Learning Digitally

Educating the Masses: Goals & Motivations

If you will recall your earlier reflection on a time you felt like you were really learning, let's see how that might play out in the context of our digital era. We started with our goals for learning. When we reflected on a vibrant learning experience, we all had different and unique goals. Isn't this natural? We all have different interests and levels of expertise that make our learning goals unique. With access to digital resources, every individual can pursue their unique learning goals. Some people will find additional inspiration in the posted work of others. Whether it's skateboarding or ballet, game design or bird watching, guitar playing or straw bale construction, experts in these and every other imaginable sub-culture will have shared their talents in a blog post or YouTube video. So, of course, we *love* the fact that everyone to be able to set and pursue their own goals, especially because doing so presents no obstacles to other learners and, in fact, might spark passion in them. The great thing is that if all students have their own goals, they can tap into the personalizing nature of the digital world for further help – our limitations as their teachers don't have to stand in the way of our students' learning. This is especially important because we're not just talking about the students in one classroom, but the tens of hundreds or thousands of students that a school *system* is responsible for. Remember, we're scaling to accommodate society's needs. And our society has specific needs and values, so it's great that students can engage in 21st Century skills like creative problem-solving and learning-to-learn which will help them achieve their full potential, not be hindered by learning non-essential facts that are easily found through any search engine. So now schools can identify core knowledge, skills and understanding and let "smart software" keep track of student achievement in every content area. In this way, when you learn to write a persuasive essay in science, you don't have to pretend you don't know how to do it in English, health, or history. There sure is a lot to learn – the field of knowledge can seem crowded – so it's great that you can move at your own pace and not have to wait for other students to catch up, but also to take your time when you find something particularly challenging. Pursuing your own goals at your own pace just seems like common sense, doesn't it? It certainly is more efficient if high achievement, not a uniform basic skill, were the goal.

You get the picture don't you? To be concrete about it, here's what's happened to our full experience of vibrant learning that you recollected earlier. It's everything you already experienced, but now with the potential afforded by the riches of our digital era. And isn't it great that everyone gets to benefit like this?

Educating the Masses: Tools and Resources

Now let's examine how the digital era could change the tools and resources people might use to achieve their learning goals. Again, the kinds of tools and resources people choose are as varied as the person and their goal. Sometimes the tools for learning are inherent in the task such as sporting equipment, musical instruments or specialized devices from crochet needles to metric wrenches. Similarly, the resources might spring right from the task such as language learning software, a repair manual or a collection of books gathered to review the topic. What they all have in common is that to be most effective, they are chosen by the user to suit ability levels and personal preference. Take a moment to recall how you or someone you know might feel about their tools and references. Isn't this the way people feel about their phones, tablets or laptops? It's not just the gadgets, but all the personal settings and favorites saved into the device make it a particular reflection of each person and allows them to get into what they want immediately. This is why school-owned or shared computers are rarely used to pursue a goal or enjoy the act of learning once individuals have their own.

But what happens when our learning must be provided to the masses and they have online access? We have already seen how individual goals are enhanced by access to digital inspiration and examples. Tools and resources get an even greater boost when compared to offline learning, let alone a one-size-fits-all Assembly Line approach. Technology has progressed from online tutorials and clunky courses to YouTube "how-tos," special interest forums, interactive software and "open" courseware provided by some of the world's leading universities. Also consider what might be available through iTunes U or YouTube EDU let alone the many podcasts provided by universities, special interest blogs and the world's news organizations like the BBC, PBS, the ABC and Al Jazeera. Never before in human history has such a wealth of learning been so freely available. Self-initiated learners could easily "Build their Own" superior textbook equivalents from what can be digitally sourced. On a positive note for old-style resources, 20th Century one-size-fits-all textbooks can be made more relevant by applying user-aware technologies that track a learner's online performance and shape information delivery into an all-fit-to-one's-size personal learning opportunity.

Overriding access to all these tools and resources is the laudable principle of excellence: education is the flourishing of human potential and it would be a shame for any individual to under-achieve simply because an organization filtered certain Web sites or didn't allow students to have access to their own tools. Of course not all students have such devices, but imagine the cost savings if schools only had to provide for those who didn't have their own instead of everyone? So our access to resources and tools that could contribute to our complete, full feeling of learning – in order to allow it to scale – doesn't need to be constrained because the world has changed around us. Isn't this a great time to be alive and free to learn!

Goals & Motivation

Context & People

Self-Managed Process

Tools & Resources

Educating the Masses: Context and People

You can guess what's coming, can't you? Just as "Goals and Motivations" and "Tools and Resources" enjoy enriched learning through open access to the digital world, "Context and People" gets the same boost. Imagine the range of contexts where people's recalled learning may have taken place: playing fields, theatre stages and overseas museums, etc.

Certainly, digitization hasn't progressed to the point where you can be beamed to anywhere in the world… unless we think about augmented reality and immersive virtual environments. Advancements like MIT Media Lab's Sixth Sense, Google Glass or the apps Layar or Aurasma fall into the "augmented reality" sphere and tailor digital information and opportunities to our own preferences and current location so that a "walk in the park" can be a guided science tour and even classroom-based learning can be informed by digitally enhanced texts, images and objects. As for immersive virtual environments, every month a new TED Talk, university or start-up's video demonstrates new, smaller head gear and gloves that can put you into any three dimensional space. Imagine exploring deep space, prehistoric Africa or Stradivarius' workshop. At its most basic, we can surely look for actual human mentors whom we'd never meet in to real life, but with whom a Skype conference is possible. It's all a bit liberating, isn't it?

Educating the Masses: Self-managed Process

Recalling your positive learning experience, re-examine how the learning process itself unfolded. Your initial motivation and goals pointed you in a direction. Access to certain tools and resources may have contributed to your process. Maybe you had to source new information or equipment as you pursued your goals. Finally, did the location or context change from beginning to end and were different people important at different times of the process? In a typical learning experience, we make many changes as we pursue our goal. Each newly acquired bit of knowledge or skill changes who we are and what we're capable of. To feed the learning and maximize our potential achievement such changes are natural and essential. Isn't it actually *un*-natural to have to curtail all these human and intellectually autonomous adjustments merely to fit an out-dated

framework schools have inherited from the Industrial Age? Away from the traditional school environment and with online access, consider how you could tap into your own motivations to pursue your own goals. By seeing how others, more expert than you, achieve their goals, you might experience that magic uplift that happens when we are inspired. By definition, a tool is a device or apparatus that enables us to do more than we can without it. How could you have managed your learning process to achieve your goal if you had a tool that was a camera, printing press, jukebox, video library, map, encyclopedia, a help desk or a phone – oh, wait, it is a phone! And it's yours! And you have it with you all the time! Maybe such a tool wouldn't have changed the learning experience you recollected, but can you imagine how access to such a device could aid other episodes of self-managed learning?

But learning isn't about technology, and what researchers have found in the past few decades make a persuasive case for the improved achievement that comes when people manage their own learning instead of being directed by others. Like Wikipedia's culture and its subsequent success, research into Intrinsic Motivation challenges us to reconsider our assumptions about how people behave when they are trusted and supported instead of distrusted and supervised. Rather than *inflict* a predetermined learning process on people, when people mange their own learning process, they actually produce better results!

Yes, "results" is a strong claim, but it's what we can expect (and more!) when we nurture a person's Intrinsic motivation, not only does it feel good, but it also produces profound results in the following five areas: retention of information, outright achievement, conceptual thinking, ongoing interest and mental well-being. Add to intrinsic motivation, the findings related to Flow experiences and Authentic Happiness and we can unleash people to pursue what is personally meaningful. Why would anyone – especially an educator – willingly decrease children's performance and well-being and undermine their learning? Oh, that's right, to keep an assembly line approach to schooling moving along. Any other good reasons? Isn't this, not standardized mediocrity and apathy, what not only our societies, but our children, need in this uncertain time?

As a way to depict the difference between (20th Century) "schooling" and (any era) "authentic learning", the following graphic shows how the personal bits that get trimmed off by "one-size-fits-all" schooling are actually the most important parts:
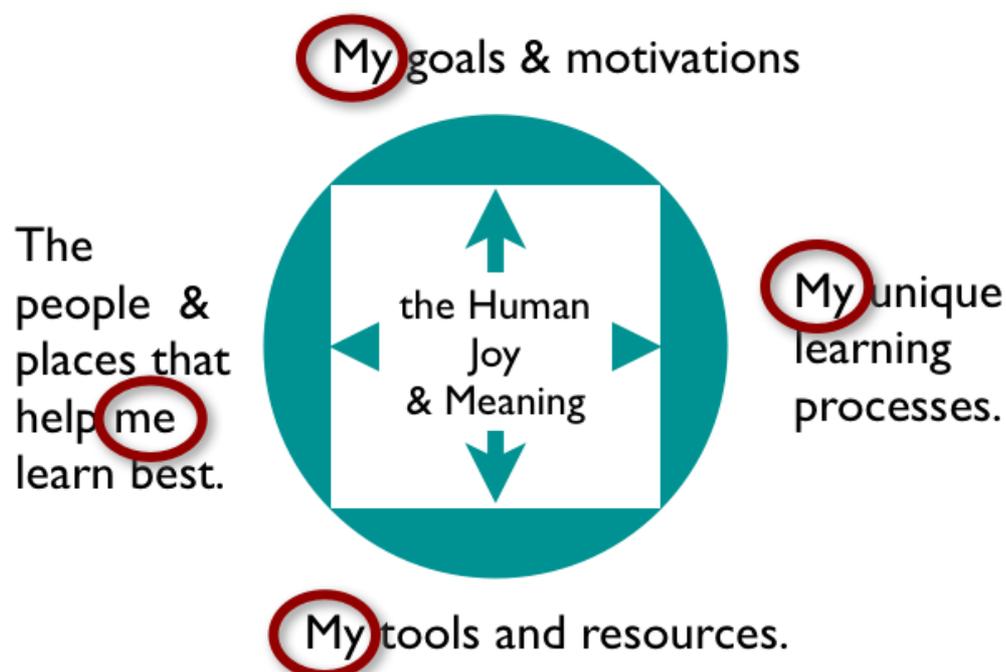
Which finally leads us to what must be our beginning: any attempt to design a new construct for "school" should begin with authentic learning, learning that is a joy to engage in, that holds personal meaning for the learner. Why should we limit what's possible simply because it's hard to imagine? Ironically, one of the best quotations related to this comes from our dear Henry Ford himself: "If I asked my customers what they want, they simply would have said a faster horse." Instead, he invented the Model T and changed the world. Similarly, let's agree that such wildly transforming inventions can occur, have occurred. Perhaps the environment that created the implausible Wikipedia could also see the flowering of a new model for schooling? Why don't we at least suspend disbelief that anything other than "school as we know it" can educate our children. And read on!