

*Creating the Conditions  
for Innovation in  
Schools, Colleges and  
Universities*

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SEPTEMBER 2015

# INTRODUCTION



Only a decade ago, bookstores were everywhere. Today, people order books online. Those under thirty may never have set foot in a bookstore. For those older than thirty, newspapers and print publications were the way one learned to read and acquire information. Today, young learners use iPads and smartphones. The post office used to be the primary transmitter of information for friends, family, and businesses. Today, information comes to us via the internet.

Many of the recent changes have been technological. However, it speaks to an important theme: Time is important. A decade ago readers were content to find out the previous day's news with the morning newspaper; now they want to know about events when they happen in real-time. Individuals no longer want to spend the time, energy, or cost in writing a letter to an individual when, with the click of a mouse, the sender can reach the individual in a matter of seconds.

Schools, colleges, and universities are not impervious to these changes. Why would those of us who work in educational organizations assume that what has happened to the newspaper industry could not happen to us? When time, speed, and capacity become valued commodities in the larger society, why should educators assume that our workplaces are any less vulnerable?

Today contemporary organizations require individuals to be creative and innovative in ways that are unfamiliar to many of us. If we do not change, we will not only be out of step (and perhaps out of a job), but we will fail to provide a valuable service to our students and communities. Hence, we must embrace creativity and innovation.

*Creativity* is an inventive idea grounded in specific knowledge and expedited by motivation. Innovation is a new method, custom, or device—a change in the way of doing things. Innovation is defined as the implementation of a creative product or process and its perceived novelty once it has been evaluated by a critical audience.

# 3 Qualities of Creativity

## | Expertise | Motivation | Imagination |

Creativity results from three qualities - expertise, motivation, and imagination - that are possessed by a single individual. Expertise, motivation, and imagination all revolve around each other. A lack of expertise incapacitates motivation and imaginative thinking. Without motivation, a creative thinker is unlikely to have the persistence required to solve a problem requiring knowledge and a willingness to challenge accepted wisdom. Likewise, many individuals have motivation and expertise, but are deficient when it comes to seeing

how a product or a process can be refashioned in a different manner.

To be fair, studies indicate that creative people are often independent-minded and willing to take risks. Like many stereotypes, however, the image of the “starving artist” endowed with transcendent, prophetic, creative powers that require distance from society is a myth (based in nineteenth-century aesthetics) rather than fact. By these standards, one need not paint or write or dance to be considered “creative.”

*The image of the “starving artist” is a myth rather than a fact.*

### ASPECTS THAT ENHANCE CREATIVITY IN INDIVIDUALS

POSITIVE AFFECTIVE STATES

FOCUSING ON POTENTIAL GAINS

CONCENTRATING ON DISTANT OUTCOMES



# INNOVATION

Innovation is a mixture of creativity, risk-taking, and experimentation. To a certain extent, some universities have had moments when they have enabled successful experiments. But most analysts of post-secondary education are likely to say that tradition, rather than innovation, is the prevailing cultural norm, whether a university is in Europe, Latin America or the United States. Society needs good ideas to flourish. Universities need to be incubators.



***Why aren't Universities more innovative?***

***What are the problems that lead organizations to be wedded to cultural norms, rather than to take risks?***

# BARRIERS TO INNOVATION

## Weak Incentive Structure

A country or region is, in part, dependent upon the ability of a university to be creative. Universities must be first creative, and then innovative, to retain their relevance in the twenty-first century. “That’s the way it’s always been done” or “it’s been successful for us in the past” are mindsets that gives little incentive to innovate. Thus, a first barrier to innovation is a weak incentive structure that does not reward experimentation.

## Regulation & Standardization

*Regulation and standardized* processes are barriers to be innovative. Organizations frequently adopt strategies to penalize new action. Organizations, as well as the systems in which they are embedded, tell employees what *not* to do. Organizations are often more geared towards assuring that all individuals function in the same manner and obey the rules, rather than foster creativity.

***The more rules and layers of bureaucracy that exists, the less likely it is that an organization will be creative.***

## Micromanagement

A corollary to regulation and standardization is micromanagement. If an organization wants individuals to take risks but checks on them every day, or constantly evaluates them, then the conditions for creativity will be nil. Evaluation is, of course, important in any organization, but a constant system of oversight lessens creativity. Evaluation should enhance performance, rather

than monitor individuals for infraction or flaws.

A different sort of culture exists when evaluation is geared toward improvement rather than discipline and punishment. Individuals need a climate within the organization that rewards experimentation. If supervisors are constantly checking up on individuals, then their behavior is antithetical to a culture that rewards high performance.



# 7 Conditions for INNOVATION

To create an innovative environment a university needs incentives to act – a culture of innovation. Innovation suggests experimentation. Based on our own research and that of others, seven conditions for innovation within an organization's culture seem to exist.

1

## *Develop a Culture of Risk and Enable Motivation*

To enable people to utilize their skills in an optimum manner, supervisors must relate to and understand individuals and know how to create an environment that is supportive, yet demanding. The perception of a supportive environment is dependent on a person's abilities, personality, and other contextual factors since not all individuals operate in the same manner. Engineering professors, for example, think and work differently from faculty who are in the social sciences. The point is not that the organization must get engineers to work more like social scientists, or vice versa. Rather, an innovative culture is one where all of the organization's actors understand the rewards associated with taking risks, and the line supervisors for individuals are cognizant of the communicative actions that need to occur to motivate and support individuals.

2

## *Provide Individuals the Freedom to Control the Means to an End*

Innovation is not a singular act or entity. A culture that encourages innovation empowers idea champions. Universities need to create the conditions that retain and empower innovation champions. The way to do that is not simply by monetary rewards, but also by creating a culture where risk is seen as positive.

3

## *Create Stable Goals*

When an organization is committed to innovation activity, the reward structure will be clear. When the rewards are clear, individuals have a sense of what they need to do to succeed. If senior leaders constantly shift goals from one idea to the next, individuals are less likely to be committed to participate in risk-taking.

4

## *Enable Individuals to Have a Sense of Autonomy and Ownership*

Individuals require a degree of autonomy. Individuals also require a sense of where the organization is headed. These dual actions – strategic direction and personal autonomy – create a culture where individuals have a sense of what needs to get done, and they are responsible for creating the best possible activities to reach these goals. Such an environment is fundamentally different from a production line mentality that has workers meet particular standards throughout their workday.

# 5

## ***Ensure that the Fiscal and Temporal Resources Necessary to Accomplish Tasks are Available***

Contradictory signals are sent when a task or goal is designated as “important,” but monetary support is not provided. Resource allocation is a potent signal about what is important. Incentives point people in a direction; they tell the organization’s participants what matters. If an organization has an “innovation fund” that enables good ideas to get going, then individuals will likely view innovation in one way. If an organization penalizes individuals who seek external funding, then they are likely to view innovation as secondary or unnecessary.

Another kind of resource is time. If innovation is important, then it should be factored in to the way the organization thinks about how individuals should spend their time. A culture of innovation suggests that a particular part of the individuals’ work is geared toward innovative activities.

# 6

## ***Create the Conditions for Team Work***

Different expertise, different thinking styles, and different age levels enrich an innovative environment. Too often, we underestimate that a sense of a shared vision can be exciting, and that shared vision comes through a diversity of perspectives making ideas better. As Scott Page has noted in his important work on organizations, “diversity means differences in how people see, categorize, understand and go about improving the world”. From this perspective, the organization, on the one hand, needs to create the conditions for multiple perspectives and ideas to occur. On the other hand, the organization also needs to be able to orchestrate those perspectives into a cohesive unit. Some might liken this to an orchestra where individuals play different instruments. They have different tasks and interpretations, but ultimately they need to come together to create music.

# 7

## ***Develop a Sense of Organizational Excitement***

In an environment where fiscal resources are in short supply, symbolic resources matter. An innovative organization needs to create a culture that applauds experimentation and risk-taking. Hence, an organization’s leaders need to give verbal support to people who are innovators. Organizations convey the kind of culture they want by what they communicate to one another.

An additional complication to creating a culture of innovation in the university pertains to the point that individuals in tertiary institutions are trained in the art of critique. It is not simply possible, but encouraged to tell someone what is wrong with his or her argument, what is wrong with someone’s research, what is wrong with an individual’s teaching and the like. Critique and skepticism is the coin of the academic realm. A culture of critique and criticism, however, leads to the status quo, a hesitation to invent or take risks.

The point surely is not to avoid robust discussions and debates. However, where a culture of innovation exists, the sorts of discussions that take place are geared toward making ideas better, rather than toward trying to kill every one. Overly critical commentary stifles creativity.



# CONCLUSION



In order to fulfill their institutional missions and meet the challenges of the twenty-first century, schools, colleges, and universities each need to consider the dimensions of creativity and innovation. Neither creativity nor innovation automatically occur; instead, they each need to be built into the culture of the organization. Since many academic cultures are grounded in century-old traditions, innovations - in particular - may be treated with understandable skepticism. Therefore, an organization needs to build collaborative environments based on stable goals. In such an environment, individuals will be intrinsically-motivated to innovate and have the autonomy to pursue fulfilling experiments that can ultimately improve the organization. Therefore, an organization's leaders need to think about non-punitive ways to create processes and procedures that reward risk taking. Through such organizational changes, educational institutions will be able to build a culture of innovation, attaining an elite status over those institutions that solely use the past as a guide to the future.

- Amabile, T. M. (1998). How to kill creativity. *Harvard Business Review*, 76, 77-87.
- Amabile, T. M., Hadley, C. N., & Kramer, S. J. (2002). Creativity under the gun. *Harvard Business Review*, 80(8), 52-61.
- Baregheh, A., Rowley, J., & Sambrook, S. (2009). Towards a multidisciplinary definition of innovation. *Management Decision*, 47(8), 1323-1339.
- Brewer, D. J., & Tierney, W. G. (2011). Barriers to innovation in U.S. higher education. In B. Wildavsky, A. P. Kelly, & K. Carey (Eds.), *Reinventing higher education: The promise of innovation* (pp. 11-40). Cambridge, MA: Harvard Education Press.
- Christensen, C. M. (1997). *The innovator's dilemma: When new technologies cause great firms to fail*. Boston, MA: Harvard Business School Press.
- Clark, B. R. (1992). *The distinctive college*. Piscataway, NJ: Transaction Publishers.
- Crossan, M. M., & Apaydin, M. (2010). A multi-dimensional framework of organizational innovation: A systematic review of the literature. *Journal of Management Studies*, 47(6), 1154-1191.
- Dodgson, M., & Gann, D. (2010). *Innovation: A very short introduction*. New York: Oxford University Press.
- Fagerberg, J., Fosaas, M., & Sapprasert, K. (2012). Innovation: Exploring the knowledge base. *Research Policy*, 41, 1132-1153.
- Fagerberg, J., & Verspagen, B. (2009). Innovation studies - The emerging structure of a new scientific field. *Research Policy*, 38, 218-233.
- Florida, R. (2002). *The rise of the creative class and how its transforming work, life, community, and everyday life*. New York: BasicBooks.
- Fong, T. T. (2006). The effects of emotional ambiguity on creativity. *Academy of Management Journal*, 49, 1016-1030.
- Forster, J., Friedman, R. S., & Liberman, N. (2004). Temporal construal effects on abstract and concrete thinking: Consequences for insight and creative cognition. *Journal of Personality and Social Psychology*, 87, 177-189.

# B I B L I O G R A P H Y

- Frey, C. B., & Osborne, M. A. (2013). *The future of employment: How susceptible are jobs to computerization?* Oxford: University of Oxford, Oxford Martin School.
- Friedman, R. S., & Forster, J. (2001). The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology*, *81*, 1001-1013.
- Lam, T. W., & Chiu, C-Y. (2002). The motivational function of regulatory focus in creativity. *Journal of Creative Behavior*, *36*, 138-150.
- Mars, M. M., & Rios-Aguilar, C. (2010). Academic entrepreneurship (re)defined: Significance and implications for the scholarship of higher education. *Higher Education*, *59*(4), 441- 460.
- McLean, L. D. (2005). Organizational culture's influence on creativity and innovation: A review of the literature and implications for human resource development. *Advances in Developing Human Resources*, *7*, 226-246.
- Okhuysen, G. A., Galinsky, A. D., & Uptigrove, T. A. (2003). Saving the worst for last: The effect of time horizon on the efficiency of negotiating benefits and burdens. *Organizational Behavior and Human Decision Processes*, *91*, 269–279.
- Page, S. E. (2007). *The difference: How the power of diversity creates better groups, firms, schools, and societies*. Princeton, NJ: Princeton University Press.
- Rogers, E. M. (2003). *The diffusion of innovations* (5th ed.). New York: Free Press.
- Schumpeter, J. A. (2005). Development. *Journal of Economic Literature*, *43*(1), 108-120. (Original work published 1932).
- Schumpeter, J. A. (2003). *Capitalism, socialism, and democracy*. London: Taylor & Francis (Original work published 1942).
- Simonton, D. K. (2003). Scientific creativity as constrained stochastic behavior: The integration of product, person, and process perspectives. *Psychological Bulletin*, *129*, 475-494.
- Sternberg, R. J., & Lubart, T. I. (1999). The concept of creativity: Prospects and paradigms. In R. J. Sternberg (Ed.), *Handbook of creativity* (pp. 3-15). New York: Cambridge University Press.

Tellis, G. (2013). *Creating a culture for unrelenting innovation*. Retrieved from <http://www-bcf.usc.edu/~tellis/MWorld.pdf>.

Tierney, W. G., & Lanford, M. (Forthcoming). Conceptualizing innovation in higher education. *Higher Education: Handbook of Theory and Research*, 31.

Tierney, W. G., & Lanford, M. (Forthcoming). Creativity and innovation in the twenty-first century university. In J. Case & J. Huisman (Eds.), *Researching higher education: International perspectives on theory, policy, and practice*. Oxford: Society for Research into Higher Education / Taylor and Francis.

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of Management Review*, 18(2), 293-321.

## ABOUT THE PULLIAS CENTER

With a generous bequest from the Pullias Family estate, the Earl and Pauline Pullias Center for Higher Education at the USC Rossier School of Education was established in 2012 (the center was previously known as the Center for Higher Education Policy Analysis). The gift allows one of the world's leading research centers on higher education to continue its tradition of focusing on research, policy, and practice to improve the field.

The mission of the Pullias Center for Higher Education is to bring a multidisciplinary perspective to complex social, political, and economic issues in higher education. Since 1996 the center has engaged in action-oriented research projects regarding successful college outreach programs, financial aid and access for low- to moderate-income students of color, use of technology to supplement college counseling services, effective postsecondary governance, emerging organizational forms such as for-profit institutions, and the retention of doctoral students of color.

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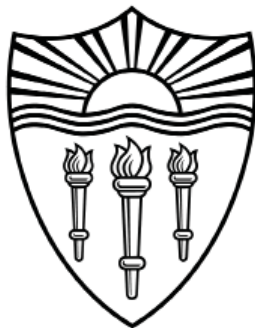
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