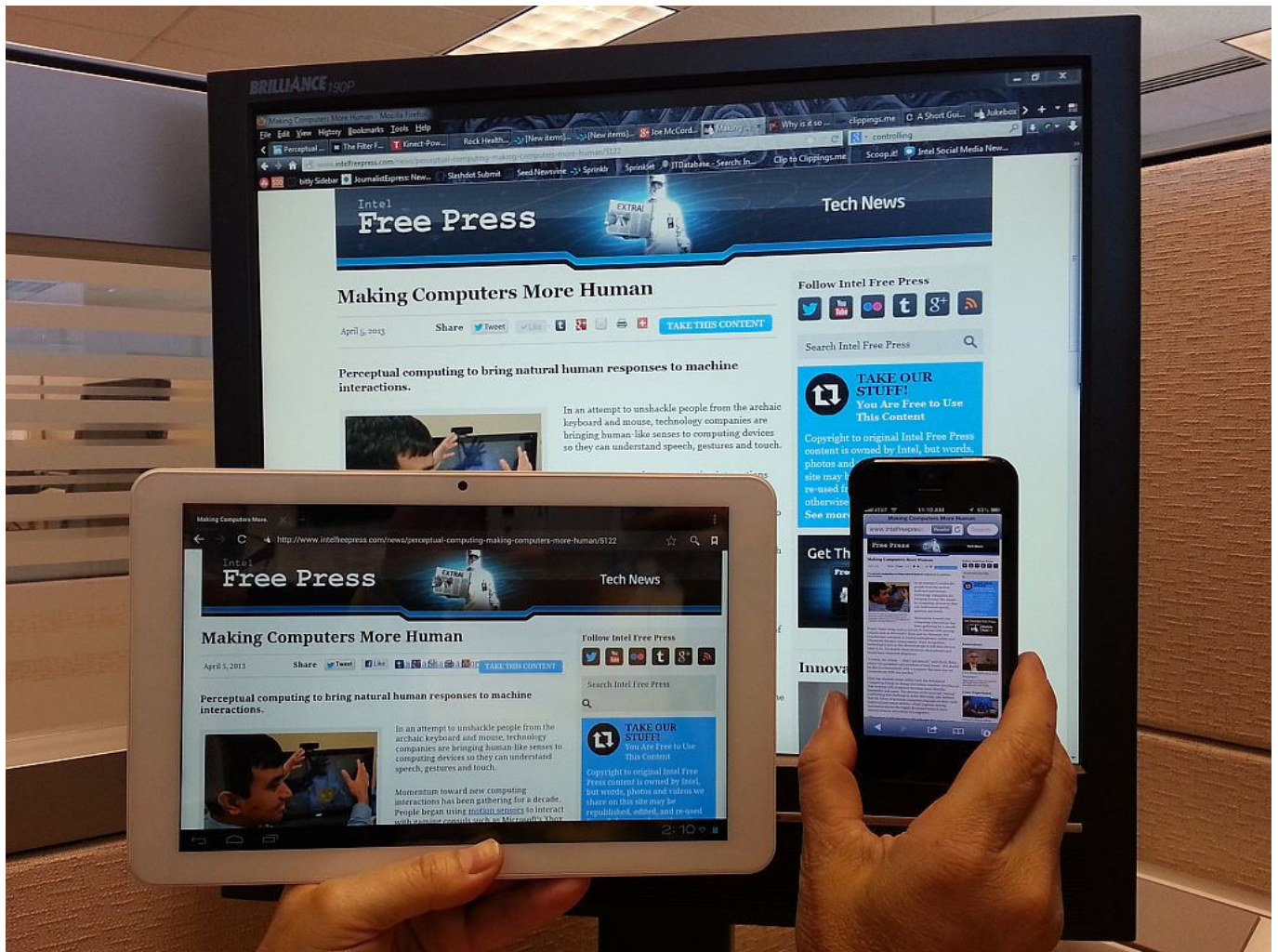


# How to Blog to a Transitioning Electronic Brain



As bloggers, online marketers, e-book authors and other electronic contributors, we are complicit in the creation of electronic brain readers. Our readers' brains are changing because of us just as we also cannot escape changing our own brains in the process.

I dare not ask you how many cumulative hours you spend in front of an electronic screen in any 24 hours consuming and creating information. Take a wild guess and see if it matches your actual consumption.

At first, this doesn't quite make sense that we should be concerned about our electronic consumption from reading.

All of us have been consumers of books, movies, and television. Some of us come from the typewriter generation; others from the computer printout generation. While the newest addition is the hand-held electronic screen generation. All of these mediums make it easier to create and consume information.

## The Brain's Challenge to Read.

The brain did not come hard-wired to be able to read. [Click To Tweet](#)

However, the challenge has been for the brain to adapt along the way, since it's original package did not come hard-wired for the ability to read!

Reading did not exist prior to the fourth century B.C. Developmental psychologist and cognitive scientist Maryanne Wolf of Tufts University, describes how

*" ... the human brain improvises a brand-new circuit for reading by weaving together various regions of neural tissue devoted to other abilities, such as spoken language, motor coordination, and vision."*

[\(https://www.scientificamerican.com/article/reading-paper-screens/\)](https://www.scientificamerican.com/article/reading-paper-screens/)

There's been considerable research trying to understand how the brain is changing as more reading is done on electronic devices rather than the centuries old paper and book experience.

To begin, both require the brain to ...

- decode the visual landscape of letters and symbols
- assign meaning based on memory and context
- process for understanding, learning and memory retention

Initially, reading from an electronic source took longer. It now seems to be less of an issue as the brain adapts to greater engagement and higher resolution screens.

But, still in question is the effect of mental processing on comprehension and long-term memory.

## **Electronic Brain Comprehension and Long Term Memory**

When it comes to mental processing, E-book reading research reveals different pathways for comprehension.

According to Stanislas Dehaene, when we read an electronic text in a manner that we are familiar with, comprehension is processed through a particular neural network (the VWFA – visual word form area – left lateral occipitotemporal sulcus). This pathway processes letters and words in parallel for quick and efficient reading comprehension.

When we read unfamiliar text or text degraded by unfamiliar style, font, or vocabulary, the brain resorts to the dorsal pathway. The dorsal pathway for comprehension takes more time to process. This is the pathway where early readers learn to recognize combinations of letters and letter sounds.

Electronic reading suggests unfamiliar text elements challenge the visual cortex. As a result, the brain may be reverting to the slower dorsal pathway in order to comprehend.

Reading research on students indicates they do more poorly with long-term memory recall when using electronic devices as compared to a paper source. Students are more inclined to seek information by browsing, scrolling and looking for keywords than focusing sufficient attention for long-term memory.

# The Paper and Book Advantage

Paper and books are deeply tied to reading comprehension and long-term memory.

Both stimulate the brain's reading and learning experience by

—

- placing text in a physical environment.
  - easier to maneuver from letters to words and between paragraphs, pages, and chapters
- providing multiple sensory reading experiences.
  - letters and words are part of a pleasurable volume that has weight, size, and texture
- being less physically and mentally taxing.
  - eye strain and tiredness from small screens and the blue light effect
- enriching the visual and learning experience with inserted drawings, illustrations, charts, and maps.
  - more sophisticated electronics are now including these features
- printing out a hard copy.
  - readers say they prefer paper access for greater understanding, clarification, and ability to remember
- allowing for greater attention, focus, and comprehension.
  - there are concern electronics offer so many rabbit-hole distractions from sidebars, hyperlinks, video links, to pop-ups

There's a sense that paper and books will coexist with electronic reading and over time the brain will rewire its receptors to be more efficient at comprehension and memory. For those "digital natives" having been born into or exposed early on to electronic reading, we may see a quicker electronic brain transition.

## **How to Blog to a Transitioning Electronic Brain**

As you have no way of knowing the quality of your readers electronic reading skills, there are certain things you can do to increase the attention to your content.

### **Write for value –**

- Provide relevant information in short bursts that are easy to comprehend.
- Use repetition for key points.
- Write in a consistent and recognizable style, font and vocabulary.

### **Explain why your information is important –**

- The days of writing to merely inform are over.
- You need to clearly explain why they should know and what they should know.
- Indicate what are the benefits this information offers.

### **Eliminate visual distractions but add visual signposts –**

- Rethink your theme design. What's pulling your reader's attention away from your content?
- Include emotionally connected images to reinforce meaning, understanding, and memory.
- Use header titles to give a sense of place and outline of your topic.
- Include a summary to anchor in memory.

### **Offer a paper experience electronically –**

- Think about adding a print button to your page.
- Offer a pdf version.
- Consider an audio link for those who like audio books.
- Create instant printable downloads: checklist, outline or summary handout, quiz, assessment, or questionnaire.

### **Plan your article/post as a stepping stone to deeper learning**

- Offer a deeper learning opportunity with a webinar, training program or personal consulting.
- Accommodate different learning styles with visual, auditory and kinesthetic options.

## Summary

1. Reading is an adaptive brain skill
2. The brain is in the process of adapting to electronic reading
3. For electronic readers, the biggest issues are comprehension and long-term memory
4. Paper and book sources will continue side-by-side with electronic devices
5. Electronic content providers can implement certain things to increase attention to their content

**Which do you prefer – reading from paper or from your electronic device?**

## Image:

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## Resources:

<https://www.scientificamerican.com/article/reading-paper-screens/>

<https://roomfordebate.blogs.nytimes.com/2009/10/14/does-the-brain-like-e-books/>

<http://www.sciencedirect.com/science/article/pii/S1364661311000738>

<http://scienceblogs.com/cortex/2009/10/16/reading-e-books-and-the-brain/>