



Association for Educational  
Communications and Technology

# iTECH DIGEST

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## The Internet and Education in the Developing World Hopes and Reality

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Every major development in technology triggers hopes in developing countries in regard to its potential impact on education. Internet technology has significantly contributed to furthering education in the world. The World Wide Web and search engines have made information on demand a reality. Low cost models for supporting learning, such as Massive Open Online Courses, are kindling new hopes in developing countries. Lower cost Internet access devices, such as tablets, phablets, and smart phones have addressed the pro-

blem of device affordability to a significant extent. The widespread use of cell phones opens up the possibility that many or most of them could be used as windows to the world of information and knowledge over the Internet.

**Research questions.** Is the stage set for a major revolution in the way technology can facilitate education in developing countries? What does published information from credible sources indicate about reality on the ground? Does rapidly evolving technology leave behind sections of the population, or is there uniformly good use of the new tools to promote learning? What should we expect

This article is excerpted from *Smart Learning Environments* 2:8 (2015). Read the full text by logging in at the AECT website, <http://aect.org/>, and clicking on Publications.

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### CALL FOR PAPERS

Check out calls for papers, proposals, and participants. Get involved.

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### JOURNALS

Members have instant online access to a wide variety of journals.

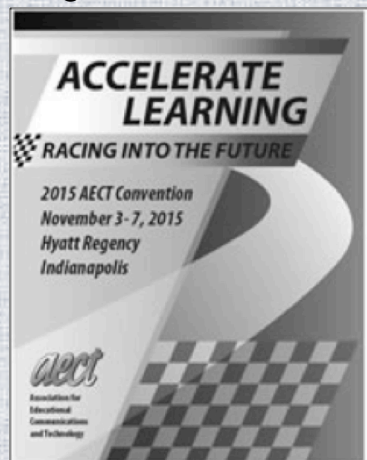
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### ISSUES IN FOCUS

The column this month highlights student privacy issues.

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## Calls for Papers, Proposals, and Participants

**Call for Proposals.** Need funding to develop a research proposal? Consider applying for a Collaborative Research Grant. The purpose of the grant is to provide monetary support to enable association members to develop research project proposals that include active collaboration among researchers, research institutions, and AECT. Information at <http://aect.org/>.

**Call for Papers.** The AECT flagship practitioner journal, *TechTrends*, is seeking manuscript submissions, including from international and newer authors. For more information, see the Instructions for Authors online by clicking on Publications on the AECT website: <http://aect.org/>.

AECT's premier research journal, *Educational Technology Research and Development (ETR&D)* also welcomes submissions on topics of interest from new and experienced researchers.

**Call for Speakers/Writers.** Looking for a keynote speaker or someone to write for your publication, or want to be that speaker or writer? Check out the new AECT Speakers/Writers Bureau at <http://aect.org/>.

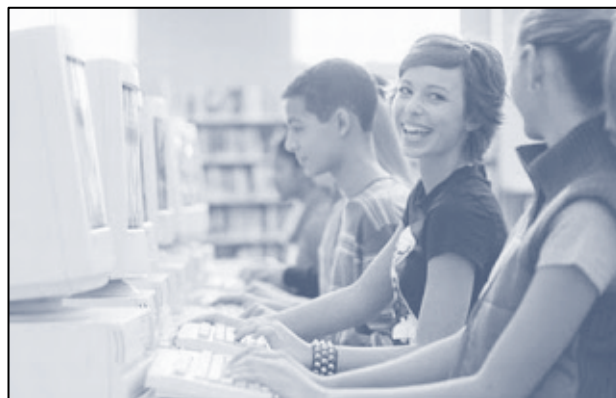
**Call for Manuscripts.** AECT, in collaboration with Springer, has announced a new series of books and monographs under the title, "Educational Communications and Technology: Issues and Innovations." The series will extend AECT's ongoing publications with Springer and offer the Springer Briefs innovative format to AECT authors and contributors. More information for potential authors at <http://aect.org/>.

**Call for Videos.** "We Are AECT" is an opportunity to share how members define AECT. What's your "elevator speech" description of AECT? Think of this project as making your "elevator video," 3-5 minutes (or shorter, 15-60 seconds), something you might share on your smartphone with a new colleague who asks, "What's AECT all about?" Complete directions can be found at <http://aect.org/>.

**Call for Policy Briefs.** AECT has created an series of policy briefs that set out association policies for reference by lawmakers and other policy makers. Consider drafting a policy brief. More at <http://aect.org/>.

## Unraveling the Motivational Effects and Challenges of Web-based Collaborative Inquiry Learning Across Different Groups of Learners

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Since in-depth, large scale motivational research based on the self-determination perspective and with a focus on the relation with student and class-level characteristics is lacking, this research tries to meet this gap by investigating the following research questions:

1. What are the effects of the implementation of WISE [web-based collaborative inquiry] on student motivation for science learning (autonomous and controlled motivation)?
2. To what extent are the motivational effects related with student and class-level characteristics?
3. Do more qualitatively motivated students achieve higher learning outcomes?
4. How do students experience the WISE intervention regarding the need for autonomy, competence, and relatedness, and what are students' future preferences regarding WISE?
5. To what extent are students' experiences and future preferences related with student and class-level characteristics?



This study is embedded in a larger research project that extends over five years and aims to contribute to three science outcomes: that is, knowledge acquisition, inquiry skills, and motivation for science. . . . The participants in this study were 220 students from 13 secondary school classes (grade 9 and 10).



Regarding the effects on autonomous moti-

vation, multilevel analyses revealed that although general track students had a significantly lower motivation for science prior to the intervention, these students realized a significant improvement in motivation, whereas science track students' motivation, which was already high, has not significantly changed. Regarding the effects on controlled motivation, it was found that general track students' controlled motivation for science is significantly higher than the motivation for science reported by science track students, yet no significant main effect for academic track was found regarding the change in controlled motivation after the intervention. Based on these results, we can state that the hypothesis of an increased autonomous motivation for science learning is not entirely confirmed, but only holds for general track students. This result is promising given the fact that prior research has indicated that general track students are often disadvantaged in science in the way that they receive less challenging instruction consisting of teacher-centred knowledge transmission.

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*Editor's note:* Excerpt from a case study. Reference citations have been omitted. Readers are encouraged to read the full text in *Educational Technology Research and Development* 63; published online April 2015. AECT members have online access at <http://aect.org/>. Click on Publications.

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#### **AECT Mission**

The mission of the Association for Educational Communications and Technology is to provide international leadership by promoting scholarship and best practices in the creation, use, and management of technologies for effective teaching and learning in a wide range of settings.

#### **Goals:**

- Define the disciplines and professional activities that comprise the field of educational communications and technology.
- Serve and represent professionals in the field and support professional growth.
- Advance scholarship and practice that contribute to and enlarge the knowledge base of the field.
- Promote policies that ensure the humane and ethical use of educational communications and technology at all levels, from the personal through the international.

### **The Internet and Education...continued from page 1**

from the future, and what should we do to overcome problems identified?



[Editor's Note: It is impossible to do justice to this detailed study. In the Results and Discussion section, the writer takes up a number of fascinating topics, including suitability of mobile devices in rural areas; teacher versus machines; the language barrier; computer related skills, aspirations and the language divide; content in Indian languages; using common tools for text entry, transliteration and translation; the problem of search; the human machine interface; ruggedness, repairability, and technical support; the economic context of secondary education in India; and mobile Internet revenue per customer.]



**Conclusions.** It is common to see defence ministers and army chiefs declare that the man behind the machine is the major determinant of victory in combat. It is important to recognize, similarly in education that teachers, librarians and technical support staff are critical to success in integrating technology into education. Ambitious plans to use technology in education should use a competence building approach rather than the "cargo cult" approach....

The commercial world is primarily focused on selling international standard equipment at international prices as the bulk of easy profits lies in such sales. In many countries, depending on only commercial initiatives could leave up to 80% of learners without the benefits of computers and the World Wide Web. This has been borne out in the Indian context by earlier discussions in this paper on the use of English and other languages over the Web. Focus on rugged, low cost equipment designed for sustainable use in the local environment is very important to serve rural learners. Creating content in their languages, integrating the use of computers and access to the Web into the curriculum are equally important. Major projects in these areas can succeed only when a large number of teachers are trained and motivated to use the new technology.

Cost of access makes it very difficult to depend only on cellular technology to take the Internet to learners all over the country. Public funding of access to the Internet over WiFi from public libraries and schools is worth serious consideration.... [Please read the full study online. —Ed.]

## Member Access Publications

### ***Educational Technology Research and Development (ETR&D)***

Bimonthly  
ISSN: 1042-1629 (print)  
ISSN: 1556-6501 (electronic)  
Journal no. 11423  
Springer US

### ***TechTrends***

Bimonthly  
ISSN: 8756-3894 (print)  
ISSN: 1559-7075 (electronic)  
Journal no. 11528  
Springer US

### ***Instructional Science***

An International Journal of the Learning Sciences  
Bimonthly  
ISSN: 0020-4277 (print)  
ISSN: 1573-1952 (electronic)  
Journal no. 11251  
Springer Netherlands

### ***International Journal of Designs for Learning***

Semiannual  
ISSN: 2159-449X  
(electronic)  
AECT

### ***Journal of Applied Instructional Design***

Semiannual  
ISSN: 2160-5289  
(electronic)  
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Visit the AECT website <http://aect.org/>, log on, and click on Publications for instant access.

## Strategic Plan in Action

### **Certificate Program Endorsement in Brief**

Does your institution offer a specialized certificate program? AECT has a procedure for endorsing certificate programs. The AECT endorsement can validate designated programs and may provide a competitive advantage to the sponsoring institutions.

Specialized certificate programs are proliferating, particularly as colleges and universities expand their curricula to meet the changing needs of business, industry, and education. Many certificate programs are related to aspects of technology and education, such as a specialist certificate in instructional design or distance education. Consequently, AECT has been approached to endorse such programs.



Such endorsement is intended to validate the designated programs, which may provide a competitive advantage for the sponsoring institutions. In turn, endorsement serves to reify the integrity and standing of AECT as a leading professional association in the field of educational communications and technology.

The AECT endorsement program complements the AECT Strategic Plan, in particular Goals 2 (who we are, what we do, how we serve society) and 4 (sustain an organization of professionals who study and use technology for training and education).

For more information, see the AECT homepage or contact AECT Executive Director Phil Harris for details.

*Issues in Focus*

## Privacy in the Spotlight

Privacy issues came back into the spotlight this spring with news that Pearson, the testing giant, was monitoring social media activity during administration of the PARCC (Partnership for Assessment of Readiness for College and Careers) test for the Common Core. “Monitoring the Internet for security breaches is one thing; however, it’s very troubling that Pearson is combining PARCC data with students’ alleged personal social media content, and then instructing schools to discipline students because they don’t like a particular tweet,” according to Bradley Shear, a lawyer who counsels educational institutions about technology law and policies (quoted in Brown 2015).

The Consortium for School Networking (CoSN.org) and the Data Quality Campaign released a list of ten privacy principles that they believe provide guidance. A number of organizations have indicated support for these principles (see [studentdatapinciples.org](http://studentdatapinciples.org)):

1. Student data should be used to further and support student learning and success.
2. Student data are most powerful when used for continuous improvement and personalizing student learning.
3. Student data should be used as a tool for informing, engaging and empowering students, families, teachers and school system leaders.
4. Students, families and educators should have timely access to information collected about the student.
5. Student data should be used to inform and not replace the professional judgment of educators.
6. Students’ personal information should only be shared, under terms or agreement, with service providers for legitimate educational purposes; otherwise the consent to share must be given by a parent, guardian or a student, if that student is over 18. School systems should have policies for overseeing this process, which include support and guidance for teachers.
7. Educational institutions, and their contracted service providers with access to student data, including researchers, should have clear, publicly available rules and guidelines for how they collect, use, safeguard, and destroy those data.
8. Educators and their contracted service providers should only have access to the minimum student data required to support student success.
9. Everyone who has access to students’ personal information should be trained and know how to effectively and ethically use, protect, and secure it.
10. Any educational institution with the authority to collect and maintain student personal information should:
  - have a system of governance that designates rules, procedures and the individual or group responsible for decision-making regarding data collection, use, access, sharing and security, and use of online educational programs;
  - have a policy for notification of any misuse or breach of information and available remedies;
  - maintain a security process that follows widely accepted industry best practices; and
  - provide a designated place or contact where students and families can go to learn of their rights and have their questions about student data collection, use, and security answered.

Brown, J. (2015, April 9). “Debate Over Student Social Media Monitoring Takes Center Stage.” Center for Digital Education. <http://www.centerdigitaled.com>.