Q & A with Ed Tech Leaders

Interview with Curtis J. Bonk, Mimi Miyoung Lee, Thomas C. Reeves, & Thomas H. Reynolds

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1. As co-editors of "MOOCs and Open Education Around the World," how would you define a MOOC?

This is controversial and many people have attempted to answer it in 10-minute video clips as well as long technical reports or even book chapters. A massive open online course or MOOC is just that—it is large (typically involving over a few hundred people, with some MOOCs enrolling thousands or even tens or hundreds of thousands). It is offered using online technologies. The true "openness" of MOOCs, however, may be the most controversial aspect of the MOOC acronym (*cf.* Wiley, 2015). To be clear, there are many encroachments on openness in terms of cost and equitable access, especially in terms of language and content. As such, on the one hand, MOOCs can be free and open to anyone who is interested in the topic and has an Internet connection. On the other hand, there are notable exceptions, e.g., when a MOOC is intentionally designed to limit access after a specific time period. Far less controversial is the general agreement of the representation of a MOOC learning opportunity as a "course." Now there are many MOOC-like spin-offs and derivatives with additional acronyms that we discuss in the preface of our book (Bonk, Lee, Reeves, & Reynolds, 2015). Readers might also find answers to your question in a special issue of the

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International Journal on E-Learning on MOOCs and open education (Lee, Bonk, Reynolds, & Reeves, 2015). More details on each, including the prefaces to both the book and the special issue, can be accessed at *http://moocsbook.com/* .

2. In your opinion, should MOOCs be "standardized" and to what extent?

We four authors probably have four different opinions on this topic. Standardization might be desirable in terms of the content and the professional standards to which the content aligns, the technology employed, or the delivery methods. In terms of content, standardization can play a favorable role if there are a specific set of skills which the MOOC was designed to address. However, like openness in our response above, MOOC content is quite controversial; in part, since the content and the standards content represents are not value free. Quite the contrary, as anyone who has waged curriculum battles will attest—what gets taught is packed with potential conflict.

In terms of technology, ideas about standardization might help learners or participants become more familiar with the system or toolset that is required to be a successful MOOC learner. Regarding delivery, if there are norms or certain expected delivery processes, it can help prepare the learners for the journey in the MOOC, and, thereby, perhaps even increase retention and completion rates. But here again, as is evidenced in our book, instructional approaches and delivery tools for MOOCs vary with regard to the learner characteristics, design of instruction, and role of instructor. So, the answer to your question is "not at this time." MOOCs are still evolving and we do not want to lose the creative spontaneity of the MOOC movement and the chance for more flexible and personalized forms of learning to be generated. As researchers like George Veletsianos point out (Veletsianos, 2015; Veletsianos, Collier, & Schneider, 2015), first we need better understanding of the learner experience.

3. In relation to the previous question, does a "standardized MOOC" defy the definition of what a MOOC is or does?

The term "standardized MOOC" is undesirable. Are there certain standards regarding usability, the validity of assessments, or other factors that could be applied to MOOCs? Certainly. Again, it depends on the goals and intended outcomes. Some courses are more preset in terms of the outcomes that are expected of the learners or participants; for example, a MOOC on Python programming or an advanced placement MOOC in Spanish or physics for high school students would have more clearly established goals and objectives. In contrast, a MOOC organized around the problems, needs, and interests of the learners who participate, such as a MOOC on gun control in the United States or one on human trafficking (Watson, Loizzo, Watson, Mueller, Lim, & Ertmer, 2015), would likely take on a much more organic and fluid form.

4. With governments developing and getting involved (creating, administrating, and teaching) with MOOCs, are you concerned about the quality of content and possible misuse of MOOCs for content delivery and propaganda?

First, we readily acknowledge that all education is in one sense a political act. As such, MOOCs, as just another form of content delivery, can be used for whatever ends they serve—from propaganda to social justice. In terms of propaganda, there recently was a MOOC from Tsinghua University in China which focused on the philosophies and role of Mao Zedong (Logue, 2015). Unfortunately, there were serious omissions from the course or historical facts that were glossed over, such as economic reforms that led to a severe famine. However, the MOOC platform provider, edX, argued that it will not judge the content and will not censor such a course unless the content is deemed illegal or offensive. Nevertheless, *Inside Higher Ed* writer Josh Logue raises an important question: "Should a MOOC provider led by top American universities host a course so many believe to be obvious propaganda?" Given the potential audience reach in a MOOC, these types of issues and concerns will likely rise in importance in the near future.

Of course, we are concerned with the quality of course content. In fact, we have a section in our book related to the quality of content used in MOOCs and open education. There are three timely and insightful chapters in that section, from scholars in India, the United States, and the Netherlands. These researchers have designed schemes and frameworks for evaluating the quality of open educational content, including MOOCs. As mentioned earlier, we also have the special journal issue of the *International Journal on E-Learning* related to MOOCs and Open Education that also came out in 2015 (Lee *et al.*, 2015). The final article of the special issue (Reeves & Bonk, 2015) directly addresses this question of quality in higher education. (For the free preface to the book as well as to the special issue and other details, see *http://moocs book.com/* .)

5. Do you have a preferred paradigm or teaching and learning approach when developing or creating MOOCs?

MOOCs come in quite a few formats. Not surprisingly, MOOC formats align with different models of learning and approaches to instruction. For example, you may have heard of xMOOCs that have the look and feel of more traditional types of courses and that use more direct instructional methods and ways of assessing knowledge or professional competence. There are also cMOOCs or community and participant-oriented MOOCs that are more reliant on connectivist learning theory wherein there are extensive opportunities for sharing knowledge and co-learning among the participants (Siemens, 2005). A cMOOC is intended to promote knowledge construction and integration versus the knowledge reproduction that characterizes xMOOCs. Reeves and Hedberg (2014) described a third type of MOOC, the pMOOC, which essentially boils down to problem-based learning principles as the core defining pedagogy for a MOOC. And then there are hybrids that include various types of pedagogical blends. We do not have a preferred teaching and learning approach, but rather would include those pedagogical dimensions in the development of a MOOC that are most appropriate for the objectives, learners, content, etc. Simply put, it's all a matter of design.

6. If the majority of the MOOC's participants are self-directed learners, what does this mean for the evolution of the MOOC environment, and what might be the best fit or design?

As yet, there is no definitive data on the percent of learners in a MOOC who are self-directed. What is clear, however, is that the world of the mid-21st century will require a greater degree of self-directed learners than the world of the late 20th and early 21st centuries. Of course, this trend is affected by the numerous learning directions that are becoming available as well as the changing professional expectations that embrace and reward self-direction and lifelong learning. In such a context, MOOCs can play a vital instructional role in fostering self-directed skills. In fact, they can be used by educators to showcase the utility of such skills. Without a doubt, some of the same decision-making, prioritizing, problem-solving, problem-finding, and content-evaluation skills that are needed when using other forms of online informal learning content and resources (e.g., Wikipedia, Ask.com, the Khan Academy, WebMD, or MIT OpenCourseWare (OCS) are also valuable when participating in MOOCs).

7. While most MOOCs seem to be higher education related or specifically designed for adult learners, do you foresee a time wherein MOOCs could be effective for younger students, especially those in disadvantaged situations and in developing countries?

It is already happening. For example, edX already has devoted some of its resources to helping high school students. As part of these efforts, MOOCs are being used to "flip the classroom" by middle school teachers in math and computer science classes. There are many needs being met by K–12 MOOCs—such as advanced placement, remedial education, or serving a specific niche role, such as when or where there is a lack of teachers. In fact, already in India, Rwanda, and other developing countries, shared online video lectures (e.g. the Khan Academy; see Chandrasekaran, 2012; O'Neal, 2013) and other such open content are finding their way into learning situations where there are limited teachers.

8. Since most MOOC courses are offered "free" or for a discount price (compared to a standard university fee or tuition) in order to obtain credits/certificates, do you think the "market" or financial funding may eventually be the driving force behind MOOCs? If so, how do you think MOOCs would change for the better or worse?

First, we readily admit that throughout the short MOOC history or experimentation period, the bill has been picked up by stakeholders and other interested parties, e.g., universities, private venture capital, industry, and philanthropists. It would be naïve to think that funding to this point has been entirely the result of altruism and not subject to market-driven concerns. To highlight this point, Coursera has announced that it is getting an infusion of $60 million in venture-capital funds (Young, 2015). A spokesperson from Coursera mentioned that young people in their 20s and 30s want the skills that MOOCs provide to prepare them for their jobs and career advancements. As such, for them, MOOCs are already a key aspect of their planned educational endeavors.

To what extent those plans include remunerating the MOOC provider is not known. Of course, a series of MOOCs could be offered for a low-cost mini-degree or certificate. We have also heard of others who use the term "nanodegree" (Waters, 2015) and microlearning (Grovo, 2015). Here, learners are being taught the exact skills that they need to know to be a Web designer, graphic designer, programmer, screen writer, or Android developer. While such an approach is increasingly popular and quite successful from a job-placement perspective, it seems that there are many business models already shaping the MOOC playing field, including small application fees, assessment fees, and certificate of completion fees. It also seems pretty obvious that the modularization of content and such mini-degree programs will experience tremendous growth in the coming decade. So, yes, in the area of monetized professional development, MOOCs are viable.

9. Who decides that MOOC certificates are valuable and for what purpose? Naturally, it is good that individuals see a benefit to learning for the sake of acquiring knowledge. However, will a perspective employer? What is the value of a MOOC education?

Educational experiences and certificates attained via MOOC participation are part of a much larger movement that currently is working to codify and award credit for life experiences outside of formal educational situations. In many ways, the issues that MOOCs and their certificates raise are far less stringent than those from other experiences, as many MOOCs are more aligned with typical educational offerings. It goes without saying that a wide array of formal and informal work and lived experiences may be harder to align with and assess as professional competencies.

Ironically, a decade or two ago, many people asked these same questions that you ask, but they were concerned with online and blended learning, not MOOCs. If you will recall, corporate leaders were quite hesitant about such "unique" forms of learning delivery back in late 1990s and early 2000s, Today, corporate and university leaders are embracing such learning opportunities, in part, since over a decade of research substantiates that online and blended learning experiences result in professional competencies equal to those from traditional onsite classes. Times have changed. In the coming decade, the same thing will happen related to MOOCs and the professional competencies validated via certificates and other forms of credentialing.

10. After reading your book, it appears to us that there are many types/designs of MOOC environments with various intended outcomes. Where do you see the possibilities of MOOCs going in the future as a positive force for change in education? Where do you see the pitfalls and possible negative aspects of MOOCs on "educational change" in the future?

MOOCs and other types of open education can help in areas where there are severe skill deficiencies. They can also help with remedial learning to better prepare young people for college study. And once the degree is completed, MOOCs will function as a tool for alumni to revisit the college or university setting in a virtual manner. At the same time, MOOCs will be embraced by politicians and edu-

cational administrators who seek a quick solution to shrinking budgets as well as better ways to address the clamoring for higher education degrees from large swaths of the population that never sought such advanced forms of education in the past.

In effect, MOOCs and other forms of open education can often be paraded around town like some shiny new object that will solve all that ails society. Such thoughts are severely misguided at best and unethical at worst. However, as a force for educational change, MOOCs clearly hold promise in addressing issues of access across the globe. As to the design of the education that is accessed, the fact that the dominant instructional design seen in xMOOCs is reliant on canned videos, peer assessment, and duplication of knowledge does not auger well for any drastic educational reforms coming about as a result of current MOOC designs and directions. As shown in a recent study from Ken Koedinger and his colleagues at Carnegie Mellon University, video lectures and readings alone are not enough; learning in a MOOC is significantly enhanced when there are interactivities and opportunities to do something with one's learning (Koedinger, Kim, Jia, McLaughlin, & Bier, 2015).

11. Does it appear that MOOCs are more widely accepted in other countries than in the United States and Canada? Why or why not?

The people of Beijing, China renamed a building that houses many e-learning start-up companies, the "Zhongguancun MOOC Times Building." More than simply being accepted, MOOCs are being equated with e-learning in places like China (Reich, 2015; Trucano, 2015). Think about it—when you have tens, if not hundreds, of millions of people seeking higher education who had not previously, it is natural for the surrounding society to see something like MOOCs as a solution. There are MOOCs for test preparation, vocational education, language learning, and business entrepreneurship. As detailed in our book, MOOCs are also playing significant roles in places like Australia, the Netherlands, the Philippines, the UK, India, New Zealand, and many other countries. For untold numbers of people in India, for instance, rural access to education in the form of MOOCs to help farmers plan their crop plantings and irrigation has seen immediate impact and acceptance (Venkataraman & Kanwar, 2015). In the Philippines, MOOCs and other types of online courses are thoughtfully planned educational offerings designed to increase high school completion rates as well as fill important and currently open technical sector and other jobs (Bandalaria & Alfonso, 2015). So, yes, MOOCs are widely accepted in some other countries, for very good reasons.

12. From a cultural point of view, what differences have been observed as to how MOOCs are developed and deployed?

It is a complicated issue. Cultural differences are tied to resource allocation and technological infrastructure, government policies and regulations, population demographics, training and familiarity, understanding and acceptance of different instructional design models and principles, and myriad other factors. In the second chapter of our book, Kumiko Aoki (Aoki, 2015) from Japan points out that MOOC adoption has been slow in her country because of specific governmental policies that historically have privileged educational TV. Nevertheless, MOOCs have become widespread in places like Japan and are having a strong impact. Still, this chapter illuminates the challenges and struggles of the Open University of Japan to provide any online education while dealing with government policies and funding issues. And that is just one country. In addition, there is certainly concern in some quarters that MOOCs are just another extension of the perceived hegemony of the Western-style, English-language dominated higher education model that is said to emphasize individualism over community and profit over equity (Altbach, 2014; Head, 2015).

13. Do you think the return on investment (time developing, server expenses, and cost of conducting the classes) is sufficient even when a large number of students do not finish the course? What do you see as some of the primary considerations for agencies who may be thinking of using a MOOC? What recommendations would you give as to measuring its success?

You are asking three important questions here. To the first question, it depends. For instance, what is the size of the MOOC, potential audience, societal benefits, and lifelong learning opportunities? We have to almost stop looking at completion rates and attempt to measure impact rates; such as impact on one's job setting, career, hobbies and interests, family support, self-esteem, identity, life options, study skills, etc. As for the second question, government and non-profit agencies should look at skill deficits that MOOCs, OCW, and OER can address. For example, if a country or region is experiencing severe drought, the development of a MOOC that addresses ways of conserving water could be a timely investment. To answer your third question, we think that measuring the success of a MOOC should go way beyond completion rates and be based upon other variables, such as career advancement, satisfaction with one's job or chosen career, willingness to change behavior, and such.

14. Some have described MOOCs as "modern day correspondence courses" and a comparison could be drawn in that many people are reached with the same content. Technology aside, what differences or similarities do you see at the core of its philosophy?

As Bonk (2013a, 2013b) has pointed out, the correspondence courses he took back in the 1980s when preparing for graduate school typically lacked the feedback and interactivity with peers that you can engage in while taking a MOOC. In effect, while the instructor can provide some forms of support, such as lesson or unit feedback, correspondence courses are typically quite lonely endeavors for the learner. In contrast, MOOCs can offer peer and other forms of support. Such peer support might be in the form of online study groups that have been shown in the research literature to increase MOOC success rates. In addition, MOOCs might offer support in sharing via social media or physically traveling to some location (e.g., a local café, library, or community college) to meet other students. As Paul Kim and Charles Chung (Kim & Chung, 2015) detail in our book, those enrolled in a MOOC often reach out to other participants to fill in the gaps in MOOC content

and resources; often, there is a mini-ecosystem underlying many MOOCs. In a MOOC, there is extensive opportunity to share one's knowledge production and integration. As such, in some ways the "core of its philosophy" depends on the type of MOOC to which you are referring. Imagine a MOOC built around the development of open educational resources by teachers for teachers. Just such a pMOOC was developed and implemented by the Open University of the UK a couple of years ago (Cross, 2013). Clearly, given teacher hectic schedules and constantly changing expectations, teacher professional development MOOCs (pdMOOCs) are rising in importance (Laurillard, 2014).

15. MOOCs have not yet experienced the growth and popularity that were predicted early in their conception. Do you think that the success was overstated—or hasn't been fully realized yet? Why?

That depends on which predictors or predictions you read. In general, yes, there was way too much hype and far too many overstatements early on. This happens with most new or emerging educational reform or technology trends. Step back for a minute, however, and contemplate what has actually transpired. There are now tens of millions of people who have been impacted by one or more MOOC-like experiences. There are hundreds of universities forming partnerships with MOOC vendors like Coursera and edX. And there are many university initiatives, in the hundreds of thousands, if not millions, of dollars to experiment with MOOCs as a delivery platform. Universities like Arizona State have initiated a freshman academy taught with MOOCs. Arizona State and other universities are now better able to disseminate advances in knowledge to alumni as well as potential students because of MOOCs (Lewin, 2015; Stripling, 2015). And now, as noted in an intriguing chapter in our book from Richard DeMillo of Georgia Tech (DeMillo, 2015), many institutions are unbundling the costs of degrees to offer much more competitive master's programs and certificates. On top of that, instructors are gaining experience with this new form of educational delivery and rethinking their traditional courses. And, in many cases, these same instructors are forming hybrids wherein their traditional students are learning from MOOCs. We are doing that in our own courses by having students enroll in a MOOC and learning from it while taking our courses and then writing reflection papers comparing and contrasting the two experiences or integrating them into a unique whole. This is the type of pedagogical innovation that merits further experimentation and extension.

16. Has any study been conducted that would indicate that MOOCs (regardless of their own completion rates) have been used successfully to encourage students to pursue more traditional degree programs?

There are MOOC studies that address a range of factors. Most MOOC studies relate to the continuation of a degree that was on hold. Some MOOC studies explore the pursuit of a new degree entirely; often relying on anecdotal data or a small portion of a larger study. We are not aware of a specific study that only targeted this variable, as important as it might be.

17. What have we neglected to ask?

You did not ask what our goals were for the book and special issue. The preface to the book (which again is freely available at the book homepage) lists many of our goals for the book, including helping others grasp the challenges and barriers facing different organizations when it comes to MOOCs and open education. We also wanted people to begin to discern how culture intersects with open education in different regions of the world. Third, we did not simply want to shine a positive light here when it comes to MOOCs and open education; in fact, we start the book off with a critical chapter from David Wiley (Wiley, 2015) wherein he makes the case that while MOOCs may represent a step forward for educational delivery, they actually are taking us back two steps in terms of open education. Fourth, we wanted the reader to better understand the range of MOOC and open education projects and initiatives around the planet. And we wanted the reader to connect with some of the emotional stories of the various contributors, whether they were coming from World Bank initiatives related to climate change (Jagannathan, 2015) or MOOCs in the developing world from the Commonwealth of Learning (Venkataraman & Kanwar, 2015), or personal stories of MOOC meet-ups from professors like Charles Severance at the University of Michigan (Severance, 2015). We had many other goals for the book. Again, you might read the free preface and discover what they were.

You also did not ask why we did the special journal issue at the same time. Well, the special journal issue grew out of a preconference symposium at the annual E-Learn Conference that was held in Las Vegas back in 2013. Of the 100 participants, about a dozen or so contributed pieces to the special issue. As we collected them it dawned on us that we could extend the project out farther and collect chapters for a book from around the world. And we did. Authors addressed the history of open education, design as well as instructor issues, quality, corporate training, MOOCs in the developing world, open education on the horizon, and the future (Lee *et al.*, 2015). Each project was important and exciting. We were fortunate to meet and collaborate with so many highly talented researchers and scholars whom we now call our friends. It helped that the four of us had collaborated before, enjoyed the experience, and are now already plotting our next collaboration! □

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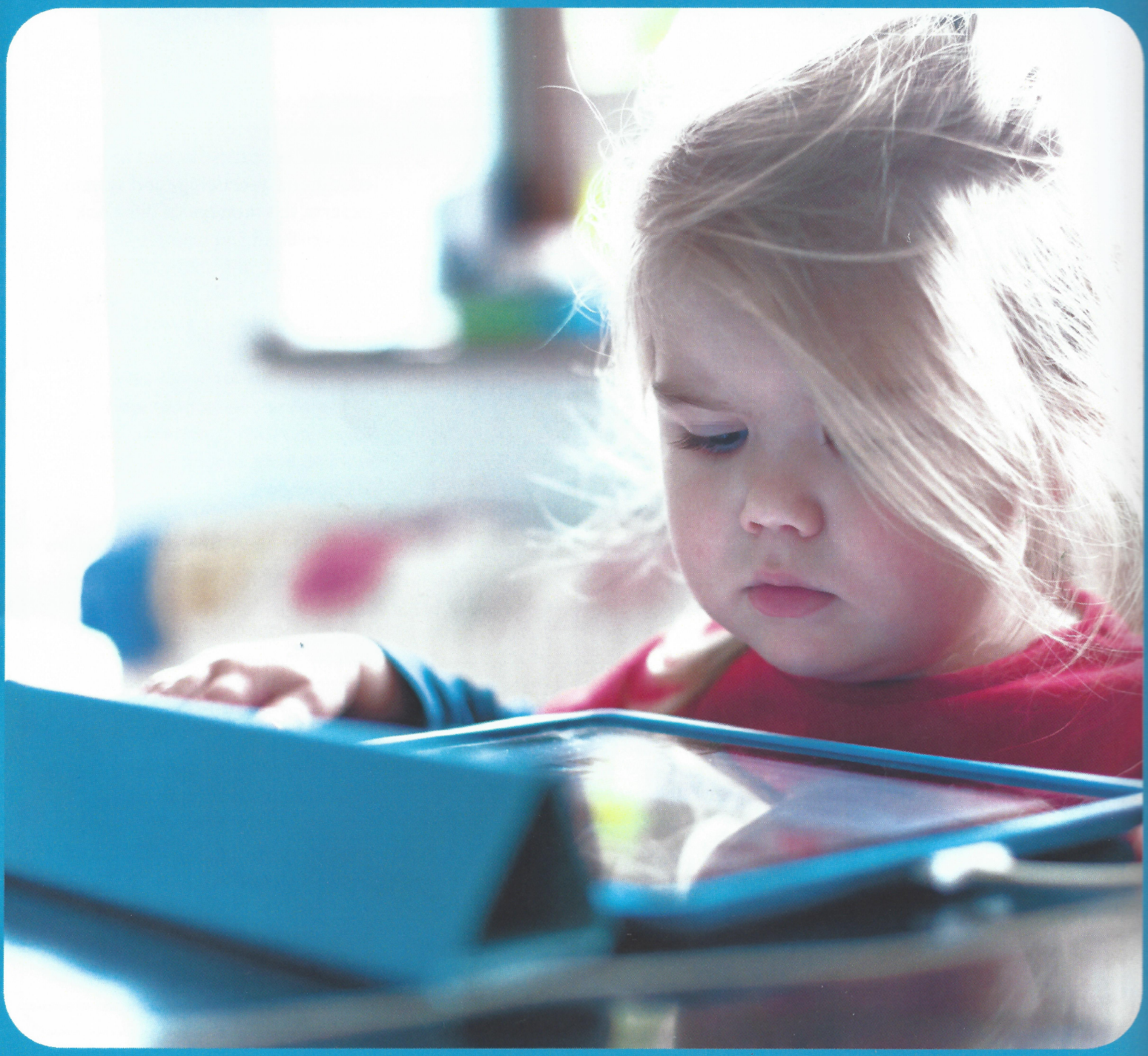

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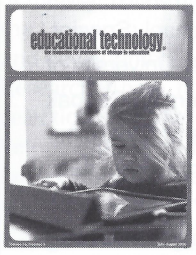

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