

Facebook Users -- and Research -- Need Further Study

Good News: The Social-Networking Site Likely Doesn't Cause Poor Grades. Bad News: Students Achieve Them on Their Own

By CARL BIALIK

College students who have defriended Facebook after news broke of a link between the social-network site and lower grades, or younger users whose parents have made them, can rest easy. The grade numbers arise from a study that is preliminary -- so much so that it cries out for further study even more than many other pilot experiments.

Facebook may well distract and delay but there is far from enough numerical evidence to support that claim, notwithstanding hundreds of international headlines to the contrary.

This isn't the first time technology has been buried or praised too quickly. A 2005 test of a handful of volunteers' ability to solve problems while their cellphones and email programs were flashing gave rise to headlines that these technologies lowered IQs more than marijuana usage. And just this month, an Australian study found that workers who use Facebook and other nonwork Web sites are more productive, but didn't show that one caused the other.

These latest headlines originated with a survey last year of 219 Ohio State University undergraduates and graduate students. The results were presented at the American Educational Research Association meeting in San Diego last Thursday.

Those students who said they used Facebook also said they had lower grades than those who don't use the social-networking site for such activities as updating their status and tracking friends. The Facebook users' achievements were lighter by about 0.5 grade-point-average points and 10 hours of weekly study, respectively.

The study triggered frightening headlines such as, "Study finds Facebook goofing hurts grades," "Study says Facebook can impact studies" and "Research finds the website is damaging students' academic performance." However, researchers Aryn Karpinski, a doctoral student in education at Ohio State, and Adam Duberstein, an academic adviser at Ohio Dominican University, didn't examine the influence of Facebook on grades. Facebook may be a symptom of a big procrastination habit, not a cause. Should Chief Executive Mark Zuckerberg pull the plug, chronic users of his site may just procrastinate elsewhere.

The researchers themselves say the study had other flaws. Ohio State students may differ from those at Harvard, Florida State or a small religious institution such as Ohio Dominican. And the students who shared their grades weren't representative of all Ohio State students: Many participants were from the school of education, because Ms. Karpinski generally approached professors she knew. The survey only covered those students who showed up to those professors' classes on the days the survey was administered. And their grades and study hours weren't controlled for their field of study, meaning the sample was potentially skewed, which the study's authors acknowledge.

So read another way, the study might just as easily have erroneously concluded that "Facebook somehow encourages students to seek technical careers rather than humanities interests," notes Chris Dede, a professor of education at Harvard. "I would be very hesitant to conclude anything from a weak correlational study of this type." Other researchers and statisticians also questioned the study, with some saying it wouldn't pass muster at a peer-reviewed journal.

Students also were asked to report their Facebook usage, grades and hours of study in ranges -- such as a GPA between 3.0 and 3.5 -- which may have boosted response rates but makes it trickier to crunch and analyze than if they'd shared exact numbers. Researchers haven't yet broken down Facebook users

by amount of time on the site, meaning the heaviest users may have skewed the results. Nor have they examined other social-network sites, such as MySpace (which, like The Wall Street Journal, is owned by News Corp.).

The researchers say they, too, were troubled by some of the coverage. Ms. Karpinski and Earle Holland, Ohio State's assistant vice president for research communications, criticized a report from the Sunday Times of London (also owned by News Corp.) that attributed to the study the finding that "the website is damaging students' academic performance," which "will confirm the worst fears of parents and teachers." In fact, the Ohio State study cautioned, "It cannot be stated if Facebook use causes a student to study less hours per week or have a lower GPA."

Jonathan Leake, who co-wrote the Sunday Times story, says Ms. Karpinski had the opportunity to review a draft before it was published, and that afterwards she requested one change, which was made, and didn't register further complaints. "Everyone, including [Ms. Karpinski] and the Sunday Times, acted professionally and in good faith, and no one has raised any issues with us," Mr. Leake says.

Coverage that implicated Facebook for the lower grades sparked a backlash to the findings, particularly in the technology press, so much so that Ms. Karpinski was expecting "media with tomatoes" when she presented her study in San Diego. Instead, she met fellow researchers who told her that "this is an interesting topic and they need to research it more."

That was the goal of presenting and publicizing the study, says Ms. Karpinski, who in a telephone interview and follow-up emails was open about her study's limitations, which she's shared with other people: "My study is easy to rip apart statistically and methodologically, obviously. But know that I am fully aware of what the problems are!" They include, she says, too small a sample, inexact numbers and the exclusion of other social-networking sites from the study.

Despite all these shortcomings, the authors felt that releasing the study would, on balance, advance science by spurring their colleagues to follow up. "All this is a call for further research, and an invitation for collaboration," says Mr. Duberstein. The press release called it "a pilot study at one university" and "a relatively small, exploratory study."

There are arguments for this kind of science. Peer review has its advantages, but speed isn't one of them; college students' tech habits may have transformed by the time this study is published in a peer-reviewed journal, a step that will be delayed as Ms. Karpinski retreats from the media maelstrom to her dissertation topic, teacher-assessment scales. But Ms. Karpinski says she has reconsidered whether it was worth it: "I obviously can't take it back," but "I think there's more that could have been done before it was released." That includes further analyzing the data she had already collected, she says.

The potential downside of this messier kind of science is that the preliminary, questionable numbers may be taken too seriously by the general public.

"It would appear that those that fear the growing intrusion of social media and technology into our daily lives have jumped on this study as an opportunity to point a finger and say 'I told you so -- technology is bad,'" says Camille Rutherford, professor of education at Brock University in St. Catharines, Ontario. "This is very counterproductive when we should be looking for ways to capitalize on the power of social media to enhance teaching and learning."

Mr. Holland, of Ohio State, knows that there's a risk any study, including a preliminary one, can be misinterpreted. His usual expectation is for science journalists to get the story "70% accurate." Still, if a study is presented at a conference with appropriate caveats, "then it's really hard to make the argument that it shouldn't be shared with the general public."