Concordia University Chicago

Master's Program

Student:	Kelly Wilson
	crf_wilsonkl2@cuchicago.edu
	109 Holly Avenue, Severna Park, MD 21146
Day Telephone:	760-567-6043 EST
Evening Telephone:	760-567-6043 EST

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Student's Signature: Kelly Wilson

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Understanding Innovation: Disrupting the Educational System

When describing the degree program of Instructional Design and Technology offered by Concordia University Chicago, I primarily define it as trying to understand how people learn and how technology can assist in the goal of improved learning processes. The application of technology in schools has yet to be a widespread disruptive innovation. A disruptive innovation is focused on creating products/services that are on a "new plane of competition-where the very definition of what constitutes quality, and therefore what improvement means, is different" (Christensen, 2017, p.47). While there may be pockets of truly disruptive technological applications in education, my opinion is the computer and internet are primarily and respectively still a word processor and graphical interface and a portal for faster and easier research.

Merriam Webster defines technology as “the practical application of knowledge”. While in my previous role as Director of Academic Programs, I was disheartened by what I observed as a lack of technology being used or applied in classrooms whether it be the physical manifestation of computer related applications and/or the lack of student-centric applications of the material being presented. These observations led me to disrupt my way of proceeding and to seek knowledge on how to improve the student and teacher experience and outcomes in schools. I began with enrolling in the previously referred to degree program which is helping me to better understand the tools and rationale of how Instructional Technologists can improve learning outcomes. It also led me to the High Tech High Graduate School of Education (HTH GSE).

HTH GSE was founded by a group of educators and researchers who wanted to disrupt the way schools are run. They began by creating a single charter high school in San Diego, California with the core principals of equity, personalization, authentic work, and collaborative design (High Tech High, 2017) and has now grown to thirteen schools on three campuses spanning elementary to high school levels. It is also well known as a project-based learning environment where students focus on learning through real-world experiences that foster self-discovery of knowledge and skills. I spent a year researching and learning not only instructional theory and methodologies but also how one attempts to make change in an established institution. Part of what I discovered was that the leaders are still constrained by two main entities: the demands of the public school system, and, the entrance requirements of colleges. While being able to define a significant portion of how they proceed, the schools are ultimately beholden to the overarching institutions which supply them their funding. While I believe High Tech High is attempting to create innovative schools, I think they may still struggle with what researchers Fishman et al. found:

> We argue that a primary reason is that research to date has not focused on issues of how such innovations function at the level of school systems. This results, in part, from the fact that much design-based research focuses on a designed product or resultant theory and not the system variables that impact the scaling potential of the work beyond the sites where the research was carried out. We have argued for extending or conception of design-based research to include research on system-

> level issues that impact the scalability, sustainability, and ultimately the usability of innovations. (p. 69)

Or in other words, the practices and results they are discovering work on their scale of smaller schools and on them having backers that contribute to financing their efforts that won't necessarily translate to system wide changes to public schools throughout California or the nation.

The second challenge for HTH and other leaders or schools trying to disrupt current school practices are the current college entrance practices used by most colleges and universities. Their requirement of standardized transcripts and test scores limit the innovation processes. If colleges and universities want students that are better prepared, they need to stop requiring students and schools from "prioritizing credit accrual, which treats graduation as the end goal" and instead ensure "students have access to a cohesive curriculum that aligns high school coursework and students' future goals" (Bromberg, M., & Theokas, C., 2016). Christensen corroborates this analysis, "… the current educational system- the way it trains teachers, the way it groups students, the way the curriculum is designed, and the way school buildings are laid out-is designed for standardization" (2017, p.37). Colleges and universities need to implement more open innovation practices. Open innovation involves the following four main concepts: thinking of your business as a service, co-creating the innovation with the customers, fostering internal and external forces to shape the innovation, and, by transforming the business model to focus on being a service-based business (Chesbrough, 2011).

I recently witnessed a positive move towards open innovation and schools when attending a workshop at the National NAIS (National Association of Independent Schools) Conference. Scott Looney of the Hawken School is spearheading the new Mastery Transcript Consortium which is hoping "to change the relationship between preparation for college and college admissions for the betterment of students" (MTC, 2017) by creating a new transcript that focuses on key characteristics and skills of the student versus content knowledge. By bringing together over 70 independent schools (so far) and college admission representatives, they are co-creating the process of the transcript but the real change is in how students will be able to be educated under the new process. It allows for more interdisciplinary work and student passion to be evidenced which also goes towards remembering that the work of schools is service based. *Figure 1* below shows a sample mastery transcript which will focus on such student attributes as analytical and critical thinking, leadership, global perspective, etc.

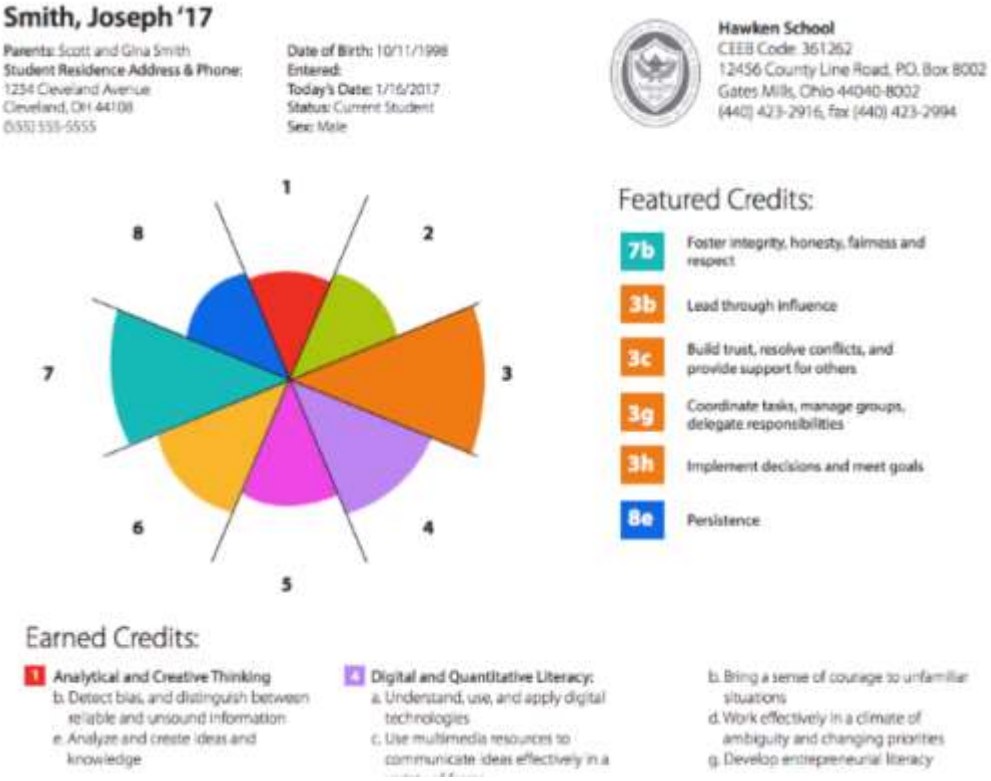

Figure 1: Sample of Mastery Transcript

Researchers Fishman et al. also support how these open innovation practices need to occur. "Strong collaboration between school systems and the developers of cognitively oriented technology innovations is critical for addressing gaps of culture, capability, and policy/management" (2004, p. 67).

Lastly, while technology and the internet is allowing for innovative change in our schools, I think the ability to make change may be affected by those same technologies. The methods and timing by which innovations spread through a society generally follow the same pattern. As discussed by Rogers (2003), the diffusion process of most innovations follow an "S" pattern with innovators, early adopters, the majorities and the laggards describing the adoption pattern (see *Figure 2*).

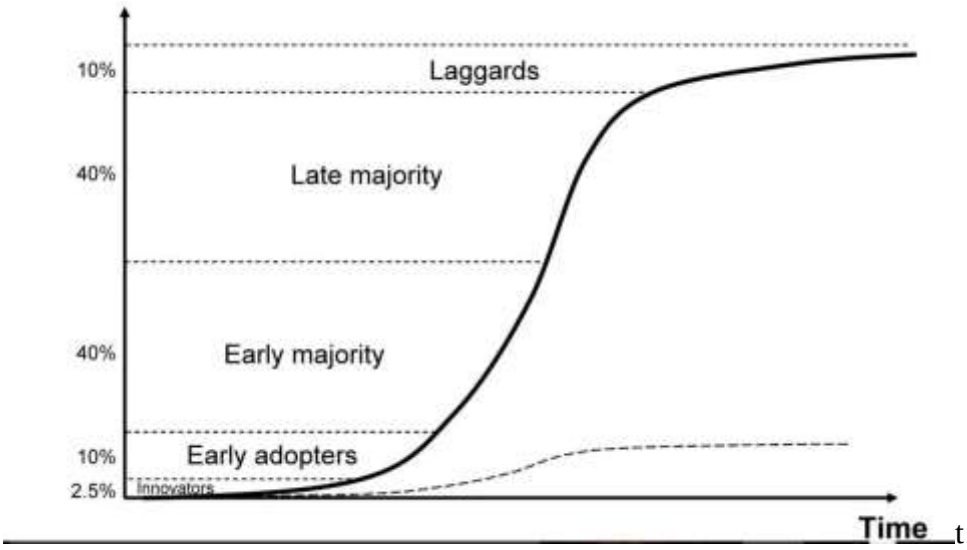

Figure 2: The Diffusion Curve from the Art of Business Planning

While research and sharing of information has been greatly enhanced by internet and social media, the same channels may also affect the ability to let research develop at the pace it needs to without society clamoring to see results of the latest innovation. For example, the idea of mastery transcripts will require time to develop and roll out with proper implementation and training without judgement from a society that is being conditioned to expect instant results based on social media expectations.

Further areas for research for the some of the topics I discussed could include the impact of technology and age-based progression. While I believe that personalized instruction via technology as laid out by Christensen holds promise for the future, I think the constraints still in place by age-based progression will limit its potential. During my time at HTH GSE, I observed some transformational learning practices but I feel they

were limited by still insisting that students had to move through their system by age versus mastery. My hope is that my current role in an independent school will allow me to have some freedom to experiment with technologies with less regulations and oversight to be able to advance their application to educational initiatives in innovative, sustainable and scalable ways.

References

Bromberg, M., & Theokas, C. (2016, April). Meandering Toward Graduation: Transcript Outcomes of High School Graduates. Retrieved March 05, 2017, from https://edtrust.org/resource/meandering-toward-graduation/

Chesbrough, H. W. (2011). *Open Services Innovation: rethinking your business to grow and compete in a new era*. San Francisco, CA: Jossey-Bass/A Wiley Imprint.

Christensen, C. M., Horn, M. B., & Johnson, C. W. (2017). *Disrupting class: how disruptive innovation will change the way the world learns*. New York: McGraw-Hill Education.

Fishman, B., Marx, R. W., Blumenfeld, P., Krajcik, J., & Soloway, E. (2004). Creating a Framework for Research on Systemic Technology Innovations. *Journal of the Learning Sciences,13*(1), 43-76. doi:10.1207/s15327809jls1301_3

High Tech High. (n.d.). Retrieved March 05, 2017, from http://www.hightechhigh.org/

Mastery Transcript Consortium: Our Vision. (n.d.). Retrieved March 05, 2017, from http://www.mastery.org/our-vision/

Rogers, E.M. (2003). Diffusion of innovation (5th ed.). London: The Free Press.