturer’s website, or through a discount website in relation to the manufacturer. A large percentage of the mass market does not have access to the Internet and would prefer to go to a Bing Lee or a Dick Smiths electronic store to pick one up as a cheap gift, but the readers are not yet available in electronic retail stores. The e-book readers are still very much in the realm of luxury, with high end prices, only available to people who buy them directly from manufacturers.
In light of the consumer’s non-responsiveness, a marketing war has been waged in the name of the e-book readers. Originally, and generally still today, the e-book readers are niche market devices that cater to a specific market – the educational, professional and scholarly markets. Typically, this means the tech savvy people, or the white-collar class, who would be buying the readers and it is a small demographic that the readers appeal to. Marketing for the e-book readers needs to take a new step in a different direction with advertising. In order to start changing the demand, and thus the supply, creating an economic equilibrium, the manufacturers need to start marketing towards the broader mass public.

Compatibility

Recently, the Apple iPhone has come out with its application, “stanza,” which can be used as an e-book reader. Stanza allows for owners of iPhones to download the application and install it for free on their phones, essentially turning the phone into a free e-book reader. The iPhone users must still purchase the e-books they wish to have, but the application to read it with is free for them. Since July 2008, when it was brought to the public, the application has been downloaded 395,000 times and installed at about 5,000 copies a day. Thus making the iPhone as an e-book reader more popular than the Amazon Kindle, which has been the public favorite up until this point. For 2008, Amazon Kindle has been purchased 380,000 times and the Sony PRS-505 at just a small fraction of that number. With that said, the issue now becomes convenience versus format and price. The iPhone is not as ideal as an e-book reader; it is smaller and uses the LCD screen, but is convenient in every other aspect. The iPhone has many other applications as a mobile that are appealing to users, and if purchased could be turned into an e-book for virtually no cost. Having a mobile that doubles as a reader could be highly useful for some. But, for others, the small screen and glaring backlight is not worth the tradeoff. The iPhone isn’t all it’s cracked up to be in terms of an e-book device. The battery life is quite a bit shorter and the screen is quite a bit smaller at 3.5” diagonally. The application itself it very user friendly, but the iPhone as the device is much less user friendly in terms of reading lengthy novels, or even a newspaper for that matter. The iPhone’s battery is stated to be capable of providing up to seven hours of video and six hours of web browsing; however, there is not a test
for how many “pages turned.” A typical e-book reader’s capability is approximately 7,500 pages turned between each recharge and can hold approximately 80 e-books at a time. With all that said, it is hard to understand why consumers still prefer the iPhone over e-book readers. Currently, the iPhone has a better marketability for consumers and is taking advantage of it.

E-book developments: technology, price & new media

Electronic publishing, also known as ePublishing, web publishing or online publishing, has drastically changed the publishing world in the past decade. Electronic publishing includes the digital publication of e-books and electronic articles, and the development of digital libraries and catalogues. This form of publishing also includes formats in the way of self-publishing. On demand books and the Espresso Book Machine are making printing books cheaper for the publishers, but are still not in direct competition with the e-book format. The cheaper print versions of books cannot compare with the convenience and ease of accessing hundreds of books from your pocket on a handheld device. The popularity of e-books within the last five years has risen. From 2002 to 2007 the wholesale revenues went from $1 million USD to $8.5 million USD (see figure 1.2).

Presently, there are hundreds of online digital libraries and databases. Each of these put out full versions of books, in e-book format, for the public to access for free. Project Gutenberg is the oldest digital library, dating from 1971 to present. Some of the other popular one include: ibiblio, Google Book Search and Project Gutenberg Australia. ibiblio is more or less a collection of collections, hosted on the Internet via open source software. It is considered to be an Internet librarianship, which archives over 2500 collections such as software, literature, art, history, science, politics, and cultural studies. It claims to be “The public’s library and digital archive” (ibiblio.org). Google Book Search, introduced in 2004, allows public-domain works and other out-of-copyright material to be downloaded in PDF format. In light of this, Google Book Search remains a controversy between librarians and the publishing industry.

Project Gutenberg, or PG, was the first and largest attempt at creating a free online database for books. As of December 2007 Project Gutenberg collection held over 25,000 works and averages about 50 new e-books each
week. Most of these e-books are in plain text format so that they can be read on any e-book reader device. Works within the PG collection are primarily of Literature including novels, poetry, short stories and drama; PG also has cookbooks, reference works and issues of periodicals. As with many of these online library databases, PG is not excluded from the harsh criticism of copyright issues. However, material is added to the PG archive only after it has received a copyright clearance. Unlike some other digital library projects, PG does not claim new copyright on titles it publishes. Instead, it encourages their free reproduction and distribution with few restrictions. Under public domain the texts can be read, redistributed or used for commercial purposes; however, when licensed the material is restricted in those areas. PG is affiliated with many similar projects worldwide, making it the largest in e-book distribution and Internet librarianship.

Prospects for the e-book

The e-book market is not growing as rapidly as expected with the manufacturing and sales of the new e-book readers, specifically, Amazon’s Kindle and Sony’s PRS-505. With the release of the much publicized Kindle and PRS-505 the sales for e-books were projected to rise a lot more than what they did. Sales of the e-books form 2006-2007 only saw a 23.6% increase, which is a larger increase than previous years, but not what was expected. The publicity and marketing for the e-book readers is nothing to scoff at. The three most popular readers, discussed throughout this paper, have been on the front of dozens of high-profile magazines, the subject of hundreds of journal articles – print and electronic alike – and the subject of many blogging sites as well. Discussions are happening in mass quantity and the buzz about the e-book phenomenon is rapidly growing, yet the e-book sales are not taking off, thus the e-book reader sales are not taking off. Moreover, with Apple iPhones making headway into the business of e-books, the popularity is likely to grow exponentially. Access to e-book through mobile phones is the largest growing aspect of the industry thus far. In Japan mobile phone sales grew 331% while the non-phone Internet sales grew 69% in 2006 (Anime News Network). The trend is taking off in others forms than originally anticipated. Mobiles were not designed or projected to have these capabilities, but many do and are taking advantage of
it. However, mobiles are smaller, less reader friendly, and typically have an LCD screen, making them less marketable as an e-book reading device. Conversely, once the e-books become popular with the mobile devices, it is likely that the e-book readers themselves will start selling at a much steeper margin. Similar to the way MP3 players and the Apple iPods gained market popularity. Cell phone purchases of e-books are likely to usher in the era of the e-book phenomena as a whole, and help with sales of not only e-books, but also the e-book readers.

In the US, over a five year span, (2002 – 2006) trade e-book sales have increased by 35%. It has been growing at a much more rapid pace recently. However, compared to print book sales, it lags in sales distinctly (see figure 1.3). The main question everyone is asking themselves, publishers and authors alike, is whether or not e-books will be the next big thing and whether or not the e-book will ever be realised as a new form of reading. I think, given time, the e-books will become a massive phenomenon, just as the Apple iPod & iPhone did along with many of the other newer forms of digital media. I see the switch from print to digital happening within the next five years. Unlike the sales of iPods and other hot ticket items that took off over night, the e-books are more likely to see a more gradual increase in sales and popularity. With all of the signs pointing to yes, it would be hard to think e-books will fade from the picture rather than flourish in the digital world we are now living in. Rather than a complete overtaking, I see a harmonious co-existence of hardcopies and e-books in the near future. Books will never be obsolete.
**Amazon Kindle**

Operating System Linux (2.6.10 kernel)
Dimensions of Screen 6” diagonal, 3.6” (W) x 4.8” (H)
Pixels 600x800 pixels (.48 Megapixels) 167ppi density
Screen LCD side scroller / 4-level grayscale
Memory 64 MB RAM / 180 MB internal storage + SD expansion slot
Battery 3.75V
Physical Weight & Size 10.3oz / 5.3” x 7.5” x .8”
Media Kindle (.azw) Plain text (.txt) MP3 (.mp3) Audible (.aa)

**Sony’s PRS-500 Reader**

Operating System MontaVista Linux
Dimensions of Screen 6” diagonal, 3.6” (W) x 4.8” (H)
Pixels 600x800 pixels (.48 Megapixels) 170 ppi resolution
Screen E Ink electronic paper / 8-level grayscale
Memory 200 MB internal storage + expansion memory stick duo(8GB) or SD card(2GB)
Battery Lithium-ion / up to 7500 “page turns” per charge
Physical Weight & Size 9oz / 6.9” x 4.9” x 0.5”
Media .pdf .txt .rtf .doc .jpg .gif .png .bmp .mp3 .aac .fb2 .lrf

**iLiad**

Operating System Linux (2.4 kernel)
Dimensions of Screen 8” diagonal, 5” (W) x 6” (H)
Pixels 768x1024 pixels / 160ppi density
Screen E link electronic paper / 16-level grayscale
Memory 64MB RAM / 128MB internal storage + expansion via USB MMC or CF cards
Battery Lithium-ion up to 7500 “page turns” per charge
Physical Weight & Size 13.7oz / 6.1” x 8.5” x .6”
Media .pdf .jpg .bmp .xhtml .txt .png
**Figure 1.2**

*This data represents US revenues only and is a representative sample from trade publishers and does not include library, educational or professional electronic sales*

<table>
<thead>
<tr>
<th>Quarters</th>
<th>Revenues</th>
<th>Quarters</th>
<th>Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 02</td>
<td>$1,556,499</td>
<td>Q3 05</td>
<td>$2,310,291</td>
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Figure 1.3
*Graph of U.S. trade e-book sales in millions*

Data taken from Educause Review Vol. 43 No. 2 April 2009.

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<tr>
<th>Segments</th>
<th>2006</th>
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<td><strong>2.5%</strong></td>
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Figure 1.4

Apple Inc., 2008
References


zons-Wireless-Reading-Device/dp/B000FI73MA


Abstract

The biggest challenge that traditional publishing industry facing is the spring up of new technology. E-books have been set off a rush into publishing industry for 20 years. As the carrier of e-book, the evolvement of e-book readers, to a certain extent, stands for the survival crisis of p-book. Although many users still are suspicious of e-books’ viability in the future, improvements of high-tech which aims at buttressing e-books and the process of electronic publishing would never stop. This article will stress e-book readers, through analyse of what an e-book reader is, compares e-books to other mobile devices, exploring how the metaphors behind the e-book’s design make the technology easier to use and therefore embrace.

Keywords: e-book metaphor design
What is an e-book reader?

With regards to the term of ‘e-book’, it is prevalently has three meanings, which respectively refers to text format, software program and hard device in the electronic consumption market. In this essay, an e-book will be defined as a handheld hard device by using the specific term—e-book reader in order to constitute the distinction. The definition of e-book reader in Wikipedia is that: An e-book reader, sometimes also called an e-book device, is a device used to display e-books. (Wikipedia).

The term is restricted to hardware devices, not software programs. In detail, an e-book reader is a reading device, which has sophisticated display screen, supports various reading format, and also possesses the encryption technique to protect copyright. It is portable while at the same time provides users with tremendous storage capacities. With the support of the latest technology, an e-book reader is also able to update internal database quickly and conveniently. Further, it has dual metaphors behind its interaction design, which creates both similar p-book’s reading behaviour and inimitable reading experience that in virtue of the development of new technology. With all these features, e-book readers make users to come through different reading experience when compared with other mobile devices, which have built-in reading function as well.

Theories of metaphor

Conventional opinion on metaphor is that metaphor belongs to the field of linguistics. It is regarded as rhetorical words. However, Lakoff defines metaphor as the ‘expression of an understanding of one concept in terms of another concept, where there is some similarity or correlation between the two’ (Lakoff & Johnsen, 2003, p. 6 italics in original). He considers that a metaphor is not only a characteristic of language but also involves in thought and action in everyday life and points out that a metaphor may act as a guide for future action, which makes experience coherent.

In Human–Computer Interaction field, Blackwell thinks metaphor refers to ‘a complex aggregate of design concepts borrowed from technical literature in cognitive science, education, philosophy, and the design of computer displays and control interfaces’ (Blackwell, 2006, p. 519). Most interactive design
process is the process of designers collecting information and material and then applying metaphors to the design. Metaphor is the most powerful methods for storing and communicating information during the interactive design process. The aim of using metaphor is to lead the users to identify with the design by having same or similar sense of the prototype of the products. It helps users to learn about a brand new design easily, and then could give corresponding resonance. Some theorists consider that it is undoubted to affirm the value of a good metaphor that will increase the initial familiarity between user and computer application. (Dix, Finlay & Abowd, et al, 1998).

**Metaphors behind e-book readers’ design**

During the design process of e-book readers, metaphors are obviously adopted by designers to frame their products. Lakoff (2003) indicates that metaphor is systematically based on our experience and exists in our culture. Conceptual metaphors are often adopted behind names. He provides the example of ‘Time is Money’ to explain that metaphors help us to conceive and understand abstract concepts, by right of specific objects. Saffer (2005) also illustrates that ‘Naming and framing often happen via metaphor’. Based upon these theories, it is not hard to be aware of the term ‘e-book reader’ contains the metaphor of ‘paper book’. Designers intend to comply for readers’ persistent cognition on paper book reading, named e-book readers metaphorically.

In terms of users’ reading convention, almost all e-book readers’ manufacturers are inclined to present the e-book readers in the market as an analogue of traditional paper books, from shape, size to operational habit. Designers tried to make users who read on e-book readers acquire similar, even much better reading experience than they have on physical books. Ontological metaphors are illustrated as:

> Understanding our experiences in terms of objects and substances allows us to pick out parts of our experience and treat them as discrete entities or substances of a uniform kind. (Lakoff & Johnsen, 2003, p. 26)

> The concept of using traditional paper book metaphor to frame e-book readers encourages users not to exclude a new reading device. Once target users do not reject a new product that would affect their familiar using habit,
there would be chances for them to explore new functions of the new product and enjoy it. Metaphorically application on e-book readers designing exactly fits this point.

Recently, Amazon launched Kindle 2, which is 8” x 5.3” x 0.36” (in inches) in size, as thin as most magazines. Its width follows the bulge toward a paper book’s binding. Compared with Kindle 1, the display has been improved, which ‘reads like real paper’. What’s more, it even provides page-turning function. Its size, interface and page turning function are all designed with an underlying metaphor of ‘paper book’. Jeff Bezos, the founder and CEO of Amazon.com who is proud of Kindle said, ‘Our top design objective was for Kindle to disappear in your hands—to get out of the way—so you can enjoy your reading.’ (BBC News 2007) Not only Kindle exerts itself to imitate the experience like a real paper book, Iliad, another famous e-book reader, which was produced by IREX, also is highly promoted for its amazingly paper-like feature. It seems that designers tend to set their products as book-centred devices to make users adapt it easily.

Kindle (Credit: Amazon.com)

By carefully observations, metaphorical design embodies in the design of page turning aspect in Kindle’s example. There are two buttons respectively on the two sides of the device, where readers’ thumbs usually put, for users to manipulate page-turning function. Designers smartly applied the metaphor of reading action that readers often take when they read physical books, which may satisfy users’ reading requirement.
On the other hand, an e-book reader is more than a device, which only looks like a physical book. E-book readers converge with some new media functions, such as hyperlink, inner-dictionary, search engine and so forth. From this aspect, it seems that the metaphor ‘computer’, ‘dictionary’, ‘MP3’… is exploited to display the integrated functions that traditional paper books could not provide. By observing some popular e-book readers, which are circulating in the market, it’s easy to notice that nearly every e-book reader has some electronic media functions along with the basic reading function. For example, Kindle 2 allows users to transfer the text to speech conversion, which named ‘Read it out to me’ (Amazon.com); Sony Portable Reader provides search functionality and dictionary lookup via using of touch screen. These functions could provide users additional reading enjoyment that they could not experienced in traditional linear text reading. In the era of information explosion, people are required to absorb gigantic message everyday. When they read books on e-book readers, they could use hyperlink to jump to the origi-
nal text of relevant sources. In addition, search engine and wireless function are useful for looking up the related information that users are interested in, which endow e-book readers with the value of enhanced utility, without carrying clumsy books and laptops.

Why not other mobile devices?

Therefore, it is apparent to see the difference between an e-book reader and other mobile devices, such as a net-book, a mobile phone and a laptop, is whether or not the device is professional. E-book readers provide the central function of reading rather than others.

Take mobile phone as an example, although most mobile phones could be used for taking pictures and listening music with their multiple functions, digital camera and MP3 still carve up large proportion of electronic consumption market. Due to the dedicated design for simple intent, users get much more wonderful listening experience and high-resolution pictures when using MP3 and DC, rather than mobile phones. As Steve Haber, president of the digital reading business division of Sony Electronics said, ‘...when camera-phones came out—people have them 24 hours a day, why would they need a separate camera? Well, you use the camera in your phone when you have to, but when you want to take real pictures, you get out your point-and-shoot. When you want to get the ultimate reading experience, you will get out your e-reader.’

Besides helps users to get used to new objects by the adoption of metaphors, it also provides opportunities to users for understanding the products. Via metaphors, users could orient and personify products.

It is mentioned that the design of e-book reader conforms to the conventional reading habit that readers have on traditional paper book, yet, it is potentially changing the traditional reading habit, such as the way to access to information, reading environment and reading variety. For instance, users get chances to read sample chapters of new books and acquire information such as Top 10 book list, which are supported by the Internet function of e-book readers, as soon as books launch. Users do not need to wait for a long period for the new books’ arriving. In the past, consumers collected information of new books via advertisements or endorsement on traditional media—TV, newspaper and publishing houses in traditional reading way. The internal design of e-book readers changes the way of information collection during reading.
process. Besides flexibly access to information, the external design, for instance, self-illumination function enables readers to conduct reading without the limitation of reading environment.

As stated above, compare with mobile phones, laptops and other mobile electronic devices, e-book readers provide a better reading experience in terms of their dedicated design. E-book readers adopt the new technique—electronic paper, which provides excellent visual effect while mobile phones and other mobile electronic devices are mostly equipped with LCD screen, which is not satisfying when doing long chunks of reading.

Several years ago, there were only some concepts of electronic paper were raised, which was seemed to be used for make e-book readers’ screens are able to feel like paper books with the characteristic of curling. However, the technique has been developed fairly well to meet the increased requirements of users. In addition, users can share annotations and add bookmarks while the battery life and reading interface of e-book readers is significantly superior to those mobile devices, especially for e-book readers’ exertion at schools. Schools can use an e-book reader as a teaching tool, which not only preserves the strength of paper books but also enhances. Through share annotations and electronic bookmarks, users enhance the quality of information communication. That kind of software programmes e-books usually rely on computers or mobile phones to exert reading function while with the enhancement of advanced technology, handheld e-book readers are maturely developed, which integrate reading softwares with increasing complete functions, such as reciting and web browsing capabilities to reinforce the real focus on reading.

Kindle, for example, in terms of reading experience, either mobile phone, MP4, PSP and Eee-PC, which have inside function of reading digital texts, could not compete with it.

First of all, the using of electronic paper on dedicated e-book readers is extraordinary. As E-Ink screen technology improves, the Kindle screen could live up to without glistening in the sunlight and not dazzling in the dark. The highly enhancement of electronic paper technique enables Kindle to be easily accepted than other mobile e-book reading devices. Second, the dedicated reading character incarnates the value of e-book readers. As indicated above, e-book readers are concentrated on e-books’ distribution. Kindle retains this single, vertical value while other mobile electronic devices are all dimensional, which is deemed to lose the consumers who have high requirement of specific
function. The new media functions that Kindle built all aim at getting better reading experience when reading. Furthermore, the long battery life offers the users to get a week’s worth of use out of the Kindle with the wireless off, while with the wireless on, a whole day. Also, it is lighter and thinner than paper books.

Conclusion

Thus, it can be seen that e-book readers, itself are endow with metaphors of traditional paper books and new media. The development of e-book readers, in practice, is a revolution toward traditional book market. It is not only an electronic device that could display digital texts. The appearance of e-book readers apparently arose panic of people who resist new technology. The new type reading enjoyment and experience that E-book readers bring make traditional book industry to pay attention to the future way of development.

However, although the evolvement of e-book readers’ concept has been developed for years, still, it doesn’t mean that the traditional book market loses its position in the book market. Paper books still dominates the book market in short-term vision. E-books as a supplemental product will coexist with paper books for a long time.

This is because ‘[p]rint culture affords irreplaceable forms of focused attention and contemplation that make complex communications and insights possible.’ On the other hand, there are still a lot of problems of e-book readers’ design. It is important for designers to appropriately use metaphors to frame products with familiar form, while at the same time the familiar form may also limit the imagination of new products. Furthermore, the combination of e-book readers’ sales and book content as the new type marketing plan such as Amazon taking, rather than only focus on explicit design may be carefully considered by those companies.

Moreover, it will need a long period of time for people to accept this new technology, which is regarded as an enemy worthy of paper books’ steel. However, just like we replaced the cassette player by a Compact disk, it may be comfortable for us to adopt e-book readers in the future. Because sometimes, change and challenge imply chances.
References


‘THIS IS THE INTERNET SPEAKING’

Katherine Calhau

Abstract

This article investigates the ways in which Wikipedia represents a shift in the creation and sharing of scientific knowledge with reference to the history and philosophy of science. The article examines two case studies: Wikipedia’s entry on embryonic stem cells and the fraudulent research published by stem cell researcher Hwang Woo-Suk. The article finds that Wikipedia displays more traditional Mertonian norms of science, while the Hwang controversy exhibits the Mitroffian norm of particularism. It is suggested that Mertonian model like Wikipedia could prevent future fraud. An examination following the ‘strong programme’ in the sociology of scientific knowledge shows that Wikipedia can quickly reflect social influences on creating scientific knowledge, while in the Hwang case such influences were discovered retrospectively. Wikipedia thus represents a significant innovation in the publication of scientific knowledge.

Keywords: Wikipedia, traditional publishing, norms of science, social construction of scientific knowledge
Introduction

The discipline of the history and philosophy of science has traditionally considered science to be objective, sceptical and uninfluenced by social factors, but recent theories have suggested that this is not case. To investigate the ways in which the digital revolution has influenced the creation of scientific knowledge, this article will examine two case studies. The first is the page and page history of Wikipedia’s entry ‘embryonic stem cell’. The second is an examination of two articles published in *Science* by Korean stem cell researcher Hwang Woo-Suk. These papers contained fabricated and fraudulent results. This article will argue that Wikipedia’s page exhibits more of the traditional Mertonian norms of science such as organised scepticism and universalism. By contrast, the Hwang fraud case exhibits Mitroffian counter-norms such as particularism. It will be suggested that the application of Mertonian norms to traditional publications could prevent such fraud in the future. Wikipedia could therefore present a new opportunity for scientific publishing because it is more successful at using Mertonian norms. Analysis with reference to ‘the strong programme’ within the sociology of scientific knowledge will additionally demonstrate that while social influences on the Hwang case were only discovered retrospectively, social influences on Wikipedia are immediately obvious and can be useful in illuminating debates about what constitutes scientific knowledge. In general, it will be seen that Wikipedia is better able to manage social influences on the shaping of scientific knowledge. Wikipedia thus represents a significant technological and empirical shift in the creation and sharing of scientific knowledge.

Scientific knowledge, norms and counter-norms

Robert Merton (1973 [1942] pp. 267-278) suggests that the objectivity, and thus the primacy, of science is assured because scientists obey a set of institutionalised norms. This paper considers the norms of communism, universalism, and organised scepticism. The norm of communism states that ‘the substantive findings of science are a product of social collaboration and are assigned to the [scientific] community’ (Merton, 1973 [1942]: 273). The norm of universalism proposes that scientific knowledge should be evaluated only on the basis of its ‘consonance with observation and with previously confirmed knowledge.’
Factors such as a scientist’s nationality, race or religion should not be considered when evaluating their work (Merton, 1973 [1942]: 273). Finally, the norm of organised scepticism states that all new beliefs should be subject to careful scrutiny ‘in terms of empirical and logical criteria’ (Merton, 1973 [1942]: 277-8; Mitroff, 1974: 592).

Mitroff (1974: 580) suggests that the ‘impersonal character of science’ was important in forming Merton’s norms. However, Mitroff (1974: 580) considers that the ‘personal’ nature of science is also significant in understanding scientists’ behaviour and whether science is objective and rational. Mitroff proposed counter-norms for each of Merton’s norms (Mitroff, 1974: 592). Against the norm of universalism, Mitroff suggests that science is prone to particularism: assessing scientists’ claims on the basis of their reputations. Against the norm of communism, he gives the counter-norm of solitariness, where scientists retain ‘protective control’ over their discoveries. Finally, Mitroff suggests that instead of organised scepticism, scientists could be prone to organised dogmatism: an utter conviction in their own claims. While Mitroff (1974: 580) does not feel that these counter-norms necessarily invalidate scientific objectivity, Holton (1973, as cited in Mitroff, 1973: 594) suggests that this ‘ambivalence’ displayed by scientists ‘remains one of the important, unsolved problems in the history, philosophy and psychology of science.’ This article will show that the Hwang fraud case demonstrates the Mitroffian counter-norm of particularism, which appears to be inherent to traditional scientific publication. The Wikipedia entry on embryonic stem cells, by contrast, attempts to be both truly communal and truly impersonal, and thus represents a return to Mertonian norms.

Case Study 1: Wikipedia on Stem Cells, and its correspondence with Mertonian Norms

Wikipedia is ‘a wiki authoring environment designed for the purpose of creating a user-written encyclopedia containing information on all subjects’ (Emigh and Herring, 2005:1). Its name is derived from a combination of its form and function. An encyclopedia is ‘a literary work containing extensive information on all branches of knowledge (OED online 2009). A wiki is a website which ‘allows editing by anyone visiting the relevant page, without any requirement for membership of a specified group, or even for registration’
Wikipedia diverges from this definition slightly because it confines the creation of new articles to registered users. Unregistered users can edit almost any page, though their IP address is recorded (Wikipedia History 2009; Wikipedia Account 2009a). Registration only requires contributors to establish a username and password (Wikipedia Account 2009b). Wikipedia thus automatically conforms to Merton’s norm of universalism: contributors cannot be judged on their nationality, race or religion because such details are not collected. Furthermore, Wikipedia’s entries are truly communal, as they are ‘a product of social collaboration’ (Merton, 1973 [1942]: 273) and the knowledge displayed on any page cannot be said to be the product of any one person’s work alone.

Another important innovation is Wikipedia’s ‘neutral point of view’ policy, which means that ‘if there’s an issue of legitimate controversy then Wikipedia doesn’t take a side’ but simply reports the disagreement, ideally stating dissenting and minority views (Khamsi, 2005). Thus, although stem cell research is a socially contentious topic, the Wikipedia article on embryonic stem cells (Wikipedia ESC 2009a) does not allow the inclusion of content which expresses an opinion about the issue, as discussed below. There is instead a separate page covering the ‘stem cell controversy’ which attempts to explain the ethical considerations in a neutral way (Wikipedia Controversy 2009). This neutrality corresponds to Merton’s norm of organised scepticism, which requires ‘detached scrutiny of beliefs’ (Merton, 1973 ([1942], 277).

Like all other Wikipedia pages, the article on embryonic stem cells includes a history page (Wikipedia ESC 2009b). This page contains timed and dated copies of previous edits of the entry and allows browsers to compare any two edits (Wikipedia Page History 2009). The history page for the ESC article shows the high number of edits to the main page – over 700 in total (Wikipedia ESC 2009b). The article also contains a discussion page, in which contributors can discuss points of contention (Emigh and Herring, 2005; Wikipedia Talk Page 2009). The stem cell article’s status as a start-class article on the Wikipedia quality scale is shown on its discussion page (Wikipedia ESC 2009c). This classification signifies that the article includes good basic information but is inadequately referenced (Wikipedia Assessment 2009). The discussion page also includes a list of suggestions for improving the article (Wikipedia ESC 2009c). This is another example of Wikipedia’s commitment to Merton’s norm of communism, because the knowledge is the result of social collaboration.
As such, the Wikipedia entry on embryonic stem cells seems to indicate a return to Mertonian norms in scientific publication. By contrast, the Hwang case is an example of the way Mitroff’s counter-norm of particularism is entrenched in traditional scientific publishing. Furthermore, it is possible that applying Merton’s norm of organised scepticism could prevent similar fraud in the future, as will be argued below.

**Case Study 2: Hwang Woo-Suk, Stem Cell Fraud and the Problems with Mitroff**

The South Korean stem cell researcher Hwang Woo-Suk first received widespread attention in 2004 when he released a paper called “Evidence of a Pluripotent Human Embryonic Stem Cell Line Derived from a Cloned Blastocyst” (Science, 2004): ‘the 2004 paper’ henceforth). The paper recorded the first use of somatic cell nuclear transfer (SCNT) as part of therapeutic cloning in humans (van der Heyden et al, 2009: 26; Science Editorial Team, 2006: 12). In his 2005 paper, “Patient-Specific Embryonic Stem Cells Derived from Human SCNT Blastocysts” (Science, 2005), Hwang claimed he had refined the technique of SCNT to such an extent that ‘clinical application became within reach’ (van der Heyden et al, 2009: 26). The technical process of SCNT is largely irrelevant to this article. However, it is significant that both the 2004 and 2005 papers were later found to be based on fabricated data: neither reported example of SCNT in humans had actually occurred (Kennedy, 2006; Snyder and Loring, 2006: 322). The articles were subsequently retracted by Science (Kennedy, 2006).

The Hwang controversy has elements which correspond to Mitroff’s counter-norm of particularism, that is, allowing a scientist’s reputation to influence how their claims are evaluated (Mitroff, 1974: 592). Hwang’s fraud is significant because it constitutes such an obvious failure of the peer-review process. Gerber (2006: 632) suggests that peer-reviewers were unlikely to be searching for fraudulent data in the Hwang papers, partly because of Hwang’s ‘worldwide renown’. In fact, Gerber states that the ability to trust one’s colleagues has historically been considered ‘fundamental to medical research’ (Gerber, 2006: 633). This could explain why reviewers failed to notice the ‘flagrant duplication’ of photomicrographs (Snyder and Loring; 2006, 323). The Hwang
fraud therefore represents a problematic example of Mitroff’s counter-norm of particularism.

Rossner (2007: 131) criticises this practice of trusting other scientists because of their reputation and condemns the post-Hwang suggestion by Science that “risky” papers should be given ‘special scrutiny’ (Kennedy, 2006, as cited in Rossner, 2007: 131). Rossner (2007: 131) asserts that scrutiny of data should be enforced uniformly, instead of assuming that only suspect papers require examination. This seems to be a call for a return to the Mertonian ideal of organised scepticism, whereby all scientific knowledge is critically evaluated (Merton, 1973 [1942]: 277; Mitroff, 1974: 592). The Hwang case therefore represents the problematic nature of one of Mitroff’s counter-norms and suggests that the application of Mertonian norms could help to prevent such fraud in the future. Thus, if the innovation of Wikipedia can be seen to signify a return to Mertonian norms, Wikipedia could present an opportunity to solve the aforementioned problem of scientists’ ambivalence (Holton (1973, as cited in Mitroff, 1973: 594).

Proceeding further, an examination of the two case studies with reference to the strong programme reveals that Wikipedia has an advantage over traditional journal publication in identifying the impact of social pressures on the shaping of scientific knowledge.

The Strong Programme and Social Pressures on the Shaping of Scientific Knowledge

In addition to debate about the normative structure of science, an important problem in the sociology of science is understanding the extent to which social factors influence the shaping of scientific knowledge. This influence is generally examined using either ‘the strong programme’, or a weaker version of this programme (Sismondo, 2004: 42-3).

Okasha (2002: 93) states that ‘[t]he strong programme was based around the idea that science should be viewed as a product of the society in which it is practised’. David Bloor, one of the founders of the discipline, asserts that the strong programme is essentially an attempt to ‘know science scientifically’, that is, to study science in a scientific way (Bloor, 1997: 374). Bloor (1991 [1976]: 7) states there are four central tenets of the strong programme:
1. It would be causal, that is, concerned with the conditions which bring about belief or states of knowledge...

2. It would be impartial with respect to truth and falsity, rationality or irrationality, success or failure. Both sides of these dichotomies will require explanation.

3. It would be symmetrical in its style of explanation. The same types of cause would explain, say, true and false beliefs.

4. It would be reflexive. In principle its patterns of explanation would have to be applicable to sociology itself.

The strong programme is useful in examining the case studies of Wikipedia’s entry on stem cells and Hwang Woo-Suk’s fraud for two reasons. Firstly, tenets two and three mean that social factors can be considered in respect to both the Wikipedia entry, which aims to summarise accepted scientific knowledge (Khamsi, 2005), and to Hwang Woo-Suk’s papers published in the journal Science, which comprise original research that was later shown to be fraudulent. The weak version of the sociology of science only examines social influences on fraudulent science (Bloor, 1993: 494), and so is not applicable to the Wikipedia entry. Secondly, the strong programme, unlike its weak counterpart, allows both internalist and externalist explanations (Sismondo, 2004: 42-3). This means that factors both within the scientific community and in wider society can be considered (Sismondo, 2004: 45-6).

Wikipedia has been criticised because its policy of open contribution allows vandalism (Wikipedia self 2009). This can be seen in the ‘embryonic stem cell’ page’s history. Two recent examples of vandalism are the content being erased and respectively replaced by ‘THIS IS THE INTERNET SPEAKING’ (Wikipedia ESC 2009b: edit on 21:57, 12 March 2009) and ‘i love big butts’ (Wikipedia ESC 2009b: edit on 00:55, 18 March 2009). Certain edits of the article also violated Wikipedia’s ‘neutral point of view’ policy, for example the revision which suggests that ‘[e]mbryonic stem cells kill a very young baby, so this will prevent them from becoming practical. Adult skin cells can be used without murder...’ (Wikipedia ESC 2009d; Wikipedia ESC 2009b: edit on 02:05, 7 March 2009). However, these revisions were all corrected in a short amount of time (Wikipedia ESC 2009b). A brief examination of the entry’s page history therefore reveals two things. Firstly, it shows that some people do not take the generation of scientific knowledge seriously, or do not feel...
that Wikipedia constitutes an appropriate medium for the expression of such knowledge. Secondly, and more significantly, it illustrates that certain sectors within the community are opposed to embryonic stem cell research because they believe it constitutes murder.

The controversial nature of stem cell research is also revealed in the number of edits to the page, which Halavais and Lackaff term ‘churn’ (Halavais and Lackaff, 2008, 433). They suggest that an article with a high churn is often either of high quality or controversial in nature (Halavais and Lackaff, 2008, 434). Given the stem cell article’s low-quality ‘start-class’ rating, it is more likely that the high number of edits to the page indicates the contentious nature of the content.

Finally, Havalais and Lackaff (2005) state that though Wikipedia has a large number of science-related articles, there are very few entries about medicine. They attribute this to the fact that medicine is ‘the purview of licensed experts’ (Halavais and Lackaff, 2008: 438). It thus appears that the embryonic stem cell entry was not written in an attempt to give expert information but rather to give basic information about a controversial subject. This hypothesis is supported by the fact that the article has attained only start-class status. The inclusion of the Wikipedia article can then be seen to consist of an uneasy bridge between the social pressure to leave specialist subjects to the experts and the importance of understanding a socially divisive scientific topic. Wikipedia articles therefore can quickly reflect the importance of social aspects in shaping knowledge. In the Hwang case, the social pressures influencing the creation of scientific knowledge were, by contrast, obvious only retrospectively.

Rusnak and Chudley (2006) propose that the disputed ethics of creating embryonic stem cell lines has resulted in such research being regulated or prohibited in many countries (Fischbach and Fischbach, 2004, as cited in Rusnak and Chudley, 2006: 304). This allows ‘rogue’ scientists like Hwang to conduct fraudulent research, and also lessens the possibility that their work will be subject to independent validation by other scientists who could expose their fraud (Snyder and Loring, 2006: 323; Rusnak and Chudley, 2006: 304-5).

Others have attributed Hwang’s actions to pressure from the Korean government to publish early (Snyder and Loring, 2006: 323) and to the Korean ‘balli balli’ or ‘fast fast’ business practice and the social ‘habit of deference for those it reveres’ (Cookson and Fifield, 2006). Hwang’s social standing in South Korea was emphasised by the fact that a candlelight vigil was held in support
for the scientist after the allegations of fraud had been made (Cookson and Fifield, 2006). However, these social influences were only retrospectively found to be influential in shaping the fraudulent scientific knowledge presented by Hwang.

The delay in discovering both the fraud and its social causes is partly due to the way in which scientific knowledge is evaluated. Van der Heyden et al. (2009) note that at present, peer reviewers are generally not required to examine papers for fraudulent research. Scientific research is instead validated when it is replicated by other independent scientists (Snyder and Loring, 2006: 323). This process of replication necessarily requires more time than is needed to alter the content of a Wikipedia entry, even if such an alteration requires research. This is particularly true as Wikipedia’s founders have prohibited the publication of original research on their site (Khamsi, 2009). As it is, the rapid correction of vandalism is encouraged by innovations like the ‘recent changes’ page, which provides a list of the newest edits in Wikipedia as a whole (Emigh and Herring, 2005). The difference between the time required by Wikipedia and the traditional journal system in identifying and responding to social pressures on the creation of scientific knowledge is thus partly due to the different nature of the information each presents. However, it is also due to the different methods of validation and correction employed by the different media. Investigating whether an online journal system could overcome these problems is beyond the scope of this article. It is possible, however, that had Hwang’s reviewers been forced to employ the Mertonian norms of universalism and organised scepticism used in Wikipedia, his fraud would have been detected sooner or even prevented. A comparison with traditional publishing thus reveals that the innovation of Wikipedia represents a dramatic shift in the way in which scientific knowledge is created and shared.

**Conclusion**

Wikipedia and the Hwang case represent very different examples of scientific knowledge. The Wikipedia entry on embryonic stem cells conforms more strongly to Mertonian norms; the Hwang case to Mitroffian norms. It is possible that the use of Wikipedia’s Mertonian framework would solve the problem of scientists’ ambivalence and prevent Hwang-style fraud in the future. In terms of the social construction of scientific knowledge, the Wikipedia article
immediately revealed the existence of certain social pressures on the shaping of scientific knowledge, while in the case of the Hwang controversy such social influences were only discovered retrospectively. As such, Wikipedia represents a significant innovation in the creation and sharing of scientific knowledge when it is considered in conjunction with important theories within the domain of history and philosophy of science.
References


Beyond bias: Wikipedia and the construction of knowledge

Michelle Tran

Abstract

The success of Wikipedia is often attributed to its transparent nature, fostering a sense of community in which like-minded individuals work towards an objective ideal, making it easier for anybody to have their voices heard and their contributions recognised. Criticism of Wikipedia is usually made with emphasis on an objective assessment of the validity and quality of the information itself, rather than on the ways such information is collated, analysed, and disseminated.

In employing textual analysis, as well as drawing on sociological concepts and academic literature, I would suggest that despite Wikipedia’s focus on defining observable truths, its production of information is socially constructionist in nature, and that existing criticism of Wikipedia can be ineffective if the transitional nature of the site is not taken into account.

Keywords: social constructionism, Wikipedia, objectivity, knowledge.
In 2005, the journal Nature published an article which reaffirmed Wikipedia’s growing significance to users of the internet. In it, it was stated that the number of errors in a typical Wikipedia science article was comparable to one from Encyclopaedia Britannica’s, whose articles are often considered to be of the highest standard for reference works (Giles 2005, pp.900-901).

The findings of this article caused a stir on the internet, not at least within the offices of Nature itself. They claimed they were surprised, even as academics were startled and Encyclopaedia Britannica quickly published a rebuttal, refuting Nature’s claims and calling the article’s methodology into question (Editorial 2005, p.890). Meanwhile, many people continued to use Wikipedia as a point of reference without qualms, helping it to become a behemoth of internet websites; as a provider of information, it was a contender not to be trifled with.

Wikipedia is ‘the free encyclopedia that anyone can edit’, in which anybody can anonymously create and edit any articles they choose, and accessible in many different languages. Its wealth of information and its collaborative appeal in engaging visitors has led to Wikipedia becoming one of the top ten sites visited worldwide,¹ and numerous other start-ups and business models are now taking inspiration from Wikipedia’s own success (Shirky 2008, p.117). However, a few criticisms still plague Wikipedia, and it is to these criticisms we now turn our attention.

Criticisms and concerns

High school and university students are commonly advised against relying solely on Wikipedia for their studies, due to concerns over the accuracy and reliability of its content (Tapscott & A. D. Williams 2007, p.74). Its content can be written and edited by potentially anybody with an internet connection and the inclination to do so, regardless of formal qualifications. It is possible for errors, or even blatant vandalism, to remain unnoticed on an obscure Wikipedia article for weeks until it comes to an editor’s attention. It is this inclusive, democratising element of Wikipedia that draws criticism and questions that may be easily responded to, although may not always prove satisfactory to those seeking answers: Who is contributing the information, and what are their contributions? How is the information fact-checked and verified? Who is accountable for the information?
The concerns over Wikipedia are rooted partly in our own long-established traditions. From cradle to coffin, we are taught that there are areas in which we must accede to our learned authorities. Socialisation is occurring when the individual is taught to accept attitudes, beliefs, and behaviours that lead to becoming a functional member of society, and this arguably includes the acceptance that there are other individuals more knowledgeable than themselves in certain areas of knowledge. These authorities of their fields collaborate with others to produce authoritative ‘canons’, whether they be the classical works of English literature, the scientific laws of conservation, or the modern form of Western musical notation. In its claim as an encyclopaedia, Wikipedia presents itself as an authority of facts and observations, and as a result we subject it to the same standards as we would subject any reference work similar in scope and ambition; we look at the verifiability of the information, the citations it employs, and the editorial process. Much focus is thus given to the providence of the information on Wikipedia, which subsequently brings into the question the integrity of Wikipedia’s information itself. However, all this done under the assumption that the nature of Wikipedia is essentially similar to the reference works that have come before it, and that its manner of knowledge creation just happens to be an unusual process that occasionally reflects poorly on the content.

Wikipedia has been oft compared to other peer-reviewed publications for some time, and in many cases it comes away unfavourably. However, even favourable comparisons such as the previously mentioned study evaluate Wikipedia according to standards long established and used for print publications (Halavais & Lackaff 2008, p. 429-430), and which operate under the assumption that there are constraints to operating in a world where knowledge is often bound to physical location, formal qualifications, and finances. The argument I would put forth in this article is thus the following: in order to assess Wikipedia in any substantially meaningful way, we must look at what Wikipedia’s content creation and editing processes itself say about the nature of information and knowledge, as well as how it is construed—it has been accepted, partly because of Wikipedia’s own stated aims, that its encyclopaedic nature means that Wikipedia should be assessed as an provider of information which can be objectively verified. However, more palpably than in traditional reference works, social constructionist theories of knowledge manifest themselves within Wikipedia’s regulations and editing processes. It becomes evident that a
shared understanding of the society in which Wikipedia has a place, as well as the nature by which its knowledge is thus created, proves more significant than perhaps anybody gives it credit. Evaluation of Wikipedia’s information at a superficial level is less effective, for we then judge Wikipedia by standards which may not take into account its substantially different nature. Thus the intent of this article is not to pass judgement on the value of Wikipedia from an alternative perspective, but rather to suggest an alternate interpretation of how the site operates which would allow for a better understanding of the site’s nature.

**Social reality**

Social constructionism is a multi-disciplinary theory of sociological origins regarding the construction of social reality. However, even proponents of the theory cannot agree beyond the basics on just what constitutes social constructionism, making references to the theory problematic if the framework is not laid out beforehand (Velody & R. Williams 1998, p.11).

To refer to the theory of social constructionism is to make a statement on what constitutes reality. One scenario would be to say that there are facts on which social consensus relies to create a shared understanding between members of society, and that society itself is not a completely separate entity independent of the self and of others. This ontological outlook, however, does not deny the possibility of objective epistemological analysis (Holstein & Miller 1993, p.9). Although a rose is a rose by any other name, most certainly existing with its distinctive qualities separate of human cognisance, it is not a stretch to observe that for some cultures, a red rose is a symbol of romance, whereas a white rose is a symbol of mourning for others. Thus despite the constructed process of its creation, the result of social reality can be in effect observed by the interested social scientist. While the social reality that results can be dissected objectively, the knowledge on which social reality comes into being is subjectively construed. In some circles this is often called ‘weak’ social constructionism.

This paper adheres to a ‘weak’ social constructionist view—it is how social reality comes into being by how we talk about it, think about it, and how we understand its nature (Collin 1997, p.2). ‘We’ is used because these processes are very much a collective undertaking, whether they occur subconsciously or not. The focus is thus on how social phenomena have arisen through shared
and collective understandings of society, rather than individual efforts to process the social reality in which the individual may be engaged. This article accepts the basic premise as first proposed in Berger and Luckmann’s seminal work, The Social Construction of Reality (1966): that the social world is constructed through processes of typification, and which then takes on objective characteristics, causing this world to be ‘elevated’ above the social groups which have produced it.

**Positivism, empiricism, and Wikipedia**

It is important to understand the relevance of social constructionism to an analysis of Wikipedia, as in effect this paper involves a compare-and-contrast approach against the ontological and epistemological approaches that Wikipedia appears to employ: positivism and empiricism.

Positivism is partly ontological in that it is concerned with reality—how it is understood and represented. However, positivism differs substantially from social constructionism, and while interpretations of the concept have changed significantly through the ages, positivism has generally proposed the unity of the natural and social sciences in terms of the methodologies employed, and thus for all practical purposes, the similarities of the subject matter between the two fields as well—the object of study exists independently of the individual and can be neutrally observed. Thus, positivism relies on the empirical framework of systematic observation and independent verification, and as detachment from the subject matter is assured, then neutrality is something not only desirable, but attainable. In many respects, positivism and its methodologies resemble—and depending on one’s interpretation of the term, are—modern-day scientific theory and practices (Delanty 1997, p.12).

**The nature of an encyclopaedia and Wikipedia**

An encyclopaedia embodies much of these positivistic ideals, and self-identifying as an encyclopaedia, Wikipedia ostensibly shares many of the characteristics typically associated with its more traditional paper-based cousins. Within the traditional confines of publishing, the encyclopaedia has its place as the general reference work which conservatively presents unembellished facts and figures. Any of the information to be found inside should therefore
be capable of corroboration with other, more in-depth works. Contributors to Wikipedia as a result constantly seek to produce articles of an encyclopaedic standard, and ‘the ideal Wikipedia article is well-written, balanced, neutral, and encyclopedic, containing comprehensive, notable, verifiable knowledge’ (‘Wikipedia: About’ 2009). Furthermore, the contributors of Wikipedia have worked together to create an extensive list of rules and guidelines, covering issues such as (but not only) original research, naming conventions, consensus, etc. An article from Wikipedia is required to cite reputable sources and be written in unbiased language. Strict rules and guidelines govern the inclusion of multimedia on an article page, such as the inclusion of copyrighted images. Timestamps and previous versions of an article are also made available on a subpage, and another subpage allows for the article’s discussion.

Many of the criticisms levelled at Wikipedia become apparent from a look at a typical article’s contents, its editing history, and its discussion. Wikipedia is said to be prone to vandalism, and this is undisputedly the case with almost any article, let alone controversial ones. However, the majority of articles which are vandalised are usually corrected quickly by vigilant editors, and extremely controversial articles have been known to be locked and protected from editing when editors have deemed it necessary. The reliability and accuracy of the article may be harder to assess for a layperson, but citations are clearly provided for those willing to verify the facts presented, or for statements and points which may prove questionable or contentious. The debate over neutrality may also occur across numerous articles on Wikipedia, but then the greater question arises of whether the neutrality of an article is even achievable. Although the first answer that may come to mind would be to say ‘no, editing often involves opinions of difference, which by their very definition can’t ensure neutrality’, the use of terms such as neutrality and bias in Wikipedia’s policies clearly suggests a stance we commonly associate with the natural sciences, and by extension with positivism.

The idea that underpins all divergent understandings of social constructionism is that people and the interactions between them play their part in constructing a reality which we occupy, and that which appears tangible or obvious to us is the figment of a social imagination. Taken to an extreme, we can claim that everything perceivable to humanity is a social construct, part of a never-ending external and public discourse. More palatably, we can claim that the epistemology of Wikipedia is social constructionist in nature, not just
evidently empiricist, as the information that is presented in a Wikipedia article is typically born out of consensus and collaboration. Although it can be argued that consensus and collaboration also occur in empiricism in the form of independent verification and peer reviews, such actions often occur in the context of fact-checking as well as supplementing existing theories or groundbreaking works. Conversely, the requirement of a Wikipedia article is quite specific, and that is to present consistent and concise information as befitting an encyclopaedia—there is lesser such need in the scientific fields, which presume the possibility of doubt and thus allow for variant opinions, unless issues such as climate change become politicised. There is much more of a pressing need for Wikipedia contributors to agree on the standard form of an article, as well as a greater need to placate dissenters and accommodate different perspectives and interpretations. If we accept that fact must equal truth, as the two are commonly conflated (Collin 1997, pp.9-10), then we must consider how the facts might speak for themselves from an empiricist point of view.

Criticism of Wikipedia’s neutrality is possible from multiple levels of analysis outside the empirical framework, and another point worth acknowledging is the contributors that Wikipedia attracts. Wikipedia is undoubtedly unique for a reference work in that the community which forms around it both creates the content for the site as well as the policies and guidelines regulating its content. Becoming more than casually involved in the site also requires a fair bit of investment from the user in understanding Wikipedia’s functionality as well as community etiquette. As such, users of Wikipedia may not always be as universal as the site boasts, with committed contributors who may be attracted for reasons such as the experimental, online-based nature of Wikipedia, the sense of contributing to something so monumental, or perhaps just to a like-minded community of pedants and pedagogues. Despite demographic or geographical differences, users committed to the same goals, who share the same cultural understandings of the importance of information and its presentation, surely affect how the site itself operates, and have thus helped to commit Wikipedia to certain philosophical directions.

This brings us to another level of analysis, which is to question what Wikipedia considers a ‘reputable source’ in the first place. In its in-house article on Verifiability, it is stated that ‘articles should be based upon reliable, third-party published sources with a reputation for fact-checking and accuracy’ (‘Wikipedia: Verifiability’ 2009b). No hearsay or unattributed resources are permit-
ted to be cited. Critics might argue that this is actually a point in Wikipedia’s favour, as it demonstrates that at least some attention is paid to information’s provenance and reliability. However, the valid point also exists that as Wikipedia is uniquely a creation of the internet and already differs substantially enough from traditional reference works, it fails to take into account its own platform, the internet, as the newest publishing medium, or is at least slow in doing so. When prominent public figures start blogging about issues, original writing flourishes—free of restraints such as budget and physical distribution—and celebrities use social networking sites such as MySpace and Twitter to update the world with their latest news, the question of what makes a reputable and citable source becomes ever more important. It is socially constructed practices which have generally emphasised the pre-eminence of traditionally published works as well as experts with formal qualifications and established institutions, where knowledge is dispensed from above in a top-down process. It clearly conflicts with Wikipedia’s collaborative and relatively level dispersal of knowledge (Wright 2007, p.150), and it is this traditional, socially constructionist understanding of reputability that still dominates what is essentially a different online medium.

Conclusion

Wikipedia is in many ways a mixture of old and new practices. Although criticism which focuses on its reliability and neutrality remains appropriate, in the end it is not perhaps as incisive as it could be, when we realize that empiricism has been thoroughly but imperfectly applied to Wikipedia. Any evaluation of Wikipedia requires more depth and consideration of the nature of knowledge as Wikipedia construes it, as well as the processes used to turn information into such knowledge, rather than a preoccupation with the quality of information itself. A reference work which consists of diverse communally contributed knowledge created electronically most likely will differ in nature from traditional reference works, and lacking acknowledgement of its different nature, will fail to live up to the expectations set for those traditional works. However, it seems evident that although Wikipedia in many respects can still claim objectivity as the focus for its articles, the route it takes to get there is not as straightforwardly objective as it first seems.
Notes

1. References for many of the figures and quotes regarding Wikipedia can be, of course, found at the relevant Wikipedia article, e.g. http://en.wikipedia.org/wiki/Wikipedia.


References


University publishing 2.0: a preliminary investigation

Agata Marczewska

Abstract

At its core, the university press, as a traditional content and copyright industry, is set in direct opposition to the collaborative, open-source and process-oriented Web 2.0 technologies. In this investigation I am particularly interested in the extent to which university presses use Web 2.0 tools. The preliminary survey shows that while they are not yet commonly used, Web 2.0 technologies have the capacity to transform scholarly presses by opening new avenues of communication with authors and readers, new opportunities for distribution of scholarly works and new ways of dissemination of knowledge.

Keywords: university press; scholarly publishing; Web 2.0; social networking; Facebook; Twitter; blogging; scholarly communication

In 2005 John B. Thompson's review of scholarly publishing in the digital age came out. Going beyond the issue of the electronic delivery of content, Thompson pointed out that the digitalisation affected almost every aspect of the publishing process, from the acquisitions, through copy-editing, layout to
printing and delivery, to marketing and sales, to reading (Thompson 2005, pp. 312–18).

In the same year, Tim O’Reilly published his seminal paper about the principles of Web 2.0 (O’Reilly 2005), a new generation of web development based on the architecture of participation and collaboration. Over the last few years, the tools of Web 2.0 have led to the explosion of social networking and bookmarking sites, blogs, wikis and ‘folksonomies’. These have changed the ways in which publishers can and need to engage with authors, readers and other distributors in the content creation chain. They also have made it easy for an individual to become a publisher with direct access to readers, undermining the need for traditional publishers to be part of the process.

While these issues are affecting the publishing industry in general, I am specifically interested in the extent of engagement with the Web 2.0 tools and its effect on the traditional publishing models of university presses, with a particular focus on the dissemination of scholarly works. I based the research for this essay on a review of literature and industry news followed by a participant-observation-based survey of the websites of 131 university-based publishers in Australia (13), Canada (10), Ireland (2), New Zealand (4), the UK (13) and the US (89).¹ I focused on the instances of Web 2.0 application that are rated as the most popular i.e. blogging, Facebook, Twitter and YouTube.² In March and early April 2009 I effectively became a ‘lurker’ following university presses on Twitter, skimming their blogs, becoming their fan on Facebook and watching their videos on YouTube.

### Web 2.0 tools and university presses

The results of my survey show, that blogs are the most commonly used Web 2.0 tool in the context of university presses.³ They have been gradually adopted from July 2005 onwards (Table 1).⁴

Together with RSS-feeds, blogs have been used by publishers to advertise books and to invite discussion about them. They present news and information about the press, its books and authors. They typically contain links to author’s blogs and sites, other publishing blogs and related information. Apart from publishers’ blogs, this form of communication has been adopted by individual authors, as a way to continue the conversation started by the book,⁵ and as a platform to review other scholarly books.⁶
I found only 23 out of 131 reviewed presses on Facebook, which shows that overall university presses are reluctant to explore the possibilities provided by this decidedly informal social networking site.\textsuperscript{7} And judging by the rather small number of fans, these are still early days (Table 2). Only the MIT Press has been more successful with over 4500 fans (on 18 April 2009).

The Facebook pages, or groups, are used for posting information about new releases, podcasts, sales and events such as readings, book launches,
authors’ appearances and lectures. The updates are posted in the form of text, accompanied by images of book covers, event photos, links to videos etc. According to Lacy, ‘every publisher should at minimum build a Facebook application around its titles’ to overcome time and space limitations of book clubs (Lacy 2008).  

Twitter has been described as ‘digital word of mouth’ (Publishing Trends 2009), and is the third largest social-networking site, after Facebook and MySpace. And it is becoming increasingly adopted in trade publishing. It is used by publishers to discuss news books, articles, blog posts and other reading material, connect with the audience, learn from the community, network and get feedback, direct traffic to the blog and the website in an informal and timely fashion (Waldrum 2009). A survey of Twitter activity amongst university presses shows 17 out of 89 US presses and a single Canadian press use this platform, with varying numbers of followers and posts (Table 3).

While blogs are usually integrated into the main website, the links to Twitter and Facebook only rarely are, and they are more likely to appear on the blog, rather than on the press’s official website. It raises a question, impossible to answer without conducting interviews, whether this is a result of technological restrictions and limited resources for implementation of such integration, or a conscious decision to keep experiments in the social media separate.
The use of other generally available Web 2.0 tools is even less common. Nine university presses are streaming videos, on YouTube and/or Vimeo; two have pages on Gather, one on GoodReads. And as I haven’t come across the links on blogs or websites, I have left aside other book-focused social media such as LibraryThings, Scribd etc that offer virtual book clubs, personalised book shelves and the ability to generate ratings and reviews. Moreover, university presses only rarely integrate the social bookmarking sites as redditt, digg, del.icio.us, or the specialised scholarly bookmarking sites such as Connotea, Citeulike and HeuristScholar to mention some examples. They appear on some of the blogs and, as an exception to the rule, they are integrated into main website of MIT Press allowing readers to tag books rather than just posts.

Discussion

Overall, the use of Web 2.0 tools among university presses is at the early stage, reflecting their limited penetration of the scholarly community itself (Ware 2009, p. 9). What are the benefits of engaging with social media at university presses in view of such uneven and overall limited participation? While a specific report requires further interview-based research, the survey of literature provides some encouraging answers. Some of the chief benefits of social media, as reported by respondents of the study carried by Michael Stelzner, include generating wider exposure for businesses, improving traffic and growing marketing lists, improving rating in search engine rankings, while at the same time reducing overall marketing expenses (Stelzner 2009, p. 14). While these ‘commercial’ aspects of social media can be easily translated into the context of university publishing, there is more to Web 2.0 than making marketing of scholarly books easier and more cost-effective.

The tools of Web 2.0 are changing the face of scholarly communication, though very slowly as Ware pointed out. They support researchers’ creativity and productivity and link together communities of common interest, including the publishers and their authors/readers, in innovative and low-cost ways (Paulus 2007, p. 229). At the same time, the less formal processes of Web 2.0 are loosening the communication modes (Paulus 2007, p. 225), blurring the boundaries between formal and informal scholarly publication.
This brings a specific set of challenges to the university process of credentialising scholarly works, currently still deeply embedded ‘in print’ and requiring the publishers’ intermediation for the validation of scholarship (Jensen 2007, p. 299). Although digital multimedia scholarship projects have existed since at least the mid-1990s—for instance, George Mason University’s Center for History and New Media—in 2009 there is still no clear connection between digital scholarship and promotion, tenure, or salary increases (Cheverie, Boettcher & Buschman 2009, p. 219). Despite the lack of recognition of digital scholarship, ‘virtual’ research environments and communities are being created, and researchers increasingly use blogs, wikis, and social networking to conduct research (Paulus 2007, p. 226), which they still need to publish using traditional methods.

The rise of the Internet has disrupted the linear content creation and delivery chain of the publishing process and has introduced the circularity of a network (Lloyd 2008, p. 31). While scholarly publishers have always been part of the network relying on the academic community for authors, reviewers and readers, the Web 2.0 technologies provide a variety of platforms for writing, reviewing and delivering of scholarly publications that enable closer and more transparent relationships, simpler and faster review processes and the wider dissemination of knowledge.

New technologies have the ability to make scholarly works interactive, multimedial and networked extending the traditional world of references. In fact, some of the publishers have started to remove footnotes and photographs from scholarly books and post them on the web instead.24

While published reviews and critiques have always been the mainstay of scholarly communication, in the digitally networked reality, readers increasingly often look to social networking sites and blogs to express their opinion, supplementing and replacing the reviews published in the traditional way. Although the Web 2.0 tools still lack scholarly credibility, according to Paulus ‘there are evolving mechanisms—technocratic ratings, carnivals (edited collections of articles from different blogs), Nature’s 50 top blogs, social bookmarking in reditt, digg, del.icio.us—that suggest that some sort of order is emerging’ (Paulus 2007, p. 228), that may in time acquire scholarly standing.

Scholarly publishing remains one of the principal means by which academics disseminate results of their research and communicate with other scholars, students and the general public. While most of the scientific, technical
and medical (STM) publishing is carried out by commercial publishers in the form of journal articles, university presses publish predominantly scholarly monographs, with some forays into trade non-fiction and text-book publishing, and focus predominantly but not exclusively on humanities and social sciences. In contrast to journals, scholarly monographs and books in general have been slower to move to electronic delivery as they were found to be less amenable to online dissemination (Thompson 2005, pp. 318–29).

This delay in books’ digital birth has serious consequences for the dissemination of knowledge. Steven Johnson wrote that ‘books are the dark matter of the information universe’ being largely excluded from Google’s index with its search algorithm based on the most-linked pages (Johnson 2009). The controversial Google Book Search service, which now offers close to ten million titles, is on the way to change this imbalance. As are the numerous digital initiatives of university presses and libraries, and the infrastructure for the electronic subscription-based distribution of books to libraries or individuals offered by the commercial virtual libraries such as NetBrary, ebrary and Questia (Thompson 2005, pp. 334–48; Jagodzinski 2008, p. 14). Answering to the call for open access to scholarly information, some of the university presses provide excerpts, a selection of works, and in the case of some presses, even the whole publishing output free of charge.

While the explosion of digital publishing and the open-access movement will eventually bring books online, the Web 2.0 with its annotating, linking and indexing tools has the ability to change the way other scholars and readers discover these books. According to Johnson, in the digital world ‘citation will become as powerful a sales engine as promotion is today’ (Johnson 2009). By using the Web 2.0 tools, and facilitating the process of linking, annotating and indexing, publishers can contribute to the spread of knowledge. In fact, as Lloyd postulates, publishers should ‘make the content “discoverable” online’ by posting sample chapters and book excerpts, including audio or video author interviews, schedules of author appearance, links to media coverage, and featuring material on social networking sites (Lloyd 2008, p. 40). Further, Lloyd suggests that publishers ‘need to become enablers for reading and its associated processes (discussion, research, note-taking, writing, reference following)’, they ‘need to provide the tools of interaction and communication around the book content and to be active within the digital spaces in which readers can discuss and interact with their content’ (Lloyd 2008, pp. 33, 34).
While Lloyd refers to the promotional and marketing aspect of such activities from the perspective of trade publishing, they create new opportunities to communicate and facilitate the discovery of information in the scholarly context. Such a platform allowing for annotation has been created for Yochai Benkler’s book, even though it has not attracted much attention since it was posted on 22 July 2008. On the publisher’s website there is also a link to a more active wiki, a learning and research environment site based on the book and used in seminars, where readers can read the book, reviews, blogs, interviews, participate in discussions, listen to audio-resources and watch videos. As can be seen in this example, the presence of a platform does not automatically guarantee a success in attracting wider audience (beyond author’s students) to the book specific-sites. In contrast, Methodspace, a research methods community centred on a series of books from a commercial scholarly publisher, seems to be more successful, as are communities built around a series of journals in STM publishing.

Although successful ‘communities are notoriously difficult to “create”’, Penny predicts that they will become more significant in the future allowing publishers a better understanding of their readers needs and ‘by having their published content perceived (and potentially advertised) as central to that academic discipline’ (Penny 2008, p. 42).

Conclusions

The main way that university presses have been using Facebook and Twitter is to engage readers and drive traffic back to their blog and/or website i.e. using them as an RSS feed. While some of the social networking sites may seem inappropriate in a scholarly context, Facebook for example is constantly evolving and the ability of create public profiles means that the scope for professional engagement is there. Moreover, the use of Facebook is continually growing amongst students at universities in the US, Australia and elsewhere. And in a few years, those undergraduates will move into postgraduate studies and academic positions ...

While overall university presses are still at the early stage of adoption of Web 2.0 technologies, there is much more experimentation going on amongst the trade and STM publishers. The uptake of social media amongst the university presses and scholarly community in general is held back by the
negative perception of the potential benefits and the lack of recognition of new 
forms of digital scholarship. As university presses and their authors have a 
vested interest in promoting their books and research output, I believe that 
there are lessons to be learned from social media.

University presses can use Web 2.0 tools to gather market intelligence; 
connect with the academics community; create and promote books. Web 2.0 
technologies provide new and creative ways to disseminate scholarly research, 
helping to fulfil some of the main objectives of the university presses. The 
dissemination of knowledge in the digital age is particularly important, not 
only per se, but also in the context of academic careers. As Jensen wrote, 
‘scholarly invisibility is rarely the path to scholarly authority’ (Jensen 2007, p. 
307).

Notes

1 In the case of Cambridge University Press I included only its UK operations, while in 
case of Oxford University Press, the UK and the US offices (it was interesting to note the 
absence of UK office from the social networking sites in contrast to the US branch). I 
realise that these 132 university publishers are a dramatically diverse group in terms of 
size, turnover, innovation capabilities, financial and organisational arrangement with 
their host institutions, but the discussion of these remains beyond the scope of this study 

2 Seven university presses have pages on LinkedIn, but being focused on internal industry 
networking, LinkedIn is less relevant in the context of this survey.

3 Used by three Canadian, one Irish and 32 US university presses. Two of the blogs are 
on MySpace, while other use a variety of platforms: blogger (7), movabletype (1), typepad 
(14), wordpress (11) and one unknown. The data was accessed on 18 April 2009.

4 The chart represents the timeline of 31 one of 34 blogs hosted out of MySpace for which 
I could find the earliest posts. Interestingly, two presses abandoned the blog after a few 
months’ activity.

5 See for example Young 2007 and its blog at <shermanyoung.wordpress.com> or Gomez 
2007 and his blog at <printisdeadblog.com>
6 For example, the Crooked Timber is a group weblog covering political theory, philosophy, political and cultural commentary with posts containing book discussion and author responses. See <crookedtimber.org>

7 <www.facebook.com> accessed on 18 April 2009. There were even fewer presses present on MySpace (2) <www.myspace.com> accessed on 18 April 2009.


10 The videos typically include interviews with authors, author readings and book trailers. Other presses post language videos (Oxford University Press) and visuals, lectures, and interviews supplement specific titles (University of Chicago Press) at <vimeo.com/channels/33930>

11 www.gather.com

12 www.goodreads.com

13 www.librarything.com

14 www.scribd.com

15 www.reddit.com

16 digg.com

17 delicious.com

18 www.connotea.org

19 www.citeulike.org

20 heuristscholar.org/heurist

21 Cf. <mitpress.mit.edu>; it is powered by ShareThis—a free one-step sharing tool available at <sharethis.com>

22 Interestingly, apart from Canada and the US the majority of the university presses in the other countries are not (yet?) engaged online. There are some notable exceptions: in Ireland, one of two presses has a blog; one out of 13 presses in Australia, and two of 13 presses in the UK have pages on Facebook. I presume the lower degree of engagement
with social media outside North America can be linked with the somewhat lower penetration of social media in the other countries, especially in academia.

23 According to Ware, various surveys carried out in 2007 and 2008 report that less than 15% scientists read blogs on a regular basis, less than 10% had tried social bookmarking tools. Ware 2009, pp. 8–9.

24 Long 2009. For a great example of using YouTube see the recordings of amphibian and reptile calls, posted as a supplement to Amphibians and Reptiles of Georgia by John B. Jensen, Carlos D. Camp, Whit Gibbons, & Matt J. Elliot, published by the University of Georgia Press. For more information see <www.ugapress.org/0820331112.html>

25 Though there are exceptions such as MIT Press for example.

26 Such as CogNet from the MIT Press <cognet.mit.edu>; eScholarship Editions from the University of California Press and the California Digital Library <escholarship.org/editions>; Rotunda from University of Virginia Press <rotunda.upress.virginia.edu/index.php?page_id%BCAbout>; CIAO (Columbia International Affairs Online), Columbia Earthscape, Gutenberg-e, the Columbia Granger’s World of Poetry Online, and Columbia Gazetteer of the World Online from the Columbia University Press <cup.columbia.edu/static/electronicresources>; SETIS at the University of Sydney Library <setis.library.usyd.edu.au>; etc.

27 For example University of California Press and Monash ePress.

28 For example ANU ePress and Rice University Press.

29 Accessed on 14 April 2009 at <yupnet.org/benkler>

30 Accessed on 14 April 2009 at <cyber.law.harvard.edu/wealth_of_networks/Main_Page>

31 Sponsored by Sage, Methodspace is integrated with a forum, blogs, links to resources, a Facebook group and a Twitter stream at <www.methodspace.com>

32 See for example Nature Network at <network.nature.com>

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The public gain equal rights by Indymedia: depending on the technical application of Indymedia

Jing Cao

Abstract

The appearance of Indymedia has encouraged social actors to participate in the media decision-making process. It turns the traditional media model, in which audiences passively accept truth, into a participatory form where people actively create news. The social value of Indymedia lies in providing equal rights for every user who has access to the Internet. It offers a democratic platform where visitors can express their opinions freely. The application of open technologies is an amplifier for the benefits of Indymedia. This paper aims to examine how Indymedia’s technical design stimulates the shape of equalisation. It analyses the implementation of open source, open publishing, and Wiki technologies in Indymedia, and emphasises how media activists obtain equal rights with the assistance of these technologies.

Keywords: Indymedia, equal rights, open source, open publishing, wiki software
Introduction

In the digital age, there has been a significant shift in the identity of media producers, because media consumers have begun to take part in the process of creating media. Some media consumers prefer to produce media rather than passively accepting information at second hand. Furthermore, they require the same rights as media decision-makers. As a result, open news websites – known as Independent Media Centres (IMCs), and also as Indymedia – have emerged. These websites allow individual volunteers to upload content freely and to share others’ contributions.

Many researchers have argued that Indymedia provides equal power for every media user to access media productions. Pickerill (2003) states that Indymedia intends to realise participatory democracy by enabling users to create, distribute and filter their own news. According to Axel (2004), Indymedia reduces the privileges of editors and transfers all power to its users, while Pickard (2006) believes that the most remarkable feature of IMCs is their realisation of egalitarianism.

Open technical design in Indymedia is the foundation of participatory media. Although some institutional constructions, such as regular open meetings, are essential to maintain the development of IMCs, their technical structure is fundamental. Many social codes can be reflected by the technology of the Internet (Pickard, 2006); likewise, the design philosophy behind Indymedia software is to help IMCs exhibit the values of equalisation, freedom and openness.

Open publishing software enables everyone to post content to the website; open source software permits people to use as well as to improve the software without limitations; and some kinds of software used in Indymedia, such as the cooperatively built Wiki pages, are adapted from existing software that was invented to fit an IMC’s particular needs (Hill, 2003).

Defining Indymedia

Each Independent Media Centre is part of an increasing global network that provides equal opportunities for everyone to distribute news and information (Deuze, 2006). The slogan of Indymedia, which points to the need for users to create their own media, is ‘Do not hate the media, be the media.’
The first Independent Media Centre was instituted in 1999 due to reporting about protest against the World Trade Organisation meeting in Seattle: ‘it was designed to offer new forms of alternative media using the Internet’ (Pickerill, 2003). Then many IMCs were established globally for distinctively political purposes. Indymedia audiences can be cohered worldwide due to a main Indymedia website listing all other, regional sites.

Pickerill (2003) points out that the uniqueness of Indymedia lies in promising everybody access to any aspects of media in terms of a wider cohort of people taking part in the media-producing process. The equalising effect of Indymedia is embodied in its provision of a public platform where visitors get the freedom to claim their opinions, with a special focus on occupying ‘greater diversity in media ownership and media representations’ (Pickard, 2004).

Technical structure in Indymedia

The slogan ‘be the media’ in itself indicates Indymedia’s radicalism, that of a public participatory website. In Indymedia, traditional media consumers are given the same power as media producers. But Indymedia needs a diversity of software to realise these goals. Owing to the increasing interaction between human activities and technologies in digital society, IMCs’ volunteers depend on the technical infrastructure to achieve their particular purposes. According to Hill (2003), software designs in Indymedia represent various political and social ideologies. Most websites are constructed and placed by common ways and means, from an open publishing newswire to announcements of coming events, the IMC network, edited features, and instructions on how to publish. For example, Seattle IMCs (www.seattle.indymedia.com) are organised as follows:
Technological design in Indymedia presents an equivalent philosophy. For example, open source practice allows anyone to fix and maintain IMCs’ websites; open publishing provides a free online publishing licence; collective editing and Wiki procedures help avoid the pitfalls of missing and incorrect information. Thus, the technical implements of Indymedia enable and extend people’s abilities to engage in media praxis.

Open source software: everyone can use

Open source software is usually protected by the ‘copyleft’ restriction (Pickard, 2006). This means that all the software code is free to use, copy, distribute, and restructure in order to meet people’s various demands (Moody, 2002). Being free and open represents a revolution by the standards of ‘closed’ software.
Marion (2005) observes, ‘free software signifies a radically open invitation to participate'; it represents the collective intelligence that can spread around the world through the Internet.

Indymedia websites have been aided by free and open source software. One of the principles of unity that most IMCs are required to follow in their operations is: ‘all IMCs shall be committed to the use of free source code whenever possible in order to develop the digital infrastructure, and increase the independence of the network without relying on proprietary software’ (http://malta.indymedia.org/?q=PrinciplesofUnity).

In IMCs’ websites, the software code is open to all visitors. Every individual can take part in building Indymedia programs and copy any code with limited restrictions. Moreover, they are permitted to modify these pieces of software according to their demands. Both organisers and volunteers in Indymedia can construct and improve the technical code. This means that Indymedia operates collectively, transferring most of the power from the IMCs’ managers to users. John is a participant in Sydney Indymedia; he says, as Pickering (2003) notes, that Indymedia is ‘a community project that is written by everyone together and the way to keep that flowing and moving forward and working as a community of equal individuals is to make the code open source.’

IMCs have benefited from the implementation of open source software. On the one hand, the equality policy of Indymedia is reflected in its willingness to allow code to be used without limitation. On the other hand, the running, evolution and growth of IMCs rely on the contributions of volunteers, because open-source software is free to be replicated and improved by every visitor. According to Pickard (2006), if there are more users involved in refining open-source software, it will function more quickly, efficiently and creatively.

Taking Seattle Independent Media Centre (SEAIMC) as an example, when it updated from the Active system to the Mir system, the assistance of volunteers made the upgrade easy. Active was the first Indymedia software; it provided the template that all subsequent IMCs followed (Hill, 2003). As SEAIMC developed, many hackers fixed the initial code and improved it to create the new model, Mir. This new generation helped users transmit knowledge in a more convenient way via ‘share calendars, group listings and multimedia news discussions’ (Pickard, 2006).
The practice of freely exchanging software, constructing websites and sharing materials aims to demonstrate that Indymedia represents autonomous and collective activism (Pickerill, 2003). Its users are empowered with the same managing rights as the organisers, a direct assault on the top-down hierarchical model (Pike, 2007).

Open publishing: everyone can publish

The application of open publishing software is the most remarkable achievement for Indymedia (Marion, 2005). Open publishing allows everyone to publish news and stories on the Internet. Users are not subjected to control and authorisation from a hierarchy. It seems that the emergence of open publishing has changed the relationship between news consumers and producers. According to Arnison (2001), open publishing is a transparent process of creating news for readers:

‘They can contribute a story and see it instantly appear in the pool of stories publicly available. Those stories are filtered as little as possible to help the readers find the stories they want. Readers can see editorial decisions being made by others. They can see how to get involved and help make editorial decisions... If they want to redistribute the news, they can, preferably on an open publishing site.’

Open publishing technology is adopted by Indymedia to demystify the power of traditional media. These values are embodied in Indymedia by the free posting of documents, the minimal filtering of news and a levelling non-hierarchy (Pickard, 2006). The implementation of open publishing software in Indymedia attempts to amplify and enhance the influence of equalisation.

In SEAIMC, all the postings are published immediately through ‘newswire’, the place for open publishing, and they are displayed in chronological order but not in a hierarchical order. Users can upload texts, videos, audio, and images into newswire without registration or a password. Moreover, a newswire archive is a significant innovation in SEAIMC to manage and save all the published articles. The archived contents are listed chronologically. The archive is designed to make all the information accessible immediately.
Compared with the traditional Internet websites, Indymedia gives users more power to decide what they really want. Open publishing helps Indymedia visitors obtain information themselves, rather than depending on filtered information.

During the WTO protests in Seattle, when political restrictions filtered the news broadcast by mainstream journalists, many independent voluntary reporters captured impressive videos and pictures of the chaos that were ignored by traditional journalists. Further, these so-called ‘on-the-street’ IMC journalists uploaded and shared photos and videos in the temporary IMC websites through the open publishing newswire (Downing, 2003; Coleman, 2004). These grassroots journalists won recognition and support from the public, and even from traditional media. As America’s ABC News said, ‘The very people who were in Seattle to fight what they believe are the ill effects of global trade have found new power in the global trade of information’ (Coleman, 2004).

Indymedia is supported by people who want more than passive consumption – by people who are entitled to the same power as the news producers in Indymedia sites. Moreover, open publishing gives people the right to set editorial policies. For example, users need to acknowledge the editorial policies before they upload articles in SEAIMC. If the contents of their articles flout the basic policies, the article will be hidden. These decisions are made by individual SEAIMC collective members who are empowered to implement the editorial policy (http://seattle.indymedia.org).

Wiki technology: everyone can remedy

Indymedia centres also utilise other democratic software that was adopted from existing technologies, such as Wiki, which stands for ‘representation of collective intelligence’. Wiki is web-based and allows everyone to remedy the contents of a web page (Wiki, 2009). Every contribution creates a new file. It is easy to correct mistakes and inappropriate edits, and each edit is labelled by ‘footprints’ (Pickard, 2006). Some collaborative versions, such as Twiki, PmWiki, and TikiWiki, have emerged that are also based on Wiki technology (Wiki, 2009).

As Pickard (2006) suggests, the collaboration of Wiki and IMCs through the Internet has radically increased audiences’ participation by permitting everybody to contribute content. Typically, IMCs move some important dis-
cussions onto Wiki pages. For instance, Bristol Indymedia centre contains a volunteer guidelines Wiki, a meeting agenda and minutes Wiki, an accounts Wiki and a film night Wiki, which are used to help their volunteers organise the work of running the project (http://www.bristol.indymedia.org/).

Indymedia users can discuss and add information via Wiki software. In this way, wrong or missing information will be corrected over time. For example, Seattle Indymedia centre holds regular meetings, and after each meeting, participants post the meeting notes on Wiki pages. If any details are missing, others can add them instantly.

With Wiki technology providing a model of non-hierarchy and transparency, the cooperation between Indymedia and Wiki can accelerate the shaping of an equivalent media. Pickard (2006) states, “Wiki renders documents more collaborative, organic, and fluid.” Many experts doubt the reliability of Wiki documents as a source, because anyone can rewrite them. Against this, however, Wiki-based software signifies equalisation in a networked society. Indymedia centres can amply their social influence by cooperating with Wiki software.

Conclusion

Indymedia websites are usually supported by grassroots journalists, anarchists and volunteers. Each Indymedia centre autonomously follows the principle of running as a collective to which all can contribute (Pickerill, 2003). Indymedia was established with the goal of being open and free to every user, which means that any Indymedia information, including its code, is accessible and shared. In contrast to the seriously hierarchichal traditional media, Indymedia attempts to provide an alternative media where audiences can take the initiative.

Indymedia’s open technical constitution is the foundation for realising radical equality and attracting people’s participation. As Hill (2003) says, ‘every piece of IMC software serves the same fundamental function – to empower Internet users to be their own media.’ In Indymedia, people can not only contribute according to their ability (through open publishing), but also receive according to each individual’s demand (by open source software).

Open source breaks up the ownership model of proprietary software. The implementation of open source software in Indymedia allows anyone to down-
load and construct code freely. The running and advancement of Indymedia is based on the contributions of volunteers.

Open publishing is the critical function for realising the equalising goals of Indymedia. Firstly, it blurs the boundary between news consumers and producers. For example, general audiences can fulfil the role of a journalist by uploading information onto an IMC website. Many people prefer to capture voices themselves instead of relying on the mainstream media. In addition, open publishing helps to shape a more participatory media, because everyone can engage in creating media independently of control by big media players.

There are also other pieces of cooperative software helping to build this impartial power. Recently, many IMCs have moved discussion groups onto Wiki-based websites. The radical quality of Wiki software is that it represents the collective intelligence. Because of this, cooperation can enhance Indymedia’s promise of realising equality.
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The movement from traditional journalism to citizen journalism
A case study of online newspaper website OhmyNews

Jialing Su

Abstract

The term ‘citizen journalism’ initially formed in the early 1990s in the US, which is a key element influencing traditional and new journalism. Due to the declining readership in news industry from 1960s, an idea was proposed to advocate citizens to engage in news process, including finding news stories, editing manuscripts, and final reporting (Nip 2006). The essential element is every unprofessional individual can involve in reporting what they concern in their lives via using advanced technology and global network. In this article, the author uses OhmyNews as an example to explain the movement from traditional journalism to citizen journalism.

Keywords: citizen journalism, traditional journalism, OhmyNews, democracy, digital technologies, news process
In the digital age, advanced technologies have influenced people’s lives in different areas. New technologies break boundaries of time and space and influence traditional media habits. Persons consuming new media could read/watch news, search information, communicate with others and consume media products anytime and anywhere. Moreover, democracy has become public interest and citizens are more willing to comment or even object political strategies. Traditional journalism model, which was used as political propaganda, is criticized by political activism. Therefore, traditional medium more or less tries to avoid governmental propagandas and report public interests. Citizen journalism emerges in this digital and democratic age, challenging traditional journalism.

Nip (2006) categorized different media practices into five different models which were ‘traditional journalism, public journalism, interactive journalism, participatory journalism and citizen journalism’. Citizen journalism is the concept of members of the public ‘playing an active role in the process of collecting, reporting, analyzing and disseminating news and information’ (Bowman and Willis 2006).

Due to the advocacy of democracy and advanced digital technologies, it can be hypothesized that there is a movement from traditional journalism to citizen journalism. Citizens are keen to engage in the news process, and even they want to play an active role in it. In the real life, successful practices of citizen journalism are sacred and only a small number of them could be recognized as real citizen journalism. Korean newspaper website OhmyNews is a herald and landmark of citizen journalism. In this article, OhmyNews will be analysed to explore key elements contributing to the movement from traditional journalism to citizen journalism. Moreover, this article will try to explain the reasons why OhmyNews can be a successful practice of citizen journalism.

A landmark of citizen journalism—online newspaper website OhmyNews

From the late 20th century, citizens are trying to find out a practical form for doing citizen journalism. The breakthrough of citizen journalism is the launch of OhmyNews. This website is known as a landmark that citizens act as jour-
nalists reporting news and being partnered with professional editors who are editing citizens’ submitted articles (Joyce 2007).

*OhmyNews* is a Korean online newspaper website launched in 2000. According to Joyce (2007), *OhmyNews* reforms the Korean media culture, rewrites the history of the world press and changes the understanding of the news process. The outstanding characteristic of *OhmyNews* is its position --‘every citizen is a reporter’. In traditional journalism, journalists represent the view of citizens and citizens are news source but not a producer of news. Differently, *OhmyNews* creates a platform for citizens and removes a filter controlled by journalists. Therefore, citizens could make their own content and represent their own interests on the website. Reviewing the historical background, it can be acknowledged that increasing liberal and democratic requires and internet boom are key elements causing the launch of *OhmyNews*.

**Digital technologies**

Traditional medium, like TV, Newspaper and Radio, is one-way communicative model. Audiences and readers can only passively consume information and they are less likely to have interactions with medium. The birth of Web 2.0-type technologies not only enlarges news coverage, but also essentially creates a large platform for interactions.

Facing the new challenge, traditional media has extended their business into new media like internet and they sooner or later launch their official websites and more or less open source to public. From the Bruns (2005)’s point of view, journalists’ role is shifting from a gate keeper to a gate watcher and users have more direct access to information sources. In other words, readers/audiences have more opportunities to provide and recommend their interests and stories to journalists online. In addition, journalists less rely on first-hand materials and independent research, and rather they are more willing to open source to citizens for gathering public interest.

In the internet world, Moretzsohn (2006) pointed out blogs, e-mails and virtual forums were alternate sources of information stimulating the propaganda of ‘do-it-yourself journalism’. Significantly, blogs illustrate the ‘phenomenon that shows the markings of a revolution – giving anyone with the right talent and energy the ability to be heard far and wide on the Web’ (Bowman & Willis 2006:8).
However, those practices are not under a mature and complete citizen journalism model. For example, many articles from web blogs are not always news-worthy and well edited. The web bloggers are focus on exploring public’s interest and making their comments on public events rather than reporting those issues in a professional and editorial way.

On the other hand, it cannot be ignored that those previous worldwide preparations inspire media participants how to involve citizens into news process and how to report public interests, which is a good approach to practice citizen journalism.

In Korea, internet was underdeveloped till strong economic growth from 1997. Electronics and automobiles manufactures increased dramatically, such as Samsung and LG (Joyce 2007). Korean government also invested billions US dollars in developing internet service between 1999 and 2005, therefore, Korea is one of the countries with highest rates of internet connectivity. It can be assumed that that high internet coverage rate provides a stable platform for a huge number of citizens to pose their wordings, to view others’ articles, to make editorial contributions, which is a technological premise for the birth of OhmyNews.

**Advocacy of democracy**

Bowman and Willis (2006) pointed out that citizen journalism was caused by democracy requires. ‘Eyewitness reporting comes in large part from people’s desire to share their stories and publish the truth’ (Bowman & Willis 2006: 33-34).

From the media history in Korea, it can be known that media was tightly political controlled and on the right of political spectrum from 1961 to 1987, a period of military dictatorship (Joyce 2007). Although after the 1987 President election, media gained more freedom from the military regime, mainstream media still avoided reporting political and environmental news, and rather they became more commercial oriented (Choi 2003). In terms of newspaper, three conservative daily newspapers—Chosun Ilbo, Dong-A Ilbo, and Joong Ang Ilbo are occupying around 80 percent of daily circulation. In addition, Joyce (2007) also pointed out the unethical phenomena in Korean journalism industry--’Many Korean journalists see journalism as a stepping-stone to a career in politics’.
The launch of OhmyNews is a challenge of traditional media system in Korea. The creator is Oh Yeon Ho, a progressive journalist and political activist from his early age. He was arrested due to participating in pro-democracy rallies against military dictator Chun Doo-Hwan in 1986 (Joyce 2007). Due to creator’s political background, OhmyNews is keen to enable citizens to participate in news process which could balance the liberal and democratic voices from public and mainstream media (Joyce 2007).

The 2002 Korean democratic president election is the key issue indicating that OhmyNews has obtained mainstream recognition as many citizens’ features have been widely adopted by other mainstream media (Min 2007).

Differences in news process between traditional journalism and citizen journalism

The reason why OhmyNews can be recognized as a successful practice of citizen journalism is because under its news process, citizens can actively participate in news process from input to output parts and professionals only do editorial assistants.

News process in traditional journalism

According to Nip (2006), under traditional journalism model, professional journalists play a leading and active role in news process, including gathering news sources, selecting news stories, editing news stories and final reporting. Journalists are recognized as gatekeepers dominating the relationship between professionals and readers/audiences (Nip 2006). The interactions between them are scarce. In traditional journalism, readers could only express their ideas or make comments and complains on specific issues via letters to editors after news-making process. In other words, readers/audiences are unlikely to involve in the news process before news being reported. They can only passively consume news production. Moreover, Bruns (2005) divided the news process into three parts which are input (news gathering), output (news producing) and response. He argued that journalists played a gate keeping role in the whole process. According to the diagram, it can be acknowledged that citizens are less likely to engage in the first two parts. Similarly as Nip (2006), Bruns (2005) also argued that if citizens were intended to participate in news
process, they could only give responses via letters/calls, and even in this part, editors had the priority to select the letters/calls.

**Fig 1: Three sections of traditional news process (adapted from Bruns, 2005)**

News process in citizen journalism

Compared with traditional journalism, in citizen journalism, citizens have more opportunities to participate in the news-making and news-using process.

Citizen journalism is the only model that readers/audiences are dominating in the news process. It means readers/audiences can actively participate in the news process without the control from professionals (Nip 2006). *OhmyNews* is a good example to explain how media participants can apply the theoretical concept into real practices.

*OhmyNews* applies a news process model, which is citizens-reporting and editors-assisting.

**Fig 2: Three sections of OhmyNews news process**

1. Membership and registration system of *OhmyNews*

   According to *OhmyNews* (2009), everyone can be a citizen reporter after submitting registration details and being confirmed by website staff (per-
sons under the age of 14 should be confirmed by the person’s legal guardian.). To ensure personal details correct, OhmyNews asks members to submit their identification evidence. This solution is helping the staff to trace back to the news sources and writers’ information if some inaccurate news is questioned by readers or criticised by public due to legal issues. This registration system is an effective solution to avoid illegal issues.

On the other hand, some arguments are criticized by some opponents. ‘Citizen Journalism is potentially devoid of any form of ethical accountability other than the legislative environment in which the individual operates. On the level of routine practice, there is very little control, especially in terms of accuracy’ (Maher 2005).

However, according to OhmyNews, every member has to agree to an agreement, which provides some principles referring to ethical and moral issues. Those principles direct users of OhmyNews on the right track when they are engaging in the news process and ensure users acknowledge the ethical and moral dimensions in this industry. For example, on the agreement, it mentions that OhmyNews may terminate a Member’s contract or suspend use of Services for a set period without prior notification in any of the following instances:

‘Behaviour that is contrary to public order or good morals and manners. Criminal behaviour. Planning or acting on plans to use Services with the goal of harming the national or public interest. Defamation of character or behaviour injurious to another individual. Behaviour that violates the pertaining laws or conditions of use as defined by OhmyNews’ (OhmyNews 2009).

In addition, in terms of authenticity, under the membership system, citizens cannot use other persons’ account and they cannot register as a member twice under different usernames as well (OhmyNews 2009). Moreover, members have to submit ID copy before their accounts are activated. Those requirements help staff to trace news sources and writers’ information if they are questioned about authenticity of news stories.
2. Citizens-reporting and editors-assisting news process

Grubisich (2005) criticised that the citizen journalism sites lacked quality and editorial content. However, Min (2007) insisted that OhmyNews editorial policy is the perfect cooperation and harmony between the professional journalists and citizen reporters. The successful practice of citizens-reporting and editors-assisting news process proves that citizen journalism can also maintain credibility and readability.

According to the traditional journalism, the input section only opens to staff journalists, whereas, in OhmyNews model, over 80 percent of articles are provided by citizen journalists. After registration, citizens could become potentially paid news reporters/news producers.

‘The OhmyNews model included monetary incentives for citizen reporters. If a reporter’s article is published in OhmyNews, he or she can receive up $20 per article, depending on where the article appears on the site. In addition, readers can ‘tip’ reporters up to $54 for writing particularly good articles and send the money online or by cell phone’(Joyce 2007).

During the output section, OhmyNews encourages citizens to use the eye-level perspective to write articles which they have good understanding and tell stories in their own voice (Min 2007). After articles being submitted to website, editor staffs only play an assistant role in editing those news stories for readability and checking facticity for maintaining credibility.

In terms of editing, editors are responsible to read through submitted stories, edit writing style and poor expression before those stories are published. Those submitted articles remain as ‘Saengnamu’ articles before being published. Although as much as 30 percent of those articles are rejected due to poor sentence construction, factual errors or less news worthy, those rejected articles can still be viewable in the database (Min 2007). In other words, editors are only responsible to ensure media credibility but not filter news stories. In addition, if the professional editor questions about the fact of the story, he/she will ‘travel to the site of the event to re-interview witnesses and ensure that the story is accurate before it is published’(Joyce 2007).

After articles being published, citizens can still fully control over their articles. They can read through readers’ comments reactions via reporter’s desk. They can also actively comment on other citizens’ articles. Members in Ohm-
yNews can act as a news provider, news producers, news reporters and news readers at the same time in different scenarios.

‘Stories are placed in a more prominent space, usually within minutes they draw feedback from scores of readers. When the story is controversial, the number of readers’ comments can shoot up to hundreds and even thousands’ (Min 2007).

From experience of the failure of Japanese OhmyNews, it can be recognized that the citizens-reporting and editors-assisting news process is the essential element for running the website. The Japanese version launched in 2006 and closed its doors in 2008 (Tokita 2008). One main reason of the failure is the unhealthy and less effective relationship between citizen journalists and editorial staffs. According to one editor of Japanese OhmyNews named Mr. Hirano, Japanese version failed to maintain the original model, as time constraints damage editorial staffs and citizen reporters working well together. Less credibility and poor news worthy reduce the attractions and readership of Japanese version (Tokita 2008). From this failure example, it can be hypothesised that, although citizens are key players under citizen journalism, they still need help from professionals.

Conclusion

OhmyNews is good example to explore the citizen journalism model. According to its news process, citizens can actively participate in input and response process and they are partnered with professional editors in output process. This news process is different from the one of traditional journalism, which is dominated by professional journalists. However, the real practice of citizen journalism is still minor as media credibility and ethical and legal dimensions are still tough problems influencing the development of citizen journalism. Indeed, OhmyNews’ running model provides inspiration for other participants, like MyMissourian, how to create a platform for practicing citizen journalism, such as registration of membership, editors-assistant. Although, citizen journalism is still a baby in journalism industry, those practices definitely accelerate the movement from traditional journalism to citizen journalism.
References


The Comparison of Emergency Coverage between America and China

Wenjuan Shi

Abstract

The rapid growth of the internet invades media culture. Like a raging computer virus, the Net seems to be devouring the traditional media culture, shattering the usual forms and definitions of news. There are huge advantages of e-news in personal or independent reporting of tragedies based on direct involvement versus the traditional media with limited access. Taken the Hurricane Katrina and Wenchuan Earthquake as the comparative examples, this article focuses on the different context and features of the media coverage in China and America.

Keywords: digital media, internet media, earthquake, hurricane, e-news

General Background

The dramatic development of the cyberspace astonished the world. In 1994, there were only 20 newspapers with electronic editions in the world. By the middle of 1999 this number increased to 4925 worldwide, 2799 of them in the United States. The figures keep going up and the websites have been not only carrying news, but also comments, opinion, and rumour. Currently,
CNN.com, ABCNews.com; USAToday.com, Washingtonpost.com are some of the most popular and widely read Websites (Hachten 2005).

In China, following the arrival of the new media age, many Chinese traditional news organizations, inspired by the network flourish of the Western news agencies, established their own “online version” and “electronic version” in 1994. Within these years, the number increased almost hundred times, enforcing the advances of Chinese internet media (Yan 2003). Commercial websites like Sina.com, (one of the leading Chinese media and Internet services company worldwide, offering on-line news, entertainment, community and e-commerce. A popular destination site for the world’s largest population group, SINA.com offers a Chinese-language network of four localized websites that are produced and updated daily by teams in China, Hong Kong, Taiwan and North America) have been gradually becoming the most popular in China.

Accounting for its unique advantages—quick, immediate and editable—e-news play an increasingly significant role in media industry today. The superiority of digital media faced with reporting of catastrophic events is particularly obvious. This text will use the digital media coverage of Hurricane Katrina and Wenchuan Earthquake as the case study to analyse the content of media coverage and differences of digital reporting in two different regimes.

Hurricane Katrina, classified as category 5.0 storm fell on New Orleans on 29th August, 2005. The storm damaged over 75 percent of New Orleans’ buildings and left residents stranded. The hurricane and the resulting flood killed over 1,800 lives and caused damage approximately $100 billion (Lay 2009).

Wenchuan Earthquake, also known as Sichuan Earthquake, measuring at 8.0 Richter scale occurred on 12th May, 2008 in the Sichuan province of China. According to official statistics, 69,207 residents are confirmed dead, 374,176 injured and 18,194 listed as missing (Xinhua 2008).
The case study of China and America

The Hurricane Katrina

Public Journalism

In the US, the mass media were preoccupied with the coverage of the breach of duty of Bush and his administration for weeks. It was reported that Bush remained on his five-week holiday during the first days of the disaster. His enjoyable vacation only “punctuated by a visit to a private event in Arizona, he bragged about how well things were going in Iraq” (Kellner 2005). The leading commentator David Jenkins said, “the last few weeks have been irrefutable proof that America is being wrecked and mismanaged by the most incompetent, dangerous and out of touch boobs ever to obtain power” (Jenkins 2005). All networks commonly included questions toward the federal officials on when they was aware of Katrina and what they did (Maestas et al. 2008).

Besides the criticism of federal government, much of the critical coverage was centered on the national government. In the early days of the storm, the late reaction of the state government was widely reported. There was a stinging blame game between President Bush and Louisiana Governor Kathleen Blanco “over whether she had properly requested federal assistance” (Maestas et al. 2008). This dispute became a central theme of the storm coverage for several weeks, especially in the second and third weeks.

Governor Blanco was reported to have told President Bush on August 29, 2005 as Katrina passed, “we need everything you’ve got”. However, by August 31, White House officials were publicly questioning state-level management efforts and secretly debated ordering a federal takeover of operations. While Governor Blanco claimed she was asking for federal assistance in the form of troops all along, White House officials claimed she was declining federal assistance (Maestas et al. 2008).

Racial bias showed up during the rescue process and was considered as one of major failures of the Bush presidency. In the media coverage, Black people were left behind by the government.
Although the New Orleans mayor ordered evacuation just before the storm was to hit, tens of thousands, mostly poor and Black people, remained behind because they had no transportation or funds to leave the city. Tens of thousands of the remaining citizens were herded into the New Orleans Superdome and Convention Center to ride out the storm, without proper food and water, sanitary facilities, police protection, or other basic necessities (Kellner 2007).

Another example of pervasive racism appeared as a commentary to two similar photos about seeking food: the black person was described as looting while the white person was just finding food. “The image was widely reused on the internet in various modified forms, and was known as ‘Lootie’” (Wikipedia). Looting and violent crimes were widely reported on The New York Times, The Washington Post, and the New Orleans Times-Picayune.

August 31: “These are not individuals looting. These are large groups of armed individuals.”...“Looting broke out as opportunistic thieves cleaned out abandoned stores for a second night. In one incident, officials said a police officer was shot and critically wounded.” From The New York Times (Tierney et al. 2006).

With the video clips posted online, looting issue attracted others’ concerns and resulted in military control. As the media coverage continued to report the lawlessness and civil disorder of this region, New Orleans was considered as a “war zone” by the public officials and military personnel (Tierney et al. 2006).

Personal Journalism

Influenced by the racial media reports, many individual writers expressed racial prejudice towards the black people and suggested strategies for sending aid that would exclusively target white survivors (Samuel R. Sommers 2006).

NOLA’s blog is the only website which contained the newspaper’s reports for days. Much of the information was relayed back by friends and relatives of trapped victims who sent it via SMS functions of their cell phone (Wikipedia).

Citizen journalism helped many people found their unconnected family members via an online photos or television video clips. In one instance, a family in Clearwater, Florida discovered their mother was still alive in Bay
St. Louis, Mississippi after seeing a photo of her on TampaBayStart.com, a regional news site (Wikipedia).

The Wenchuan Earthquake

Public Journalism

In China the media coverage of posted earthquake activities of President Hu Jingtao, Prime Minister Wen Jiabao and related governmental officials was closely observed by citizens. Because of the different function of media enterprises, these kinds of official news were only reported by CCTV.com: China Central Television, the biggest media enterprise owned by the Chinese government, has over 12 television channels and its own authorized website. It is the only official television channel in China. Xinhua.com and other governmental official websites. Shortly after the earthquake happened, Premier Wen arrived at Wenchuan to direct the rescue works on the spot. The CCTV, as the official media authority, set its own reportorial team with him to report on death toll and injury toll of the process of rescue work and to make official announcements. For instance,

In order to express deep condolences of all ethnic groups to the earthquake victims and Wenchuan compatriots, State Council decided 19th to 21st, May as the national day of mourning. In the meantime, national and foreign institutions would be at half mast during mourning and public recreational activities were banned was announced on www.cctv.com and www.gov.cn the official website of Chinese central government on 18th May, 2008.

The Chinese Army was also involved in the rescue operations in the affected places. What they did during that time was updated every hour on the authorized website as well as the commercial websites like sina.com or sohu.com. Titles like “after ten or more hours endeavor of the soldiers, many people (1, 3 or more) were rescued and they were transported to the hospitals” were common to see online accompanied by shocking or moving images. In addition, the actions of medical teams were tracked by the official media as well.
And then the commercial websites just collected all kinds of news report together and organized into categories with news, photos, videos and spaces for feedbacks.

During the first few days after the earthquake, Seismological Bureau of Sichuan was blamed by Chinese people. The response of this department, which admitted its fault and pointed actual limitation of technical support and knowledge, raised a dispute among citizens.

**Personal Journalism**

Firstly, individual bloggers were considered as the remedy of the traditional media type during the disaster. With similar to their US counterparts, many commercial websites, especially sina.com opened a separated forum for citizens to post their news. Anyone who got any information from the affected places would write it on the website, either the Sina forum or a personal blog, helping many people finding their relatives as well as offering emergency help to the victims.

Secondly, a number of volunteers, including some celebrities, went to Sichuan province immediately after the earthquake and took part in the rescue work. They also updated their daily blogs delivering their own experiences and images and publishing information independent from government sources.

In addition, some moving stories uncovered by mass media were widely spread by personal narrative online. For example, Tan Qianqiu, a teacher, protected his four students under his embrace and sacrificed himself when the earthquake occurred.

**The features of media coverage**

**Influence of the Coverage**

For America, the emphasis of violent crime by media outlets added negative influences to both individual and government officials. “Stories about violent crime deterred some individuals from rescue efforts and could have affected people from outside the region as well” (Samuel R. Sommers 2006).
As a result, individuals were less willing to donate and reduced their help to the region.

Media focus on crime also may have affected government officials. Several state and local governments ran criminal background checks on victims of Katrina who relocated to their jurisdiction, often as soon as these individuals stepped off a plane or bus, a move criticized by some as unprecedented and inappropriate (Samuel R. Sommers 2006).

These consequences were more likely to contribute to the racial discrimination and public debates.

For China, almost all the reports were about positive aspects of rescue work and they were mainly focused on the process itself and the consequence of the earthquake. During the rescue works, the moving stories caused public sympathy, donations and so on. For example, one four-month-old baby was saved after being buried for over 30 hours because her mother sacrificed herself to save her child. The photos and news moved the Chinese nation and contributed to the increase of the individual donations.

Similarities and Differences of the Coverage

Firstly, while in both China and America the coverage of the disaster and emergency policy was all affected and governed by the authorities, Chinese governance was much more severe. In the US the weakness of their presidency was concealed by the exaggeration of the pseudo-events, for instance, several days after Katrina went away, suddenly, “Bush was sent down to the disaster area every few days to make an appearance, hugging Black people and showing that he cared and was in charge”, (Kellner 2007) which gave other countries a wrong signal about Bush’s presidential ability.

While in China, much normal behaviour within the local officials’ duties appeared overly super heroic under the media’s description in order to avoid criticism and make both local citizens and foreign countries believe in the Chinese government’s ability to stay in control of the situation. Generally speaking, in Chinese culture, “people are seldom question authority and or expertise publicly” (He 2008), so it is unusual to see criticism of the government or even the regime in the media reporting.
From another angle, it can be seen that Chinese media is the government bias, accounting for the stricter regulation and limitation of the media. Although there are a huge amount of critic comments towards some departments, criticism or challenge towards the national leaders is not allowed except personal remarks online. Indeed, the critical comments on national, state, local governments that have become a tradition in America, remain rare in Chinese media coverage (He 2008).

Secondly, the content of media coverage is different due to the different internal needs in each country. In America, the interest of public is superior to other aspects in reporting of catastrophic events in the media. Consequently, the breach of government duties and racial problems were put forward by the medium. While in China, the media is a communicative tool between the government and the individual. The purpose of the media coverage which mainly focuses on the process and the impact of the destructive disaster might be to avoid the concerns and blames of government (He 2008). The following two examples illustrate these differences. According to the Ministry of Civil Affairs’ report, until 12:00 on 4th August, it had confirmed that 69,207 people were killed, 374,468 injured and 18,194 people missing in the Wenchuan earthquake while according to the report of General Staff, by the end of 12:00, 4th August, 1,485,899 people were rescued and transferred to safe place (Xinhua 2008).

NBC anchor Brian Williams reported on his blog about his personal experience about one presidential visit. People in New Orleans enjoyed a sudden and short-time brightness when Bush’s motorcade went through, then they returned back to suffer with the darkness and the electricity never came on again. The electricity could be produced for the safety of the president but not for those still stuck in the city (Kellner 2007).

From above examples, it can be seen that China emphasised the positive part while US paid more attention to the negative part.

Lastly, the positive aspect of citizen journalism or personal journalism is clear in both countries with bloggers contributing to the relief of the victims. However, as for the critiques towards government or race issues, it is not common in China to post them in public.
Conclusion

Summing up, there are huge advantages that citizen reporting of tragic events versus the involvement of the old traditional media. The digital media coverage of catastrophic events in the US and China shares some common aspects but there are some visible differences. Because the purpose of media coverage is not same, the contents and features of news reports are also quite different. Since American media enjoys much more freedom in reporting whereas Chinese media is censored, these different features are to be expected.
References


A content analysis of the posts on Twitter and Xiaonei

Yu Cheng

Abstract

With the popular of social networking websites all over the world, people use them to post many kinds of information to communicate and connect with each other. However, the posts are not alike on Twitter and Xiaonei. This article collects 100 posts from each website, with the methodology of content analysis, to evaluate the type of the posts and what the two websites have in common and in difference. The study shows the differences are in several aspects including language, culture, distinguishing features and usage pattern and provides the statistics for further studying.

Keywords: content analysis, post, Twitter, Xiaonei

What is the starting point of social networking? The answer might be e-mails. It is the most popular application on the internet. Then the emergence of BBS (Bulleting Board system) impels the social networking from point to point communication to a larger range of communication by more net users. After the appearance of IM (instant messaging) and Blogs, social network service emerged as a completing image of social network online. (Yuan Cheng, 2008)
As online social network websites first emerged during the 1990s, it gradually become widely accepted by net users all over the world. From 1997 set up of first widely accepted online social network websites: Sixdegrees.com (Freierman, 1998), the SNS websites went through a huge development by the past ten years. Friendster(2002), Myspace(2003), Facebook(2004) and Twitter(2006)(Acar, 2008). All these websites attracted our attention and became world-famous within their own unique feature.

Making friends is just the beginning of SNS websites, as simple as the beginning of Google which is just the backlinks of every web page (Yuan, 2008). The early online social networking websites focus on how to attract people to view their profiles. Friendster made several innovations to drive people using their service. Launched in 2003, MySpace gave users more freedom to personalize their own profile with HTML and stylesheets. As Ashlock (2009) states: “If social networking was about creating identity, on MySpace it had become that much easier to make one’s identity visually distinct.” This personal customized website significantly changed how social networking could be in the future. Then it came to Facebook and now Twitter. The whole developing of SNS websites can be seen as the shift from the complete information of peoples’ life off-line to online websites, thus they could be managed in a less costly way (Yuan, 2008).

What is Twitter and Xiaonei?

Launched in October, 2006, Twitter (2009) defines itself as this: “Started as a side project in March of 2006, Twitter has grown into a real-time short messaging service that works over multiple networks and devices.” According to the data on ComScore, in April, 2007, Twitter already had about 94,000 users and its main feature is you can write short messages within 140 characters to update your own status of what you are doing right now in multiple ways such as via the mobile phone, instant messaging software, website, etc. Instead of only following the people you are interested in, you can also view a public timeline to see what people are doing all over the world (Snider, 2007). This is not the only thing you can do with Twitter. “Recently, Twitter has made interesting inroads into novel domains, such as help during a large-scale fire emergency, up-dates during riots in Kenya, and live traffic updates to track commuting delays.”(Balachander, et al. 2008). Thus, the character of Twitter
has been changed, from a single micro-blogging websites to a multiple source of information.

Xiaonei can be seen as the Chinese version of Facebook. It starts with the imitation of Facebook, and now grows fast to become the top three SNS websites in China. Since internet entered the life of Chinese people, it took an unexpected developing in its culture, structure and impact. Under most circumstances, the Chinese Internet doesn’t have much independent innovation. Especially on Web 2.0, follow the way of western countries did, the Internet development also go through the process of e-mail, home page, comprehensive websites, blogs to SNS websites. (Why Twitter so popular, 2009). Xiaonei is one of the most popular SNS websites in China now, according to its website, over 400 million people have registered it, the page view is over four hundred million times and over five million people login this websites till October, 2008. (Xiaonei.com, 2009). Its targeted people are mainly students from universities, however, it opened to high school and white collar worker since Nov. 21, 2007 (Xiaonei.com, 2009), began its spread to other social group.

The content analysis of Twitter and Xiaonei

This study employed a content analysis to evaluate the differences between what users post on this two websites. A total of 100 post samples are collected from each sites. The posts collected on Twitter are from its public timeline, and posts collected on Xiaonei are from the mini news feed, all of them are randomly chosen.

The posts on Twitter

Based on the analysis of 100 posts collected from public timeline on Twitter, 92% of the posts are written in English, the rest of them are written in Japanese, Chinese and other unknown languages. This indicates the users of Twitter are mainly from the English background countries, yet it expands to other countries with non-English background such as Japan. For the purpose of accurate analysis, the non-English posts are excluded from the sample.

Akshay, Java, Song, Fininand and Tseng (2007) provide four main user intentions on Twitter post in their study: daily chatter, conversations, sharing
information/URLs and reporting news. The daily chatter refers to “Twitter talk about daily routine or what people are currently doing.” (Akshay, et al. 2007) The conversations indicate the users who use @ mark followed by the other users’ name so as to reply to specific person. They also mention because of the character limitation, the sharing of URL and links usually in a way of using a website like Tinyrul.com which offer the service of shortening the URLs. (Akshay, et al. 2007). The following study employed the categories provided by them:

Daily Chatter: 47% of all the posts are daily chatter. Including daily routine, personal feeling, the current status and what they are doing at the moment. A typical post of daily chatter might like “The dinner is delicious” or “It’s rainy heavily”.

Conversations: 39% of all the posts are replying to other user ID. According to Honey and Herring (2009), it's an innovation use created by users themselves to use @ mark as a reply to other users. “As in @courosa to indicate that a message (or ‘tweet’) is addressed to the user ID courosa.” (Honey, Herring. 2009). It is indicated in the research that with the use of @ mark, the twitter users are more likely to interact with each other like a conversation between people. While the tweets without @ seem like only post what the Twitter’s original purpose: to show what they are doing. “This suggests that @, in addition to directly enabling a more interactive use of Twitter, is indirectly contributing to expanding the types of content expressed in tweets.” (Honey, Herring. 2009).

Sharing information/URLs: 10% of the posts are in this category. People use Twitter to share their interests. It could be a show, a good restaurant, an interesting book and a link to another websites. The URLs are often in a short form due to the limitation of characters. Here is an example: “New blog post: Teenager's Bucket List [http://tinyurl.com/dzh8ud].”

Reporting news: only 4% of the total posts are reporting news or responding to the latest events. This is another application of the use of Twitter: as the news source. One example is during the terrorist attack in Mumbai last year, “With more than 6 million members worldwide, an estimated 80 messages, or ‘tweets,’ were being sent to Twitter.com via SMS every five seconds, providing eyewitness accounts and updates.” (Stephanie, 2008)

The study has revealed the different use pattern of twitters, shows that most of the users still focus their usage of Twitter as a common micro-blog-
ging websites to talk about daily life and interact with friends. Although Twitter has expanded to the source of news in certain level with the users’ posts, the traditional media dominate the area.

The posts on Xiaonei

The study of posts on Xiaonei is based on the different genres. As Xiaonei is a SNS websites which provides multiple Internet service such as blog, group, instant message, photo album and flea market, the posts on it may have more diversity than on Twitter. Unlike Twitter, Xiaonei is a local SNS websites based in China, so the target is people who speak Chinese. The main genres of the posts on Xiaonei are: personal update status, sharing, photos and blogs.

Personal Update status: This is the application which is the same with Twitter, it also allows users to write 140 characters either in Chinese or in English to present anything they like. In all 100 posts collected on Xiaonei, 41% of them are in this genre. Within this genre, it can also be categorized into three main intentions: daily routine, reporting news and personal feeling. 7% of people write their daily life on Xiaonei, and only 3% report news using this application. 31% write about their personal feelings, either to response to a certain thing or just their current mood. Users on Xiaonei seem love to write micro-blog. What Xiaonei has approved on this feature is it adds a reply button directly besides the other peoples’ update status, which mean when a person update his status, not only his friends can see the update, but also they can click the button to reply under the status. The original status and the replies both from author and his friends can be viewed together like talking with instant messaging software. This is called “status interaction” on Xiaonei.

Sharing: It includes 17% of all the posts. The content of sharing includes web links, video clips, photos, and other users’ blogs. The main feature is wherever you see something interesting, you can share them on Xiaonei, either from the external Internet or from your friends. Thus a well written blog or an excellent photo album may be shared by thousands of users on Xiaonei. It allows comments while you share.

Photo: 22% of users like to regularly upload photos into their album. Most are personal photos and it also includes news pictures, photographs,
comics and all kinds of pictures. Some great pictures may be shared by hundreds or thousands of people and received many comments.

Blog: 20% posts are writing their blogs on Xiaomei. A main reason may be the blogs can be viewed and commented by your friends quickly after submit without going to a special weblog service providers.

Being the leading SNS websites in China, it’s mainly targeted university students, it’s a group which has a highly stickiness to a certain websites. Like Li YuZhu (2007) states: “Xiaomei made itself a platform where web surfers connected with their classmates in the same university, ex-classmates from middle and high schools, fellow townspeople, and people sharing same interests.”

**Comparison and Conclusion**

Based on the analysis above, a comparison is drawn to show how they differ from the posts and what they have in commonalities. The differences include language, usage pattern, distinguishing feature and culture, etc.

Language difference: it has been mentioned in the content analysis. Due to the worldwide use of Twitter, the language used is varied. Twitter even has a Japanese version. As for Xiaomei, it can be seen as a Chinese version of Facebook, with the almost same interface and structure, the Chinese is the only language used on Xiaomei.

Culture difference: Western countries mainly share a same values and same language, that’s how Twitter success around the world. Being criticized as the clone of Facebook, Xiaomei is on its way of understanding the different culture background between western countries and China, as Lu(2008) demonstrates, Xiaomei doesn’t function completely the same as Facebook, it integrates the Chinese social culture into its websites, for example, “Xiaomei released a feature called Market, where you can sell and buy second hand things. The second-hand market is an event almost every student union has to organize at least once every semester in Chinese universities.” Yang (2003) argues, the online Chinese cultural sphere attracts users by the sharing of common cultural repertoire, “It may be a repertoire of some shared history, but certainly of expressive symbols.” (Yang, 2003) And it has also integrated cultural traditions into it. The different culture background generates the different genres of posts on each site. However, from the table below, we can see in the segment
of micro-blog writing, the different culture between Xiaonei and Twitter does show a similar performance.

<table>
<thead>
<tr>
<th></th>
<th>Status updates</th>
<th>Sharing</th>
<th>Reporting news</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Xiaonei</td>
<td>38%</td>
<td>17%</td>
<td>3%</td>
<td>58%</td>
</tr>
<tr>
<td>Twitter</td>
<td>47%</td>
<td>10%</td>
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Table 1: the comparison of microblog writing on Xiaonei and Twitter

Targeted people: On Xiaonei, the users are more close to you than on Twitter. It is the same with other SNS websites that most of the people on it are the people you are familiar with (your friends, your relatives or your coworkers), it’s like shifting your relationship from real life into the SNS websites. Kay (2007) illustrates: “What makes online social networking unique is the ability to define one’s own social network and interact in new ways. Indeed, users on many of these sites aren’t looking to meet new people but to communicate with others who are already part of their social networks”. Opposite on Twitter, the people you follow or those who follow you may be completely strangers. This leads to a different effect when you post something on Xiaonei or on Twitter. A same post like what you just eat may be generate no attention on Twitter, but it may possibly be responded by several of your intimate friends on Xiaonei with variable replies. So Xiaonei is more likely to share something related to daily lives, while Twitter may focus on more important events.

Usage pattern: The use of Twitter has been innovated in several ways since it first launched. Twitter now becomes a source of news, people post news on it to let it spread much faster around the world. It provides us information that social networking has becoming a low costly way for people to mange their “things happened nearby”(Yuan, 2008).Twitter combines those sources together, now people can follow and access all type of news from worldwide to update status from their friends’ posts on Twitter. Twitter is also used in both commercial way and political way. Huge companies have been taken advantages within Twitter in multiple ways, as Ann (2008) states, “Dell has created a number of Twitter profiles, each meant for different types of deals (e.g. DellOutlet posts recent refurbished Dell computer offers).” The use of Twitter as a campaigning tool is another example as “The Hillary Clinton campaign began sending out ‘tweets’ and eventually had over 4,000 followers. The Barack
Obama campaign did the same thing and got 44,000 followers.” (Eric, 2008). Although the posts on Twitter are still mainly about daily routines, it provides a new way for Twitter to explore what it can achieve in the future. As for Xiaonei, the users’ posts are mostly about their own lives, it still remains the initial purpose of an online networking websites: meeting friends.

Distinguishing feature difference: Bill (2008) states, “The sites differ in who can join, who can see your profile and how much of it is visible, and their openness to Web crawlers and other applications.” As for Twitter, everyone can join, so as Xiaonei now, but there exists a privacy mechanism which you can determine if your profile can only be viewed by your friends or every user can see it. “The sites also differ in their suitability for use on a cell phone and whether they can be universally accessed among the multitude of telecom companies.” (Bill, 2008) This is what Twitter’s feature in, as for Xiaonei, it just begins to allow users to modify their profiles and post their update status on cell phone. The SMS service is still not open for Xiaonei user. But recently Xiaonei has finished the “development of widgetization of its platform, which will allow users to be able to add new apps or delete them”. (Tangos, 2008) The users on Xiaonei may someday receive their replies and posts with SMS in their cell phone.

Online social networking reduces the cost of communication and intercourse that other social network forms like salon, club, ball and party never did. (Chen, Li. 2008). It achieves low cost and high efficiency. The internet provides a possibility that communication no longer need real space and long time, we just need to go to our profiles on Xiaonei to update our statues or get on Twitter to write what we are doing right now. The content analysis shows both commonalities and differences between the two websites. The statistics reveals that the social behaviors of the individuals-centric western community and community-centric eastern community have common performances in certain level, and also reflects the community social trends of each website. The study provides a preliminary analysis of the different use of these two websites.
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How Facebook and other social networks are changing information production and circulation

Emel Gusic

Abstract

Facebook, the world’s most visited online social network, and others like it have become increasingly popular, now accounting for 10 per cent of all ‘internet time’ (PR Newswire 2009, p.1). People now check their Facebook accounts ahead of personal email, and the demographics of users are changing and expanding. What started out as a ‘youth medium,’ has shifted to include parents and grandparents, who are also joining as active members. This article will look at Facebook as an ‘online community,’ which has created new ways for information and knowledge production and circulation.

Keywords: Facebook, social network, information production, information sharing, user-generated content, search engines

A social network comprises of people who are connected by social relationships, such as friendship or common interests and ideas and for information generation and exchange (Jamali & Abolhassani 2006, p.1). In an online context, a social networking website is a ‘virtual community’ that allows users
to connect and interact—most social networking sites are used for communication with others, with opportunities for content uploads and/or recommender systems (Coyle & Vaughn 2008, p.13). Participation in these networks has become a communication and interaction phenomenon around the world.

Facebook was created in 2004 by Mark Zuckerberg, a Harvard student. It was initially created just for his Harvard friends, to keep in touch and inform each other of upcoming events. Two years later, Facebook became available to anyone over 13 with an email address, and now, five years since its creation, it boasts a staggering 200 million users worldwide (Marsden 2009). From January to April 2009, Facebook membership grew by 50 million. Facebook’s main competition used to be My Space, although currently it seems that Twitter is taking its place in the market (Leahul 2009).

According to Nielsen research, social networking has become a fundamental part of the global online experience, growing twice as fast as other sectors (search, email, PC software etc.) Social networks are not only being accessed by computers, but mobile phones, which is also on the increase in the last two years (PR Newswire 2009, p.1).

**Information sharing**

While traditionally considered as platforms for communication and interaction between users, social networks have also become a place where people can share and exchange information in a way that cannot be done in more traditional forms of communication, like email (Jagirdar 2009 p.1).

The ability to publish and gather personal information has always been a major factor in the success of the Internet from the start. Although social networks feature mostly the same content as personal websites, they provide a central location of access and bring structure in the act of sharing information and online communication and socialisation (Jamali & Abolhassani 2006).

Social networks consist of a variety of tools that promote information-sharing—these include photo and video sharing, blogs, wikis and instant messaging, all of which are included in a typical social network like Facebook. Members can share images and rich content like video and art, and basically self-publish their ‘lives’.

One other feature of social networks is that they can be considered as ‘online communities,’ in the sense that a community is ‘a group of content
creators that manifests itself as a set of interlinked pages’ (Jamali&Abolhassani 2006 p.4).

In some instances, social networks can even take on journalistic functions, as in the case of last year’s terrorist attacks in Mumbai, where citizens used Twitter to share information about events as they occurred in real time (Jagirdar 2009 p.1).

Social networks as ‘search’

Social networks have also been compared to search engines. The question raised is whether they will be able to take over the role of popular online search engines like Google and Yahoo. Instead of looking for information via traditional methods, one Facebook user gives an example of how to find information today. Bill Tancer needed a recipe for a French dessert and he wrote this on his Facebook profile—within minutes, his friend Alex informed him of what book the recipe was in and that it was on page 700. This leads Tancer to an important question—is Facebook the future of ‘search’? On Facebook, he says ‘We don’t have to seek information. Instead, information just comes to us’. In terms of popularity, social networks have surpassed the search engine by market share of visits (Tancer 2008 p.1). While still using search engines, Tancer points out that on Facebook, information is ‘pushed at him,’ which leads to the conclusion that the future of ‘search’ is that people will not want information delivered faster—they will want it before they even ask for it (Tancer 2008, p.1). However, Tancer suggests that social networks will not ‘herald the end of search,’ but perhaps alter the nature of it.

According to Hershberg, social networks represent the ‘new face’ of the online search experience. The division between ‘search’ and social networks is slowly disappearing, as a new paradigm takes hold. He places importance on not just where content is found, but who is its author. With social networks, we would be able to narrow our searching to select sources, if we had a built up network of credible content generators (Hershberg 2009, p.40).

Hershberg describes the three phases of search engines, with the first wave being focused on pages and their content. The results of a ‘search’ would be ranked mainly on the number of times a keyword showed up on the page. When Google was launched, the focus shifted to not just content, but the links
among them, and the relevance of found site to the search query became im-
portant.

In what he describes as ‘search 3.0’, Hershberg ascertains that found data
has to also relate to a person’s own network, making it easier to filter infor-
mation. In this way, social networks have started to surpass Google for very
specific information searches. The social network ‘search’ experience means
having the ability to reach people when they are already publishing, linking,
tagging and sharing information (Hershberg 2009, p.40).

So while it is clear that at present, Facebook has not yet surpassed the
regular search engine, it is important to note that it is a contender for the not
so far future. What has been pointed out is the ‘proximity’ of the person to the
information, with users being able to find specific information through trusted
and credible sources within their online network or ‘community’.

User-generated content

Along with the growth of social networks in the last few years, changes in
information consumption habits have also been rapid. Content, and the way
users are getting it, has changed significantly, with sites like YouTube and Fa-
cebook allowing people to easily share content of all sorts. This new online en-
vironment promotes self-publishing, video/photo uploads and various miscel-
laneous pieces of information that users are willing to share. (This may include
anything from someone’s video of their child playing with their new dog, or a
link to an important article published in a literary journal.)

Unsurprisingly, according to Hetcher (2007 p.863), the changes in the way
users access and use social networks may threaten big industries, like music,
television and news production. Although user-uploaded content has been
around for a while, it is only recently that it has gained importance, because of
its ability to bring large numbers of users together to share and interact in new
ways. Social networking sites like Facebook (which Hetcher refers to as the
new ‘mega-sites’) are no longer just popular for keeping in touch with long-lost
friends and acquaintances. They also represent a place, or ‘online community,’
where users can access a large variety of content, including videos, music, pho-
tographs, media articles and any other content created by other individuals.
Every user also has the capacity to share with others whatever they want—it is
becoming more and more common when accessing content on the Internet, to
see icons which lead directly to sharing that particular content on the social network of your choice (for example, Facebook, Digg, and Del.icio.us on the Yahoo!7 News webpage).

The Internet started out as a one-way source of information. Users were seen as passive consumers who just came to view and collect what others (institutions or learned individuals) had already uploaded (Martinez 2008 p.10). Martinez (2008, p.12) refers to what has been called Web 2.0, a new shift to online user-generated content. Unlike the previous paradigm, user-generated content (UGC) is produced by the users themselves. The term ‘user’ in user-generated content usually refers to amateurs (although it can include professionals or those aspiring to be professionals), while ‘generated’ means created by the users themselves. Content in this context refers to digital content that can be accessed online. Hetcher makes the distinction between UGC (which he says would better be named as ‘user-created content’) and user-uploaded content (content that is merely copied and uploaded).

Web 2.0 companies are interactive companies like YouTube, where the company provides the tool, while users generate all the content (Martinez 2008 p.12).

While UGC is available online, on sites like Facebook, users can choose who to share their content/information with, in this way limiting the viewing/usage of that particular content. This is reflected in the fact that these sites are like ‘online communities,’ where groups are formed around certain interests and not everyone is included.

The significance of UGC and user-uploaded content is growing and predictions are that its future is bright, given that it uses new technologies which are more common and less costly to use in today’s market. Most everyday computer users are able to access and create content for online distribution, particularly easily on social networks, like Facebook.

Facebook is the perfect example of UGC and user-uploaded content. While a profile page is individual and a reflection of the person who created it, users typically take applications that are created by other users and use it towards making up their own page (Hetcher 2007).

Martinez also refers to Web 2.5, the model for social networking sites, where users create content for the Web, while developing the Web itself and using it as a place to interact with others, creating social networking. This kind of environment is a new medium for collaboration on a mass scale, offering di-
verse ways in ‘resolving problems through collective wisdom’ (Martinez 2008 p.15).

In his book ‘Content Nation,’ Blossom asserts that social networks and similar online tools will change publishing now and in the future. He goes so far to say that social media and networking will shift in importance and become intertwined in politics, government, business, arts and other areas. He sees it as a permanent fixture in our lives, not just a trend, but a ‘realignment of the essential tools of human communication that is giving new power to individuals and institutions to change the world (Science Letter 2009 p.3461).

This means that we will become (and many already have) ‘citizen publishers,’ as everyone will be able publish material, with potential for more participation and collaboration. Publishing will no longer be in the realm of the privileged few.

**Problems with Facebook and information**

Grossman (2007 p.1) refers to Facebook as not just a website, but another version of the Internet—a sort of ‘Net within the Net’. As previously stated, many see Facebook as an ‘online community,’ where users come together to socialise, exchange information and collaborate on a new level. While it has been asserted by some that Facebook has revolutionised how we search and find information, it is hard to believe that Facebook has all the answers we seek. The very fact people on Facebook have only a group of ‘friends,’ who they share information with, while expanding the potential for collaboration and knowledge production, is also quite limiting. This means that users are limited by who they gain information from, and what information they can obtain. For example, students who are researching for a paper will surely not get their information on Facebook—they may, accidentally stumble upon something useful, or ask a ‘friend’ to help them out, but this is all purely by chance.

Notess (2008, p.43), an academic, discusses his experience when first signing up for Facebook in its early days, saying he felt like he was ‘dropping in on a college party’. From an information searching viewpoint, to him it seemed only valuable to students for ‘social chatter’. He also points out the privacy barriers on Facebook (users cannot access another user’s profile or information unless they ask for permission, or become ‘friends’). These barriers mean that Facebook is a challenging source for searching and interpreting informa-
tion. The conclusion Notess gains is that Facebook and similar sites are good for their social networking options and the ability to communicate and keep in touch with people, but less so for their information potential. Facebook is limited in the type of data it offers to users and it is a challenge to utilise as an information-gathering tool (Notess 2008, p.43).

While most critics agree on some of the information potential of Facebook and similar social networks, others are skeptical that it can offer anything useful or positive. According to one Oxford neuroscientist, social sites may be risking ‘infantilising’ the human mind, blaming Facebook et al. for ‘short attention spans, sensationalism, inability to empathise and a shaky sense of identity’ (Wintour 2009, p.1). This is negated by many in the education industry, who are taking advantage of the interactive nature of social networks when teaching their students. According to some teachers and librarians, social networks can be used as educational tools because they facilitate social learning. Because of its interactive nature, a social network like Facebook has the potential to ‘teach students about appropriate citizenship in the online world,’ as it emphasises the importance of creating content, rather than just using and consuming it (Stewart 2008, p.13).

Conclusions

This article has examined the use of social networks (with Facebook as case study) in information and knowledge production and circulation. Social networks are no longer popular just for their social component. These online environments facilitate information sharing between ordinary people in one ‘place,’ defined as ‘an online community,’ for those participating in it.

The idea of social networks as search engines was also investigated, with comparisons to popular search engines like Google. The conclusion gathered is that social networks will not herald the end of the standard search engines, but alter the nature of searching online. Information is now thrust at users before they even ask for it, and it is becoming more and more specialised and user-specific in a social network environment.

Finally, Facebook and its implications in user-generated content and online ‘citizen publishing’ was examined. A distinction was made between user-created content and user-uploaded content, with observations on the future of
other media outlets, which may be ‘under threat’ from UGC. Social networks have certainly become the place where UGC and self-publishing prevails.

Social networks are currently strongest as an information-sharing platform, with individuals across the world sharing all kinds of content on a daily basis (Jamali&Abolhassani 2006).

However, this does not mean that social networks signify the end of traditional information-gathering tools and mechanisms—they are not an ‘online revolution’. Social networks represent an evolution of the way information is produced, shared and obtained.

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Facebook, Privacy and Criminality

Wenbo Chen

Abstract

With the implication of digital technology and Web2.0, social networking sites are booming at a staggering rate. Take Facebook as an example, the world-wide proliferation of users on Facebook has formed an intricate social graph, in which social relationships are tied together: weak ties are strengthened while strong ties are maintained. However, privacy violation is currently erupting into a frontline issue in the virtual community. In addition, the crimes committed via Facebook take on new forms. In this paper, the author aims to analyze the digital privacy problems and criminality issues by examining four particular cases. The cases include photo tagging issue, Facebook terms of services discussion, Facebook Murder as well as unethical Spying on Facebook.

Keywords: violation of privacy, social graph, digital crimes, on-line community

Understanding the concept of privacy

Privacy, hailed as “an integral part of humanity,” the “heart of liberty,” and “the beginning of all freedom,” (Minn 1998) is the foundational concept to the launch this research and understand the privacy issues. It is essential to conceptualize and understand the nature of privacy. Yet conceptualizing pri-
Privacy also affects the way we craft legal solutions to particular problem. However, privacy is a concept in disarray. (Solove 2008) For years, philosophers, legal theorists, and jurists have frequently lamented the great difficulty in reaching a satisfying conception of privacy. Though it is difficult to conceptualize privacy, it is described that privacy is a sweeping concept, encompassing (among other things) freedom of thought, control over one’s body, solitude in one’s home, control over personal information, freedom from surveillance, protection of one’s reputation, and protection from searches and interrogations.’ (Solove 2008)

Solove views privacy as a plurality of different things and that the quest for a singular essence of privacy leads to a dead end. So Solove proposed a new way to conceptualize privacy- understanding privacy as a set of protections against a plurality of distinct but related problems. (2008)

Currently, with the development of digital technologies, new privacy problems are continuously emerging. So we need to keep in mind two conceptions in understanding the concept of privacy: 1. to set a framework of privacy; 2. always develop the concept when new privacy problems emerge.

**Introduction to Facebook**

Launched on the fourth of February, 2004, Facebook describes itself as a social utility that “helps people communicate more efficiently with their friends, family and co-workers” (Facebook 2008). As one of the world’s most popular social networking sites, Facebook is now changing the human fabric of the Internet and form the virtual on-line communities as a particular application of web2.0. Facebook has realized almost all the functions of social network, in which individuals as well as organizations are tied by one or more specific types of interdependency, such as values, visions, ideas, financial exchange, friendship, kinship, dislike, conflict or trade.

Mark Zuckerberg, the founder of Facebook, announced a development platform for programmers to create social applications within Facebook on May 24, 2007. This announcement sparked a great deal of interest in the developer community. Within weeks, many applications had been built and some already had millions of users. Today, there are more than 400,000 developers around the world building applications for Facebook Platform. (Wikipedia)
The ability to add applications to the users’ profile is the feature of Facebook, which distinguishes it from MySpace. In Arrington’s research article, he demonstrates Facebook’s monster growth over the last few years. April 2008 was the milestone: Facebook officially caught up to MySpace in terms of unique monthly worldwide visitors, according to data released by Comscore. (Arrington 2008)


Originally targeted at college students in the United States, Facebook’s popularity has increased significantly since February 2004, with over 200 million active account holders around the world (Facebook, 2009).

Facebook is changing the way the world works. It not only functions as a common website, but also forms a social graph, which makes it easier for people to connect and share with each other. Facebook users can create and customize their own profiles with photos, videos, and information about themselves. Facebook allows any user with a valid email address to join, following Mark Zuckerberg’s vision to build a site that helps people “understand the world around them” (Lacey 2006). The social graph is the collection of nodes and links representing all your friends, along with relationship attributes that define them. Here below is a Facebook social graph:
This graph demonstrates an intricate social pattern of how nodes are tied in the network of Facebook. The social graph of Facebook is making the world smaller and smaller. For me, my most stunning experience is that I get in touch with my primary school friends that have lost touch for years.

Privacy Violation on Facebook

However, Facebook is not perfect. There goes a saying by the Roman philosopher Seneca that he who does not prevent a crime when he can encourage it. It reveals the human nature that people are curious about and tend to approach the privacy of others.

Through Facebook community services, users are able to browse the profiles of their “friends” and write messages on their pages, get to know what their “friends” are up to, the music they are listening to, the movies they rec-
ommend, and what apps they are using. On the one hand, it shortens the distance between individuals. Probably this is the main reason why Facebook has accumulated its popularity with 200 million active users around the world within five years. On the other hand, it provides opportunities for privacy detection. Zuckerberg has explained that Facebook’s philosophy is that “people own their information and control who they share it with. When a person shares information on Facebook, they first need to grant Facebook a license to use that information so that we can show it to the other people they’ve asked us to share it with. Without this license, we couldn’t help people share that information” (Facebook 2009). In spite of this, most users utilise the total amount of information they are invited to input and post. Among these posted information, some may be privacy of the posters which are not expected to be seen by all, especially some merely “Facebook friends”; some may be privacy of the posters’ “friends” which are not expected to be posted on Facebook and seen by other people. Both conditions commit privacy violation.

Overall, privacy on Facebook is undermined by three principal factors: users disclose too much with an expectation to privacy and ownership of their published material, Facebook does not take adequate steps to protect user privacy, and third parties are actively seeking out end-user information using the site which would result in significant monetary gain for Facebook (Jones & Soltren 2005).

For the problems of privacy violation, I will present my argumentation with two specific cases.

#1 Photo Tagging Issue

Facebook is hell to some people. Some people have been fired from work after incriminating photos were posted for the boss to see. Some people randomly tagged photos of their friends which even resulted in breaking relationships.

On the website of Slate, there is an article written by Brian Braiker on his experience of seeing his old photos on Facebook. He said that when he received an e-mail alert that his friend Caroline had tagged him in a photo on Facebook, he was horrified. Here below is the description of the feeling of Brian Braiker (2009):
The picture she posted is terrible. It’s homecoming 1991, though it could easily be mistaken for the parking lot at a Phish concert. I appear to be dancing or jumping; my unwashed mane is flying all over the place; I look like a hobo who has spent the night in a patchouli patch. My first impulse was to detag the photo. I mean, how dare she? The whole experience nagged at me. I felt violated.

Brian’s privacy was violated, in that the e-mail alert was sent after Caroline has already tagged him in the photo. If Facebook can send asking-for-permission e-mails to the users before their photos have been tagged, there are fewer chances to violate privacy when tagging photos.

There are three categories a photo is tagged: 1) one tags his own photo, 2) a friend put up online and then tagged, or, more worryingly, 3) a third party uploaded without them knowing—and was subsequently identified, without any human intervention, by some facial recognition software. The third category, however, freaks everyone out, says Palfrey. (Braiker 2009)

In the condition of the first category, there is no possibility for violation of privacy. In the second category, the best way to eliminate privacy violation is to send a message person tagged beforehand. For the third, privacy violation can not be prevented. Most people doing this are on special purpose, such as using the image for advertising or promotion. Facebook should improve its privacy policy to avoid privacy violation and fix the improper upload.

In Nick O’Neill’s article “10 Privacy Setting Every Facebook User should Know”, a current solution to tagging photos issue is provided.

First visit your profile privacy page and modify the setting next to “Photos Tagged of You”. Select the option which says “Customize...” and a box like the one pictured below will pop up. Select the option “Only Me” and then “None of My Networks” if you would like to keep all tagged photos private. If you’d like to make tagged photos visible to certain users you can choose to add them in the box under the “Some Friends” option. In the box that displays after you select “Some Friends” you can type either individual friends or friend lists.
Admittedly, it is a remediation for solving the tagging photos problem. However, the main reason why people like Facebook is that they feel free and convenient to connect and share with people. If everyone is not willing to share his information and choose the option “only me” in the “Photos Tagged of You” setting, Facebook will become monotonous and boring, it makes no difference from keeping personal albums and diaries off-line. Thus, few people would participate in Facebook any more.

#2 Facebook’s Terms of Services and the characteristic of sharing

The Consumerist has noticed a seemingly slight but very important (and disturbing) change in Facebook’s terms of service, regarding user-generated content. Previously, personal information remains on Facebook’s servers even after a user deactivates an account. And all of the content one has ever uploaded on Facebook can be used, modified or even sublicensed by Facebook in every possible way. Although this policy is unfeasible, yet it still had been last-
ing for more than four years. Not until February 29, 2008 did Facebook change its account deletion policies, allowing users to contact the website to request that their accounts be permanently deleted.

“People shouldn’t have to run around trying to think about which stuff they’re going to delete,” EPIC Executive Director Marc Rotenberg says. “People shouldn’t be in that position. They should be able to sign up for a service with the confidence that their rights will be respected.” (JR Raphael, 2009)

The use of Facebook as a means of surveillance and data mining:

Several concerns have emerged regarding the use of Facebook as a means of surveillance and data mining. Two MIT students were able to download over 70,000 Facebook profiles from four schools (MIT, New York University, the University of Oklahoma, and Harvard University) using an automated shell script, as part of a research project on Facebook privacy published on December 14, 2005. The possibility of data mining remains open, as evidenced in May 2008, when the BBC technology program “Click” demonstrated that personal details of Facebook users and their friends could be stolen by submitting malicious applications. (Wikipedia)

Privacy proponents have criticized the site’s privacy agreement, which states: “We may use information about you that we collect from other sources, including but not limited to newspapers and Internet sources such as blogs, instant messaging services, Facebook Platform developers and other users of Facebook, to supplement your profile.”

There are many users who wish to remove their accounts permanently, citing reasons such as the inability to erase “embarrassing or overly-personal online profiles from their student days as they entered the job market, for fear employers would locate the profiles”. (Wikipedia) Since the outraged group of people accumulates in number, the privacy policy has finally been changed on February 29, 2008.

Cases of Crimes on Facebook

Apart from privacy violation, Facebook has also provided space for committing other forms of crimes. Generally speaking, the personal profile one writes on facebook such as user names, photos, e-mail addresses, home ad-
addresses and phone numbers may be taken by criminals to commit crimes. Also, it’s said that hackers have stolen the personal details of hundreds of thousands of jobseekers through facebook, according to the article Millions of Facebook users putting themselves at risk of online crime. (Mail online) In addition, many review articles complained that Facebook has made the teenagers become more violent. According to a Griffith University academic, police statistics show that violent crimes amongst young people are on the rise. (Hugh Tobin)

#1 Facebook Murder

Facebook is primarily used for people to strengthen weak ties and maintain strong ties. Below is an unusual case of Facebook Murder which is found in facebookstudy.com.

Edward Richardson, 41, of the United Kingdom was found guilty of stabbing his wife to death after she changed her Facebook status to 'Single'. The murder took place in May of 2008 when Richardson broke into his wife’s parents home and stabbed her to death. Court records state Richardson became enraged after Sarah Richardson, his wife, changed her Facebook marital status to single and refused to respond to any messages. (Facebook 2008)

This is a tragedy truly happened on Facebook. The two parties involved in the murder are husband and wife.

Is it to say that without Facebook, the tragedy will not happen? Who is to blame, Facebook Inc, Richardson, or Richardson's wife?

In my view, there are 90% opportunity such murder will not happen without Facebook. Because the network of Facebook is so influential and the speed of information diffusion is so fast. Changing marital status on Facebook has the similar effects to that of broadcasting one’s new marital status over a radio station. Unfortunately, the wife was not aware of it. Undoubtedly, it is impossible for her to announce her marital status single via the mass media, such as radio station or TV. So it is a new problem generated in the environment of digital media. Facebook provides too much freedom. This case is a real Facebook tragedy. It does not serve the original purpose of Facebook marital status settings, which encourages the users to form relationships. The biggest social
networking site in China, Xiaonei.com, which does not require the option of marital status in one’s profile, successfully prevents the murder problem in family.

#2 Spying on Facebook-both ethical and legal problem

Sydney Morning Herald reported on April 17, 2009 that large companies and government departments are employing a new Sydney-based company to dig up dirt on staff by spying on Facebook. There is a particular case in which two Domino’s employees were sacked and arrested after they published videos of themselves on the web fouling up customers’ food. (Moses 2009) Few people realise these seemingly private sites are still public spaces. But these are extreme cases, and there are scores of other instances which staff have been disciplined for seemingly innocuous posts, such as announcing in their Facebook status that they are tired of work.

It is an ethical problem both for the companies as well as their staff. On the one hand, the employees should have the right to have private conversation. The spying of the company is unethical and makes the employees feel pretty uncomfortable. If you are an employee of a company who spies on your Facebook as well as other social networking sites, what do you think of it? There is no freedom of speech! On the other hand, companies also had a right to protect their brand and reputation online. But the way to spy on their employees is not a good choice. Griffin argued that monitoring social networking sites was no different to using traditional tools such as Media Monitors, which tracks online and print media reports. Unfortunately, there is yet no legal action made to solve this problem.

Conclusion

With the emerging and development of digital technology and social networking sites, the privacy problems have developed as well. The privacy problems on Facebook are more complicated than before and most of the current web, because several Facebook profile features appear to be simplified versions of other internet services, such as FB note = blog, FB status update = twitter, FB share = del.icio.us. Firstly, it requires the users to read the Terms of Use carefully and understand the privacy policy thoroughly. Users also need to be cau-
tious when approaching the potential privacy violation problem. Secondly, the Facebook Inc needs to launch surveys on users and explore what the privacy issue the users encounter on Facebook. Facebook should take measures to prevent crimes committed through the third parties who build the applications. Facebook, as a social graph, is as complex as the real society. The criminality, which is prevalent in the real world, is developing in the digital world. Thus, it is critical and logical to conceptualize the forms of digital criminality first, and then set up laws to protect the digital victims and punish the digital criminals.
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Podcast: Useful tool to facilitate learning behaviour in higher education

XiaoLi Pei

Abstract

The popularity of portable media players has speed the podcast becoming one of the attractive digital technologies in recent years. An increasing number of researchers who worked in the educational industry have also paid more attention on the implementation of podcast in educational area. This paper describes the influences of podcast in higher educational system, which comprehensively analysed the effectiveness and challenges both from the lecturers and students’ perspective. It argues the feasibility that the podcast was applied in higher educational environment depending on some main attributes of podcast technology. It attempts to answer that whether and how does the podcast worked on the students learning process and what are the big challenges to the lecturers who are facing with this kind of new technology implemented in the educational arena.

Keywords: Podcast, learning behavior, pedagogical issue

As the advent of internet, more and more IT (Information Technology) artifacts such as WebCT and Wiki have been used in the educational industry. Podcast as one of the latest technologies has been aware by public especially the enthusiasts of IT.
As a value-added technology, podcast originated from two words iPod and broadcast which can annotate the functions of Podcast. From the academic perspective, podcast refers to a series of portable audio or video files which are uploaded on the Web and distributed via a Really Simple Syndication (RSS) feed through XML (eXtensive Markup Language) format (Frydenberg, 2006). It can be revealed by the following formula properly: ‘Audio + World Wide Web + XML = Podcast’ (King & Gura, 2007).

Based on some unique characteristics of podcast like portability, subscription and interactivity, there are plenty of potential user groups. Therefore, the majority of mainstream broadcasting corporations have produced professional podcast programs in order to meet the needs of the growing podcast users. The contents range from nightly news summaries, special features to regular shows (Richardson, 2006). Will Richardson who is the Supervisor of Instructional Technology and Communications at Hunterdon Central Regional High School in Flemington, NJ, mentioned that one of his favorites in this vein is the ‘On the Media’ show from NPR, which he never got a chance to listen to before they made their podcast version (Richardson, 2006). This is because that the podcast programs removed the barrier that the on-line radio programs have to follow the program guide without flexible options which depends on the listeners’ personal interests.

Due to these exclusive characteristics, podcast has begun to bring into the higher educational system extensively. Mp3 player as one of the basic receivers of podcast has been used by more and more college students. According to the statistics from Apple Inc., the sales of iPod device had over 100 million since they launched in 2001 until the April 2007 (Evans, 2007). Furthermore, in 2004, Duke University distributed 20GB iPod devices to the first-year students aimed to the innovation that use technology in the education (Duke University, 2005). After that, in May 30, 2007, Apple Inc. launched the iTunes U on the iTunes Store to support Podcast users for educational purpose. These programs provide a plenty of learning materials with multi-subjects over 100,000 educational audio and video files, which supported by top educational institutions such as Stanford, Oxford University and Yale University and so on (Apple Inc., 2009). Eddy Cue (2007), who is the president of the Apple Inc., mentioned that the aim of created this program is to build a platform to students no matter which country they lived in world, they can share the learning
materials from different universities without going to that university in person (Apple Inc., 2009).

Does the podcast create the new opportunity in the educational area? How does it change the students’ learning behaviors? This paper will discuss these issues from the both shareholders perspective, which are teachers and students. Moreover, it also argues the challenges resulted from the application of podcast in higher educational system that the teachers have to overcome

Podcast has changed the students’ traditional learning behaviors

With the changes of pedagogy, today’s learning system has shifted from one-side acceptance to communicational activities between teachers and students even the peer review between students. Klamma (2007) argued that the students will not just absorb the knowledge passively anymore but rather are producers because they looks become the good controller of knowledge which they found online (As cited in Lee, Miller, Newnham, 2008). Moreover, students learning sources have no longer been limited in any single format like textbook, lecture notes. They are likely to employ diversified learning materials to optimise their learning efficiency.

Podcast as a new digital technology has become one of the popular learning tools has been acknowledged by more and more colleges and university students. To some extent, it changed their learning behaviors compared with the traditional learning format.

Distribute lecture podcast as review materials

Some people suspected that lecture podcast might become a good excuse for students not the join the class which will result in the lectures’ attendances. However, according to the survey conducted by Malan (2007) that most of the students download the lecture podcast as the review materials (Deal,2007).

Compared with traditional learning materials, podcast provide the lecture content in audio or video format. Students can easily grasp the key points through listening to the lecture podcast than just review the lecture notes (Ractham & Zhang, 2006). Normally, the majority of the important information that the students absorbed comes up with class discussion rather than
just reading the textbook. Therefore, if the students miss the class and get the chance to listen to the lecture podcast, it will be easier for them to keep the important learning content. A survey conducted in the University of Michigan School of Dentistry confirmed that 85% interviewees who used the lecture podcast acknowledged it improved their exam grades (As cited in Deal, 2007).

Furthermore, based on the research from Chan and Lee (2005), podcast might help students reduce their anxiety which resulted from the learning pressures (As cited in Evans, 2008). Normally, during the review process for final exams, most of the students are easier becoming more anxious and even could not afford the high stress. Lecture podcast help them to figure out the key points from each chapter because of its playback function. Lane (2006) revealed that the students can fast-forward to the specific points or sections which they are not familiar and listen to it with multiple times (As cited in Deal, 2007).

Optimise the learning process

Using pre-record lecture podcast can save a lot of class time. If the students spending a couple of minutes to listen to the lecture podcast like a brief preview before the class, it not only helps them to better contribute on the class discussion but also improve their learning efficiency. An experiment conducted at Appalachian State University which mentioned by Kurtz (2007) showed that how does the podcast learning materials improve the learning efficiency during the class time (As cited in Deal, 2007). In this experiment, the lecturers of a software engineering course require the students to view the video podcasts before the class time. Therefore, the lecturers and students can organise more time to do the topic discussion, course project and problem solving rather than waste time on the description for some basic theories. Although there were not obvious differences in exam grades, it final project grades were 10% higher than students who didn’t joint this experiment.

Motivate the students’ learning interest: from ‘pull’ to ‘push’

The RSS function with Podcast shift the students learning behaviors from ‘pull’ to ‘push’ (Evans, 2007). Students can subscribe the learning programs through RSS feeds which is not only help students saving a lot of time on the
information selection but also ‘push’ students expand their knowledge in wider range. For example, a full time student normally have to take four subjects each semester which means that they might only have 2 to 3 hours spend on each subjects per day. When the mid-term tests are coming, students have to spend a plenty of time to do the subjects review. A majority of the students might not have time to check the learning information that updated on the WebCT in time so they probably missed some important information about lecture review. On the other hand, even they are willing to check the WebCT timely, it still waste time to open a couple of Web pages before they get the useful one. These kinds of learning behavior entirely depend on the students’ desire so it is a ‘pull’ action.

However, the podcast provide a good platform to ‘push’ students to assimilate the learning information in time. They can subscribe the podcast learning materials concerned with their subjects and then get the up-to-date information immediately as long as their computer connected with the internet. Moreover, it enforces the students to browse amount of relevant information unconsciously as well. Furthermore, the category function of RSS feed can save the time that spend on the information selection. When students start a new subject, they might lack enough background and waste a lot of time to do the research on the incorrect direction. If the lecturers can suggest students to subscribe some useful podcast programs, it not only pushes students to get updated information in time and get familiar with subject as soon as possible, but also avoid time-consuming.

The big challenge to the lecturers and students

The prevalence of computers and word-wide-web enforce the educational institutions to consider the feasibility of implementing the diversity of e-lectures in higher education. Therefore, the advanced requirements of using technology to produce the e-lectures have increased the pressure on some of the lecturers (Griffin, Mitchell & Thompson, 2008). With the podcast as an advanced learning material has been acknowledged by a growing number of higher educational institutions, its weaknesses have also been noticed by some of the researchers.
Lacking enough technical knowledge both of lecturers and students

First of all, lacking enough technical knowledge about podcast is one of the crucial barriers to affect its implementation in higher educational areas widely. Although podcast are willing to be used in more and more higher educational institutions, it still too new to understand properly by the majority of lecturers and students. A survey illustrated that some of the lecturers and students might not fully aware the capabilities of RSS and its attributes (Lee, Miller & Newnham, 2008). A survey conducted by Pew internet & American Life Project also showed that only 9% out of 1,300 American internet users knew of RSS feeds and understood the possibility that it presented (As cited in Lee, Miller & Newnham, 2008). It still claimed that according to the demographic, there were only 12% internet users aged from 18 to 29 in U.S. possessing a working knowledge of what the term RSS means.

Facing with this knowledge gap of RSS feeds, Kennedy, Judd, Churchward, Gray and Krause argued that the use of RSS probably premature for a student population (As cited in Lee, Miller & Newnham, 2008). The survey which conducted by Glotzbach, Mohler, and Radwan at the Purdue University found that the majority of students out of 240 students didn’t have previous knowledge of what the RSS feed was even include someone whose major concerned with the computing and information technology discipline (As cited in Lee, Miller & Newnham, 2008).

Form the lecturers’ point of view, to some extent, the technical requirement of producing lecture podcast has already over their technical or work-load perspective. Moreover, lacking institutional commitment and infrastructure are also the stumbling block for some of the academic podcasters (Lee, Miller & Newnham, 2008).

Reorganise the course content

Podcast as a new stream of educational technology has to take a long way to integrate with the original educational pedagogy. Moreover balancing the needs of students in order to meet their satisfaction has become one of the urgent issues that the lecturers have to consider it first (Cole, 2008). In other words, the lecturers might need to redesign original course content explicitly in order to match the content of lecture podcast rather than just simply add the podcast.
material into the course (Cole, 2008). Although most of the educational institutions implement the podcast as supplementary materials for their teaching content, if the lecturers didn’t adjust the original teaching materials in time, students might feel time consuming for the repetitive learning materials. For example, if the lecturers produced the pro-record materials, they’d better to deepen the course content used in the class no long to repeat the same thing in the class any more. In addition, the lecturers should supplanted the new information into the podcast programs as soon as possible depending on the in class discussion. It not only achieves the RSS function with podcast but also help students update their knowledge timely. This is because that some of the critics suspended that some of the students might over-optimistic the effectiveness of lecture podcast, it might lead them ignore other useful learning strategies (Deal, 2007).

**Conclusion**

Based on the above discussion, which considered some positive aspects and the challenges of podcast reflected on the higher educational arena, it illustrated that the podcast as a new learning paradigm has already gain a certain acknowledgement by the students and the lecturers. This web-based intellectual broadcasting provides a multimedia learning environment which can help two of these user groups to improve their learning or teaching efficiency. Although there are some big challenges in terms of technology gap and the redesign issue of course content around the lecture podcast, its remarkable effectiveness in the teaching process are still approved by the lecturers.

However, this kind of quality effectiveness which reflected on the higher educational system does not depend on the podcast technology itself but rather decided by its implementations. In other words, podcast just a representative of one advanced technology and it cannot achieve any effects of quality on education. It advanced functions are entirely achieved through its proper implementation in the educational area (Deal, 2007).
References


