Mind over mass media

New forms of media have always caused moral panic: the printing press, newspapers, and television were all once denounced as threats to their consumers' brainpower and moral fiber. So too with electronic technologies. PowerPoint, we're told, is reducing discourse to bullet points. Search engines lower our intelligence, encouraging us to skim on the surface of knowledge rather than dive to its depths. Twitter is shrinking our attention spans.

But such panic often fails basic reality checks. When comic books were accused of turning juveniles into criminals in the 1950s, crime was falling to record lows. The decades of television, transistor radios and rock videos were also decades in which I.Q. scores rose continuously.

For a reality check today, take the state of science, which demands high levels of brainwork. These days scientists are never far from their e-mail, rarely touch paper and cannot lecture without PowerPoint. If electronic media were hazardous to intelligence, the quality of science would be plummeting. Yet discoveries are multiplying like fruit flies, and progress is dizzying.

Critics of new media sometimes use science itself to press their case, citing research that shows how "experience can change the brain". But cognitive neuroscientists roll their eyes at such talk. Experience does not remake the basic information-processing capacities of the brain. Speed-reading programs have long claimed to do just that, but the verdict was rendered by Woody Allen after he read "War and Peace" in one sitting: "It was about Russia."

Moreover, the effects of experience are highly specific to the experiences themselves. If you train people to do one thing, they get better at doing that thing, but almost nothing else. Music doesn't make you better at math. Accomplished people immerse themselves in their fields. Novelists read lots of novels, scientists read lots of science.

The effects of consuming electronic media are also likely to be far more limited than the panic implies. Media critics write as if the brain takes on the qualities of whatever it consumes, the informational equivalent of "you are what you eat". As with primitive peoples who believe that eating fierce animals will make them fierce, they assume that reading Twitter postings turns your thoughts into Twitter postings.

Yes, the continual arrival of information packets can be distracting or addictive. But distraction is not a new phenomenon. The solution is to develop strategies of self-control. Turn off Twitter when you work and put away your smartphone at dinner time.

And to encourage intellectual depth, don't rail at PowerPoint or Google. It's not as if habits of deep reflection or thorough research ever came naturally to people. They must be acquired in universities, and maintained with constant analysis, criticism and debate. They are not granted by propping a heavy encyclopedia on your lap, nor are they taken away by efficient access to information on the Internet.

The new media have caught on for a reason. Knowledge is increasing exponentially; human brainpower and waking hours are not. Fortunately, the Internet and information technologies are helping us manage and search our collective intellectual output at different scales, from Twitter to e-books and online encyclopedias. Far from making us stupid, these technologies are the only things that will keep us smart.

The phrasal verb "takes on" in "Media critics write as if the brain takes on the qualities..." (paragraph 6) is closest in meaning to...

1. ...adapts.
2. ...changes.
3. ...acquires.
4. ...rejects.