

2nd Year



Eagle Forum Report

successor to The Phyllis Schlafly Report

February 2018

Volume 2/Number 2

More Child Abuse in the Classroom

WEAPON OF MASS INSTRUCTION OR DESTRUCTION?

by Anne Gassel, Co-founder Missouri Coalition Against Common Core and Legislative Director for Missouri Eagle Forum

In 2014, President Obama called on school superintendents across the nation to sign the “Future Ready” technology pledge, which stated that the superintendents would do everything they could to bring more technology into their classrooms and promote digital learning. Over 3,100 (out of 14,000) signed that pledge and have been pushing to get a 1:1 student-to-device ratio in their districts.

Many articles tout the ability of modern technology to educate students and predict that since children will lead lives that are completely entwined with technology, then the earlier we can get them to use technology the better. Technology is certainly exciting and offers ways to do things we could not have done before, but how many people are taking the time to ask, “Just because we can, should we be using it?” If we look at the scientific evidence, the answer crucially depends on when and how.

Part of the technology pledge was to nudge districts into taking advantage of virtual courses. The current push for “educational equity” wants computers to provide access to courses not offered, for example, by rural districts who do not have sufficient demand or resources to hire person-

nel dedicated to teaching classes such as chemistry or physics. For high school students who have the maturity to take a remote or pre-recorded class, and who have the self-regulation to pay attention during a lecture and do the coursework on their own, online courses are a logical and beneficial use of the computer. Districts should be cautious, however, of fully embracing this solution. A study by Columbia University found that attrition rates from college level online courses can be as high as 90 percent due to technical difficulties and the limited peer-to-peer and instructor interaction that many students need.

In addition, large performance differences remain between income groups who access college level course work through dual enrollment in high school, which indicates that access alone cannot be the social lever it is touted to be.

Using the computer in classrooms for even basic functions like note-taking is actually contra-indicated by research. A 2014 UCLA study shows that typed verbatim notes require relatively shallow cognitive processing. The mental effort it takes to understand and process what the teacher says in a handwritten note actually

helps students better retain information.

Computers can enhance the educational experience in high school and college, but the research is much less positive on their use in elementary and middle school. Technology could actually be a detriment to learning for younger students.

In middle school, using com-

puters to access digital course work or to do internet research puts a lot of challenges in front of district administrators. The device itself, whether it is a tablet, laptop or desktop computer, is expensive. Entry costs for just a very basic device start at around \$600. For districts who fall for Google’s “Take our Chromebooks. They’re free!” marketing, administrators should remember the adage that there is no



(Continued on page 2)

such thing as a free lunch. Maintenance to keep software current, repair costs, and lost or damaged device costs can be significant.

One middle school that had given each child a Chromebook at the beginning of the school year, found that by the middle of October they had 50 percent of the class showing up with a device that was not charged, and no more power cords were available from the district. The result was the teacher's lesson plan for students to do on their device had to either be limited or completely jettisoned. Technology staff in high device-use schools are stretched thin and teachers, who were not trained to be IT specialists, are now expected to troubleshoot technology problems. Plus, the time spent troubleshooting technology is teaching time lost.

Of course, every computer can gather mounds of data from users. Parents know the challenges of finding an age-appropriate sweet spot for internet access. Children should not have access to explicit material and nor should they be limited only to websites approved by a liberal education cabal, which tries to shape a developing mind's perspective in ways which may be contrary to their parents' values. The reliance on digital content for classroom instruction brings Pupil Protection Rights Act concerns to the foreground.

As a device for delivering content like pictures or videos, the internet connected computer is unbeatable. If I want to teach about the connection between music and math, it is wonderful to share a Youtube video of Zubin Mehta directing the philharmonic in Mozart's "Eine Kleine Nachtmusik" where students can see his arms keeping the 4/4 time signature and we can talk about fractions of those beats making the lovely sounds they are hearing. But as a means of

self-directed learning, quality assessment, or a replacement for flesh-and-blood teachers in underserved districts, computers in the elementary classroom, especially for children under age eleven, definitely fail.

Missed Opportunity for Learning

Cognitive science supports the need to fill the young mind with facts and wisdom that can later be used to do more complex thinking. Studies of the relationship between Working Memory and Long Term Memory demonstrate that those who have committed facts to LTM have freed up WM to do things like innovate or effectively defend a position. The young mind is perfectly positioned to form these new neural pathways. We should be taking advantage of that natural condition by asking children to work on cognitive storage and retrieval skills, not by teaching them to ask Alexa or Siri to do that for them.

Research at the University of Sussex with an MRI, found that people who used multiple media devices at once, who touted themselves as multi-taskers, had less dense anterior cingulate cortexes (ACC) than people who use just one device occasionally. The ACC is involved in the insightful solving of puzzles. ACC provides the ability to think outside the box, to have that "a-ha" moment. Children raised to rely on devices, to believe that they can multi-task, may actually have less ability as adults to find novel solutions to problems. What does this say about their ability to be entrepreneurs? How does that bode for their ability to tell truth from propaganda? We know that those who work in Silicon Valley do not send their children to schools that use a lot of the technology their own companies are willing to shove into other people's public schools. Are they aware of this science (hint: yes they are) and are they giving their kids an advantage over other kids by limit-

ing their use of computers when very young?

Social Separation

Plenty of research has emerged about the negative psychological impacts of prolonged use of technology. Teen suicide rates have been climbing in the last 5 years, which coincides with increased time spent on social media. The bullying on social media that occurs outside the classroom can now be carried into the classroom. Concurrently, the use of computers for class work has been on the rise. Computer use has led to more frequent testing, primarily because now we can, so students with test anxiety are having to experience it more frequently. Further, test results, even if they are only meant to help identify areas that need more focus, also serve to rank one against one's peers. The underdeveloped prefrontal cortex takes this ranking as an attack on self-worth which contributes to depression.

Even the well-intentioned use of a computer as a means to challenge more advanced students, where the child works alone on curriculum while the teacher focuses on the lower performing students, can isolate those children from others and diminish their time developing social interaction skills. Our more advanced students could be even more socially awkward. The sense of isolation grows and with it the risk of depression or suicidal thoughts. Teachers are receiving ever more instruction on recognizing these trends, all the while continuing to use the technology that may be contributing to them.

Very young children learn because of relationships and the desire to please in order to strengthen that relationship. They simply cannot form a relationship with a machine, and the science indicates that we should not be asking children to bond with a machine. 