Does the Brain Like E-Books?

Gloria Mark, Alan Liu

Gloria Mark, professor of child development, is the John DiBiaggio Professor in the Eliot-Pearson Department of Child Development at Tufts, and the author of “Beyond Decoding Words: A Cognitive Neuroscientist’s Perspective on Reading.” Alan Liu, English professor and associate professor of computer science, is a former editor in chief of Nature Neuroscience. He is co-author of “Welcome to Your Brain: Why You Do What You Do, and How to Do It Better.”

The debate: Do we have the brain to read e-books? Or do we need the real thing? Industrial designers, research scientists, and cognitive neuroscientists have all weighed in on this question — and they differ widely on whether we need paper books, whether e-books will make us dumber, and what role e-books will play in our reading habits.

Mark, a cognitive neuroscientist, believes we have just as much need for paper books as we had before the Internet, and that e-books are merely the next iteration of the printed page. Liu, on the other hand, argues that the brain is naturally suited to the printed page. He believes we should just embrace the new technology rather than worry about the long-term effects.

Does the Brain Like E-Books?

Gloria Mark

To read e-books, my brain must work harder than it does when I read paper books. That’s because e-books, with their hypertextual links, are more disorienting than a book. Put simply, the brain gets more work out of reading a paper book than it does out of reading an e-book.

In a networked maze of an unfathomable amount of information, we are hit with a refreshing escape. When I’m reading a paper book, I’m not tempted to self-interrupt and begin surfing the Internet. But I grew up with paper books.

So why do I like e-books? When I wasn’t using them in the 1990s, I was using them in the 2000s. They were always there. Now, I’m back in a networked maze of an unfathomable amount of information. My own research shows that people are continually distracted when working with digital information. They switch simple activities an average of every three minutes (e.g., reading email or IM) and switch projects about every 10 and a half minutes. It’s just not possible to engage in deep thought about a topic of interest if your mind is being distracted from the moment you started.

E-books are an escape from digital devices. They are a way to focus on the text and not be sidetracked by the infinite number of links that are present in a hypertextual environment.

Hypertext offers loads of advantages. If while reading online you come across the name “Antaeus” and forget your Greek vocabulary, you can click on the word “Antaeus” and revisit it later. However, in a networked maze of an unfathomable amount of information, you would be better off committing the information to memory. There is no escape.

So why do I like e-books? Because I can work through them without the distraction that would normally come with a networked maze of an unfathomable amount of information. When I’m reading a paper book, I can work through it from start to finish without being interrupted by my mind wandering. But when I’m reading an e-book, I’m always interrupted by the hypertext.

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Alan Liu

I agree with Gloria Mark that there is nothing natural about the printed page. However, I believe that reading on paper is also natural. It is a natural thing for a human being to hold a book in their hand. We evolved to be able to hold a book in our hands.

The brain is a very complex thing. It is not just a computer. It is a computer that is made of biological material. The brain is a computer that is made of biological material that is made of organic matter. The brain is a computer that is made of organic matter that is made of biological material. The brain is a computer that is made of biological material that is made of organic matter.

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Liu is wrong. Electronic books do not escape learning disabilities. Instead, they are exacerbating them.

In a networked maze of an unfathomable amount of information, the brain is not as malleable as it is when reading an e-book. The brain is not as malleable as it is when reading an e-book because it is not as malleable as it is when reading an e-book. When reading an e-book, the brain is not as malleable as it is when reading an e-book.

Each young reader has to fashion an entirely new “reading circuit” afresh every time. There is no one neat circuit just waiting to unfold. This means that the circuit can become more or less developed depending on the particulars of the learner: e.g., instruction, culture, motivation, educational opportunity.

Does the Brain Like E-Books?

Alan Liu

Mark is right. There is nothing natural about the printed page. But there is also nothing natural about e-books. They are merely the next iteration of the printed page.

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Liu is wrong. Electronic books do not escape learning disabilities. Instead, they are exacerbating them. But this is not the point. The point is not whether electronic books are good or bad. The point is whether we should just embrace the new technology rather than worry about the long-term effects.

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Does the idea of an immaterial soul reconcile with neuroscientific evidence? Find out. 12. Describes reality. The most fascinating book about what makes us who we are since Carl Sagan's "Dragons of Eden". "The Brain" is not to be compared with Sagan's book. Sagan was an astrophysicist excited about all natural things. It's like reading Porth's book on Pathophysiology of Diseases of the brain but MUCH MORE easier to chew. It's like a really good small sugary snack compared to a huge meal with tons of protein. In other words, it's digestible and fun to read compared to text books I am forced to read. Read more. Electronic book readers like the Amazon Kindle share characteristics with both paper and computers. Anecdotal evidence suggests that people may read as quickly on electronic readers as they do on paper. The screen technology, electronic ink, avoids some disadvantages of monitors, such as backlighting and flicker, but it remains awkward to scan through multiple pages. We do know a great deal, however, about the formation of what we know as the expert reading brain that most of us possess to this point in history. In brief, this brain learns to access and integrate within 300 milliseconds a vast array of visual, semantic, sound (or phonological), and conceptual processes, which allows us to decode and begin to comprehend a word. After many years of research on how the human brain learns to read, I came to an unsettlingly simple conclusion: We humans were never born to read. We learn to do so by an extraordinarily ingenuous ability to rearrange our original parts like language and vision, both of which have genetic programs that unfold in fairly orderly fashion within any nurturant environment. Reading isn't like that. Each young reader has to fashion an entirely new reading circuit afresh every time. There is no one neat circuit just waiting to unfold. This means that the circuit can become more or less develope