

Mind Over Mass Media

By STEVEN
PINKER

Op-Ed Contributor

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NEW forms of media have always caused moral panics: the printing press, newspapers, paperbacks and television were all once denounced as threats to their consumers' brainpower and moral fiber.

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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 panics often fail basic reality checks. When comic books were accused of turning juveniles into delinquents in the 1950s, crime was falling to record lows, just as the denunciations of video games in the 1990s coincided with the great American crime decline. 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 and is measured by clear benchmarks of discovery. 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. Other activities in the life of the mind, like philosophy, history and cultural criticism, are likewise flourishing, as anyone who has lost a morning of work to the Web site [Arts & Letters Daily](#) can attest.

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. Yes, every time we learn a fact or skill the wiring of the brain changes; it's not as if the information is stored in the pancreas. But the existence of neural plasticity does not mean the brain is a blob of clay pounded into shape by experience.

Experience does not revamp 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." Genuine multitasking, too, has been exposed as a myth, not just by laboratory studies but by the familiar sight of an S.U.V. undulating between lanes as the driver cuts deals on his cellphone.

Moreover, as the psychologists Christopher Chabris and Daniel Simons show in their new book "The Invisible Gorilla: And Other Ways Our Intuitions Deceive Us," the effects of experience are highly specific to the experiences themselves. If you train people to do one thing (recognize shapes, solve math puzzles, find hidden words), they get better at doing that thing, but almost nothing else. Music doesn't make you better at math, conjugating Latin doesn't make you more logical, brain-training games don't make you smarter. Accomplished people don't bulk up their brains with intellectual calisthenics; they 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 watching quick cuts in rock videos turns your mental life into quick cuts or that reading bullet points and Twitter postings turns your thoughts into bullet points and Twitter postings.

Yes, the constant arrival of information packets can be distracting or addictive, especially to people with attention deficit disorder. But distraction is not a new phenomenon. The solution is not to bemoan technology but to develop strategies of self-control, as we do with every other temptation in life. Turn off e-mail or Twitter when you work, put away your Blackberry at dinner time, ask your spouse to call you to bed at a designated hour.

And to encourage intellectual depth, don't rail at PowerPoint or Google. It's not as if habits of deep reflection, thorough research and rigorous reasoning ever came naturally to people. They must be acquired in special institutions, which we call universities, and maintained with constant upkeep, which we call 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, search and retrieve our collective intellectual output at different scales, from Twitter and previews to e-books and online encyclopedias. Far from making us stupid, these technologies are the only things that will keep us smart.

Steven Pinker, a professor of psychology at Harvard, is the author of “The Stuff of Thought.”