The Mitra Cutting Edge Education Badge

Badge Description

"It is a miracle that curiosity survives formal education." -Albert Einstein

Imagine a space where children collaborate to answer deep questions. The teamwork fuels their innate curiosity and engages their eagerness to learn. Now imagine that they're using technology to power their research and learning.

Acton Academy? Yes, but also Silicon Valley and some of the poorest slums in third world countries. Cutting edge education is sweeping across the planet, freeing millions of young heroes from their desks in poorly run traditional schools.

Why Invest in This Badge?

Our learner driven community at Acton Academy is at the leading edge of the education revolution. But the more we understand how others are disrupting traditional education, the faster we can adopt their innovations for use in our studios in Austin.

You may even be inspired to take on some of the new challenges yourself.

Resources for Your Journey

This <u>article in Forbes</u> describes why cutting edge education is more than just playing games.

This Edutopia article describes the role of student-centric technology in cutting edge education.

Badge Requirements

Your Challenge, If You Choose to Accept It

Level One of the Mitra Cutting Edge Education Badge

See how disruptive technologies and approaches are changing the way the world thinks about learning:

- 1. Watch Dr. Sugata Mitra's TED talk, "The child-driven education."
- 2. Explore several of the sources below to see which interests you the most:
 - Listen to (or read) this NPR article, "Disrupting Class to Make Way for Technology."
 - Sign up for Khan Academy and find a topic that interests you. Complete the work to earn badges on the topic.
 - Read <u>5 or 6 blog posts</u> on the Clayton Christensen Institute for Disruptive Innovations.
- 3. Grab your journal and write on one or more of the following questions:
 - What are the key differences between student-centered classrooms and teacher-centered classrooms?
 - What does it mean to "disrupt education?"

- What do you believe will be the most significant changes in the long run? How long will it take these to have an impact on the world?
- How would your life have been different, if at all, if you had received a cutting edge education?
- 4. Read the following statements and rank them from 1 to 15, with "1" being the most powerful change and "15" being the least powerful change.
 - Personalized online learning enables students to 1) choose from multiple presentation options to best suit their learning styles, 2) access advanced courses and subjects of study unavailable at their schools, and 3) catch up or move ahead.
 - Using free or low cost online resources allows schools to 1) control costs, 2) increase class sizes without impacting quality, 3) reallocate resources, and 4) free up teachers' time otherwise used on paperwork and diagnostics.
 - More real world experiences inside the classroom offers students the opportunity to work independently or collaborate on projects that speak to the students' interests and strengths.
 - Mastery based learning badges takes the place of grades and offers a more meaningful assessment of a student's skill set. Students only earn badges after mastery is achieved—time is not a factor.
 - Flipping the lecture/homework model. Homework is listening to a lecture and class time is used for discussion, group projects and enrichment activities. Lectures can be sped up or slowed down to accommodate students' learning styles.
 - Teachers devote more time to 1) developing students' habits of success, 2) creating deep, personal relationships with students, and 3) acting as a mentor rather than a traditional lecturer.
 - School facilitated internships and apprenticeships, help students 1) put into context what they
 are studying in the classroom, 2) pursue a personal passion or aspiration, and 3) develop real
 world skills.
 - Leveraging big data provides a real time snapshot of each student's learning. Improved diagnostics result in more targeted instruction, as well as students taking more ownership of their education struggles and successes.
 - Free or very low cost open source textbooks become just as good or better than state approved textbooks. Open source textbooks grow organically as information changes or topics branch off into more detailed studies. Platforms similar to Apple's app store allow contributors to add lessons and schools to rate and choose the best ones to add to their ecosystems.
 - Exams focus on how students synthesize and analyze material in real time, within the context of what they have learned in lessons and projects.
 - Information is learned on a need to know basis while undertaking projects, increasing students' potential to retain the material.

- Self-organized learning environments allow students to take ownership of their learning and
 explore topics in groups using the internet. Learning is more about kids discovering how to find
 information, how to test it, and then use it in interesting ways to achieve something tangible.
- School designs incorporate more open areas to facilitate group work. Designs have flexibility to allow students a choice of environments best suited for them. With bigger workspaces, teachers have more opportunities to collaborate and contribute their specific strengths' to the overall environment.
- Computer science skills become a core part of every student's education. Coding is viewed as a fundamental skill along with reading, arithmetic, and writing.
- Gaming becomes a primary method of teaching content and problem solving skills for students.
 Gaming challenges are designed to bring people of different abilities, interests, ages and backgrounds together to solve problems or populate information resources.
- 5. Combine your top three to five arguments for a cutting edge education into a persuasive article. Submit your article to the local paper or online news outlets or share with your family.

Going Deeper

Level Two: Advanced Study in Cutting Edge Education

Are you ready for more? Explore one or more of the sources below for a deeper dive:

- Read "Beyond the Hole in the Wall" by Dr. Sugata Mitra.
- Read "One World Schoolhouse" by Salaman Khan.
- Read "Blended: Using Disruptive Innovation to Improve Schools" by Michael Horn and Heather Staker.
- Read articles on project-based learning and more at: www.edutopia.org/project-based-learning.