

**Task 4 - EDIT 6150 Course Exam**  
**Spring Semester 2002**  
**(25 Points)**

The purpose of this course exam is to enable you to express yourself intelligently and critically about important issues related to the use of computers in education. Please submit your responses to the questions below by sending a Microsoft Word document as an attachment to an email message to <treeves@coe.uga.edu>. All responses should be submitted no later than 5:00 PM on Tuesday, April 9, 2002. Please feel free to include graphics, audio files, digital movies, and other media in your document, but don't feel compelled to go beyond text if that allows you to express yourself fully.

**Option 1 – For Students Involved in K-12 Education**

The following editorial appeared in *Education Week* on March 14, 2001:

**“Improving Education With Technology”** by William J. Bennett and David Gelernter  
(See editorial at: <http://www.edweek.org/ew/ewstory.cfm?slug=16online.h20> )

(William J. Bennett, former Secretary of Education under President Reagan, and David Gelernter, a professor of computer science at Yale University, have both been vocal critics of computers in education. Now they are involved in a large scale project with funding from Michael R. Milken to develop an online K12 school. Bennett and Gelernter wrote this editorial to defend their participation in this project. Visit the K12.com's web site at: <http://k12.com/home.html> to find out more about this project.)

Like many others who have devoted their professional lives to education, we are longtime skeptics about computers in schools. Too often, new technology has been used to kill time instead of teach better. Too often, educational software has promoted glitz, glamour, and graphics instead of serious learning. Too often, the Internet has promoted the "surfing culture" where users click their way across an ocean of information, feeling overwhelmed by the vastness of it all and never dipping below the surface.

Why, then, are we helping build K12, an online school? Because the technology is hugely promising and powerful all the same. It has been misused, yes, but much of the technology is brand-new. The recent report issued by Congress' bipartisan Web-Based Education Commission, led by former Sen. Bob Kerrey of Nebraska, argued that educational technology has not yet moved from "promise to practice." The report concluded nevertheless that "the power of the Internet to transform the educational experience is awe-inspiring." We agree.

Instead of drawing attention to itself, the well-wrought educational computer should fade into the background. It should attract no more notice than a clean window through which one looks. In the learning technology that we are involved in developing, the computer will become a two-person midget sub, allowing adult and child (seated side by side) to move forward at their own pace and go virtually anywhere— through teeming coral reefs and crowded seas and into the heart of our intellectual and civic heritage, without worrying about logistics or bookkeeping. Adult

and child will decide together how fast to move along—when to speed forward, when to go back and repeat, and when to dive even deeper.

The Internet-connected computer can supply structure and a sense of forward motion through a school day, term, or year to a child who is working at home with parents or under a charter school's auspices. It can allow parents or teachers to lay out a child's education (one course or many) with as much expert guidance as they like. It can allow them to visualize a whole year in advance, and then show them at every stage how well each child is doing, and exactly how far each one has come.

It can put children in touch with each other and with the world. It can put parents in touch with other parents, with excellent teachers, and with tutors and other consultants. It can create the feel of an actual school with its own school community. It can help motivate, stimulate, entertain, and keep children informed about the world. In sum, it can help deliver a world-class education to virtually any child or adult almost anywhere in the world.

No online school will succeed unless the teaching material it offers is good enough to stand on its own, without computers or technology to jazz it up. After all, the proper role of the computer is not to replace but to facilitate a rigorous education. The online school that keeps its students glued to a machine all day is destined to fail. Indeed, at any successful online school, book reading will be the heart of education. (We have no objection to delivering books electronically, but old-fashioned books on paper are so much better designed and easier to use that we are in no hurry to toss them out.) Our students will become fluent keyboardists, but they will learn to be fluent at writing and figuring on paper, too.

So what exactly does the computer do? It lays down a path that adult and child can follow confidently step by step, without fiddling with road maps. The path adapts to the student automatically. An online class shouldn't be a do-it-yourself grab bag; the computer provides structure and creates a coherent package out of the material all children should learn, undiluted by fad or fashion. We compare a computer to a vehicle on purpose: When you are driving or sailing or flying, it's the view outside that counts, not the dashboard. In education, it's the content that counts, not the computer.

But software can take children places they could never go otherwise, and show them fascinating new things. We wouldn't be in this business if we weren't excited about the possibilities. Software can turn the computer screen into a transparent porthole with a 3-D scene on the other side. After you have read chapter 5 of your American-history book, the next step in your history path might show you a 3-D terrain map of Lexington and Concord, or the Panama Canal. But whenever we present this information, our goal is to get students to spend longer on a topic and dive deeper, not to have them skim like skipped stones from one fancy picture to the next.

In any successful online school, each step the child takes will be added automatically to a comprehensive "log." The log records a child's whole education—each lesson and worksheet, each book report and exam. You can look up anything for reference or review. You can show any piece to a consulting teacher for advice. You can show highlights to a college admissions officer, prospective employer, or anyone else who

needs to know what the child has actually done. A child's education becomes a tangible thing. For schools (online or off) to be accountable, parents must be able to see, step by step, exactly what education their children are getting.

Ideally, America's schools in 2001 would be so good we wouldn't want to change a thing. Ideally, every child would sit in a friendly classroom and learn from a wise and knowing teacher with access to a rich curriculum and good books. Of course, such classrooms and teachers still exist. They should be applauded, rewarded, and replicated. But education in America is off course, and we need to use every tool that exists to improve things. Under the circumstances, it would be negligent not to use computers in attacking the problem. Computers are neither good nor bad in themselves. If we use them well, that makes them good.

Online schools will soon be available and affordable to every family in America. The charter school movement is growing. Many public schools are working hard, too. They all need the best tools we can give them— tools to be used in the smartest ways and for the highest purposes. Education is our most important job as a nation, and there is no excuse for fobbing it off with mere state-of-the-art technology. We need to move the state of the art forward, starting right now.

**Please answer the following questions in a brief responses of 1 - 2 pages each.**

- a. Are Bennett and Gelernter supporting an approach to using computers in education that primarily views the computer as a technology that student learn from or a tool that students learn with? What evidence could be used to support their approach? What evidence could be used to question their approach?
- b. Consider the technology competencies that various states are proposing for their teachers. Will these competencies be as important in the type of online school proposed by Bennett, Gelernter, and their collaborators as they are in traditional schools? What types of knowledge, skills, and attitudes would be most important in the online school approach?
- c. Some of our readings and class presentations have contrasted an instructivist view of using computers in education with a constructivist view. Would a constructivist teacher be happy using the online school proposed by Bennett and Gelernter? Why or why not?
- d. Is “K12.com” the future of computers in education? What is an alternative future that might evolve?
- e. What does the future of computers in K-12 education mean for your personal future as a teacher or other participant in K-12 education (e.g., parent)?

## Option 2 – For Students Involved in Higher Education

Most of the readings in this course have focused on computers in K-12 education rather than computers in higher education per se. Hopefully, you have been able to draw inferences from these papers to applications in your present and future teaching at the postsecondary level. With this in mind, please address the following questions in brief responses of 1 – 2 pages each.

- Consider your discipline, e.g., Adult Education. Should computers be primarily used as a technology to learn from or a tool to learn with in your discipline? What evidence could be used to support the “from” approach? What evidence could be used to support the “with” approach?
- Various states have proposed technology competencies for K-12 teachers. What should be a minimum set of technology competencies expected of new university faculty in your discipline today?
- Is teaching in your discipline primarily “instructivist,” “constructivist,” or something all together different? What are the implications of online universities such as: <http://www.capella.edu>; <http://unext.com/>; and <http://online.phoenix.edu/> for the dominant ways of teaching in your discipline?
- What do you predict for the future of computers in higher education?
- What does the future of computers in higher education mean for your personal future as an academic?

Please let Tom or Lisa know if you have any questions about this exam or need any help in coming up with approaches to addressing the questions. Thank you.

