For Research on Learning. Thomas is a young, associate professor from USC’s Annenberg School for Communication who has studied computer culture intensively. I believe this cooperation between Brown’s long-term research on learning and Thomas’ deep knowledge about the many new global cultures, composed of millions of citizens who have emerged online, gives these authors both the courage and the knowledge to provide thought-provoking answers to the challenges the educational system currently faces. Theirs is a major contribution to the necessary rethinking of why, how, and where we teach and learn.

Perhaps the most difficult, yet imperative, question in education today is whether or not our teaching goals and methods are still appropriate for educating our children and young people. Concerns stemming from this uncertainty have for years caused unrest among public-education stakeholders—and with good reason, because there is no simple answer. Obviously, we cannot ignore the question and continue to maintain our faith in the present educational system while the surrounding society transforms rapidly. A claim for action is the explicit premise of the book, and Thomas and Brown per-
sistently emphasize that the importance of learning has increased significantly in the knowledge society. According to Thomas and Brown, we need a lifelong ability to learn more than ever, and traditional teaching in schools cannot fulfill this need.

The book’s critique of current educational institutions begins by noting that these schools were developed for societies in which change happened much more slowly than it does today. Traditional educational approaches, where everything new must be taught at a specific place and time, will simply be ineffective when almost every skill and capability—and all our collected knowledge—changes constantly and quickly. Therefore, education must shift from a teaching focus, in which the instructor transfers knowledge to the pupil, to an emphasis on student learning.

Many educators and commentators have sought new educational solutions that can cope with the fast-changing state of affairs, but few have discovered successful ideas. Thomas and Brown believe we do not have far to look for inspiration, but we must look in unlikely places. They believe a transformation from teaching to learning is already occurring on a large scale. A new culture of learning with the power to change the way we think about teaching and education has formed around the new communication technologies. Many people are unaware of this phenomenon because such learning occurs outside educational institutions, looks very different from how learning is described in most educational theories, and is, therefore, essentially invisible.

Thomas and Brown argue that a new culture of learning is rapidly evolving in the many, large-scale, online communities that attract people of all ages worldwide. The authors assert that learning flourishes in these online worlds through the dynamics of play, games, and imagination, like a culture in a petri dish. The kinds that flourish are peer-to-peer learning, mentoring, inquiry-based learning, experimentation, tacit learning, passion, and collaboration. These are familiar aspects of learning in all the well-known, recent research on learning theory, but it may surprise us, may even seem improper—almost frivolous—to find them applied to online games such as World of Warcraft or Star Wars Galaxies. Nevertheless, Thomas and Brown convincingly present the success of these games as a “nearly perfect illustration” of a new learning environment that can and should inspire future education.

In fact, Thomas and Brown’s celebration of successful, commercial, online games may prove problematic. Even though the authors carefully substantiate their claims both theoretically and empirically, many educators, parents, politicians, and others will likely reject the work out-of-hand, perhaps even without reading it, because of this idea alone, deeming it implausible that playing computer games can promote serious learning, let alone foster innovation in education. That is unfortunate. Because modern learners live part of their lives in online universes that shape their world view, this book offers insights into a real-life phenomena that already influences education. Thomas and Brown suggest that rather than fight such development, we should embrace it and learn to harness it.

_A New Culture of Learning_ actually promotes play as a focal point for future-
proofing education. Allow me to end this review with a short account of one argument the authors put forth in favor of play, an argument which illustrates the many elegant and convincing lines of reasoning in the book. They point to Jean Piaget’s theory of child development, where play and imagination are the indispensable tools by which children adapt to change. They call attention to this fact and note that, in a world of constant change, play becomes an efficient strategy for everyone, not only for children, to respond to these constant changes. In fact, they argue that we will have difficulty coping with the constant flux of the world, no matter our age, if we are unable to play and use our imagination. One will have to look carefully to find a better argument for the importance of play these days than the one Thomas and Brown offer.

—Carsten Jessen, Aarhus University, Copenhagen, Denmark

Hanging Out, Messing Around, and Geeking Out: Kids Living and Learning with New Media
Mizuko Ito, Becky Herr-Stephenson, Dan Perkel, and Christo Sims
Contents, appendix, bibliography, index. 432 pp. $35.00. isbn: 978026201336-9

Recently, I received an invitation to participate in a small group consultation for an arts-oriented foundation. The program officer wanted to hear how digital media creates new opportunities to support interest-driven learning amongst today’s youth. It was a diverse group: museum educators, academic researchers, youth media educators, and even a magazine publisher. At the start of the day, someone asked if we could clarify our terms. What did we mean, exactly, when we used the phrase “interest-driven” learning? In response, the facilitator asked, to establish a common frame, who had read Mimi Ito’s book, Hanging Out, Messing Around, Geeking Out: Kids Living and Learning with New Media.

Everyone raised a hand.

I share this not to suggest the book has become ubiquitous. Far from it. But it is hard to ignore that the framework promoted by the book, often condensed to HO-MA-GO (rhymes with the egg sushi “tomago”), was a point of reference among those gathered at a conference on learning.

As Ito would be the first to clarify, although she was the lead writer, the book is based on the work of more than two dozen researchers who produced twenty-three related research studies. It is written in a collective voice integrating vast ethnographic material collected during a three-year period and offering analytic insights by the project’s researchers. So while we might call it “Ito’s book” as shorthand, we more often, and more correctly, refer to it as “Ito, et al.”

But enough of the semantics. What is the book about? It was one of the first projects funded about five years ago by the MacArthur Foundation’s then-new Digital Media and Learning Initiative (Global Kids, where I work, was also a recipient of Initiative funds). At the time, the media was full of fears regarding young people’s use of digital media—of video games and violence, of social networks and sexual
The 21st century is a world in constant change. In *A New Culture of Learning*, Doug Thomas and John Seely Brown pursue an understanding of how the forces of change, and emerging waves of interest associated with these forces, inspire and invite us to imagine a future of learning that is as powerful as it is optimistic. Typically, when we think of culture, we think of an existing, stable entity that changes and evolves over long periods of time. By exploring play, innovation, and the cultivation of the imagination as cornerstones of learning, the authors create a vision of learning for the future that is achievable, scalable and one that grows along with the technology that fosters it and the people who engage with it. The twenty-first century is a world in constant change. In *A New Culture of Learning*, Doug Thomas and John Seely Brown pursue an understanding of how the forces of change, and emerging waves of interest associated with these forces, inspire and invite us to imagine a future of learning that is as powerful as it is optimistic. Typically, when we think of culture, we think of an existing, stable entity that changes and evolves over long periods of time. By exploring play, innovation, and the cultivation of the imagination as cornerstones of learning, the authors create a vision of learning for the future that is achievable, scalable and one that grows along with the technology that fosters it and the people who engage with it. In the new culture of learning, which emphasizes this second type of culture, how do you verify what students are learning? One of the things that we believe has really been holding education back has been a very backward model of understanding assessment. When you treat education like a machine, your main concern is efficiency: Is the machine functioning smoothly? So we actually assign numbers to outcomes: 72% or 95%, As, Bs, and Cs. *A New Culture of Learning: Cultivating the Imagination for a World of Constant Change* by Douglas Thomas and John Seely Brown (CreateSpace, 2011). Steve Denning. My new book, "The Age of Agile" was published by HarperCollins in 2018 and was selected by the Financial Times as one of the best business books of 2018.