It takes courage and a great deal of confidence to challenge the dominant belief system in education by writing a book that claims “the kind of learning that will define the twenty-first century is not taking place in a classroom” (p. 17). The vast majority of public-education stakeholders will inevitably resist such a claim. Perhaps that is why Thomas and Brown modify their bold declaration with this reassuring qualification: “at least not in today’s classroom” (p. 17). Questioning the classroom proves the least of their “crimes” against the traditional educational system. Anyone with a serious interest in education should read the 137 inspiring pages of this brief book, particularly because Thomas and Brown dare to criticize several basic assumptions of the field, and they do so with great confidence.

Brown is the former director of the famous Xerox Palo Alto Research Center and cofounder of its spinoff, the Institute 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-
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
Professor Douglas Thomas, a graduate of the University of Minnesota in Communications and co-author of the book "New Culture of learning: cultivating the imagination for a world of constant change" defines the new culture of learning as: Find new ways to capture and take advantage of the imagination in a world of constant changes. The developer David Hu, was the one who proposed and implemented in the project "The Machine Learning Model for New Proficiency Model" to evaluate the learning of the students and that they themselves can analyze their progress and/or difficulties within their own learning process. David says that the new learning culture happens.