

## *Invited Piece*

### **Five Transformative Trends in Higher Education and How They Affect Our Writing**

Jason E. Lane, PhD

State University of New York

Higher education is going through a rapid transformation. Much has been written lately about the changing nature of our enterprise. Some are questioning the continuing value of a higher education (*The Economist*, 2014). Others point to the out-dated nature of the credit hour and the need to move toward more competency-based education (Fain, 2012; Berrett, 2015). State funding has largely stagnated or is in decline (Government Accountability Office, 2014). The for-profit sector is in upheaval and a number of non-profit institutions are on the cusp of financial dilemmas (Fain, 2015). Yet, the need for higher education has never been greater. Globally, demand for a college education is exploding. Some of the world's greatest problems from climate change to water security to decaying infrastructures require the expertise of international teams of researchers. Technology is opening up new opportunities for collaboration and data innovations are providing new insights into student behavior. As a sector, higher education is emerging as a major economic driver around the world.

However, very little has been written about how these transformations may affect the very way that we engage in the research of higher education.

The editors of this volume of *Higher Education in Review* have asked me to reflect on the changing nature of higher education, drawing on my experience as both a faculty member and an academic leader. As I thought about this request, I knew this world does not need another piece about how higher education is changing. There are many of those already. Instead, I have considered how five very specific trends are transforming the role of the higher education scholar and leader – particularly in our roles in observing and writing about higher education. These are all trends that have emerged since I left graduate school just over a decade ago and have already or are poised to significantly change our enterprise and our role as writers, scholars, and leaders.

## 1. Higher education works in systems, not campus by campus<sup>1</sup>

A vast majority of public higher education institutions in the United States operate as part of multi-campus systems in which a single governing board oversees multiple institutions. In fact, according to the National Association of System Heads (2015) there are 44 such systems spread across the United States serving approximately 75% of all students pursuing a four-year degree. Moreover, fewer students than ever experience higher education in a linear fashion or at only one institution. Many students now swirl through higher education, attending multiple institutions and transferring both vertically and horizontally (Clemetson, Furbeck, & Moore, 2013). This means that how we view the student experience and what constitutes and supports student success requires looking beyond the boundaries of any single institution.

Yet, one would be hard pressed to find much discussion about systems or other forms of multi-campus engagements in the broader higher education literature. In the literature about higher education, the unit of analysis tends to be the institution and the analysis is based from the perspective of what is good or bad for the institution. This focus influences how we analyze our enterprise and can cause us to miss important factors. Multi-campus higher education systems, for example, are one of the most common ways for states to organize and govern their public colleges and universities in the United States. Even private campuses often collaborate through a private college association in their state or work with other regional colleges, public or private, to offer joint degree programs. Despite growing cross-campus collaboration, systems receive very little attention from scholars. Myriad studies have examined the impacts of more or less centralized governance structures (e.g., McLendon, 2003; Toma, 1990; Lowry, 2001a, 2001b; Zumeta, 1996), but the study of higher education systems as an important organizing factor has been sparse and sporadic (see Lane & Johnstone, 2013).

The limited research and writing about system mostly regards higher education systems as allocators, coordinators, and regulators. That is, they most frequently serve as a means to disperse state appropriations to institutions; coordinate the activities and programs of campuses, primarily with an eye toward minimizing unnecessary duplication; and enact and enforce broad policies affecting public higher education. In many ways, higher education research has regarded systems as functional but not very strategic - bureaucracies, not leaders, as conduits of communication, not agenda setters.

An institution specific viewpoint also limits one's ability to capture the entirety of many students' educational experience and the factors that lead to success or failure. When viewing student success from the viewpoint of an institution, a student leaving an institution may be counted a failure even though

---

<sup>1</sup> This section is adapted from Lane and Finsel (2014).

that student may go on to graduate college elsewhere. This is why the Association of Public and Land-Grant Universities (APLU) has supported the development of the Student Achievement Measure (SAM), which uses data from the National Student Clearinghouse, to provide a comprehensive picture of a student's progression toward a college degree or certificate. As we better understand the ways in which students experience higher education and the number of swirling students increases, then student development research needs to focus more on how a system (or other consortia of multiple institutions) supports student success, not just a single institution. Take, for example, the State University of New York, which after conducting research on students across 64 campuses, realized that more than half of all baccalaureate-degree earners in the system attend more than one institution. As a response, SUNY implemented a new policy framework and technological infrastructure to support student mobility and success as they move throughout the system. This would not have been possible if the data were analyzed at the campus level or the student experience was viewed from the perspective of a single institution. This is not to downplay the importance of the student experience on a given campus – that actually remains among the most important factors contributing to student success and we need to further unpack how college affects students. What is important here is that for many students, their student experience transcends multiple institutions and we need to understand how that network of experiences affects student success.

By their very size and scope, systems are a core component within the US higher education arena. They serve as the connective tissue between multiple campuses as well as a bridge between higher education institutions and their state government – serving as advocates for institutions to the state government and representatives of the state interests to institutions. More than that though, they provide an opportunity to view higher education in a more holistic fashion. Beyond the student experience mentioned above, systems are learning more about how to support collaborative research projects across systems; how to share resources and administrative positions; how to navigate the tensions of authority and autonomy within a multi-campus system; and how to build campus collaborations for joint recruitment of students and building shared academic programming. There are many areas of research that are ripe for exploration and these become increasingly important as collaboration becomes core to the long-term sustainability of the higher education sector.

## **2. The world of higher education is “flattening”**

Thanks to the book with the same name, the phrase the *World is Flat* has come to represent a global leveling of a playing field in commerce where all

competitors have an equal opportunity (Friedman, 2005). The main idea that Friedman put forth was that to remain competitive in a global marketplace, countries, companies, and individuals needed to shift their perspective from a world divided by geopolitical boundaries, to a world that is increasingly connected. The same is true for colleges and universities. The higher education world has very much flattened as well and those that fail to make a similar perceptual shift risk a declining relevance. As writers, we need to recognize the broader global landscape in which our colleges and universities now operate.

Higher education has always been international in that students, faculty, and knowledge have flowed across national borders for centuries. In the past decade, international mobility has increased at an unprecedented rate. In fact, today even institutions are mobile, setting up shop in other countries to conduct research or deliver courses. To provide some perspective on how the landscape has changed, in 2012, there were 178 million students pursuing some form of tertiary education around the world and 4.5 million of those students were studying in a country other than their own (OECD, 2014). Both of these numbers are approximately double that of 2000, when there were 99.4 million tertiary students, with 2.2 million studying abroad.

For many countries international student enrollments are growing components of their overall enrollments. International students accounted for more than 10% of the total tertiary enrollment in Australia, Austria, New Zealand, Switzerland, and the United Kingdom in 2009-2010. And, while international students only comprise 4% of the overall tertiary enrollment in the US in 2013-2014 (Institute for International Education, 2015), the US captures 16% of all students studying abroad (OECD, 2014).

Beyond student mobility, many institutions have been expanding their physical footprint overseas by developing joint and double degree programs and building research sites, study abroad centers, and full fledged branch campuses. The data about these engagements remains sparse; though the Cross-Border Education Research Team at the State University of New York at Albany has documented that institutions in 32 countries are operating a total of 235 international branch campuses as of 2015, up from about 20 campuses in 1995 (C-BERT, 2015). This does not account for the dozens of other foreign presences such as outreach offices, research laboratories, study abroad sites, experiential learning labs, and so forth. All institutions are now, at some level, competing for students, faculty, and resources on a global level and they have a responsibility for educating students to be able to effectively engage in a world that is shrinking due to globalization.

Much of the development of higher education around the world is driven by what Wildavsky (2012) has come to call *The Great Brain Race*, in that countries are increasingly investing in higher education as a means for attracting and keeping academic talent – a critical driver of today's knowledge economy.

Indeed, we are just coming to realize what Clark Kerr (1963) observed a half century ago; “We are just now perceiving that the university’s invisible product, knowledge, may be the most powerful single element in our culture, affecting the rise and fall of professions and even social classes, or regions, and even nations.” In fact, the worldwide economic value of higher education has been estimated at approximately \$1 trillion (IBIS, 2013) and having a university in the top rankings of the emerging global higher education rankings has created a new level of competition among nations. As Mok and Cheung (2011) note, “Having more higher education institutions in the top rank of the [rankings] is ... essential to a country’s competitiveness for it would indicate an apparently disinterested and objective third-party endorsement of its academic excellence” (p. 234). And, having institutions drop in the rankings can be humiliating for nations and institutions alike (Hazelkorn 2009, 4).

I am barely scraping the surface in terms of how the global higher education dynamics are shifting. Suffice to say that while the United States remains a dominant player globally, mobility of all types is increasing and it is imperative that those that seek to study and understand higher education in the United States and elsewhere understand the global forces at work and how they are impacting the enterprise.

### **3. The world relies on our research, but only when it can be understood.**

In a previous essay for *Higher Education in Review*, Ikenberry (2011, p. 2) examined the intersection of higher education scholarship and practice, commenting that “the connection linking scholarship to decision-making on campuses and by policy makers is not strong.” He went on to observe:

In the best of worlds scholarship should inform and guide change. Faculties, administrators, governing boards, and policy makers should seek out evidence and analysis of scholars in the field. Too often those crucial audiences are skeptical, resistant, dismissive, or more often, simply oblivious to the work of scholars in the field. (p. 2)

I agree with the entirety of this observation –there needs to be a closer connection between scholarship and practice, yet the gap between them remains too large. There are multiple reasons why there is often distance between higher education scholars and administrators; but a key reason is that we have lacked an expectation of researchers needing to be able to translate their research to improve the realities of practical experiences. In many fields, particularly in the area of health, there is a guiding expectation that research be used to improve the lives of patients and many professional fields have clinical faculty that straddle the scholarly and practical experiences. Such an expectation is not forefront in our field. In part, that is because those of us who study higher education often

come from fields that have not had the expectation (e.g., political science, history, sociology) in the same way that those trained in health fields. Yet, this does not diminish the need to move the field more in this direction.

It is not unusual for higher education scholars to sometimes have difficulty translating their research in such a way that it can inform practices. For example, not too long ago, I was interviewing a prospective faculty member. This individual had done some interesting research about the lived experiences of new faculty members. This person indicated that she wanted her research to be used in a way to help more junior faculty be successful in obtaining tenure. At the time, I was in the process of designing a new curriculum for a department chair training program and I asked what advice this candidate would have for department chairs. Knowing that these individuals are often critically important for helping a new faculty member successfully navigate the tenure process, I was shocked when it seemed the researcher had not given much thought to the practical implications of her research. The answers that I received were so general and lacking of practicality that I could not use this important body of work to develop specific recommendations for helping department chairs improve their work. I know that there are aspects of the work that could be very informative, but this individual was simply not able to convey them in a way that could readily inform practice. This, unfortunately, happens too often and important research can be dismissed or ignored because the faculty member cannot easily translate their work into practical application – this issue is not limited to higher education; but as a professional area of study, we have a higher level of expectation to be able to translate our research to be relevant.

Over the last decade, there has been growing awareness of the need for more translational research to occur in the education fields. Mary Brabeck (2008), former dean of the Steinhardt School of Education at New York University framed the issue this way:

In medicine, translational research is often identified as “bench to bedside” work.

It recognizes the gap between basic research in the lab and the practice of medicine that can make a difference in health outcomes. The goal of translational research is to give practitioners the latest information from basic-research labs in usable form. The idea is to produce better medications, improve diagnostic and treatment strategies, and enhance health through the application of information from basic science research. In education, not unlike medicine, vital knowledge too often remains with the researchers and is unavailable to the professionals who are in positions to help children and youths – that is, the teachers. We have a similar “clinical lab to classroom” gap.

Brabeck’s focus is on using translational research to improve classrooms; but the same concepts can be applied to the wide array of research that occurs in higher

education – we need to find better ways to communicate to other faculty, administrators, and policy makers.

Over the course of my career, I have often valued the opportunity as a blogger for the Chronicle of Higher Education, a columnist for ACPA, and now as an academic leader to translate my research into forms that are accessible to a wide array of readers. These experiences taught me how to convey my ideas to a broad audience, limit my use of jargon, and convey arguments in a clear and concise format. It was difficult at first; but I soon came to realize that it was a useful exercise. While my promotion and tenure committee did not take such activities into account, the opportunity to translate my research into a widely accessible format made more people aware of the work that I was doing, strengthened my writing skills, and at times came to inform practice.

Scholars need to be able to write for multiple audiences. I do not see the end of the need to publish our scholarship through peer-reviewed venues. In fact, that process remains an important quality control mechanism and provides scholars with legitimacy that their work has been vetted by scholarly peers. However, we also need to be able to translate those findings into formats that are readily understood and quickly applied.

#### **4. Data technologies have already transformed our work, and will continue to do so.**

We have now entered the era of Big Data. Data technology has been evolving at such a rapid pace, it is hard to predict how this era will ultimately transform our work as researchers or practitioners; but there is no doubt that it is altering how we work, play, and live. Indeed, billions of data points are generated every day, creating a real-time, digital footprint of our lives with every credit card swipe and smart phone use. According to Miller and Chapin (2013) about five exabytes of data were produced from the beginning of civilization until 2003. Today, we produce this much data about every two days. With the availability of this ocean of information, the question becomes how to use the data to better engineer our world to serve our needs. This Big Data movement is transforming everything from healthcare delivery systems to the way cities provide services to citizens. Yet, we are just now beginning to understand how this Big Data movement could help build smarter universities—“institutions that can use the huge amounts of data they generate to improve the student learning experience, enhance the research enterprise, support effective community outreach, and advance the campus’s infrastructure” (Lane & Finsel, 2014, p. 4). All of this will likely reshape how we analyze and write about higher education.

Unlike the data that we often think about in a research design course, the Big Data that will transform our work is complicated and messy. We are not talking about the nicely organized datasets that one can obtain from the National Center

for Education Statistics (NCES), where every variable is defined and the data is verified. Big Data represents human behavior, at times uncoordinated or unorganized. Every time you surf the web, use your smart phone, log on to your course management site, swipe your student or faculty ID, or trigger your GPS device you are creating a “digital exhaust” that allows others to see your patterns of behavior (Loukides, 2010). All of this data, if captured in a usable form, can create a data source that can be used to help people know more about themselves, predict the likely outcomes of certain behaviors, and develop real time interventions to alter or reinforce certain behaviors. The implications for higher education are tremendous.

Take the study of student development, for example. For decades, researchers have been trying to unpack the black box of the college experience, working to understand the student experience. The voluminous compendiums by Pascarella and Terenzini (1991, 2005) review decades of research that have advanced our understanding of how college affects students. However,

... while great strides have been made to understand the impact of the college experience on students, much has remained unknown about how students actually spend their time in college. Interventions are, in many cases, based on data gathered years before, and assumptions about students are often based on group behavior rather than individual activity. These observations are not meant to be critiques of how higher education has operated; they simply describe a reality based on the availability of past data. Information was gathered from surveys and interviews; the need for sampling made it important that data was as pristine as possible; and conclusions were based on groups of people, not individual activity. (Lane & Finsel, 2012, p. 10)

Today, we are seeing the emergence of techniques that capture enormous amounts of data and allow for understanding the student experience in real time. These advances now allow colleges to implement interventions that have been proven to work for students with similar backgrounds and behaviors. Arizona State University’s (ASU) eAdvisor program, for example, gathers data from the institution’s student data system and course software, Facebook, student ID card swipes, and performance patterns to identify at-risk students and then provides interventions to help keep them on track to complete current course work and make progress toward graduation (Parry, 2012). In another example, the former provost, and a mathematics professor, at Austin Peay University was inspired by Netflix’s ability to make customized movie recommendations to users to create Degree Compass, which makes customized course sequencing suggestions to students based on their intended major, academic performance, and the success of similar students. These interventions, both of which have improved student success along a number of indicators, are just a sample of a growing number of

data-based programs that are transforming what we know about how students experience college and provide insights into improving their success.

In many ways, this real time, individualized data may make us reconsider the decades of research that so many of us base our writing upon and means we may have to reconsider the theories that have grounded our thinking. Rather than simply relying on the theories about student development that we learned in graduate school and after, we need to check these theories against the lived experiences of the students of today. It used to be that we would have to extrapolate from previous evidence to try to understand how to help a struggling student – now a computer can run the data and provide an assessment of the situation in seconds. This is not to suggest that we should ignore theory. In fact, I think that theory becomes more important in that we need individuals with in-depth knowledge about certain areas to interpret and verify the conclusions drawn from this new data. What it does mean is that we need to learn how to integrate the more traditional scholarly contributions with the emerging data landscape.

### **5. Social media has altered the way that we network and communicate.**

I want to conclude with a trend that is not so much affecting how we write – rather how we portray ourselves as writers in our professional communities. When I took my first faculty position in 2003, social media was just emerging. For most of us in higher education then, social networking was a novelty and few would have considered actively engaging with it, particularly in terms of our professional purposes. Fast forward more than a decade later and today I manage multiple social network sites, most of which are directly geared toward professional engagement. What I have realized through these past 13 years is that these sites serve multiple functions in how I communicate my work to my peers, and that I need a set of guidelines to guide my actions.

In the dark ages prior to the internet revolution, the primary way of distributing one's scholarly contributions was to publish in peer-review journals and present at academic conferences. These outlets continue to play critical roles in setting high quality standards through peer-review, as well as career advancement, promotion, and tenure. But, the audience for these conferences and journals remains overwhelmingly academic – your reach may be limited to a few colleagues interested in the same niche studies. Such punctuated contributions can make it difficult for anyone to understand the larger contributions of any given scholar.

The internet transformed the ways in which many professors, particularly those in younger generations, have come to communicate their body of work to the profession. Journal articles and conference presentations remain important; but we now maintain web pages where people can read our bios, see our entire list of publications, committees we serve on, and classes that we teach. Today

one is almost obligated to maintain a LinkedIn page to keep people updated on your professional titles and associations, a research social network site (e.g., academia.edu or researchgate.net) to let people know about your latest research, and a twitter feed to alert people to your pithy commentary on critical higher education issues (or musings of the moment).

To help guide my engagements with social media, I have developed a set of personal guidelines. For example, my twitter feed is only for professional purposes and I try to keep it focused on a few key topics such as globalization, economic competitiveness, or major changes in higher education. On the other hand, I use Facebook mostly for personal engagements and limit the professional connections on that site. At one point, I tried to maintain separate professional and personal Facebook pages, but that became too difficult to juggle and I eventually gave up the professional site.

Beyond these rules of engagement, I also used social media as a means for letting people know about the work that I have published. Twitter is a good option, as well as Facebook if you choose to use it for such purposes. I also maintain sites on both Academic.edu and Researchgate.net. Both reach different audiences and they allow you to tag your publication with keywords that then push it out to others with similar interests. And, be sure to use multiple tags, including variant spellings of the same word such as “internationalization” (US) and “internationalisation” (UK). These sites also have useful dashboards to see how many people have viewed or downloaded your publications from the site and in what country they accessed your material. These sorts of indicators are beginning to gain traction among scholars as demonstrations of impact, beyond or in complement to the typical citation count, as they show how many people have accessed your work, not just how often scholars have cited to it. Managing one’s social media network can become a full-time job. Therefore, it is important to be aware of how much time one is spending on such activities; remembering that the foundation of one’s legitimacy as a scholar is based on scholarly works – not social networking.

### **Conclusion**

There is no telling what life will hold in the next ten years. There will be remarkable advances that we cannot even fathom at this point. Some of these will surely affect the higher education enterprise. Most of what I discuss above were issues barely considered when I was in graduate school just over a decade ago, which means that I had to keep up to date not just on the scholarly literature, but what was happening in the broader higher education environment. The role of the higher education scholar is to be able to integrate into our writing the scholarly foundation that grounds our thinking as well as the realities that are transforming the practice of our field.

## References

- Berrett, D. (2015, May 21). New graduates test the promise of competency-based education. *The Chronicle of Higher Education*. Retrieved April 14, 2015 from <http://chronicle.com/article/New-Graduates-Test-the-Promise/230315?cid=megamenu>.
- Brabeck, M. (2008). Why we need 'translational' research: Putting clinical findings to work in classrooms. *Education Week*, 27(38), p. 28, 36.
- Clemetson, B., Furbeck, L., & Moore, A. (2013). Enabling student swirl: Understanding the data and best practices for supporting transfer students. *Strategic Enrollment Management Quarterly*, 1(3), 153-165.
- Cross-Border Education Research Team (C-BERT) (2015, April 28). C-BERT Branch Campus Listing. [Data originally collected by Kevin Kinser and Jason E. Lane]. Available: <http://globalhighered.org/branchcampuses.php> Albany, NY: SUNY.
- Fain, P. (2012). Hour by hour. *Inside HigherEd*. Retrieved April 25, 2015 from <https://www.insidehighered.com/news/2012/09/05/credit-hour-causes-many-higher-educations-problems-report-finds>.
- Fain, P. (2015, May 7). Can for-profit sector survive its slump? *Inside HigherEd*. Retrieved May 10, 2015 from <http://www.pbs.org/newshour/updates/beginning-end-profit-colleges/>.
- Government Accountability Office. (2014). *Higher education: state funding trends and policies on affordability*. Washington, DC: GAO Retrieved April 25, 2015 from <http://www.gao.gov/assets/670/667557.pdf>.
- Hazelkorn, E. (2009). Rankings and the battle for world-class excellence: Institutional strategies and policy choices. *Higher Education Management and Policy*, 21 (1), 1-22.
- IBIS Capital. (2013). *Global e-learning investment review*. London: IBIS Capital.
- Ikenberry, S. (2011). Scholarship and practice in higher education: What lies at the intersection? *Higher Education in Review*, 8, 1-12.
- Institute for International Education. (2015). *Open Doors 2014: Report on international education exchange*. New York City, NY: IIE.
- Kerr, C. (1963). *The uses of the university*. Cambridge, MA: Harvard University Press.
- Lane, J.E., & Johnstone, D. B. (eds.). (2013). *Higher education systems 3.0: Harnessing systemness; Delivering performance*. Albany, NY: SUNY Press.
- Lane, J.E., & Finsel, B.A. (2014). Fostering smarter colleges and universities: Data, big data, and analytics. In J.E. Lane (ed.). *Building a smarter university: Data, big data, and analytics*. (pp. 3-26). Albany, NY: SUNY Press.

- Lowry, R. C. (2001a). Governmental structure, trustee selection, and public university prices and spending: multiple means to similar ends. *American Journal of Political Science*, 45(4), 845-861.
- Lowry, R. C. (2001b). The effects of state political interests and campus outputs on public university revenues. *Economics of Education Review*, 20, 105-119.
- McLendon, M. K. (2003). State governance reform of higher education: Patterns, trends, and theories of the public policy process. In J. Smart (Ed.), *Higher education: Handbook of theory and research* (Vol. 18, pp. 98-120). Dordrecht, Netherlands: Kluwer.
- Miller, K., & Chapin, K. (2013, February 15). *How big data changes lives*. Retrieved from WGBH website: <http://www.wgbhnews.org/post/how-big-data-changes-lives>.
- Mok, K.H. & Cheung A.B.L. (2011). Global aspirations and strategising or world class status: new form of politics in higher education governance in Hong Kong. *Journal of Higher Education Policy and Management*, 33(3), 231-251.
- OECD. (2014). Education at a Glance 2014: OECD Indicators. Retrieved on March 14, 2015 from <http://www.oecd.org/education/eag.htm>.
- Parry, M. (2012, July 18). Big data on campus. *New York Times*. Retrieved from [http://www.nytimes.com/2012/07/22/education/edlife/colleges-awakening-to-the-opportunities-of-data-mining.html?pagewanted=all&\\_r=0\\_](http://www.nytimes.com/2012/07/22/education/edlife/colleges-awakening-to-the-opportunities-of-data-mining.html?pagewanted=all&_r=0_)
- Pascarella, E. T., & Terenzini, P. T. (1991). *How college affects students: Findings and insights from twenty years of research*. San Francisco, CA: Jossey-Bass.
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affects students: A third decade of research*. San Francisco, CA: Jossey-Bass.
- The Economist. (2014, April 5). Is college worth it? *The Economist*. Retrieved May 15, 2015 from <http://www.economist.com/news/united-states/21600131-too-many-degrees-are-waste-money-return-higher-education-would-be-much-better>.
- Toma, E. F. (1990). Board of trustees, agency problems, and university output. *Public Choice*, 67, 1-9.
- Wildavsky, B. (2010). *The great brain race: How global universities are reshaping the world*. Princeton, NJ: Princeton University Press.
- Zumeta, W. (1996). Meeting the demand for higher education without breaking the bank: A framework for the design of state higher education policies for an era of increasing demand. *Journal of Higher Education*, 67(4), 367-425.