To think Outside the Circle: How higher education killed creativity and the future of innovation
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So these four year olds were putting on the nativity play and these three young boys were playing the kings bearing gifts. The first boy goes "I bring you gold" and the second boy says "I bring you myrrh" and the third boy goes "Frank sent this". Children take a chance; they are not afraid of being wrong.¹

Introduction

Creativity: a noun; the ability to transcend traditional ideas, rules, patterns, relationships, and to create meaningful new ideas, forms, methods, interpretation, through originality, progressiveness, or imagination.² Higher education: an education beyond high school provided by colleges, universities, graduate schools and professional³ that teach students how to follow rules, conform to societal norms, and learn old ideas through repetition, standardized testing, and busy work.⁴

Children are born with astounding creative abilities. There was this little girl who never paid attention to the teacher except for in art class. One day the teacher approached the little girl and asked, “What are you drawing?” “I am drawing God” she responded. The teacher gives the child a perplexed look; “But nobody knows what God looks like.” The little girl looks up from her drawing; “Well, they will in a minute.”⁵

⁴ The personal experience of every college graduate in the United States of America. (There is currently no statistical data currently available to back up this statement because the undertaking of such a survey would be highly improbable but a rational person could probably infer that this statement would generally be accurate).
A man named Sir Ken Robinson at a TED\(^6\) convention in 2006, pointed out that kids will take a chance; they are not frightened of being wrong.\(^7\) Although he notes that mistakes are not directly related to creativity, this paper argues that they in fact are. The reinforcement of mistakes ultimately destroys creativity. “[If] you are not prepared to be wrong, you will never think of an original idea.”\(^8\) But our current education system focuses on pointing out mistakes. Mistakes are the worst and they make you a failure. If the young boy who claimed "Frank sent this" was in fact not young at all, most likely he would have been made fun of, looked upon as forgetful, thought of as careless, characterized as a troublemaker, and viewed as less bright, just because he made a mistake. Mistakes are bad; even as early as second grade children are learning that mistakes on spelling tests equals bad grades. Mistakes on the playground cause them to lose friends. Mistakes are seen as something to avoid at all costs. But the fact still remains, "anyone who has never made a mistake, has never tried anything new".\(^9\) Ultimately education is dooming the future of innovation and technology through the stigmatization of mistakes, reinforcing standardization, and educating individuals out of their creative intuition. Higher education killed creativity and these institutions have ruined our future.

A. Some of the most successful individuals and inventors do not have a degree

If people really wanted to help the youth of America, our country should stop perpetuating the myth that a college education is necessary for success.\(^10\) Most kids today attend

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\(^6\) TED grew out of a 1984 conference on technology, education and design. Now TED sponsors two annual conferences, maintains a Web site with a great collection of videos on various subjects and operates other projects.

\(^7\) See generally How Schools Kill Creativity, TED.COM, http://www.ted.com/talks/ken_robinson_says_schools_kill_creativity#t-302455 (last visited Aug. 12, 2014).

\(^8\) See Id.


a university because they feel like they have to; not because they want to learn. Interestingly enough, some of the most successful people in today's society are in fact: college drop outs. The fact remains that universities are merely a gathering of bored teachers teaching bored and uninterested students. College is a test to see how well an individual can conform to the rules presented by the teachers and the university. When people choose to not follow the rules, that is when the magic happens, which is probably why some of the most successful people of our time would be seen by universities as failures.

The list of wealthy and successful drop outs could go on and on but to provide evidence of such success, this argument will present a few that meet such qualifications: Paul Allen is the billionaire co-founder of Microsoft and founder of Xiant software. He dropped out and convinced Bill Gates to drop out of Harvard; together they founded Microsoft.\textsuperscript{11} Ronald Baron is currently a billionaire money manager and the founder of Baron Capital. Richard Branson is billionaire founder of Virgin Music, Virgin Atlantic Airways, Virgin Mobile, and other Virgin enterprises; he dropped out of high school. Warren Buffett is the billionaire chairman of Berkshire Hathaway; he dropped out of the University of Pennsylvania. James Cameron, the Oscar-winning director, producer, and screenwriter is a dropout.\textsuperscript{12}

One of the most successful and creative individuals of the 20\textsuperscript{th} century lacked a formal education; Walt Disney was a producer, director, screenwriter, animator, developer of Disneyland, winner of 26 Oscars and 7 Emmy awards. He was a high school dropout. Other dropouts include: Charles Dolan, billionaire founder of HBO; Jack Dorsey, billionaire founding

CEO of Twitter and co-founder of Square. Larry Ellison, the billionaire co-founder of Oracle software company, actually dropped out of both University of Chicago and University of Illinois; which is really quite impressive. Israel Englander, billionaire hedge fund manager and David Filo, the billionaire co-founder of Yahoo! do not have diplomas. Other important inventors with no diploma include Henry Ford who was the billionaire founder of Ford Motor Company, Percy Spencer who was the inventor of the microwave, Thomas Edison, the Wright brothers, Michael Dell, Ralph Lauren, Coco Chanel, Mark Zuckerberg, and Steve Jobs. In fact, there have been 10 U.S. Presidents who never attended college including Harry Truman and Abraham Lincoln. This list could go on and on. What is different about these individuals from the rest of society is that they were highly creative and they did not play by societal rules. A modern education does not deliver creative answers to the problems our society faces; it merely delivers the obvious answers to questions that have already been solved.

B. The statistics support the facts

Sir Ken Robinson is one of the largest proponents and speakers on this discussion. In a seminar he stated that we are “all born with deep natural capacities for creativity and systems of mass education tend to suppress them.” The major problem within society is that the current systems are failing; they are failing to meet challenges within our society and they fail the future
productivity of society. The problem is that society perpetuates a notion that college is required for a better and more successful future; this is simply not true.

The increasing problems with student debt and availability of jobs should exemplify the fact that the higher education system is a problem. According to the Chronicle of Higher Education, every year there is approximately twenty million students attending college. Of those attending college, approximately 60 percent borrow money to cover cost of living and/or tuition. The problem is that most of these institutions do very little for the future of its graduates. Many graduate with little to no prospect of a job and are piling up interest accruing student debt. It’s basically a scam; a scam that these institutions are perpetuating. With the guaranteed repayment from federal loans, universities care little about the quality of education and even less about the fact that they are oversaturating the economy. “The outstanding student loan balance now stands at about $870 billion, surpassing the total credit card balance [at] $693 billion and the total auto loan balance [currently at] $730 billion.” In addition, there is over 85 billion dollars in past due student loan debt. There are many students who struggle to repay these ginormous loans; approximately 41 percent are delinquent at some point. To make matters worse, the state of the economy is not getting much better. Other law students, like myself, with anywhere between 50,000 to 200,000 dollars in loan debt would be lucky enough to have a clerk job when they graduate, making twelve bucks an hour in highly saturated markets like Chicago. Who are the winners in higher education? In the end, it is the schools themselves.

21 See Id.
23 See Id.
C. Why does higher education fail?

The question is then why does higher education fail? Is there a way to make it better? Of course society can improve the quality of education but people need to start at the core of the system. In the book "Breakpoint and Beyond," authors George Land and Beth Jarman explore the disappearance of creativity. The study was conducted with 1,600 children between the ages of three and five. These children were given eight different tests that assessed divergent thinking (ie creativity); the test utilized questions such as "how many ways can a paperclip be used" and "how many ways can this fire truck be improved?" Over 98 percent of the children scored at a level equivalent to creative genius; five years later, they re-tested the same children and only 32 percent scored in the same category. At age 15, the children were re-tested for a third time and less than 10 percent scored in the creative genius category; in fact, in a test of 200,000 adults age 25 and older, less than two percent scored in this category.

The question is what happens over the progression of those years? Formal education destroys this type of genius. First, schools promote standardization. "They present a narrow view of intelligence when human talents are diverse and personal. They promote compliance when cultural progress and achievement depend on the cultivation of imagination and creativity. They are linear and rigid when the course of each human life [...] is organic and largely unpredictable." The largest failure of education is standardized testing, which begins at an early age.

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26 See Id.
27 See Id.
28 See Id.
Standardized testing is one of the major contributing factors to the destruction of creative genius across the nation and throughout the modern world. Of course, there are advantages to standardized testing that are worth mentioning. Certain advantages of standardized testing should be applied to the framework of a new grading system if the higher education system decides to improve the metrics currently in place. Certain advantages of standardized testing are indisputable while many are easily refuted.

Standardized test results can be documented and empirically verified allowing for scores to valid and reliable. Standardized tests are given under reasonably similar conditions, which make the testing process fair across different racial and socioeconomic groups. Many proponents of the standardized test would argue that such tests outline the strengths and weaknesses of the examinee and therefore expose areas where improvement is needed. But, this really has little advantage since standardized tests generally contain a narrow range of topics to begin with. There also is the belief that standardized testing can also be used to assess an examinee’s progress over time after administering a change to the student’s curriculum but in actuality, such tests truly do not contain enough information to determine such effective changes. Most would argue that standardized test show the examinee's preparedness for a new academic venture or life career; honestly, the test really exemplifies individuals that are successful test takers and those who are not.

The clear disadvantages of standardized testing are far more disconcerting:

1. standardized test items frequently are unrelated to those tasks and behaviors required in the classroom setting,
2. standardized test results reflect behavior or ability that has been measured during a single point in time and, as such, are greatly influenced by noncognitive factors [...],
3. standardized test results do not provide the type of information required for making curricular modifications or instructional change, and

31 See Id.
32 See Id.
Most importantly, standardized test takers are also extremely limited in their options of when they take the exam and testing a student during this small window of time does not account for noncognitive factors including fatigue and hunger that render the standardized testing process useless. Additionally, the results of these tests are useless in determining effective modifications to the curriculum. How are future students supposed to expand upon the knowledge base of previous generations if the educators do not know where to make the changes? Examiners often arrive at testing facilities with poor directions on how to get there and what to bring; this additional stress expands the list of noncognitive factors, the test fails to account for, in the first place. In addition, education theorist Bill Ayers has commented on the limitations of the standardized test which lack the ability to measure: “initiative, creativity, imagination, conceptual thinking, curiosity, effort, irony, judgment, commitment, nuance, good will, ethical reflection, or a host of other valuable dispositions and attributes.” Ultimately the only applicable measurement is founded within “isolated skills, specific facts and function, content knowledge, the least interesting and least significant aspects of learning.”

In order to foster creativity, society needs to reinforce its importance. The core of the education system is based in literacy and math. To change the progression of education, creativity needs to be regarded as important as literacy. People need to start to think outside the circle; yes not “the box”, the circle. Thinking outside the box is a metaphor that typically

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33 See Id.
34 See Id.
represents the ability to think differently, unconventionally, or creatively.\textsuperscript{37} The origin of the term is believed to have stemmed from management consultants in the late 1970s that challenging their clients to solve “the nine dots puzzle”.\textsuperscript{38} This nine dot problem three rows of three dots that make a square; the problem is to connect all the dots using four consecutive lines.\textsuperscript{39} Although the solution appears difficult, once a person realizes the lines need to be extended "outside the box", it become clearly obvious.\textsuperscript{40} But why not use the actual metaphor? Well, such a problem is a well-defined problem, with a plainly stated goal, and a clear solution. Thinking outside the box is far from creative; what people need to do is think outside the circle. The circle is the conformism that we have been engulfed by through the modern era and humanity is standing in the dead center. So, let us start thinking outside the circle.

Does the author of this paper, an average law student, have the capacity to think outside the circle? No. People this far down the river do not have the ability to swim against the current; we are too worn down and destroyed to make such a thing possible. But, if people can focus on the youth of America, drop the importance of mistakes and foster a creative environment, the future will have a lot more Steve Jobs and a lot less me.

\textsuperscript{38} See Id.
\textsuperscript{39} See Id.
\textsuperscript{40} See Id.