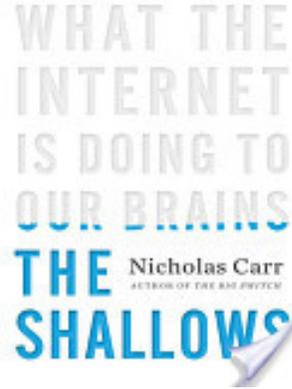


The Shallows: What the Internet is Doing To Your Brain

By Nicholas Carr
W.W. Norton and
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2011 Paperback Edition

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tinkering with my brain, remapping the neural circuitry, reprogramming the memory... I'm not thinking the way I used to think. I feel it most strongly when I'm reading. I used to find it easy to immerse myself in a book or a lengthy article. My mind would get caught up in the twists of the narrative or the turns of the argument, and I'd spend hours strolling through long stretches of prose. That's rarely the case anymore. Now my concentration starts to drift after a page or two. I get fidgety, lose the thread, begin looking for something else to do."

I first learned of this poignant book during a recent visit to my former school back in Ithaca, New York. I dropped by a group of juniors and seniors in a "Human Ecology" class where the teacher was discussing a reading from *The Shallows*. The students were deeply engaged in the author's analysis of the impact of all the devices that are so much a part of their lives; curious to learn is there is a cause for concern. For example:

"Dave, stop. Stop, will you? Stop, Dave. Will you stop? Dave, my mind is going, I can feel it. I can feel it." Who can forget this poignant closing scene of Stanley Kubrick's famous film "2001: A Space Odyssey," in which the astronaut Dave Bowman barely escapes death in deep space due a malfunction of the spaceship's artificial brain, HAL, by shutting down its memory. Thus Nicholas Carr begins the initial chapter – appropriately entitled "HAL and Me" – in this most provocative book. Carr goes on:

"I can feel it too. Over the last few years I've had an uncomfortable sense that someone, or something, has been

Sound familiar? Then you'll be interested to read this thoroughly researched account of what seems to be happening to our brains given all the media with which we are bombarded these days. Carr reminds us of the now famous quote from Marshall McLuhan's *Understanding Media* in 1964 (when "media" only meant the telephone, radio, movies, and television!) - "The medium is the message." It is a particularly important book for us educators who are seeing the rapid expansion of technology in our classrooms.

But wait, before you stop reading further - this is not an extremist Luddite indictment of the Internet, iPads, iPhones, Kindles and the like. Carr recognizes, and uses extensively all of the current technology which he states is clearly here to stay. Rather he is making the case for maintaining a healthy balance in our relationship with all of these devices. Carr urges that readers consider the balance between the Internet's ability to efficiently and rapidly provide information, and our own intellectual ability to read and think deeply, to

do our own analytical, critical, reflective, and contemplative thinking.

Carr points out as well that these new technological devices are not the first “technology,” the first tools to alter our lives, our culture, and our brains. He traces the impact of map-making on our world view, clocks and watches on our relationship to time, and particularly the written word. There has been a series of profound evolutionary impacts--the progression from clay tablets to papyrus scrolls to parchment scrolls to wax tablets to bound books (codices) to the printing press and its impact on literacy, and now to the evolution of electronics and electronic communication devices. All these shifts in transmission of the written word have produced profound changes to human culture. He sees us caught between two technologies:

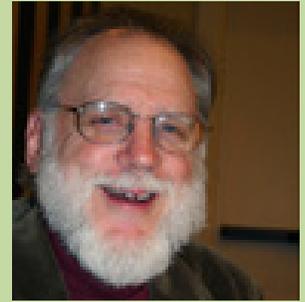
“Like our forebears during the later years of the Middle Ages, we find ourselves today between two technological worlds. After 550 years, the printing press and its products are being pushed from the center of our intellectual life to its edges... now the mainstream is being diverted, quickly and decisively into a new channel. The electronic revolution is approaching its cultural culmination as the computer – desktop, laptop, handheld – becomes our constant companion and the Internet becomes our medium of choice for storing, processing, and sharing information in all forms, including text... We cannot go back to the lost oral world, any more than we can turn the clock back to a time before the clock existed But the world of the screen, as we’re already coming to understand, is a very different place from the world of the page. A new intellectual ethic is taking hold. The pathways in our brains are once

again being rerouted.”

Carr also sites extensive current research showing such phenomena as the changes in how we spend our time. For example, the Ball State University’s Center for Media Design study of 2009 indicating most Americans spend at least eight and a half hours a day looking at a television, a computer monitor, or the screen of their mobile phone, and sometimes more than one at a time. And there is this analysis of neurological research in the chapter entitled “The Juggler’s Brain”:

“While acknowledging that it’s now hard to imagine living without the Internet and online tools like the Google search engine... their heavy use has neurological consequences. What we’re not doing when we’re online also has neurological consequences. Just as neurons that fire together wire together, neurons that don’t fire together don’t wire together. As the time we spend scanning Web pages crowds out the time we spend reading books, as the time we spend exchanging bite-sized text messages crowds out the time we spend composing sentences and paragraphs, as the time we spend hopping across links crowds out the time we devote to quiet reflection and contemplation, the circuits that support those old intellectual functions and pursuits weaken and begin to break apart. The brain recycles the disused neurons and synapses for other, more pressing work. We gain new skills and perspectives but lose old ones.”

Although this sounds encouraging, Carr reminds us that whereas our brains are amazingly flexible and able to adapt to new demands, adjusting circuitry to new situations, “plastic does not mean elastic.” One of the most dramatic examples is when individuals with intensive, almost continuous seizures, have one whole hemi-



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sphere of their brains removed to relieve this debilitating condition. Amazingly the remaining hemisphere is typically able to respond and take on the functions of what previously were being carried out by the damaged hemisphere. Coming back to our concerns about the impact of the excessive use of electronic media on our brains, such as the Internet, Carr cautions:

“Our neural loops don't snap back to their former state the way a rubber band does; they hold onto their changed state. And nothing says the new state has to be a desirable one. Bad habits can be ingrained in our neurons as easily as good ones.”

Lastly, what I believe is of particular concern to those of us involved with schools, those of us entrusted with the education of our youth, those of us who devote our lives to teaching, is this caution:

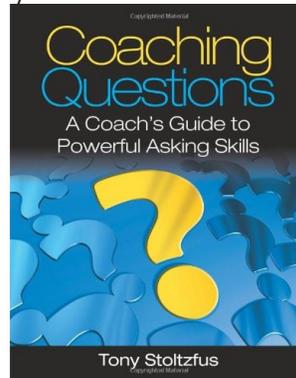
“The great danger we face as we become more intimately involved with our computers – as we come to experience more of our lives through the disembodied symbols flickering across our screens – is that we'll begin to lose our humanness, to sacrifice the very qualities that separate us from machines. The only way to avoid that fate ... is to have the self-awareness and the courage to refuse to delegate to computers the most human of our mental activities and intellectual pursuits, particularly tasks that demand wisdom.”



Coaching Questions A Coach's Guide to Powerful Asking Skills

By Tony Stoltzhus
Self-published,
www.Coach22.com, 2008

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As a relatively new CFG Coach, one of my first concerns has been training my brain (and my mouth, which sometimes engages before my brain) in the proper creation of probing questions. My mentor and other experienced coaches assured me that with more practice, I'd develop more facility. But I didn't want to lead my new CFG group astray by not modeling good (or at least acceptable) probing questions.

I thought there must be more guidance available somewhere in developing good probing questions. As I Googled, I learned that “probing questions” have vastly different meanings and desired outcomes in different occupations than I'd expected. Human resources people may “probe” for information a job candidate might want to keep hidden; salespeople “probe” for details that manipulate a customer toward a purchase. Neither of these perspectives are necessarily helpful to CFGs.

Then I lucked out by finding *Coaching Questions* by Tony Stoltzhus. Although the book isn't written specifically for educators, quite a lot of its content is very relevant