

Social Reading: The Kindle's Social Highlighting Function and Emerging Reading Practices

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READING IS BOTH A SOLITARY AND A SOCIAL ACTIVITY. THE ACT OF READING ITSELF CAN be conducted silently or aloud, alone or shared with others. But we also talk about reading with other people through book clubs, casual conversations, media programs and by generating readers' reviews in online spaces. The introduction of paperbacks made reading more portable and more affordable, and broadened the circulation of texts. More recently, the introduction of electronic reading devices has brought other changes to the social dimension of books and reading. Discussing the technology-driven transition that reading and publishing are now said to be experiencing, Alberto Manguel, an ambassador for the book, recalls seeing a stranger reading a favourite book of his and identifies this moment of recognising a fellow reader as an increasingly endangered experience. He writes:

Sitting across from me in the subway in Toronto, a woman is reading the Penguin edition of Borges's *Labyrinths*. I want to call out to her, to wave a hand and signal that I too am of that faith. She, whose face I have forgotten, whose clothes I barely noticed, young or old I can't say, is closer to me, by the mere act of holding that particular book in her hands, than many others I see daily. (214)

This form of social reading, and this recognition of belonging to a reading network, Manguel suggests, is under threat in the new world order of e-reading, where commuters can no longer see the titles, covers and spines of the books their fellow commuters are reading and only see the plastic boxes that deliver many titles and covers in secret. What this view fails to acknowledge, however, is that this act of recognition and the feeling it produces has a digital equivalent when it is replaced by a different form of social reading, networked beyond location, through platforms that support the integration of technologically-supported social networking into reading practices. The Kindle's social highlighting function is one example of this.

The Kindle's place in the e-reading market is strong.¹ To supplement the experience for its customers, Amazon introduced the Highlights function in 2010, allowing readers to select sections of the text and store and access those highlights on the device itself or on the 'cloud' (storage space on Amazon's servers provided to the user). The function also displays on the screen of a Kindle book the number of readers who have highlighted a particular passage. Highlights display as a faint underlining with a number indicating how many people have highlighted the particular passage.

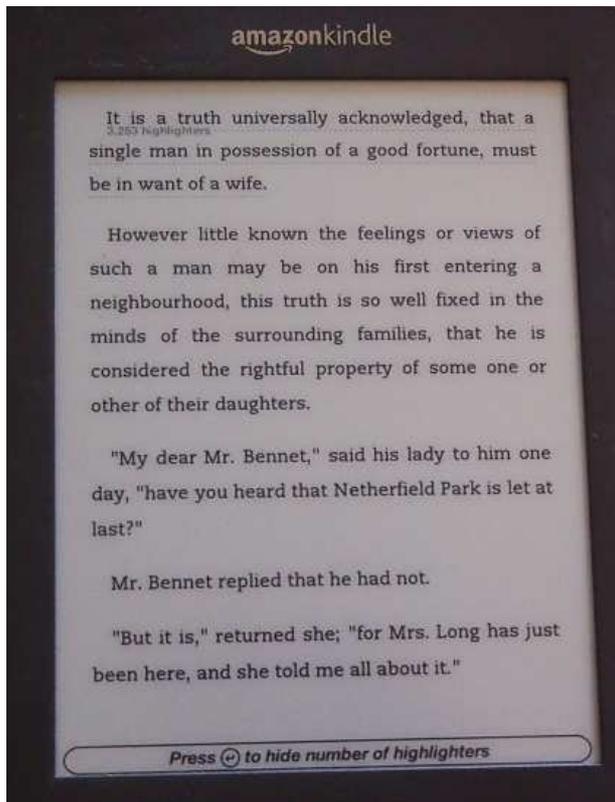


Figure 1: The faint underline indicating that multiple readers had highlighted this section of the text.

¹ In April 2012, Amazon was thought to own 60 per cent of the e-book market (Streitfeld 'Cut in ebook pricing' and Reynolds).

Users can switch off this function if they choose. Amazon collects data about the highlighting, displays the data on its Kindle webpage and maintains long lists of the most popular passages and books highlighted by Kindle readers. The number of highlights visible in popular texts indicates that the service is used by numerous people and for different purposes.

Popular media raises concerns over privacy and the level of access to individuals' reading habits that Amazon has built into the Kindle and the information it now gathers (Johnson). Other concerns include how this might impact reading in the longer term and whether perusing a collection of highlights on Amazon's Kindle webpage may come to substitute for a reading of the text. And yet in the social networking era, transforming reading into a more mediated social activity creates a foundation for reading communities and enthusiasm. As a case study, I look closely at a series of highlights and notes from April 2012. From this, I consider the implications of social highlighting and social note taking on reading practices, readerships, and reading communities, as evidenced by the highlights and notes. I investigate the implications of the device-based and cloud-based popular highlights function on the Kindle for the practices of close and distant reading, and argue that close reading takes on different dimensions when it becomes a social networking practice. In addition, I use Katherine Hayles' notion of hyper and deeper attention as a framework for considering the influence of social networking on technologically-supported reading practices. In analysing a series of highlights and notes from April 2012 made public on the Amazon Popular Highlights webpage, I identify the kinds of passages that are most frequently underlined and consider what that might tell us about reading practices, communities of reading and other instances of social reading.² While I acknowledge that it is still too soon to tell how these paratextual practices may affect the reading experience, I contend that the new ways people are using books in digital environments is worthy of continued study. Moreover, my intent here is not to suggest binary oppositions between traditional and electronic reading practices or to suggest that one model of reading is inherently superior to the other. Rather, my intent is to sketch the reconfigurations of reading practices evident in and encouraged by socially networked reading and the challenges they pose to more traditional notions of literary consumption.

The growth of e-reading

Market success for e-reader devices and e-books is growing, coinciding with increased academic interest in reading in general, in the effect of reading on the

² However, I note that Amazon's ranking of highlights, and the number of people who have highlighted each passage, which is available on the Kindle Popular Highlights webpages, has not changed since I first began this research in April 2012.

brain, and in the future of literary reading within and outside the academy. According to a 2012 study by Rainie *et al.* for the Pew Research Center, 21% of American adults had read an e-book in the year prior to the survey. This number increased to 43% when the age bracket is reduced to 16 and when other electronic long-form content is included (Rainie *et al.* Web).

The Pew Report also indicates the rapid expansion of e-book reading in recent years, finding that ‘there are four times more people reading e-books on a typical day now than there were two years ago’ (Rainie *et al.* 4). However, the printed book remains a publishing and reading staple. According to the report,

The prevalence of e-book reading is markedly growing, but printed books still dominate the world of book readers. In our December 2011 survey, we found that 72% of American adults had read a printed book and 11% listened to an audiobook in the previous year, compared with the 17% of adults who had read an e-book. (Rainie *et al.* 4)

However, in a finding that might dash hopes that e-reading will bring to the practice of close, longform and literary reading a generation said to be moving towards other forms of entertainment and knowledge acquisition, the Pew Report found that e-books are consumed mostly by avid readers of print books, suggesting that readers of print books have moved over to the e-book format more than non-readers have taken to reading via the electronic format (Rainie *et al.* 5). This has considerable implications for market analysis and for publishers, given that companies are trying to capture new reading publics with technology. Ed Finn writes that ‘the twenty-first century has brought significant changes to the social lives of books’ (177) and this has created ‘a vast, asynchronous conversation’ that is not ‘operating through the mass-mediated forms’ that usually generate and sanction public, semi-public and private discourses about books (177).

In this new frontier of e-reading, the Kindle has come to dominate the e-book market largely by virtue of Amazon’s ubiquitous place in the printed book market and its ability to shape all aspects of the book industry.³ The Kindle reader is also available as an app for iPad and android tablets and can be accessed via the Amazon website, meaning that the books available on the Kindle service can be read across multiple technologies while still controlled by Amazon. Although Amazon is guarded about sales and statistics, tens of millions of units of the various Kindle models have been sold; e-books are read, or at least

³ The Authors Guild in the United States has accused Amazon of engaging in ‘vertical integration’ in that it influences the production, circulation, consumption, reception, and content of books. See Authors Guild press release ‘Turow on Amazon/Goodreads: This is how modern monopolies can be built’.

purchased, in increasing numbers; and libraries in the US, and gradually elsewhere, now provide access to e-books and e-readers for their patrons. In an effort to continually add value to the e-reading experience, to distinguish the Kindle from its competitors, and to integrate social networking attributes currently successful in other areas, Amazon introduced a highlighting function to its e-book platform in 2010. Kindle Highlights allows a reader to highlight passages within an e-book and to record notes about a passage, chapter, or book as a whole as they progress through the text. This serves as an approximation of the reading experience of print-based books where readers can underline or highlight a passage and can write notes in the margin, on sticky notes or in a notebook. However, Amazon also collects data about the highlights and publishes on its website a 'Popular Highlights' section that reveals how many people highlighted which passages of which books, and publish individual readers' notes.⁴

Thus far, scholars in book studies have not provided much analysis of digital reading. There is a good deal of scholarship in pedagogies around digital reading for young adults and undergraduate students. Lisa Nakamura's work on the GoodReads website, Julian Pinder's work on LibraryThing and Ed Finn's work on Amazon's recommendations algorithms indicate a growing interest in the way online reading communities shape reading practices and interpretations. However, there has been little discussion of the social highlighting function Amazon has introduced and how it is being used by readers and non-readers alike. By considering the popular highlights and public notes of readers in the Kindle environment, we catch a glimpse of something of the way that readers are interacting with texts and ideas and with other readers. Given that these reading platforms continue to grow and attract new readerships, it is important to look to how they are being used.

A closer look at the popular highlights

Amazon's Popular Highlights page displays a series of lists that tabulate data about the most highlighted passages and the most highlighted books, and then breaks down that data across a number of different categories providing information on the passages that are most highlighted 'recently' and 'of all time' (Amazon 'Most Highlighted Passages of All Time'). Amazon's purpose here is likely to allow a place where current trends in reading and highlighting can be observed. However, it is important to note that the list of popular highlights and

⁴ Amazon indicates how many other people highlighted a particular passage (anonymously) and publishes on its website a 'popular highlights' section that reveals how many people highlighted which passages of which books and, if you permit Amazon to do so, makes your notes public. It is also a means by which Amazon collects as data information about users' reading practices and the highlights and notes they make.

the number of people who have highlighted particular passages is not regularly updated. The list of highlights and the number of people who have highlighted each popular passage has not changed much between April 2012 and February 2014, suggesting that Amazon is not regularly updating the data. As a result, I propose to use the data as a case study, a snapshot in time, rather than as accurate and current data. Each individual passage on the list of popular highlights, however, includes a recently updated account of how many times it has been highlighted. My approach has been to examine Amazon's lists of books and passages with highlights and notes and to consider the books that populate the lists, the kinds of passages that are highlighted, and the public notes that appear about them, as well as to briefly look at the profile pages of the users who are generating these highlights and notes (Amazon Kindle 'Most Popular').

The popular highlights are split into four categories: Most Highlighted Passages of All Time, Most Highlighted Books of All Time, Most Highlighted Passages Recently and Most Highlighted Books Recently. In the same space, Amazon offers Books with the Most Public Notes. I will return to discussion of this data later.

The screenshot shows the Amazon Kindle interface for 'Most Highlighted Passages of All Time'. The page is divided into a left sidebar with navigation options and a main content area listing five passages. Each entry includes a book cover, a numbered list item, a quote, the number of users who highlighted it, the book title, author, and a link to the book on Amazon.com.

Rank	Book Title	Author	Highlighted by	Passage Text
1.	Catching Fire (The Second Book of the Hunger Games)	Suzanne Collins	17784 Kindle users	Because sometimes things happen to people and they're not equipped to deal with them.
2.	Pride and Prejudice	Jane Austen	9260 Kindle users	It is a truth universally acknowledged, that a single man in possession of a good fortune, must be in want of a wife.
3.	The Hunger Games	Suzanne Collins	9031 Kindle users	The rules of the Hunger Games are simple. In punishment for the uprising, each of the twelve districts must provide one girl and one boy, called tributes, to participate. The twenty-four tributes will be imprisoned in a vast outdoor arena that could hold anything from a burning desert to a frozen wasteland. Over a period of several weeks, the competitors must fight to the death. The last tribute standing wins.
4.	Mockingjay (The Final Book of The Hunger Games)	Suzanne Collins	8833 Kindle users	It takes ten times as long to put yourself back together as it does to fall apart."
5.	Catching Fire (The Second Book of the Hunger Games)	Suzanne Collins	8500 Kindle users	"I just want to spend every possible minute of the rest of my life with you," Peeta replies.

Figure 2: Screen Capture of Amazon's Most Popular Passages of All Time

Considering that the public data of the most highlighted books and passages was determined in 2011 or early 2012, it is not surprising that two of the top three Most Highlighted Passages of All Time came from Suzanne Collins' *The Hunger Games* series (Amazon Kindle 'Most Highlighted Passages of All Time'). The most highlighted passage of all time, highlighted by 17,784 readers, is the line: 'Because sometimes things happen to people and they're not equipped to deal with them' from *Catching Fire*, the second book in *The Hunger Games*. The second most highlighted passage, highlighted by 9,260 people, is the opening sentence of Jane Austen's *Pride and Prejudice*: 'It is a truth universally acknowledged, that a single man in possession of a good fortune must be in want of a wife'. The third most highlighted passage, also from the *Hunger Games* series, highlighted by 9,031 people, is:

The rules of the Hunger Games are simple. In punishment for the uprising, each of the twelve districts must provide one girl and one boy, called tributes, to participate. The twenty-four tributes will be imprisoned in a vast outdoor arena that could hold anything from a burning desert to a frozen wasteland. Over a period of several weeks, the competitors must fight to the death. The last tribute standing wins.

This quote comes from Suzanne Collins's first book in the series. A year later, in May 2013, the number of people who highlighted this passage has jumped to 20,239 and in February 2014 it is listed as having been highlighted 21,651 times.

These three highlighted passages are emblematic of the different types of quotes that appear frequently throughout the popular highlights lists. The first kind of quote is a sentimental statement, a Hallmark card or bumper sticker message designed to explain not the book or its characters so much as human nature or life. The second kind of quote is a famous passage, but one rather pointless to underline, to highlight, since it is already iconic and, as the opening line of a beloved work, easily retrievable. However, it is readily identifiable as important in the literary sphere and its frequency of highlighting indicates a tendency of readers to seek out the iconic. The third most popular passage highlighted might be considered a functional highlight: it outlines the *raison d'être* for the book. It is the book's topic sentence: it explains the logic of the series' narrative setting and is the sort of statement that might be found on the back cover or in the book trailer.

Looking further at the list of most popular passages highlighted, number four is another motivational statement: 'It takes ten times as long to put yourself back together as it does to fall apart'. This one, too, comes from Collins's *Hunger Games* series, specifically *Mockingjay* (Book 3). Number five is a romantic statement articulated by one of the series' protagonist's love interests—"I just

want to spend every possible minute of the rest of my life with you”, Peeta replies’—this time from *Catching Fire*. The Hunger Games series also accounts for 15 spots on the first 25 positions on the list⁵, encompassing a range of statements from the books that fall into similar categories: motivational statements, romantic sentiments and topic sentences. Although the list is titled ‘Most Highlighted Passages of All Time’, this is a misnomer, partly because Amazon is not updating the list regularly, but also because the technology and its highlighting function are so new, meaning that ‘All Time’ can only refer to the time since the technology was introduced.

Number 7 on the list of most highlighted passages also comes from *Pride and Prejudice*—‘Pride relates more to our opinion of ourselves, vanity to what we would have others think of us’—and was highlighted by 8,437 readers. This offers some evidence that readers are highlighting not only inspirational statements but also statements that relate to the key themes of the text. Readers are evidently on the lookout for passages that operate in some capacity as a key to the text, honing in on certain elements such as a key word of the title: in this instance, pride.⁶

If we are looking to develop a typology of highlights amongst the Most Highlighted Passages, we might consider that the passages highlighted tend to fall into a range of consistent categories that illuminate not only the reception of the text—a kind of sentiment analysis—but also how meanings of and approaches towards texts (ways of reading, for example) are circulated in a social way. The highlights can be said to fall into the categories of inspirational statements, total plot summation statements, famous lines and romantic sentiments. The presence of Jane Austen, Arthur Conan Doyle and Oscar Wilde on the list may be related to the popularity of books that are out of copyright and therefore free, via Project Gutenberg and other sites, or low-cost or free from Amazon’s Kindle book store itself. Important to note here also is these authors’ continued dissemination in the public consciousness through popular culture such as film and television. In addition, the place of these texts on secondary and tertiary curricula may also account to some degree for their place on the highlighting list.

⁵ Numbers 6, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 20, 21, 22, and 24.

⁶ Other kinds of texts further down the list include *Cutting for Stone* by Abraham Verghese, which spent several years on the *New York Times* bestseller list, *The Adventures of Sherlock Holmes* by Sir Arthur Conan Doyle, *Heaven is for Real: A Little Boy’s Astounding Story of His Trip to Heaven and Back* by Todd, Sonja and Colton Burpo, *The Picture of Dorian Gray* by Oscar Wilde, *The Habits of Highly Effective People*, and *Radical: Taking Back Your Faith from the American Dream*, quotes from Walter Isaacson’s biography of Steve Jobs and several passages from *Eat, Pray, Love*.

Looking at the list of Most Highlighted Books of All Time, we can see a slightly different story emerge. The top six most highlighted books on the Kindle platform are:

- The Holy Bible, English Standard Version (with Cross-References)*
- Steve Jobs* by Walter Isaacson
- The Hunger Games*
- The One Year Bible NLT (New Living Translation) Tyndale House Publishers
- The 7 Habits of Highly Effective People*
- ESV Study Bible, Crossway Bibles

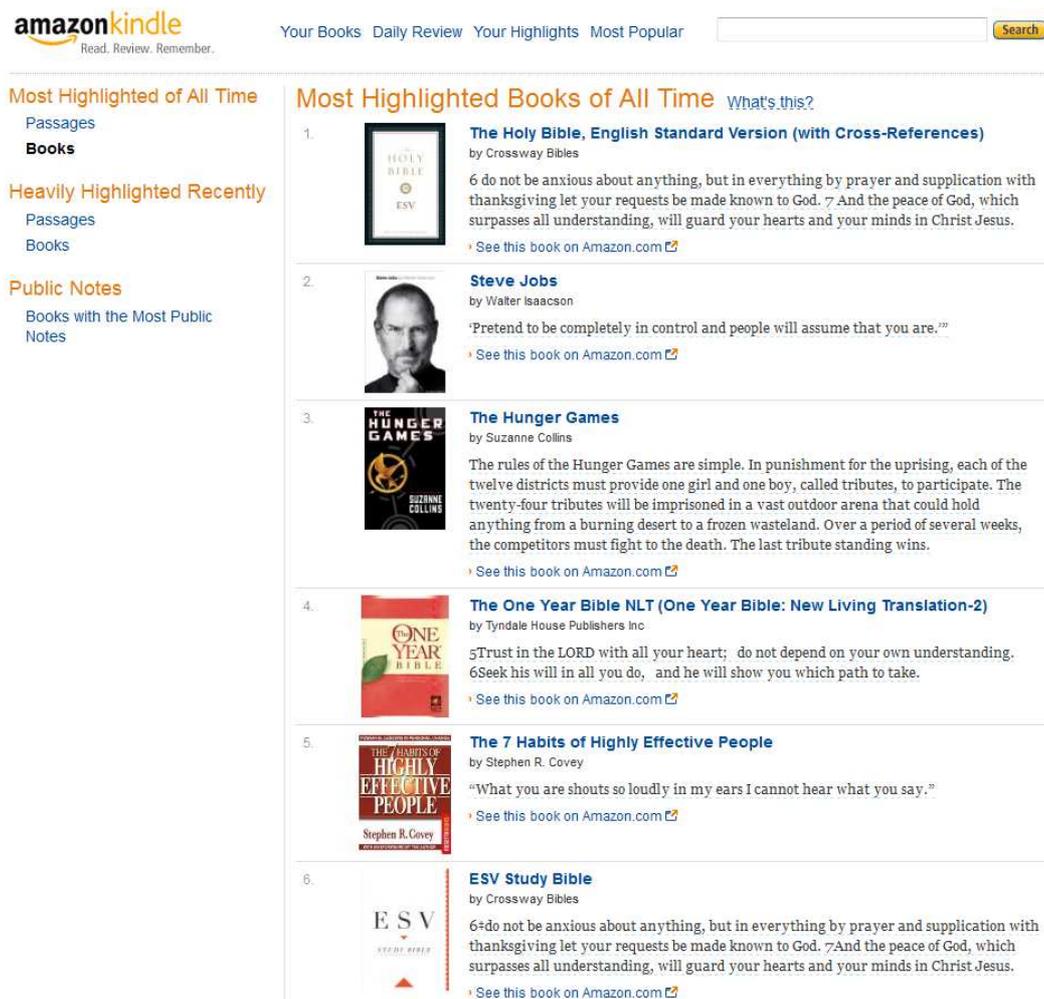


Figure 3: Screen Capture of Amazon’s Most Highlighted Books of All Time Webpage

Although a Christian text appeared in the top 50 of the Most Highlighted Passages of All Time list,⁷ the Bible itself did not appear there, most likely because of the sheer number of passages available to readers that might be considered candidates for highlighting in that one text. The variety of editions of

⁷ *Heaven is for Real: A Little Boy’s Astounding Story of His Trip to Heaven and Back* by Todd, Sonja and Colton Burpo.

the Bible is also a factor here as readers are accruing passages from several different versions rather than a single one.

The list of passages Heavily Highlighted Recently conveys a similar story. Here, however, no figures about the number of highlighters are available. Of the top 25 passages listed, 23 are from *The Hunger Games* with one each from *The Lucky One* by Nicholas Sparks (at number 21) and *The Power of Habit: Why We Do What We Do in Life and Business* by Charles Duhigg (at number 25). Number 50 marks the first appearance of a new publishing trend, *Fifty Shades of Grey* by E.L. James, and this helps us to date the data at late 2011 or early 2012 (Amazon 'Recently Heavily Highlighted Passages').

A fourth list, Heavily Highlighted Recently Books, again tells a different story to the passages heavily highlighted. Interesting here is the inclusion of textbooks, which indicates a growing use of social highlighting for study purposes. For example, the number one item on the Recently Heavily Highlighted Books list is *Theory and Practice of Counselling and Psychotherapy*, 8th edition, by Gerald Corey. For each of the books on this list, the most highlighted passage within the book is also provided. In this case it is: 'The id is the biological component, the ego is the psychological component, and the superego is the social component' (Amazon 'Recently Heavily Highlighted Books'). Unlike the others, this list is dominated by non-fiction. In addition to textbooks from psychology, medicine, gynaecology, family practice and social psychology there are theological and Christian self-help texts, and self-help books about relationships. Number 4 is a passage from *Why Does He Do That?: Inside the Minds of Angry and Controlling Men* by Lundy Bancroft; number 8 is a section in *Codependent No More: How to Stop Controlling Others and Start Caring for Yourself* by Melody Beattie. This tells us something about the kinds of books readers most want to record passages from. This is clearer for textbooks used in education to support their study. Popular highlights lists reveal that formal education and fiction reading are not the only uses to which readers are putting these tools. The texts reflect not only the popularity of the self-help genre—consistently appearing in bestseller lists—but also perhaps indicates something about the way highlighting and note taking, public and private, are useful for both formal education and informal education. Using them for highlighting self-help and popular psychology brings another dimension to the usage and one that deserves further scrutiny. Highlighting is a diverse practice attracting a range of different kinds of users seeking to highlight a range of different kinds of texts. We can catch a glimpse of how highlighting might be useful not only for keeping a record of important things one reads but also, perhaps, for sharing self-help tips and for engaging publically with identity positions.

In addition to the list of passages highlighted, Amazon provides information about Public Notes written and shared by Kindle readers. The notes function allows readers to use the Kindle's keyboard function to type a note either at the level of the whole text or at the level of a part of the text highlighted. This comes in the form of a list of Books with Most Public Notes (Amazon 'Books with the Most Public Notes'). Again, a slightly different picture becomes apparent when considering the composition of this list, although the Hunger Games series and other popular or canonical works are certainly present. According to Amazon's data 708 readers have public notes about *The New Oxford American Dictionary*. This book stands out as a very different kind of text to the others that are attracting a high number of public notes. The list comprises:

1. *The New Oxford American Dictionary* by Erin McKean
2. *The Adventures of Sherlock Holmes* (701 people had public notes about this book in April 2012; 984 in April 2013)
3. *The Hunger Games* by Suzanne Collins (602; up to 753)
4. *Alice's Adventures in Wonderland* by Lewis Carroll (462; up to 586)
5. *Steve Jobs* (434; up to 563)
6. *Dracula* by Bram Stoker (395; up to 477).

Also appearing in the top 25 books with the most public notes are *Pride and Prejudice*, The Holy Bible, all three books from the Stieg Larsson Millennium series (at 11, 17 and 22), three books from George R. R. Martin's A Song of Ice and Fire series (from which the popular *Game of Thrones* television show is drawn) (12, 22 and 25), and *The Autobiography of Benjamin Franklin* (at number 13).

Looking at the content of these public notes is illuminating because of the non-text related notations that appear. For example, the book with the most public notes, *The New Oxford American Dictionary*, contains the note: 'Lol Paige. U may just be my new bff lol.'⁸ The same reader has also posted other public notes to this book like 'I just had an A.M.T. (awkward moment time) lol', 'Bye paige', and 'Go to bed Remi', as well as posts that consist of one or two periods or a question mark. On 5 May 2013, a user wrote: 'If anybody see Blake come on plz tell him I asked him to check his and my book plz.....'. This indicates that users colonize specific books (or their Kindle pages on the Amazon website) for specific conversations and social configurations. This user's list of public notes, listed on the user's profile page as well as on the book the note was posted on, indicates that the Dictionary is not the only book used as a forum; this user has shared public notes attached to *Alice's Adventures in Wonderland*, *Fairy Tales*

⁸ In the interests of protecting the privacy of users of the Kindle highlighting function, I have removed the usernames of commenters and also the URLs of the pages since they give the usernames. I have collected screen captures of the phenomena.

Every Child Should Know, and *The Three Musketeers* as well. Notes like ‘Hey anyone on?’ strengthen the case that the page is used as an online social forum demanding immediate communication and reply from an existing social network rather than considered slow reading (Amazon Kindle ‘Unknown’).

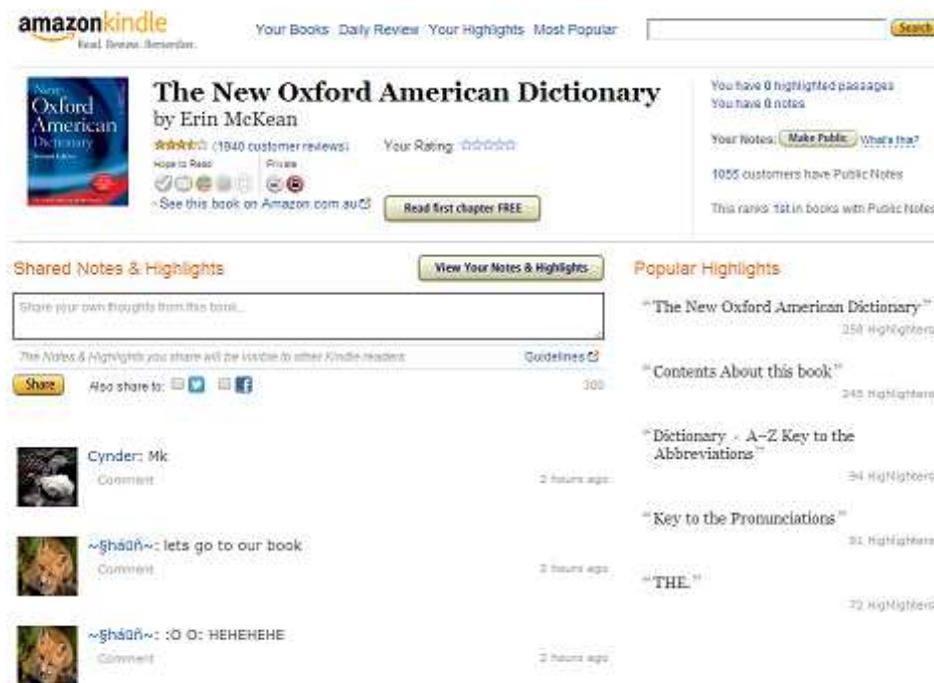


Figure 4: Screen Capture of Amazon’s Record of Public Notes on *The New Oxford American Dictionary* with an Example of a Conversation Taking Place

This indicates a use for the public note function beyond that which Amazon planned. The social reading aspects of the service have been turned by some users into a social networking forum. This kind of activity makes it almost impossible to find people sharing notes that are actually about the text on these popular but also occasionally arbitrary books, as in the case of *Fairy Tales Every Child Should Know*. When a reader accesses the Amazon website displaying public notes for a text—for these books at least—all they find are pages and pages of conversation unrelated to the book between people who have a history of interactions with each other within but excluding the book space. The notes show up like a feed of constantly updated social chatter—like a group chat on a popular forum. When they do occur, attempts to generate discussion about the book in question are swamped by the social chatter. Amazon provides no means to filter the posts. Many of the participants speak familiarly to each other, but it is unclear if any know each other in ‘real life’ or solely in the online space. They speak of getting offline to go to school but not of seeing each other at school. These texts have little in common to help identify why they might be chosen for this activity, but one reason for their choice as venues for social networking may

be that they are or have been free e-books, easy to acquire for young people seeking to add new books to their Kindle libraries. These free or low cost, classic books are also less likely to attract notes and highlights from readers wanting to discuss the book, as we will see below in the discussion of the Hunger Games series of books, and thus will present fewer interruptions into the social interactions. The books are not in the best seller lists and so the readerships are smaller, which means there is more space for the social chatter conversations to take place.

Books on the current bestseller lists are slightly different, however. On the Amazon Kindle highlights page for *The Hunger Games*, we are informed that 753 customers have Public Notes about this book, ranking it third. A user has highlighted 'END OF BOOK ONE' (5 May 2013); another reader also highlighted this passage and added a public note to it: 'Noooooooooooooooooooo' (4 May 2013). And a user spoils an important plot point when she writes 'Everyone prim dies' [sic] (3 May 2013), but elsewhere this reader engages with the text and the process of reading through the public notes tool with other notes including comments like 'I can't believe I only have 3 pages left' (posted on a page titled '*Mockingjay*, the Final Book in the Hunger Games Series') and 'Wow she just got back and she's already annoying'. These comments reflect a reaching out to a community of readers about the book in question. In response to the character Gale saying 'Shoot me', a user writes 'No Gale she never will because you are so cool'. Here the reader speaks directly to the book itself, responding to a character's comments in a way that mirrors an interaction with the character. Readers using printed books may respond personally to the fictional characters of a book but the social media conditions of internet fora emphasise the connection and facilitate an illusion of proximity between reader and characters that prompt such declarations.

However, other books offer other kinds of interactions in their public notes. Perhaps predictably, for example, the popular highlights and notes for Thomas Pynchon's *The Crying of Lot 49* demonstrate readers trying to make sense of the text and approaching the novel in the manner of a puzzle. For example, in February 2013, a reader highlighted the name 'Pierce Inverarity' and added the note 'why a name like this? it draws attention, must have a meaning, is this a math thing?'. Works that might be categorised as literary fiction also seem to display a much lower frequency of public notes and highlights, a different kind of readership, and serve a different function for the readers who are sharing notes. For one thing, the interaction between readers found in the notes for The Hunger Games books (not only in the form of social contact unrelated to the novel in question but also that relevant to the books, such as the kind seen in my discussion of the spoiler above) does not appear in any observable way on the pages of books that may be considered to be literary fiction, less populist or less

likely to be used in the curricula of secondary education. That is, the public notes for the less populist books do not appear to contain any interaction. Clearly, more research is needed here on the distinction between highlights and public notes in popular, widely read, and circulated works and those on more esoteric, experimental or niche works, and in the way that works are colonised by groups of readers looking more for social chatter than for social reading. I do not want to make value judgements about the ways that certain kinds of books are used and by whom. In fact, I want to suggest that the social use of highlighting and notes platforms may serve as a foundation for life long reading because of the positive associations young people are forming around books and having a good time.

Similarly, I found some evidence of the use of the Kindle Public Notes and Highlights features used to support student reading in Higher Education. In the Kindle editions of *The History of Herodotus*, volumes one and two, a user who identifies as an adjunct professor at a university in the United States, has marked and noted several key passages. The highlights and notes demonstrate a practice of directing the reading of students by asking important questions of students in relation to the text. For example, the user highlights the passage ‘of history declare that the Phenicians first began the quarrel. These’ and then adds the public note ‘How regularly does he cite his sources, and how regularly does he consider their credibility? What factors might influence his approach?’.

The screenshot shows the Amazon Kindle user interface. At the top, there's a navigation bar with 'amazonkindle' logo, 'Your Books', 'Daily Review', 'Your Highlights', 'Most Popular', and a search bar. Below this, the user's profile for 'John Michael Corcoran (Arlington, VA USA)' is displayed, including a 'Follow' button and statistics: Follows (73), Following (57), Public Notes (0), Reading (2), Hope to Read (8), Read (0), and Stopped Reading (0). A 'Reading Similarity' section indicates that there is not enough public data to calculate similarity to John.

The main content area is titled 'Public Notes' and lists two books:

- The history of Herodotus - Volume 2** by Herodotus: 8 highlights and 4 notes.
 - Note: offers words by Inaros the son of Psammetichos, a Libyan. 8. Xerxes
 - Note: How does Xerxes come across in his aims?
 - Note: themselves are hardest to overcome, and hate to make their bid.
 - Note: Is Herodotus suggesting cowardice on the part of Mardonios?
 - Note: for God is wont to cut short all those things which stand out above the rest
 - Note: Again, a thesis?
 - Note: Cyrus the son of Cambyses subdued all Ionia except the Athenians, so that it was tributary to the Persians.
 - Note: What does this say about the Greeks?
- The History of Herodotus - Volume 1** by Herodotus: 3 highlights and 11 notes.
 - Note: may be remembered for which these waged war with one another
 - Note: Consider this over the course of the rest of your reading... does Herodotus follow his own stated purpose? Might we ascribe any other motivations to him?
 - Note: of history declare that the Phenicians first began the quarrel. These
 - Note: How regularly does he cite his sources, and how regularly does he consider their credibility? What factors might influence his approach?
 - Note: But we must of every thing examine the end and how it will turn out at the last, for to many God shows but a glimpse of happiness and then plucks them up by the roots and overturns them.
 - Note: Is this a thesis of sorts on the part of Herodotus?
 - Note: marked off from the Barbarian as more skillful and further removed from foolish simplicity,
 - Note: how else do they distinguish from barbarians?

Figure 5: User Page with Public Notes

The user's 78 followers indicate a reading community at work in service of pedagogical ends. The user models a close reading practice asking questions at the moment in the text when a contemplation of the question by the reader may prompt deeper learning about the content and a more nuanced method of reading for learning. Some of the user's followers have themselves made public their notes and highlights on these volumes. Sometimes these users are making the kind of notes that would be useful in the construction of a piece of assessment, at other times they are asking questions, either of the text or of the instructor, about the content of the reading.

Users appear to be divided on the perceived usefulness of the Kindle Highlights and Notes function. There are numerous blog posts and forum posts dedicated to discussing how to turn off the feature on the various iterations of the Kindle, with dissatisfaction with the feature expressed (Amazon 'How to disable Popular Highlights'). Criticisms of Kindle's Highlighting function refer to privacy concerns, the disruptive impact of the notes and highlights on the intimate act of reading, the distraction created by the presence of a public readership in the book, as well as the inanity of many of the engagements with the text. Clearly, new technologies of reading and the features or applications they bring do not support every reader's preferred mode or style of reading, and a survey of the material published by Amazon indicates that there are diverse uses of the functions—from the colonisation of texts for social interaction which has no relationship to the text, to organised institutionally supported pedagogical engagement. Amazon's capturing and publication of this data in amorphous lists provides us with a snapshot view of this diversity and indicates the extent to which tools designed for a particular purpose are repurposed in surprising ways. Digital reading is in an early iteration and the ways people are using and not using these features will be instructive and even formative

In addition, this 'lumping together' has led popular media commentators to raise concerns over privacy and the level of access to individuals' reading habits that Amazon has built into the Kindle. For authors and publishers, it can be enlightening to follow the reader's experience of the text. *The Wall Street Journal* comments on the way authors can now tell how many readers gave up on the book and speculate more robustly on why this might be so (Alter). Ted Striphas points out that there is a disjunction between the way Amazon presents this feature as a 'back-up' service in case of lost or damaged Kindle devices, and the Amazon licenses, agreements and terms of use that indicate a more active involvement of the company in the individual user's device ('The abuses of literacy' 302). Striphas refers to this sort of 'data-mining' as a foundational question in what he terms 'the propriety of reading', noting that the 'Kindle objectifies reading by transforming a process into a recordable, transmissible thing' (Striphas 304). This is not just a process of objectification however, but

also one of commodification. For Amazon, like other companies, social reading is a means to collect data on customer behaviour. Readers' profiles contain public information about how many books have been read on the Kindle, how many have been completed, and how many have been abandoned unfinished (called 'stopped reading') (Striphas 304). But it is not just Amazon that is cashing in on this technique.

For contemporary authors, the Kindle's social highlighting function can be used as a form of web 2.0 publicity. One example of this function is the Kindle highlighting profile of Timothy Ferriss, author of *The Four Hour Work Week*, and, according to the profile statistics, the most followed person on Amazon with 2,927 followers as of 5 May 2013. Ferriss uses blog and Twitter tools to promote his books and is noted for the lengths to which he will go to ensure that his books become bestsellers (Streitfeld 'Tim Ferriss and Amazon Try to Reinvent Publishing'). He was also an early adopter of Kindle social highlighting as a means of connecting with readers. His profile page, under the name 'Timothy C. Ferriss', promotes his business web page.

For many Kindle users, the highlighting function is a social networking tool. It is also a way to talk back to the book ('that's beautiful!'; 'I don't agree with this'), a way to talk back to the author ('you're an inspiration, Jaycee!' writes a reader on the highlights page for Jaycee Lee Dugard's memoir *A Stolen Life*; 'I love this book thank you so much for making it!!' writes a reader to Hunger Games creator Suzanne Collins), and a way to locate or build a community of likeminded readers (in theory). Kindle Public Notes offers opportunities not only for keeping a personal record of thoughts experienced while reading but also for the creation of reading communities, but as is often the case with new online platforms, the filtering is problematic. If a reader were interested in engaging with fellow readers about *The New Oxford American Dictionary*, they would be prevented from doing so by the use of the public notes feature for socialising about unrelated matters.

Kindle Highlights offers an opportunity to develop social e-book reading practices. Those who are wary of the impact of e-books frequently cite the role of the visual bookshelf and public displays of reading in creating a community of reading and readers. The quotation from Alberto Manguel that opened this essay, for instance, testifies to how the visibility and materiality of book culture fuel the idea of a community of readers, as opposed to the visual anonymity of the Kindle device (Manguel *History* 214). Meanwhile, having the community of readers literally built inside the text, as a by-product of the Kindle's Popular Highlights function, can be too much for those who wish to inhabit a community of readers but also want to preserve the privacy of the reading act. For instance, author Andrei Codrescu was very critical of the Kindle's Popular Highlights function in

an interview aired on the US's National Public Radio. Codrescu argued that 'the entire experience of reading is shattered by the presence of a mob that agitates inside your text like strangers in a train station' (Codrescu). That public transport—a locus for hive activity and solitary reading—appears in both this statement and in the quotation from Manguel is telling. Codrescu continues:

I'm reading a new book I downloaded on my Kindle and I noticed an underlined passage. It is surely a mistake, I think. This is a new book. I don't know about you, but I always hated underlined passages in used books. They derail my private enjoyment. (Codrescu)

The 'private enjoyment' of a book is by no means a gold standard in reading. Michael Bérubé *et al.* point out that 'reading was not always so solitary' (422), and H. J. Jackson indicates that 'the exchange of annotated books amongst friends' is a practice with a long history (65). For Elizabeth Long the figure of the solitary reader is a construction based on gender norms:

Thus the solitary woman reader/writer finds her ideological place in a binary opposition that associates authoritative men with the production and dissemination of serious or high culture and even privileged women with the consumption and 'creation' of ephemeral or questionable culture. (Long 7)

Jackson further discusses the verse inscription as a practice in the circulation of books amongst friends (67-8). Book clubs, which tend to attract a high proportion of female members, have long been a means of returning the act of reading to the social sphere (Long; Taylor). The Kindle, it may be argued, builds upon this. But in recent years the notion of reading *itself* has received more critical attention, and the relationship between reading and this new technology of reading will be discussed below.

Close reading versus distant reading; hyper versus deep attention

In the last ten years, there has been a wave of research and popular science texts about what reading means and how it might be changing in the digital age. Stanislas Dehaene's *Reading in the Brain* (2009), Maryanne Wolf's *Proust and the Squid* (2010), Nicholas Carr's *The Shallows: What the Internet is Doing to Our Brains* (2010) and Cathy N. Davidson's *Now You See It* (2011) are recent examples of this move towards a deeper concern not only with the science of reading and the brain, but also the place of both reading and this scientific thinking about reading in culture and education.

N. Katherine Hayles considers these texts and observes that humans are moving away from the cognitive mode of 'deep attention', characterised by the ability to concentrate on a single subject for long periods sourced by a single information stream, towards the cognitive mode of 'hyper attention', characterised by the tendency to prefer multiple sources of information and high levels of stimulation (Hayles *How We Think*). For Hayles these forms of reading bring with them 'an expanded repertoire of reading strategies' (*How We Think* 73). While Hayles displays some concern about the effects that this shift will have on culture and society, on literature and on the human capacity for reflection based on deep reading, she is largely neutral on the matter, suggesting only that changes in reading practices and the forms of attention that underpin them will require pedagogical adjustments. For Hayles, the practices of close reading, hyper reading and machine reading are intertwined.⁹ One must engage a form of hyper-reading, says Hayles, in order to determine which passages would benefit most from close reading.

Considering these diversified reading strategies, then, we can see the Kindle as a tool lending itself to both close reading and distant reading. Franco Moretti uses the term distant reading to suggest the usefulness of methodologies that give a global view of the text, such as word frequency analysis and character mapping. Reader behaviours in popular highlights and public notes may provide further datasets to complement distant reading of texts by providing large data sets not about the *content* of texts, but of readers' engagement with them.

Meanwhile, readers can use the Kindle to attentively read the words on the screen, and can employ the tools available through the Kindle system to support close reading by highlighting passages and annotate the work. Highlighting and notes return close reading, close textual analysis, and reader interventions into the book to the forefront of 'reading' in the context of technologically mediated reading.

This is in part an attempt to mimic the material conditions of reading printed texts where readers can underline passages in books, make notes in the margin or attach sticky notes. Readers etch their own words upon the text of the book, even if only in a shadow-aspect, in a compartmentalised note kept slightly separate from the main text of the novel. But where, as indicated above, readers of some texts focussed on their desire to talk back to the author, or to find friends who had also read the book, other highlights and notes pages demonstrated readers' deeper engagement with the text. These tools may be useful for readers

⁹ For Hayles, hyperreading is 'computer-assisted human reading' such as digital reading and machine reading is 'human-assisted machine reading' such as the use of algorithms to determine word frequencies, visualisation tools and other quantitative methodologies.

to keep a record of their progress through a text—an electronic equivalent to the sort of material record that some readers may have kept in the margins of a material printed book or on note paper tucked inside the sleeve—and in some instances they may represent the readers' first experiences of engaging with note taking interventions into the text. What parts of the book are being highlighted or commented upon is instructive: some readers of some books are honing in on the iconic and instantly recognisable lines of a books, or the statements that explain the plot, or big sentiments, and key turning points in the text. This tells us something about how some readers engage with texts.

Amazon is not the only company working on social reading. The Kobo website invites readers to 'Explore. Unlock. Discuss. Share. Start your Reading Life with Kobo today'. According to the marketing, 'Kobo Pulse gives readers a voice. Share ideas on passages and books with other readers' (Kobo Website). The extent to which this marketing strategy emphasises the social media side of the web indicates an awareness of the potential growth in social reading; in this model readers are emphasised as active participants in a way that was less obvious or less emphasised prior to the social web. This promise is elaborated on under the heading 'Get More Out of Reading' where readers are encouraged to: 'Follow conversations and see what other readers thought of what you just read'. This may appeal to the hyper-reading mentality, where multiple channels of information supplement the close attention to the text. But Kobo's unique contribution to the field is the incorporation of gamification into e-reading. In Kobo, not only can you share your reading habits and experiences with others, the reader can also earn awards for the reading he or she undertakes. The Kobo page declares: 'Awards help celebrate fun milestones in your Reading Life. Earn an award for starting a new book, reading through the night, sharing a passage and more' (Kobo website). Amazon's recent acquisition of the social reading website 'Goodreads' highlights the company's commitment to exploring the benefits of social reading for supporting the e-reading industry. Clearly, social e-reading is likely to grow, and will continue to evolve in light of technological change and social networking directions.

Conclusions...

While Alberto Manguel's sense of loss over the ability to spy on what other people are reading may seem trivial, it represents a key component of the way passionate readers of literature see their relationship with their favourite books and with other readers of those books. However, for other users, a shift from material bookshelves to virtual bookshelves allows for a wider circulation of that same impulse of sharing and identification beyond chance encounters on trains or browsing the books displayed in someone's home. This is indicative of the ebb and flow of meaning generated around reading and book cultures in print and in

online spaces. Here I have attempted to think through some of the ramifications of the Amazon Kindle Highlighting and Public Notes functions on reading and readerships. On the one hand, Amazon's integration of social networking into the Kindle e-book system creates readings that might never have happened and, for some commentators, all reading is good reading when the fear over the decline of the book is so strong. The demarcation of books as vibrant, lively places for the exchange of ideas can only be good for the long term survival of a skill essential for democracy, for civic engagement, for economic growth and for culture. On the other hand, the kinds of reading engagement occurring on the platform can have very little to do with reading or with the text in many cases, and may have only a cursory connection in many more. These reading communities tend to produce a 'conversation about' or even 'conversation near' rather than 'reading of' the texts. Clearly, a quantitative study of the Amazon Kindle highlighting and public notes functions would be useful.

The implications these features have for reading and for the interpretative contexts in which reading takes place are yet to be seen. Where Striphas sees the Kindle's data collection as part of the abstraction and commodification of reading where its 'value resides almost exclusively in its economic instrumentality', educators may see the opportunity for technology-supported reading communities inside the book (Striphas 306). The impact of the construction of a reading community as a social network within the digital space provided and owned by the bookseller—a bookseller that, as we have seen, is having a profound influence on every aspect of the book industry from production to reception—is a marker of the technological and market-driven construction of the spaces for the reception of texts in digital reading. The Amazon Kindle Public Notes and Highlights functions suggest the promise of facilitating deeper reading conducted across social networks, of motivation for reading for reluctant readers, for productive readings in educational settings, and for guided readings through the involvement of teachers of literature and authors themselves. However, in practice, social reading on the Kindle is messier and raises concerns about the challenges, tensions and inanities inherent in performing the act of reading—whether educationally or recreationally—using a socially networked and commercially-oriented technology, conflating reading about books or reading next to the book for the reading of the book itself. Further research is warranted into how these technologies are reconfiguring the act of reading for twenty-first century users, how these technologies lend themselves to both close and hyper modes of reading—sometimes complementary, sometimes conflicting—and the long term ramifications and opportunities derived from these reconfigurations.

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