Wikipedia, Blogs and Podcasts: Does technology change the way we learn?

Learning technologies and learning systems are changing dramatically and the Chais Research Center for the Integration of Technology in Education is in the forefront of studying these changes.

Once, not so very long ago, students gathered information by listening to face-to-face lectures, searching the stacks of libraries and reading books. Quaint as it seems, papers were written in longhand or typed on typewriters. Today, learning involves technology unheard of only a decade or so ago.

Not only do students routinely make use of the Internet and its many ramifications, but they actually participate in writing their own texts, through computerized compendia of information such as Wikipedia, blogs and other techniques such as video-conferencing. But with change, come ethical and practical dilemmas. Can encyclopedias written by members of the public, like in Wikipedia, be trusted to be unbiased and accurate? Will students of the future, who become proficient on the computer at an early age, learn differently? Will they in fact participate in writing their own courses, and if so, is this a desirable thing? And does early dependence on the computer reduce people to unsocialized robots who are unable to connect with others in the traditional sense?

In the forefront of exploring dilemmas like these is Prof. Yoram Eshet, who heads the Chais Research Center for the Integration of Technology in Education at the Open University. The Center's instructional technology researchers promote understanding of instructional technologies through innovative theoretical and practical research, seminars, projects, conferences and study groups. Such seminars have been attended by people from many fields, including the IDF and police.

The work of the Center is helpful to The Shoham Caesaria Foundation Center for Integrating Technology in Teaching at the Open University, which serves to translate these technologies into practical methods and systems of study for the benefit of the University's students and for enhancing the quality of teaching.

Among the fields explored are the theoretical foundations of learning; instructional technology and distance education; incorporating information and communication technologies into the design of instructional systems for distance education and determining how these technologies affect the learning process and its achievements. Chais researchers also explore ways to develop computer-enhanced instructional strategies that respond to students' individual needs and the pedagogic contributions of emerging technologies to teaching and learning, such as group dynamics, psychological and behavioral effects and gender differences.

Wiki Learning

Asked about Wikipedia, Prof. Eshet notes that it has become remarkably popular, with more than a million entries written by people from all over the world and 350,000 in Hebrew alone. It's a technology that simply can't be dismissed.

But can it be depended upon? "That's an interesting question," says Prof Eshet. "On one hand, not everyone who writes in it is educated or impartial. On the other hand, research published in "Nature" showed that the information it contains is not far, in terms of accuracy, from the infor-mation in the Encyclopedia Britannica, which is written by experts."

Some of the research projects now being conducted at the Chais and Shoham Centers include an exploration of technology that allows students to write their own study material and plan their own courses, as well as a study on the possibility and the value of using blogging at the university.

Blogging, says Prof. Eshet, is also ubiquitous, and in fact, podcasts on which millions of people record music today are a form of aural blogging. All this, he adds, contributes to the possibilities that will be open to students using the new technologies. They are likely to change the way the students relate to their instructors.

"You can compare it to raising children. At first, the child is the one being instructed, but in time, the things learned give him other possibilities for instruction," he explains, "It's the same with studies. Courses will be conducted so that every student can choose the most effective technological path. For example, courses can be conducted with the help of lectures, videotapes, recordings or written texts. This can

be especially suitable for dyslexic or sight-impaired students."

Children of the future, he notes, are likely to learn differently than they do today, and in fact, research has shown that there is already a great dependence on the computer and a development of related skills. For example, Dr. Joel Klemes of the Open University and Prof. Yoram Eshet of the Chais Center collaborated with Dr. Lyn Henderson of James Cook University in Australia to study the computer game culture that has developed over the past decade to become a universal culture. They found that 98% of the 800 13-14 year olds they studied said they play digital games every day or most days. On average, boys spent 20 hours a week and girls 18 hours a week on such games. Their preference was for competitive computer games, sports and shooting. These demanded high technical and cognitive skills such as hand-eye coordination, quickness of thought and flexibility that enabled them to play the games successfully.

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Says Prof. Eshet, "Computer games are simulations of reality and we can see them entering even in army training. The army of the future is an army of games, and battles in the future may well be conducted in ways not very different from today's computer games. Pilotless planes are an example."

The downside, perhaps, is that because there are only so many hours in a day, children are spending less time socializing face to face and reading books.

"When such a child gets to a university and has to read a 500-page book as a course requirement, he has a problem. He is used to going into an Internet site and finding an answer in two minutes," say Prof. Eshet. As for socializing, while kids do communicate with others on the Internet, they are not actually visiting friends and playing traditional games. They are playing computer NBA, not marbles or ball.

Although at the Chais Center, a wide variety of studies on all facets of learning and technologies are currently being studied, Prof. Eshet notes that "the field is still in diapers. We expect to see a great many discoveries made in the future."

The Wiki Way for Students at the Open University

Wiki, an Internet application that allows co-editing of the contents of web pages by various participants and a way to analyze and understand the evolution of the process, has become an important part of the Open University technological distance learning tool-kit. This year, many students at the Open University will take part in an innovative pedagogical experiment which will assess the effectiveness of this technology in their studies and determine its future potential.

Some 25 courses in a variety of disciplines are involved, supported and mentoring by Shoham – the Center for Technology in Distance Education at the Open University. In the Wiki system, both instructors and students are involved in writing collaboratively through the Internet. Students participate in preparing assignments, which the instructors can then assess using Wiki tools. Not only can the instructors assess the final result, but they can also monitor the progress, quality and personal contribution that each student added to the shared assignment during its preparation.

According to Edna Tal-Alhasid of Shoham, "Wiki technology, through its special technological qualities, has made possible a new way of distance learning, by identifying the individual contributions of each student. Wiki shows how every individual uses it and thus provides a transparent system that allows instructors to judge every contribution of every participant."

Wiki in action at the Open University was the subject of a presentation at the recent EDEN conference (European Distance Education Network) in Naples.

"Our progress and innovation made a great impression, and many participants asked us for information, tips and instructions how to organize such joint assignments in their university," said Dr. Hagit Meishar-Tal, instructional supervisor and Shoham staffer, who has also been invited to talk about Wiki technology in Israel at the Open University in Great Britain.