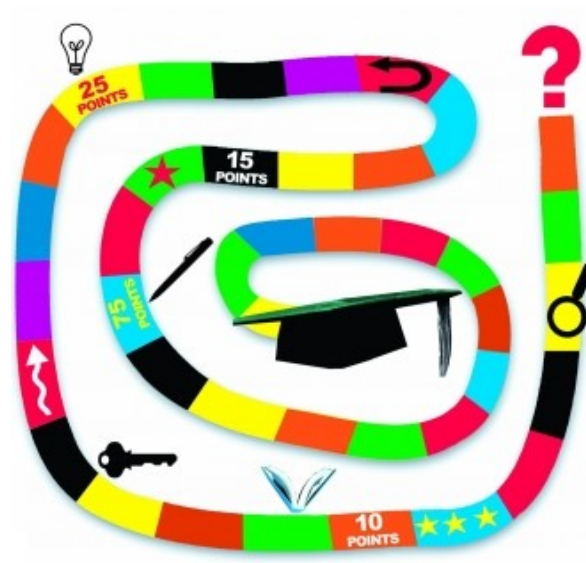# THE CHRONICLE OF HIGHER EDUCATION

COMMENTARY

The Looming Gamification of Higher Ed

By Kentaro Toyama │ OCTOBER 29, 2015

Michael Morgenstern for The Chronicle

In 2011 there was a loud buzz about gamification — the use of game elements such as point systems and graduated challenges for activities not usually considered games. An online game called Fold.it allowed people untrained in biochemistry to decode the protein structure of an AIDS-related enzyme. The fast-rising start-up Foursquare made a game of everyday life by awarding points, badges, and virtual mayoralties to users as they visited physical locations. The author Jane

McGonigal wrote about Quest to Learn, a New York charter school whose entire curriculum is gamified — a math assignment might take students on a coded scavenger hunt. She titled her book Reality Is Broken: Why Games Make Us Better and How They Can Change the World.

The initial hype has faded a bit, but gamification is alive and well, and it's spreading to higher education. Several courses in my department at the University of Michigan have been gamified. Assignments are called adventures, battles, and quests. Each activity earns experience points — a hundred thousand at a time — and students' grades depend on their final scores. The classes differ from traditional courses in that students have more choice in the assignments they complete; they can work at a flexible pace; and some assignments can be resubmitted until their maximum scores are reached.

For now, gamification has been taken up by pedagogical early adopters, but the phenomenon seems poised to spread as more professors join the trend and tools supporting gamification proliferate. Soon students everywhere will be on semester-long quests and will be earning a million points per exam.

Arguably, traditional college is already gamified with its grade-point averages, peer competition, and elective courses, but as we sit on the cusp of a potential revolution, it's also worth considering what we stand to lose.

The question isn't whether good instructors can apply gamification to teach even better — that certainly happens. The question, rather, is whether there might be such a thing as too much gamification.

Poorly designed games are easy to dismiss, but let's suppose that we did gamification well. Imagine a world where we compellingly gamified Newtonian mechanics for poets, art appreciation for math majors, and fine literature for jocks. Pretend that, thanks to gamified syllabi and educational video games, even the least motivated of students emerged from college with a solid grasp of basic physics, a familiarity with the allegorical layers of Moby-Dick, and all the

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knowledge we expect from a well-rounded education. What could be wrong with that?

Gamification proponents argue that today's students are different. "They have spent their entire lives surrounded by and using computers, video games … and all the other toys and tools of the digital age," writes Marc

Prensky, who coined the term "digital natives." "They thrive on instant gratification and frequent rewards."

McGonigal agrees: "They know what extreme, positive activation feels like, and when they're not feeling it, they're bored and frustrated."

If these descriptions sound a bit like those of an addiction, that's because stimulants cause a similar effect. It's still debated whether "Internet addiction" is a medical condition, but what the game advocates are saying is that exposure to blingy rewards creates a tolerance for it that makes regular life seem bland. But if so, why should our response be to ramp up the stimulation? Methamphetamines cause a rush, but surely the proper response to meth addiction is to get the patient off the drug, not to prescribe even more.

The problem is gamification's premise. It suggests that we should capitulate to a generation of students who supposedly can't muster interest and curiosity on their own. Though the rhetoric of gamification claims ties to intrinsic motivation, any attempt to cause one behavior (i.e., learning) through other means (i.e., game elements) is the very definition of extrinsic motivation.

At the heart of this debate is a deep philosophical question about whether we should engage students where they are, or expect them to come with a

well of intrinsic motivation. Like many questions in education, the answer is not either/or. A good teacher judiciously moves back and forth between tricks to elicit student interest and space for students to motivate themselves, all with the long-term goal of building intrinsic motivation.

Good pedagogy is a delicate dance, with instructors sometimes leading, sometimes following, all in the hope that the student will find her own beat so that she can go solo. Gamification may be appropriate, even necessary, in some contexts, but the eventual goal should be to wean students off of games, so that they can groove to the rhythm of their own inner drummer.

People have different expectations of education. Some seek knowledge for its own sake; others want vocational preparation. But whether the goal is a life of the mind, a good job, or some of both, the ability to motivate oneself — even in the absence of game design — is essential. To be a scholar, one needs to appreciate the subject matter for its own sake. But even to thrive in a corporate office, generating self-motivation is critical. There will always be elements of work that are unrewarding, unrecognized, or just plain tedious. Good leaders push through those dry patches without an external motivating framework.

McGonigal's argument notwithstanding, there will always be aspects of reality that aren't gamified. In fact, the world's biggest problems, such as climate change and political unrest, persist exactly where we as a

civilization must forgo gamelike short-term rewards for the sake of long-term benefits. Whether we flourish will depend not only on whether we have the requisite knowledge — which could very well be learned via games — but also on whether we can motivate ourselves to do the right thing even when the solutions don't offer cognitive candy or a billion experience points.

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