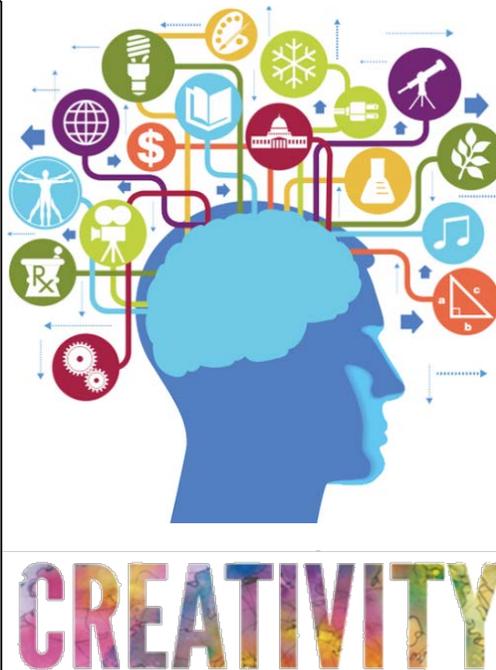


# CREATIVITY & INNOVATION

## WHAT IS INNOVATION AND CREATIVITY?



*“Innovation is all the rage,” writes Michael Horn (2017, p. 23). Like all fads in education, there is a great deal of misunderstanding, misapplication and even enmity. How do we get beyond the hype and “trendy buzzwords” that fuel the confusion about innovation and creativity? How do we identify what innovation really is and how can we come to understand why it matters so much now? The purpose of this resource is to help articulate the meaning of innovation and creativity and to begin explaining why innovation and creativity are important within a twenty-first century global economic and social context.*



## RESOURCE

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## 4 MYTHS ABOUT INNOVATION

**1. Innovation Is About Ideas:**  
“Revolutions don't begin with a slogan, they begin with a cause. So don't look for a great idea, find a good problem.”

**2. Innovators Are Risk Takers:** In researching “superior innovators, not one mentioned taking risks as an important element of their success. [Instead, emphasis was placed on] the importance of managing risks.”

**3. You Have To Be Agile To Innovate:** “The truth is that it is more important to prepare than it is to adapt [...] When you are building capacity in your business decades ahead of time, you really don't need to be that fast.”

**4. There Is One "True Path" To Innovation:** “The truth is that every innovation strategy fails eventually, because innovation is about solving problems and different types of problems require different types of approaches [...] The only "right way" to innovate is to solve a problem that people care about. You have to decide for yourself how you will get there.

(Satell, 2017, n.p.)

## WHAT DOES IT MEAN TO BE CREATIVE?

Innovation and creativity are inextricably linked; creativity leads to innovation. To begin our examination of innovation, let us first consider what it means to be creative. When the word "creative" is used, people begin to think of the field of arts—paintings, poetry, drama and music. As important as these subjects are, creativity spans all disciplines, not just the "artsy" fields; it draws on and impacts all areas of human endeavour.

Sir Ken Robinson writes, "Creativity draws from many powers that we all have by virtue of being human. Creativity is possible in all areas of human life, in science, the arts, mathematics, technology, cuisine, teaching, politics, business, you name it. And like many human capacities, our creative powers can be cultivated and refined. Doing that involves an increasing mastery of skills, knowledge, and ideas" (Robinson, 2015, n.p.). Creativity is nothing new and it is not limited to the field of arts and crafts. Over the last three millennia of recorded history we see tremendous examples of creativity in all fields of human striving. For example, improved metallurgy in weapon design (e.g., Roman carbon-based metal for use in their short sword, the gladius); the Gutenberg Printing Press; political innovations like democracy and socialism; Chinese paper and fireworks; advances in stone-masonry, concrete and brick

"Being creative is not just about having off-the-wall ideas and letting your imagination run free. It may involve all of that, but it also involves refining, testing, and focusing what you're doing" (Robinson, 2015, n.p.).



work; the steam engine, radio, telephone and the Internet; discoveries in mathematics, physics and science; advances in medicine and psychology. The list goes on. It is clear that a primal foundation for civilization is creativity. Human beings were required to cultivate culture through creativity and innovation.



## WHAT IS CREATIVITY?

So what exactly is creativity? Sir Ken describes “[creativity as] a dynamic process that often involves making new connections, crossing disciplines, and using metaphors and analogies. Being creative is not just about having off-the-wall ideas and letting your imagination run free. It may involve all of that, but it also involves refining, testing, and focusing what you’re doing” (Robinson, 2015, n.p.).

**“Creativity, I believe, is inherent in all of us” (Johnson, 2006, p.1).**

Oftentimes there is an assumption that creativity is something that happens in isolation in the private minds of so-called “creative types.” Mihaly Csikszentmihalyi, in his book aptly titled *Creativity* (1996), states that the opposite is true: “creativity does not happen inside people’s heads, but in the interaction between a person’s thoughts and a sociocultural context. It is systematic rather than an individual phenomenon” (p.23). This is further exposition of Robinson’s statement that creativity is a “dynamic process that often involves making new connections, crossing disciplines, and using metaphors and analogies” (2015, n.p.). Creativity is “inherent in all of us” but it is also dependent on all of us (Johnson, 2006, p.1). It is driven by the exchange of ideas and the introduction of new problems in need of new solutions.

## WHAT IS INNOVATION?

There are multiple definitions of innovation I have come across but they all say the same thing. The one I am using is from Tanner (2016): innovation must meet three criteria. It must be new, be executed and create value. The third criterion is perhaps the most important.



Similarly, Michael Horn (2017) defines an innovation as “something new” that is “economically sustainable” and “allows people to make progress in their lives” (p.24).

Education Innovation guru George Couros (2015) defines innovation as “a way of thinking that creates something *new* and *better*” (p.19). Tanner’s second point—“be executable”—is implied in the context. Couros adds further qualification for “something new”—he writes, “Innovation can come from either ‘invention’ (something totally new) or ‘iteration’ (a change of something that already exists), but if it does not meet the idea of ‘new *and* better,’ it is not innovative” (Couros, 2015, p.19). Creating real value needs to be the underlying motivation for any new change: change for change’s sake is a fool’s errand.

*“All creative individuals build on the works of their predecessors. No one creates in vacuo. All civilizations evolve from earlier societies”*

*(Johnson, 2006, p.4)*

### KEY ELEMENTS OF INNOVATION

**CREATE VALUE:** “Value is a positive result or impact. For a business, value may include things like increased revenue, decreased cost, increased market share, time-savings or increased engagement.”

**EXECUTION:** “Execution is the difference between an idea that *would* create value and an idea that *does* create value. Most companies miss this part of innovation.”

*(Tanner, 2016, n.p.).*



## FIVE KEY SKILLS OF AN INNOVATOR

In their book *The Innovator's DNA* (2011), Dyer, Gregersen and Christensen articulate the five skills that differentiate “innovators” from “non-innovators”—these are the following: **(1) associating, (2) Questioning, (3) Observing, (4) Networking, (5) Experimenting.** These five key skills are divided and grouped into the two main categories of “doing” and “thinking”:

### DOING

“*Questioning* allows innovators to break out of the status quo and consider new possibilities. Through *observing*, innovators detect small behavioral details—in the activities of customers, suppliers, and other companies—that suggest new ways of doing things. In *experimenting*, they relentlessly try on new experiences and explore the world. And through *networking* with individuals from diverse backgrounds, they gain radically different perspectives” (Wagner, 2012, p.14)

### THINKING

“The four patterns of action together help innovators *associate* to cultivate new insights” (Wagner, 2012, p.14)

# “INNOVATION IS NOT ABOUT TECHNOLOGY” (Lichtman, 2014, p. xx)

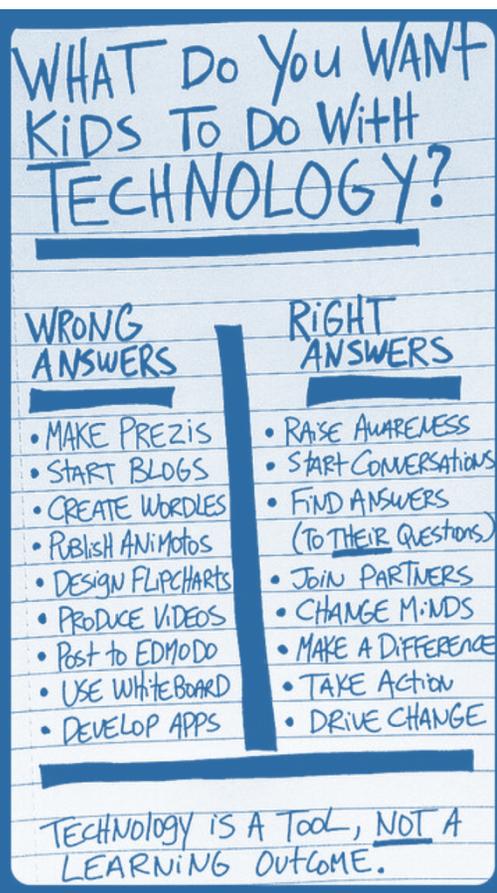
Grant Lichtman writes in his book *#EdJourney* that “innovation is not about technology” (Lichtman, 2014, p. xx). Lichtman is right; most educators miss the “big picture” and tend to solve educational problems with incremental or small changes like using technology to do the same thing they have always done (only perhaps slightly better). Michael Horn (2017) argues that “disruptive innovation” is very rare in the history of change (p.23). Something as dramatic as one-to-one laptops wouldn't be seen as innovation by Horn; it is simply an improvement on chalk and slate from the turn of the century. Likewise, Smartboards are simply digital black boards. Neither are truly “disruptive innovations.”



**Simply adding technology to K-12 environments does not improve learning. What matters is how it is used to develop knowledge and skills.**

*Zucker and Light, 2009*

Horn blips over a range of innovations and dismisses all of them as mere tweaks of old educational approaches. I think this may be a bit narrow, but it shows the extremes that exist about what is truly innovation.



We have had too many people in education "crying wolf" and claiming that the "sky is falling..." There have also been too many soothsayers claiming that this tech or that is going to eliminate that other technology (e.g., ebooks killing books, television killing radio, Internet killing newspapers, automobiles killing trains). The issue is really about figuring out what people really want to do and less about the technology itself. Certainly some tech didn't take hold even though it was better (e.g., Beta vs. VCR). With technological innovation, there are several factors that determine whether new tech will be adopted or not; surprisingly, the least significant (although still important) is the technology itself. I recently Tweeted out a Harvard Business Review article that addresses this concern. Essentially, the hardest part of innovation is not coming up with the new idea but convincing other people to adopt the new idea; essentially that only way this is possible is to identify a “good problem” in need of a solution (Satell, 2017, n.p.).

But back to Lichtman's point: innovation isn't about technology. It can be (and it often does involve tech) but it isn't the soul catalyst and it isn't the most important thing. In education, “personalization” is a pedagogical innovation compared to education 20 years ago. One-to-one technology supports this pedagogical approach but it didn't cause it.

William Ferriter simply states, “Technology is a tool, not an outcome” (2013).

Figure 1: William Ferriter ([www.blog.williamferriter.com](http://www.blog.williamferriter.com)) cited in Couros (2015) p. 23.



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