Community Colleges and the New Economy

(Re)tooling Learners for Success through Purpose, Entrepreneurship, and Mobile Technology

By

Derrick Drakeford, Ph.D., and Steffen McGhee, MSW

Published by Drakeford, Scott, & Associates, LLC
Durham, NC

INTRODUCTION

community colleges do not have specific curriculums in place to help students navigate through the process of finding their purpose in life

On July 1st, 2018, the educational technology research firm Drakeford, Scott, & Associates, LLC received an award from the National Science Foundation to examine the concept of "purpose" in educational spaces and its relationship to the marketplace, unemployment, and start-ups. This began a process of over 245 interviews with current and former college students, small business directors, and college presidents in an effort to better understand the educational landscape for purpose-driven start-ups. The research took our team throughout the southeastern United States, meeting one-on-one with important stakeholders. The discovery from this research is that **most community colleges do not have specific curriculums in place to help students navigate through the process of finding their purpose in life and then connecting this purpose to employment or entrepreneurship.**

Figure 1

Logic Model for Research on Purpose-Driven Start-Ups at Community Colleges

The Shifting Economy and Changing Landscape: A New Reality Gig Economy

The world has already entered a fourth industrial revolution.[1] Artificial intelligence has already displaced workers and will continue to do so.[2] Brynjolfsson and McAfee, faculty members at the MIT Sloan School of Management, describe this as a "second machine age": the present day environment where usage and accessibility of computers and networks has enabled and will continue to transform consumption of goods, tools, and information[3]. These shifts have created a new reality. A reality that includes a marketplace with more independent contractors and freelance workers.[4] In the March 8, 2017 Forbes article entitled "10 Great 'Gig Economy' Jobs for 2017," the article highlights a recent Randstad survey of 1,500 business executives and 3,160 workers. The study found "nearly 11% of the workforce is made up of these full-time agile workers and 39% of those 'permanent' workers (i.e. non-agile) surveyed said they are likely to take a position in the future that falls into the agile category. Randstad went on to suggest that temporary, freelance or contractual basis workers could make up as much as 50% of the workforce by 2019[5]. While the new reality has the potential to create more opportunities, new technologies have further developed an economic divide of "low-skill/low-pay" jobs and "high-skill/high-pay" pay jobs.

Changes in the economic landscape have the potential to be especially hard for populations in underserved communities such as people from low-income backgrounds.[8] Many individuals, even college graduates[9] [10]have not been able to access strong wages needed to help their families survive and thrive in the United States despite increasing levels of education and training among individuals.[11] According to Bernhardt and Osterman[12], as of 2013, 29% of US workers earned less than $12.50 an hour and 39% of workers earned less than $15 dollars per hour. Even more problematic is that people of color and women are disproportionately represented in these lower-wage jobs. An enduring solution to preparing works for the economy has consistently been education and training.[14] Community colleges have historically been part of the solution and they continue to be part of the solution today.

Historical Role of Community Colleges

Community Colleges have historically been part of the solution

Community colleges were largely established in the early 1900s. During that time, growing industry within the US required trained workers who could fill those positions, and community colleges helped fill that role. Today, community

n. New York, NY: Currency.
employment: How susceptible are jobs to computerisation? Retrieved from https://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf

[3] Brynjolfsson, E. & McAfee, A. (2012). Thriving in the automated economy. *The Futurist, 46*(2), 27-31.

[4] McKinsey Global Institute (2017). The digital future of work: What will automation change? Retrieved from https://www.mckinsey.com/featured-insights/future-of-work/the-digital-future-of-work-what-will-automation-change

[5] Forbes.com (2018) 10 Great 'Gig Economy' Jobs for 2017

[8] Nikischer, A.B, Weis, L., & Dominguez, R. (2016). Differential access to high school counseling, postsecondary destinations, and STEM careers. *Teachers College Record, 118*(11), 1-36.

[9] Abel, J.R., Deitz, R. & Su, Y. (2014). Are recent college graduates finding good jobs? *Federal Reserve Bank of New York: Current Issues in Economics and Finance 20*(1), 1–8

[10] Spreen, T.L. (2013). Recent college graduates in the U.S. labor force: Data from the current population survey. *Monthly Labor Review 136,* 3-13.

[11] Opportunity America, the American Enterprise Institute for Public Policy Research & the Brookings Institute (2018). Work, skills, community: Restoring opportunity for the working class. Retrieved from https://www.aei.org/wp-content/uploads/2018/11/Work-Skills-Community-FINAL-PDF.pdf

[12] Bernhardt, A. & Osterman, P. (2017). Organizing for good jobs: Recent developments and new challenges. *Work and Occupations, 44*(1), 89-112.

[14] Cohen, A.M., Brawer, F.B. & Kisker, C.B. (2013). *The American community college* (6th ed.) San Francisco, CA: Jossey-Bass

colleges are educational organizations that widely sit in the center of helping students, especially low-income students[18] on their paths to further education and employment and also helping students who are at the community college to engage in immediate vocational training.[1920] **As open-enrollment institutions, community colleges are affordable and offer support to students of all ages and academic capabilities, making them accessible in ways that other educational institutions are not**.[21] Their accessibility continues to make community colleges central in the effort to improve employment opportunities for all Americans.[2223]

Students with Unique Needs

Community colleges serve two distinct populations of learners including: a) students who are interested in transferring to a 4-year institution and, b) students who enroll in community college with the goal of achieving associates degree and/or training for an immediate vocation. Despite variances, students generally desire some type of career outcome at the end of their education and training.[27] Additionally, as one community college president described, *"Students come with a lack of purpose often times because of a bad high school experience, family turmoil, trauma, and many other reasons."* As such, individual personal development and career development is key to all students growth regardless of their end destination.[28] Community colleges tend to have a higher population of first-generation students, students from low-income backgrounds, and students of color.[29] Each of these student populations may have their own set of challenges related to retention and persistence.[30] One community college president put it succinctly, *"You have to meet students immediate needs before you can address higher level thinking."*

Given the shift to a global economy plus the large number of students needing career support, community colleges are positioned well **to make a difference in the economy and in the lives of many students and their families.**[31]

Learning Modalities, Technology, Entrepreneurship, and Purpose

In thinking about the new reality for community college students, one of the first things frequently considered is technology.[32] Millennials and Generation Z have grown up with technology integrated within their daily lives and learning environments need to shift to meet a technology-centric environment. As Postlov et al puts it, **"Modern day learning environments are characterized by their place and time independence, their integrated presentation and communication facilities, and opportunities for the re-use of learning technologies as**

---

[18] Horn, L., & Nevill, S. (2006). Profile of undergraduates in U.S. postsecondary education institutions 2003-04: With a special analysis of community college students. Retrieved from https://nces.ed.gov/pubs2006/2006184a_rev.pdf

[19] Grubb, W.N. & Lazerson, M. (2004). *The education gospel: The economic power of schooling*. Cambridge, MA: Harvard University Press.

[20] Harbour, C.P. & Wolgemuth, J.R. (2015). The reconstruction of community college vocational education: A vision for renewing American democracy. *Community College Review, 43*(4), 315-328.

[21] Rosenbaum, J.E. & Ahearn, C. & Rosenbaum, J. (2016). The community college option. *Educational Leadership, 73*(6), 48-53.

[22] Murray, C. (2014). Promising college and workforce partnerships: Connecting students with careers. *Community College Journal, 84*(3), 30-33.

[23] Cohen, A.M., Brawer, F.B. & Kisker, C.B. (2013). *The American community college* (6th ed.) San Francisco, CA: Jossey-Bass.

[27] Rosenbaum, J.E. & Ahearn, C. & Rosenbaum, J. (2016). The community college option. *Educational Leadership, 73*(6), 48-53.

[28] Bragg, D.D. & Krismer, M. (2016). Using career pathways to guide students through programs of study. *New Directions for Community Colleges, 176*, 63-72.

[29] Cohen, A.M., Brawer, F.B. & Kisker, C.B. (2013). *The American community college* (6th ed.) San Francisco, CA: Jossey-Bass

[30] Diemer, M.A. & Li, C.H. (2012). Longitudinal roles of precollege contexts in low-income youths' postsecondary persistence. *Developmental Psychology, 48*(6), 1686-1693.

[31] Shaffer, D.F. (2015). Higher education systems are assuming a larger role in the economic development efforts of their states. *Economics, Management and Financial Markets, 10*(1), 54-79.

[32] Manyika, J. (2017). Technology, jobs, and the future of work. Executive Briefing McKinsey Global Institute. Retrieved from https://www.mckinsey.com/featured-insights/employment-and-growth/technology-jobs-and-the-future-of-work.

learning objects."[34] A community college president also highlighted the importance of technology: *"Technology can be used for ease of access to resources for students."* At the same time, people still benefit from "social presence"[35] and community[36] with a "more knowledgeable other"[37] and with their peers. However, many learning opportunities in higher education do not allow students the best of both worlds: a) technology and b) flexibility[38].

In addition to the new reality calling for new modalities for learning, the new economy, as Naude describes, has a strong need for "certain types of skills, including creative, innovative and social skills, such as that associated with entrepreneurship"[39]. Entrepreneurship, the act of identifying a need or challenge and development of a business entity to meet that need fits with the needs of the new economy.[40] [41] [42] Further, the World Economic Forum found that **entrepreneurial skills** are among the top ten most needed: 1) complex problem solving, 2) critical thinking, 3) creativity, 4) people management, 5) coordinating with others, 6) emotional intelligence, 7) judgment and decision making, 8) service orientation, 9) negotiation, and 10) cognitive flexibility, also known as soft-skills.[43]

Students learn these dynamic skills better through experiential learning, rather than traditional modes of instruction, such as lecture and direct-instruction.[44] Community colleges have long championed forms of experiential learning[45] [46], ensuring academic rigor with and occupational integration.[47] Experiential learning is not simply giving students real-world opportunities.[48] Purposeful reflection must guide examination of these experiences.[50] **Purposeful reflection is key because each learner has a different background, different style of learning, and different future intentions.**[51]

---

[34] Postolov, K., Sopova, M. & Iliev, A. (2017) E-learning in the hands of generation y and z. *Business Excellence, 11*(2), 107-120. p.109
[35] Garrison, D.R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education, 15*(1), 7-23.
[36] Reilly, J.R., Gallagher-Lepak, S. & Killion, C. (2012). "Me and my computer": Emotional factors in online learning. *Nursing Education Perspective, 33*(2), 100-105.
[37] Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
[38] Aoun, J.E. (2017). *Robot-proof: Higher education in the age of artificial intelligence*. Cambridge, MA: MIT Press
[39] Naude (2017). Entrepreneurship, Education and the Fourth Industrial Revolution in Africa. Retrieved from http://ftp.iza.org/dp10855.pdf
[40] Brynjolfsson, E. & McAfee, A. (2012). Thriving in the automated economy. *The Futurist, 46*(2), 27-31.
[41] Autor, D. and Dorn, D. (2013). The growth of low skill service jobs and the polarization of the us labor market. *American Economic Review, (103),* 1553–1597.
[42] Naude (2017). Entrepreneurship, Education and the Fourth Industrial Revolution in Africa. Retrieved from http://ftp.iza.org/dp10855.pdf
[43] Gray, A. (2016). The 10 skills you need to thrive in the Fourth Industrial Revolution. Retrieved from https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/
[44] Robinson, S. & Stubberud, H.A. (2014). Teaching creativity, teamwork, and other soft skills for entrepreneurship. *Journal of Entrepreneurship Education, 17*(2), 186-197.
[45] Craft, E. & Mack, L. (2001). Developing and implementing an integrated, problem-based engineering technology curriculum in an American technical college system. *Community College Journal of Research and Practice, 25*(5-6), 425–439.
[46] Yarnall, L., Toyama, Y., Gong, B. (2007). Adapting scenario-based curriculum materials to community college technical courses. *Community College Journal of Research and Practice, 31*(7), 583-601.
[47] Prentice, C.M. (2001). Integrating academic and occupational instruction. *Community College Review, 29*(2), 80-93.
[48] Dewey, J. (1938). *Experience and education.* New York, NY: MacMillan.
[50] Kolb, A. & Kolb, D. (2017). *The experiential educator: Principles and practices of experiential learning.* Kaunakakai, HI: EBLS Press.
[51] Astin, A.W., Astin, H.S. & Lindholm, J.A. (2011). *Cultivating the spirit: How college can enhance students' inner lives.* San Fransisco, CA: John Wiley & Sons, Inc.

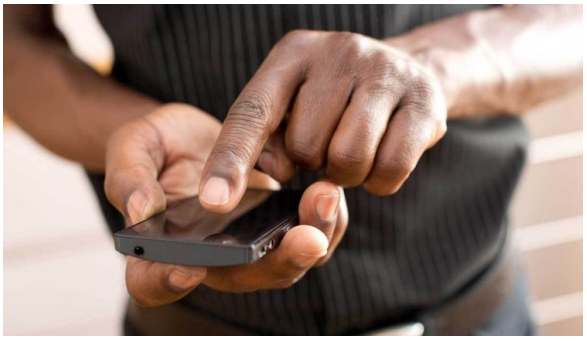
Micro-motives are grown from each student's specific purpose in life

All students, especially those from marginalized backgrounds need access to open-reflection, they need targeted support in understanding who they are and what they have to offer in this new reality in order to be successful. In a study of unexpectedly successful people, what Rose and Ogas refer to as "dark horses," they found that attention to **"micro-motives"** helped encourage and set individuals on the path to success.[53] These micro-motives are not typical sources of motivation, but they are highly specific intentions that are specific to an individual. Rose and Olga suggest that individuals should be encouraged to find their own specific micro-motives in order to foster their own individual success. However, this isn't always encouraged in the higher education setting. As one community college president put it, *"We [don't] make a real intentional effort to [help students find purpose] and that's a problem."*

As such, educators cannot, nor is it enough for them to decide purpose or pathway for the student.[54] Learners must be actively involved in finding their own purpose, or "seek clarity" in the educational endeavor[55] while at the same working towards their eventual aims, which for many students is gainful employment. Learners need to be supported in understanding that learning is lifelong and need the **tools to access continuous opportunities for learning and reflection** as society and circumstances around them transition.[57] Some community colleges are already making efforts in this regard. *For instance, one community college president that was interviewed described how entrepreneurial skills and workforce development have been incorporated in the curriculum throughout the college.*

CONCLUSION

A New Community College Solution for Creative Economy: Changes in Curriculum



The current reality in higher education and specifically community college is that students do not always see the connection or relevance to their individual goals.[58] As one community college president put it, *"There's a lack of relevance of academics and application to a career. There's no relevance to their purpose."* All of the 21 community college presidents that were interviewed agreed with this sentiment. The joining of technology, entrepreneurship, experiential learning and purpose suggest that shifts are needed in the community college setting in order to prepare learners to be productive, contributing members of this new economic reality,

[53] Rose, T. and Ogas, O. (2018). *Dark horse: Achieving success through the pursuit of fulfillment*. New York, NY: Harper One.
[54] Rose, L.T., Rouhani, P., Fischer, K.W. (2013). The science of the individual. *Mind, Brain, & Education, 7*(3), 152-158.
[55] Burchard, B. (2017). *High performance habits: How extraordinary people became that way*. New York: Hay House, Inc.
[57] Aoun, J.E. (2017). *Robot-proof: Higher education in the age of artificial intelligence.* Cambridge, MA: MIT Press
[58] Prentice, C.M. (2001). Integrating academic and occupational instruction. Community College Review, 29(2), 80-93.

and many community colleges *that were interviewed as part of the study* have already begun this journey. Skills training through the form of apprenticeships and internships have been a mainstay of community colleges since their inception.[59] Many community colleges have already transitioned course offerings to an online environment and work to improve these courses,[60] although students use technology, especially their phones, consistently, even in the classroom,[61] and in spite of the prevalence of mobile technology in the lives of students, many faculty are resistant to usage of technology in the learning environment.[62] **The use of mobile application technology creates opportunities for all students, especially those from marginalized backgrounds, to cultivate purpose an entrepreneurial skills.**[63] Frequently entrepreneurship is only made available to those who are taking a entrepreneurship class or are in a small business program.[64] As such, a new solution that utilizes technology, finding purpose, and entrepreneurship to benefit the learning of college students is needed.

Dynamic Learners Prepared for Traditional Employment and the Gig Economy

Soft skills continue to be a strongly desired skill set employers.[65] There is acknowledgement that employees will continue to learn on the job, but they must be prepared to do so. Students with access to these entrepreneurial skills[66], equipped with hard skills, content,[67] plus the awareness of their own purpose[68] are able to do just that: Dynamic learners are problem solvers who contribute based on current challenges and needs. Not only will students be able to contribute in a traditional employment setting, they also will have the opportunity to create their own purpose-driven entrepreneurial ventures for the **"gig economy."**[69] Launching a purpose-driven entrepreneurial venture is not easy. Students will need to take action to work towards this goal, despite challenges. Guidance from an online-instructor or facilitator will help students develop the "grit"[70] to persevere.[71] towards their purpose in life.

---

[59] Cohen, A.M., Brawer, F.B. & Kisker, C.B. (2013). *The American community college* (6th ed.) San Francisco, CA: Jossey-Bass

[60] Meyer, K.A. (2014). How community college faculty members may improve student learning productivity in their online courses. *Community College Journal of Research and Practice, 38*(6), 575–587.

[61] Galanek, J.D., Gierdowski, D.C., Brooks, D.C. (2018) ECAR Study of Undergraduate Students and Information Technology, 2018. Research report. Retrieved from https://library.educause.edu/~/media/files/library/2018/10/studentitstudy2018.pdf?la=en

[62] Pomerantz, J. & Brooks, D.C. (2017). ECAR study of faculty and information technology, 2017. Research report. Retrieved from https://library.educause.edu/~/media/files/library/2017/10/facultyitstudy2017.pdf

[63] Hoffman, N. (2016) Guttman Community College puts "work" at the center of learning: An approach to student economic mobility. *Change: The Magazine of Higher Learning, 48*(4), 14-23.

64 Huck, J. (2012). Business-minded. *Community College Journal, 82*(3), 8-9.

[65] Forbes Coaches Council (2019). 15 soft skills you need to succeed when entering the workforce. Retrieved from https://www.forbes.com/sites/forbescoachescouncil/2019/01/22/15-soft-skills-you-need-to-succeed-when-entering-the-workforce/#7b78ed1810ae.

[66] Balcar, J. (2016). Is it better to invest in hard or soft skills? *The Economic and Labour Relations Review, 27*(4), 453-470.

[67] Wolff, R. & Booth, M. (2017). Bridging the gap: Creating a new approach for assuring 21st century employability skills. *Change: The Magazine of Higher Learning*, *49*(6), 51-54.

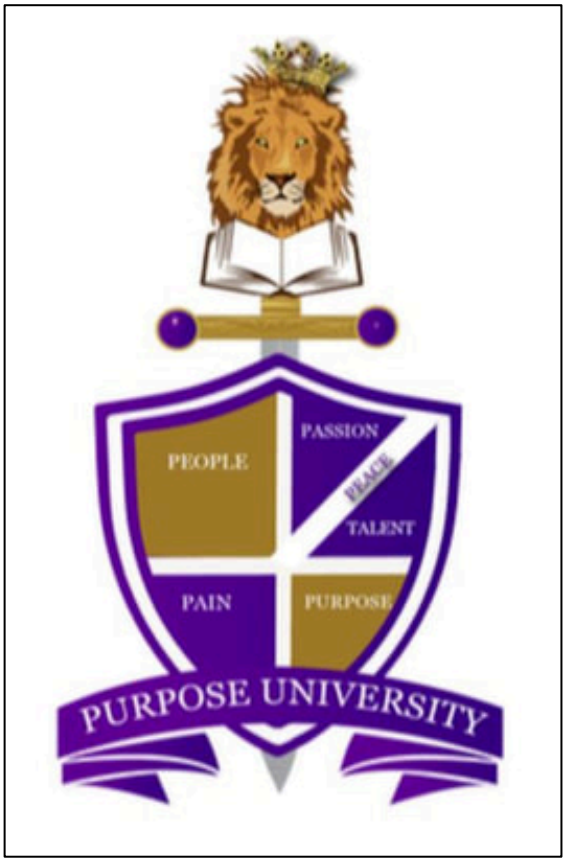
[68] Robinson, J. A., & Glanzer, P. L. (2016). How students' expectations shape their quest for purpose during college. *Journal of Student Affairs Research and Practice, 53*(1), 1–12.

[69]Torres, N. (2018). Are there good jobs in the gig economy? *Harvard Business Review, 6*(4), 146-147. Retrieved from https://hbr.org/2018/07/are-there-good-jobs-in-the-gig-economy

[70] Duckworth, A. & Gross, J.J. (2014). Self-control and grit: Related but separate determinates of success. *Current Directions in Psychological Science, 23(*5), 319-325.

A Promising Digital Solution

In summation, our National Science Foundation Small Business Innovative Research Phase I project (Online Curriculum for Creating Purpose Driven Startups) has shown to be effective for college students. After our 121 interviews with college presidents and executives, we have collected compelling anecdotal data that suggests colleges do not have current curricula solutions for helping students to find purpose. This anecdotal data that we have collected aligns with the empirical research found in the 2018 Gallop Report Forging Pathways to Purposeful Work in Higher Education. This report found that while 80% of college students believe finding purpose is important, less than 50% of college graduates actually succeed in finding purposeful work.



The Mobile Application PurposeU© combines live and self-paced courses designed to help students "find purpose" and "launch a purpose driven start-up." This Mobile App and Purpose-Driven curriculum may provide outsourced educational solutions for colleges who are not interested in re-inventing the wheel. Currently the PurposeU© curriculum and mobile app technology is deployed at Guilford College in Greensboro, North Carolina, and Skyline College in San Bruno, California.

The Mobile App even includes an Augmented Reality motivational message from Derrick Drakeford, Ph.D. To try out the Mobile App and experience Augmented Reality, download the App by searching for Purpose University in the App store or Goggle Play store. Select <Augmented Reality> then select <Welcome> and aim your phone camera at the PurposeU marker displayed here and experience augmented reality.

For more information contact Drakeford, Scott, & Associates, LLC at www.drakefordassociates.org

---

[71] Duckworth, A. (2016). *Grit: The power of passion and perseverance*. New York: Scribner.
Images from : https://mobilekingindy.com; http://blackcoffy.com; http://www.bu.edu/careers/