



Technologies for Education vs Technologies for Learners

The importance of providing learners with cutting-edge technologies

Dr. Richard Halverson

These are exciting times to be involved in bringing about the future of schools and education. The revolution in information technologies is changing the way we think about schooling and education.

New technologies are directly challenging the ways schools have traditionally been organized. For centuries, our understanding of education has been defined by information scarcity with limited access to experts, knowledge and skills.

Now, our education debates typically begin with the need to define core content and learning standards, and to assess students, teachers, leaders and schools on the degree to which they can achieve these school-specified standards.

■ Technology and School Reform

One way to capture the tension between technology development and school reform is to contrast the kinds of tools that have been readily embraced by schools with those that have been resisted. Schools tend to embrace the kinds of technologies that organize learning for students, and tend to resist technologies that allow learners to follow their own interests.

Traditional schools are organized for learners; new technologies allow

for the creation of learning environments by learners. This tension has had unfortunate consequences for how schools learn from information technologies. The kinds of technologies that genuinely transform learning, design and research have made slow progress in schools while the technologies that measure the results of existing instructional agendas have made great headway.

■ Schools Embrace Technologies for Educators

Schools have come to embrace technologies that policy makers and leaders use to account for the quality of academic work in schools.

Tools such as student information systems, benchmark assessments, and state testing systems create and store data that document progress



toward educational outcomes. These technologies are best suited for collective learning goals regardless of the learning needs of individual students, and are designed to make the greatest impact on the greatest number of students.

The most widely adopted teaching technologies emphasize computer adaptive learning approaches that pace students toward school-defined learning goals. Efficacy and fidelity of implementation are the marks of successful technologies for educators. The technologies of accountability and standardized instruction have proliferated wildly in schools, and, we argue, have come to define the contemporary discourse of data-driven instructional change in schools.

■ Schools Reject Technologies for Learners

Technologies for learners (such as media production tools, blogging tools, but also video games, fantasy sports, fan fiction, and on-line stock trading) have not proliferated widely in school instructional programs, because they challenge the standards-based, institutionally controlled agenda for determining what learners will learn that guides school design.

School technologies direct the flow of information away from the learner and toward system managers. This is true in the case of accountability systems, where data flows from the classroom and to administrators. It's also true in the case of formative feedback systems, where data flows from the learner to the teacher. With technologies for

Technologies for learners

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LEARN MORE at Convention

Dr. Richard Halverson
(see “Meet the Presenter”
on page 22) will be
presenting a special
featured session on

Thursday, January 24, 2013,
“From Technologies for
Educators to Technologies
for Learners” at the State
Education Convention. This
session will expand on some
of the ideas and topics dis-
cussed in this article, including
bringing in learner-friendly
technologies such as social
networking and web interac-
tivity in to the classroom.

learners, the technology user is the recipient of the data flow. Information generated by the learning process is used by the learner to guide the learning process.

Education Innovators

While schools around the world are being left behind during the greatest revolution we have seen in learning technologies, we are also in the midst of one of the most ambitious eras of private investment in education.

Higher education initiatives, such as Coursera and Western Governors University, are attempting to reinvent graduate and undergraduate education. Programs like New Leaders offer a non-traditional, practice-driven path toward becoming a school leader while Teach for America leads the way for new organizations to redesign how we induct and train the next generation of teachers.



The New School Venture Fund and the Gates Foundation have invested millions in new approaches to teaching and learning. New platforms for social interaction through gaming and information exchange continue to expand outside of education. Each of these initiatives sparks new forms of social interaction and

personal control over the learning process that challenge the traditional organization of education.

These new initiatives all explore, to some extent, how information technologies enhance our access to information, our capacity for interaction, our abilities to manage learning opportunities, and the

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MEET THE PRESENTER: Dr. Richard Halverson

"From Technologies for Educators to Technologies for Learners"

Thursday, Jan. 24, 2013 | State Education Convention



Dr. Halverson's research aims to bring the research methods and practices of the Learning Sciences to the world of educational leadership. His research explores the use of data-driven instructional systems in schools, and the development of game and simulation based tools for professional learning. He currently co-directs the Comprehensive Assessment of Leadership for Learning (CALL) study to develop an on-line,

360-degree formative evaluation system for school leadership. Dr. Halverson's work integrates how classical ideas of wisdom and practical knowledge can be used to understand the complex work of contemporary school leaders. Dr. Halverson co-founded the Games Learning and Society (GLS) research group at UW-Madison. He is a Fellow at the Wisconsin Institutes for Discovery, and is an affiliate member of the UW-Madison Curriculum & Instruction and Educational Psychology departments, and a founding member of the UW-Madison Learning Sciences program area. ●

benefits of data-driven feedback on learning.

The widespread access to information has also fostered new forms of designed learning experiences that lead to different forms of disciplinary organization of knowledge.

Media and game design, for example, or data mining and social network system design, offer new information-rich approaches toward organizing skills and content. Participants who are able to successfully navigate, control and participate in the information flow can feel a giddy sense of liberation from traditional education practices and opportunity to design new kinds of practices built around abundance rather than scarcity.

■ Looking Ahead

While public schools have consolidated their instructional approaches around helping all students achieve basic skills in reading and math, the new learning technologies have sparked the seeds of a new system.

We do not yet know whether, or how, the public commitment to provide access to our existing knowledge will accommodate these seeds of a new system. We also do not know how the moral commitment that guides public schooling, that is, to ensure an equal opportunity for all children to benefit from a high-quality education, will fare in a world in which private interests drive all innovation.

At best, schools may partner with technology innovators to integrate new tools with the best of public schooling to increase access for learning. At worst, a yawning digital divide may open where back-to-basic public school students will be unable to contend with better-equipped students who can use new technologies to accelerate learning.

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The promise of transmission and opportunity are expressed in an argument about the role of public education in civic and economic life. Advocates of public schooling hope that opportunity will follow from participation in education.

We justify our extraordinary investments in education as our commitment to building a better world. As we live through this second education revolution,

brought about by information technologies, we hope we can learn from the extraordinary story of how the birth of public schooling integrated the best of what was known about teaching and learning into a world-changing system for universal schooling. ■

Halverson is a Fellow at the Wisconsin Institutes for Discovery and is an affiliate member of the UW-Madison Curriculum & Instruction and Educational Psychology departments.