

July 2014

# Context Matters for Teaching and SoTL: Economic Constraints, Contingent Faculty, and Technology

Maxine P. Atkinson

NC State University, [atkinson@ncsu.edu](mailto:atkinson@ncsu.edu)

---

## Recommended Citation

Atkinson, Maxine P. (2014) "Context Matters for Teaching and SoTL: Economic Constraints, Contingent Faculty, and Technology," *International Journal for the Scholarship of Teaching and Learning*: Vol. 8: No. 2, Article 2.  
Available at: <https://doi.org/10.20429/ijstl.2014.080202>

---

# Context Matters for Teaching and SoTL: Economic Constraints, Contingent Faculty, and Technology

## **Abstract**

The social contexts within which we live have a remarkable impact on our daily lives as well as our trajectory. Contexts are also more specific. We teach in a context of a changing higher education institution. The purpose of this essay is to review some of the current conditions in higher education under which teaching and learning occur in the hope that it will help us consider their implications, suggest how we might take advantage of the opportunities that allow better teaching, and lessen the impact of the conditions that threaten improvements to teaching and learning. The economic climate, increases in the percent of contingent faculty and changing technology are considered

## **Keywords**

economic constraints, contingent faculty, MOOC, context, technology, SoTL

---

While many of us ignore the wider contexts within which we teach and conduct our SoTL, we do so at our peril. Our lives are profoundly shaped by the historical period in which we live. Referring to the "spirit of the time" is an abstract way of saying there are macro-level opportunities and opportunity constraints in every age. Before compulsory public education, for example, education was primarily the province of white boys from wealthy families. This gender- and class-based social system created an opportunity for wealthy boys but stood as a barrier almost impossible to overcome for women, the poor, and people of color. Before the printing press, few common people owned books, so information was often shared verbally. Those who had contact with well-educated people from whom they could learn were advantaged; those who did not were disadvantaged. Those who had access to skilled tradesmen could learn; those who did not could not. Before the widespread use of the Internet, most of us read print copies of professional journals and newspapers. Now many of us access information mostly online. Those of us who have access to the Internet and who have technical skills are advantaged; those who do not are disadvantaged.

Looking back on these historical conditions, it seems obvious that the social contexts within which we live have a remarkable impact on our daily lives as well as our life's trajectory. Hindsight is easier than recognizing the impact of the current socio-political landscape in which we live and work. It is like asking fish to see the water they swim in. The purpose of this essay is to review some of the current conditions under which teaching and learning occur in the hope that it will help us consider

- implications of contexts of teaching and learning,
- how we might take advantage of the opportunities that allow better teaching, and
- lessen the impact of the conditions that threaten improvements to teaching and learning.

It is to our advantage to reflect on our individual lives and the socio-political conditions that smoothed our way or hindered our progress. This type of personal reflection often helps sensitize us to current macro-level contexts and reminds us that some of our students enjoy tremendous privilege while others face seemingly overwhelming obstacles. Focusing on the macro-level conditions of the times when we came of age is a good mechanism for sensitizing us to the needs of our students. While we teach students other than those aged 18-22, all of them are "coming of age" in terms of their educational trajectories.

My personal history provides a good example of the difference coming of age in a specific historical period of time can make. People often give me too much credit for my educational achievements. My family of origin was poor and uneducated. How was I able to get a Ph.D.? Kind people often assign me a "specialness" that as a sociologist I know is not warranted. I graduated from high school in 1966. The US responded to Russia's 1958 launching of Sputnik with funding initiatives for higher education aimed at making sure that we would be competitive in the Cold War. Civil rights advocates worked toward providing support for

poverty-stricken youth. It was in this environment with national support for higher education and an emphasis on civil rights that I entered higher education. The result was that I had so much financial scholarship support that I had to return some of it every semester I was in college. I graduated from high school at an opportune time for a poor kid in the South (Powell, 2007.)

As a sociologist I am acutely aware that the structural conditions under which we live our lives also have a major impact on our teaching and SoTL. Individual characteristics matter, but so do larger macro-level conditions. In this essay I will examine some of the major influential factors that I see affecting our lives as teacher-scholars. I will review current economic constraints and how those have affected higher education and technological advances. In each case, I will argue that there are often opportunities created by these macro-level changes for us as well as the more commonly recognized threats. I argue that as individual tenure-track faculty, we can make a difference, but I leave specific policy recommendations for others.

#### Economic Constraints

First, let's discuss how the most recent economic recession has affected higher education. Forty-eight states have withdrawn financial support from their respective systems of higher education. (The exceptions are Wyoming and North Dakota.) From fiscal year 2008 to 2013, Arizona has withdrawn 50% of its support to higher education. New Hampshire has withdrawn 41%, Oregon 44%, Louisiana 42%, Florida 41% and Alabama has decreased support by 40%. The state that has decreased its support the least is my home state of North Carolina at 15%. Within twenty years, if the current trend continues, six states will provide no support to their colleges and universities: Colorado, Alaska, South Carolina, Arizona, Rhode Island and Vermont (Oliff, Palacios, Johnson and Leachman, 2013).

Why have states cut funding to higher education? As Bill Clinton reminded himself, "It's the Economy Stupid." In times of limited resources choices must be made. We have myriad social needs, including support for the unemployed, Medicaid and K-12 education. In this context, higher education may appear to be a less dire need. Higher education is a long-term investment; other needs are more immediate. Legislators and other elites who make these decisions have less of a personal need for support to state schools. They are more likely to be able to afford private college tuition for their own family members. And, let's face it, colleges and universities may not be seen as vulnerable or as deserving as other social institutions. This might especially be the case post-recession when there is a strong emphasis on jobs, and many of our degree programs offer no specific job training. Who has not heard the phrase, "what are you going to do with an Art History degree (or any other humanities or social sciences degree)"? Many of our curricula are constructed with outcomes aimed toward students becoming thoughtful and productive citizens of the world rather than specific vocational training. (In my more cynical moments, I might argue that higher education represents a threat to conservative politicians, but that is imputing motives and I teach my undergraduates to be very careful not to do this.)

At least partially as a result of the decrease in state funding, tuition has increased dramatically in some states. Though there is not a perfect correlation between the amount of

decreased state funding and the tuition increase, the relationship is apparent. For example, Arizona decreased support to state higher education by the largest percent (50%) and increased tuition by the largest percent (78%) from fiscal year 2008 to 2013. Florida decreased funding by 41% and increased tuition by 67% during the same period. The ripple effects continue. As a result of decreased state funding and increased tuition, students' share of the cost of higher education has increased dramatically (Oliff, Palacios, Johnson and Leachman, 2013). And perhaps most concerning, student debt has reached alarming proportions. Among 27-year-olds who went to college, only 40% have no debt, while 11% have more than \$50,000 in debt (Weissman, 2014).

Logically related to increasing tuition and student debt, calls for greater accountability and efficiency have increased since the Great Recession. One of the most controversial moves emanates directly from the federal government. The Department of Education is working to create a college ranking system (Lederman, Stratford and Jaschik, 2014). Sometimes known as "Obama's Ratings Proposals," colleges would be ranked on characteristics such as access, affordability and outcomes of graduating from a specific college or university (The White House, Office of the Press Secretary, 2013).

What can individual faculty do about reduced state support and the resulting increase in tuition and student debt? To some extent macro-level economic conditions lie beyond the influence of individual faculty, but we are not without power. First, it is very important that we work to retain students and help them graduate in the shortest amount of time. It is important to institutions, but it is also important to individual students. The longer students stay in school, the more debt they are likely to incur. We can make a difference with our encouragement, support, and effective teaching. If we use high-impact teaching practices and strategies (e.g., writing-intensive courses, research, internships, etc.) students are more likely to be engaged and more likely to learn. High-impact practices and strategies also allow students to see how higher education matters for their future (Kuh, 2008).

We can also advise well. All of our disciplines have direct application in the "real world," and we need to make these applications explicit. Margaret Vitullo, Director of the Academic and Professional Affairs Program of the American Sociological Association, offers suggestions for what she calls "career advising." She suggests identifying successful graduates and asking them to help you and your department link your programs to their success. In sociology, for example, our graduates become research associates, nonprofit managers, and parole officers. We can offer these concrete examples of what you can do with a sociology major. We also teach data analysis skills useful in a number of jobs, including real estate, banking, and management.

Whatever your discipline, you have successful graduates you can use as examples. You teach analytical skills--tout them. Make sure your students know how valuable you and your discipline are to them. We cannot assume our students can see the connection between the world of work and the important skills we teach. The recession has hurt us deeply, but it can also remind us that we can make a difference in our students' lives.

#### Contingent Faculty

The increase in contingent faculty is probably directly related to the current economic conditions. Contingent faculty are defined here as faculty who lack full faculty status, including part-time faculty, graduate students, postdoctoral fellows and full-time fixed term faculty. The

proportion of contingent faculty teaching in our colleges and universities has grown at an astounding rate. In nonprofit colleges and universities, from 1969 to 2009, the percent of contingent faculty increased from 22% to 67%. Tenure track faculty now make up only 34% of the professoriate (Kezar and Maxey, 2013). Other estimates suggest that the percent of contingent faculty is actually even higher, perhaps up to 76%, with 50 % of all faculty holding part-time appointments (American Association of University Professors, 2014).

There are a number of reasons to be concerned about the increase in contingent faculty. Overall student performance is lower in classes taught by contingent faculty compared with full-time tenure-track faculty. Contingent faculty have less contact with students, and they are less likely to use high-impact pedagogies (Umbach, 2007). As the percentage of contingent faculty increases, retention and graduation rates decrease (Kezar and Maxey 2013). While universities are losing state support, they are also being exhorted to increase retention and graduation rates. Increasing the number of contingent faculty is a logical step given financial pressures, but this move may be counter-productive to our overall goals of retention, graduation, and enhanced student performance.

However, to blame contingent faculty for these poor outcomes is to blame the victim. Contingent faculty suffer from low pay and difficult work environments. They often have limited office space and no clerical support. Usually, contingent faculty are not involved in curriculum development, so they have less invested in the programmatic emphases of a department. Professional development is seldom encouraged or even available. Pair these working conditions with limited job security and the short lead time that contingent faculty are often given before they begin teaching, and you have a recipe for poor student learning outcomes (Kezar and Maxey 2013).

We also need to consider the great diversity of contingent faculty. Is it reasonable to compare the effectiveness of full-time contingent faculty with graduate students with part-time contingent faculty? What about the impact of the types of colleges and universities within which contingent faculty teach? Jaegar and Egan (2011) provide us with research that addresses these issues. They test the effects of the use of contingent faculty on retention rates for first-year students in six different institutions of one state university system. The institutions include doctoral-extensive, doctoral-intensive, masters and baccalaureate schools. The research is notable in a number of different ways, including the large sample sizes. For example, they analyzed data for four cohorts and 15,566 first-year students from doctoral-extensive institutions. This research confirms that, in general, the use of contingent faculty decreased retention of first-year students by between 10% and 30%, regardless of type of contingent faculty. However, one of their findings stands out as most helpful in informing the policies we might consider. In doctoral-intensive schools, the use of contingent faculty actually increases retention rates among first year students! While further research is certainly needed, they explored these findings and discovered that in these schools, special attention had been paid to providing professional development opportunities to contingent faculty. Efforts were also made to assure that contingent faculty had access to information about campus resources to support student learning. These findings strongly suggest that if contingent faculty's job conditions are improved, so will the outcomes of their teaching.

Tenured and tenure-track faculty can make a big difference if we use our influence to improve conditions for contingent faculty. As many as half of first-year students are taught by

contingent faculty (Jaeger and Eagan 2011), and their numbers alone demand that we pay attention. Contingent faculty need to be recognized when they do a good job for our students, as we all do. We all know that rewards matter. We can help integrate contingent faculty into our departments. Inviting them to faculty meetings, asking for input into curricular matters, and proposing written guidelines for hiring can make a difference in their lives and the lives of our students. Encourage your departments to hire contingent faculty full time and to pay them a living wage. No one works well living on starvation wages. We lose nothing by being good colleagues, and everyone stands to gain. The way we treat contingent faculty remains an embarrassment to the academy.

### Online Learning and MOOCs

It would be unusual to find an academic who had not heard of online learning, but few of us understand how widespread the phenomenon has become. In 2012, a national survey by the Sloan Consortium reported that 32% of all U. S. students had completed at least one online course, 87% of all colleges have online courses, and 62% of colleges have some online program (The Sloan Foundation, 2012). Online education has become so widespread that US News and World Report now ranks online undergraduate and graduate programs. (US News and World Report, 2014). The University of Florida opened an online branch campus where students can complete an entire degree online. In addition to undergraduate and master's degrees, they offer doctorate degrees in education, liberal arts and sciences, nursing, public health and health professions and pharmacy (University of Florida, 2014). How state universities advertise their online courses and programs offers telling insights. Arizona State University, for example, advertises their programs as being taught by the same faculty who teach their face-to-face courses. "At ASU, how you learn online is effective, flexible and smart. What you learn online is the same content from the same excellent faculty who teach on our campuses" (ASU Online, 2014). This ad suggests that online education, despite its national availability, has struggled to gain the legitimacy of campus-based programs.

Are online courses and programs effective? The U.S. Department of Education conducted a meta-analysis of online learning and report that "on average, students in online learning conditions (sic) performed modestly better than those receiving face-to-face instruction" (Means, Toyama, Murphy, Bakia, and Jones, 2014: ix). Of course, there are some bad online courses, but the same can also be said for face-to-face courses.

It only makes sense that large state schools will have the largest online offerings, but small schools have also been affected by the move toward online learning. If nothing else, smaller schools must deal with transfer credit associated with online learning courses. However, it might be to small colleges' advantage to offer their own online courses. At least one group of small colleges has banded together to offer online courses for their collective students. The Council of Independent College and the Teagle Foundation created a "Consortium of Online Humanities Instruction" with 20 small colleges offering online courses to member institution students (Straumsheim, 2014).

What is the future of online education? With a clear and strong assertion that I do not have a crystal ball, let's identify some trends that appear to be predictive. Fishman (2013) published a comprehensive report that includes a historical perspective, a review of Britain's

successful Open University, a description of efforts that have succeeded and failed in the U. S., and recommendations for moving forward. To date this is one of the most comprehensive reviews of online learning and is readily accessible. The author, Rachel Fishman, is associated with the New America Foundation. If you read nothing else about online education, read this report!

The recommendations are easily summed up: “At a time when a higher education is more important to individual and collective prosperity than ever before, students need online courses and degree programs that are effective, affordable, and grounded in public values. A State U Online model is achievable, but only if states and higher education institutions work together to share their resources and reduce barriers that prevent students from moving seamlessly through the system—credits in hand.”

To clarify, Fishman provides examples of the type of initiatives that need to be taken. The University of Wisconsin system provides students a “clearinghouse of courses and degrees” for students within their system. This is an easily achievable goal. The University of North Carolina system provides the same service at <http://online.northcarolina.edu/unonline/courses.php>. Students can search among all the courses and degrees offered online through the university system.

Fishman recommends a second step exemplified by Minnesota Online in which institutions share contracts for resources such as Learning Management Systems. The third step is to share student support services, as in the Florida Virtual Campus. Other recommendations include collaborations between states, such as the Great Plains IDEA consortia.

Online learning poses major challenges. One of the biggest tests I see is common to both online and face-to-face classes. Ph.D. programs still do relatively little to train future faculty to teach (Gold and Dore, 2001; Luft, Kurdziel, Roehrig, and Turner, 2004). Putting a course online is not going to magically make it effective. Online learning may be even more of a challenge than face-to-face classes, and we are still poorly prepared for teaching in the classroom. This is probably my biggest worry, and I do not see much hope of change in the near future. Think about where university faculty are trained. To get a Ph.D. you go to a research university. Faculty at research universities do teach, but research is their main focus. Research is what they know how to do, what they are rewarded for, and what they teach their students how to do!

This system is fundamentally broken. We cannot teach faculty to teach online or face-to-face in a system designed only to teach research skills. Until and unless we provide the training necessary to be effective teachers, online and classroom instruction will ultimately fail us. If we trained our physicians for their jobs as poorly as we train college instructors to do theirs, the medical community would still be applying leeches! What I find mysterious is that it does not take much careful thought to reach this conclusion. Why then do we continue to focus so exclusively on research when even faculty in research extensive universities teach? I think the answer may partially lie with considering who wins and who loses if we refocus on teaching. Faculty and administrators who are currently in power are researchers, and those in power never give it up easily. The research ethos devalues teaching and reinforces the notion that “real” faculty work is research.

Faculty buy-in is a related challenge to online learning. Few existing faculty have ever taken an online course, and it is difficult to create a course unlike anything you have ever seen. Those who try soon learn that it is not as easy as just throwing up a few YouTube videos or typing lectures online. Creating an online course requires a great deal of upfront time, and it is

not clear that the rewards for teaching online courses are commiserate with the work required. Younger faculty who might be more technologically savvy are in career stages where they need to focus on getting tenure which is often based primarily on their research. Will we be willing to reward teaching online in tenure considerations in research universities where most online courses are taught? I am doubtful.

Retention in online courses remains a perennial problem, with 20 to 50% of students failing to complete courses they enroll in (Faculty Focus, 2014). With increasing emphasis on accountability and graduation rates, retention must be addressed. If you are like me, your original response to online learning was “no-way, no-how.” It is time to get over it. Online learning is not going away. This does not mean you must teach online. It does mean that we all need to keep an open mind about online learning, and we need to use some of the technological tools that online learning encourages. One way to transition to online teaching is by teaching hybrid or blended courses, that is, teaching some parts of the course online and some parts face-to-face.

As much of a Luddite as I have been, I regularly see more opportunities for enriching my classes with technology. I find students more thoughtful and responsible with online discussion boards. I am eternally grateful for electronic syllabi. I have killed far too many trees providing yet another copy of the syllabus to students who lost theirs. Electronic syllabi also allow me to regularly review student learning outcomes and reinforce deadlines.

Online learning provides flexibility so students can graduate within a reasonable amount of time. They can work in their home communities during the summer, for example, and continue to take classes. Online learning also provides the ability to time shift that many adult learners need to stay enrolled.

And what about those MOOCs! I thought online learning sponsored by well-known universities was controversial until MOOCs, massive open online courses, came along. Let’s skip to the punch line. I do not see MOOCs as providing a big challenge to higher education as we know it. The Educause Learning Initiative (2013) provides us with a helpful summary of MOOCs, their potential and some relevant concern. First, let’s be clear about what MOOCs are. MOOCs are free online courses that look much like any other online course, with lectures, reading assignments, and discussion forums. They differ from online courses in that they are massively enrolled and open. Three companies, edX, Coursera and Udacity, are the early leaders in providing MOOCs. MIT and Harvard helped create edX, and Stanford is connected to Coursera and Udacity. Other university partners work with each of these companies, but MOOCs are known for beginning with these high-status universities. MOOCs are a recent phenomenon. In 2011 Stanford offered a free course on artificial-intelligence; 160,000 people signed up, of whom 23,000 finished, and MOOCs were born (Waldrop 2013).

What can MOOCs do for higher education? Potentially, MOOCs could provide education to anyone in the world with an Internet connection at little or no cost. At the same time, you could gather immense amounts of data from students about effective learning strategies. So, what’s the rub? What is it about MOOCs that make them so controversial? The conversations I hear from fellow faculty focus on the fear of being replaced. Many of us see MOOCs as having the potential to reduce faculty to discussion leaders for online lecture courses taught via lectures by the most dynamic and famous scholars in our fields. The specter is frightening. There is some agreement on this issue even among those who teach MOOCs. Princeton sociologist Mitchell Duneier taught an introductory sociology course in the summer of 2012 to 40,000 students in 113 countries. Coursea wanted Duneier to license his course so that

other colleges could use the content in a blended format, mixing online and face-to-face instruction. Duneier refused and stopped teaching his MOOC. Duneier states, "I've said no, because I think that it's an excuse for state legislatures to cut funding to state universities." He continues, "And I guess that I'm really uncomfortable being part of a movement that's going to get its revenue in that way. And I also have serious doubts about whether or not using a course like mine in that way would be pedagogically effective" (Parry, 2013).

Faculty fears are not the only downside to MOOCs. Only about 10% of students who sign up for MOOCs actually finish them (Kolowich, 2013), an even lower rate than other online courses. "Students" who sign up for them usually already have degrees. Obviously MOOCs are not extending college educations to those who do not already have access. So much for the democratizing mission.

Credentialing MOOCs is yet another problem. How do you grade student performance in an online class with hundreds or thousands of students? And, if you can't grade, how can you give academic credit? Does one give academic credit simply for signing up for a MOOC? Given these challenges, and given that creating MOOCs is very expensive, why would a university or a company invest in their creation?

Again, I do not claim to be able to see into the future, but until and unless there is a workable business model, I do not see MOOCs as a threat nor a substantial benefit to higher education in general or teaching and learning specifically. That is not to say that I do not see any use for MOOCs. I signed up for a MOOC on climate change. I did not finish it, but it was a convenient, alternative way to get information, and I enjoyed the brief time I spent with the material. My graduate students have taken MOOCs to review calculus. MOOCs could become another Wikipedia providing us with information about any number of important issues. I also think MOOCs hold promise for professional development. Lawyers and certified paralegals, for example, are required to take Continuing Legal Education courses. Taking these online or as MOOCs might be very attractive for these professionals. My guess is that other professionals might also prefer this medium. Employers also appreciate what a MOOC can do for them. Radford, Robles, Cataylo, Horn, Thornton and Whitefield (2014) just released the results of a survey of human resources staff from 103 organizations in North Carolina. These employers seemed to be most interested in the potential MOOCs offer for the ongoing professional development needs of their employees.

MOOCs can also provide academic professional development opportunities. Teaching workshops can be offered through webinars, online forums, and MOOCs. Even as travel budgets are slashed, technology can help us stay in touch and keep our skills up-to-date.

In sum, too many of us are unaware or only vaguely aware of the macro level trends in higher education. As busy professionals, we are asked to do more than ever, but we cannot afford to ignore the wider contexts of higher education. As faculty we have the potential and the responsibility to make unique contributions. Ignoring the issues of the day will not make them go away. Attending to today's challenges and taking advantage of the opportunities that arise will strengthen higher education and help our students make their way through this rocky landscape. We will all be the better for it, especially our students.

## References

- American Association of University Professors. (2014). "Background facts on contingent faculty." Retrieved from <http://www.aaup.org/issues/contingency/background-facts#top>.
- ASU Online. (2014). "Why choose ASU?" Retrieved at <http://asuonline.asu.edu/become-student/why-choose-asu>.
- Educause Learning Initiative. (2013). "7 things you should know about.....". Retrieved at <https://net.educause.edu/ir/library/pdf/ELI7097.pdf>
- Faculty Focus. (2014). "Strategies for Increasing Online Student Retention and Satisfaction." Distance Education Report. Retrieved at [http://www.gaston.edu/docs/Strategies\\_For\\_Increasing\\_Online\\_Student\\_Retention.pdf](http://www.gaston.edu/docs/Strategies_For_Increasing_Online_Student_Retention.pdf).
- Fishman, R. (2013). "State u online." New America Foundation. Retrieved at [http://www.newamerica.net/publications/policy/state\\_u\\_online](http://www.newamerica.net/publications/policy/state_u_online)
- Gold, C. and Dore, T.M. (2001). "At cross purposes: What the experiences of doctoral students reveals about doctoral education." Philadelphia, P.A.: Pew Charitable Trusts.
- Jaeger, A.J. and Eagan, M.K. (2011). "Examining retention and contingent faculty use in a state system of public higher education." *Educational Policy* 25(3), 507-537.
- Kolowich, S. (2013). "Coursera takes a nuanced view of MOOC dropout rates." *The Chronicle of Higher Education*. April 8, 2013. Retrieved at <http://chronicle.com/blogs/wiredcampus/coursera-takes-a-nuanced-view-of-mooc-dropout-rates/43341>
- Kezar, A and Maxey, D. (2013). "The changing academic workforce." *Trusteeship* 3(21). Association of Governing Boards of Universities and Colleges. Retrieved at <http://agb.org/trusteeship/2013/5/changing-academic-workforce>.
- Kuh, G. D. 2008. High-impact educational practices: What they are, who has access to them, and why they matter. American Association of Colleges and Universities, Washington, DC.
- Lederman, D, Stratford, M, and Jaschik, S. (2014). "Rating (and berating) the ratings. Inside Higher Education. February 7. Retrieved from [www.insidehighered.com/news/2014/02/07/colleges-and-analysts-resond-obama-ratings-proposal](http://www.insidehighered.com/news/2014/02/07/colleges-and-analysts-resond-obama-ratings-proposal).
- Luft, J.A. Kurdziel, J.P., Roehrig, G.H. and Turner, J. (2004). "Growing a garden without water: Graduate teaching assistants in introductory science laboratories at a doctoral/research university." *Journal of Research in Science and Teaching* 41(3):211-33.
- Means, B., Toyama, Y., Murphy, R., Bakia, M. and Jones, K. (2010). "Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies." U.S. Department of Education. Retrieved at <http://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>
- Oliff, P. Palacios, V., Johnson, I. and Leachman, M. (2013). "Recent deep higher education cuts may harm students and the economy for years to come." Center on Budget and Policy Priorities. Retrieved at <http://www.cbpp.org/cms/?fa=view&id=3927>
- Parry, M. (2013). "A star MOOC professor defects---at least for now." *The Chronicle of Higher Education*. September 3, 2013. Retrieved at [http://m.chronicle.com/article/article-content/141331/?utm\\_source=feedburner](http://m.chronicle.com/article/article-content/141331/?utm_source=feedburner)
- Powell, A. (2007). "How Sputnik changed U.S. education." *Harvard Gazette*. Retrieved at <http://news.harvard.edu/gazette/story/2007/10/how-sputnik-changed-u-s-education>

- Radford, A.W., Robles, J. Cataylo, S., Horn, L., Thornton, J. and Whitfield, K. (2014). “The employer potential of MOOCs: A survey of human resource professionals’ thinking on MOOCs.” Research Triangle International and Duke University. Retrieved at [http://www.rti.org/pubs/duke\\_handbook-final-03252014.pdf](http://www.rti.org/pubs/duke_handbook-final-03252014.pdf)
- The Sloan Foundation. (2012.) “Changing course: Ten years of tracking online education in the United States.” Retrieved at [http://sloanconsortium.org/publications/survey/changing\\_course\\_2012](http://sloanconsortium.org/publications/survey/changing_course_2012)
- Straumsheim, C. (2014). “Our powers combined.” Inside Higher Education. March 19, 2014. Retrieved at <http://tinyurl.com/l7mxe4o>
- US News and World Report. (2014). “Best online programs.” Retrieved at <http://www.usnews.com/education/online-education>
- Umbach, P.D. (2007). “How effective are they? Exploring the impact of contingent faculty on undergraduate education. *The Review of Higher Education*, 30, 91-124.
- University of Florida. (2014). UF Distance Learning. Retrieved at <http://www.distance.ufl.edu/online-degree-programs>
- Vitullo, M.W. (2014) “National trends push departments to focus on career advising: ASA can help.” *Footnotes* 42(3): 3, 7, 10. Washington, DC. American Sociological Association.
- Waldrop, M. (2013). “Massive open online courses, aka MOOCs, transform higher education and science. *Scientific American*. March 13. 2013. Retrieved at <http://www.scientificamerican.com/article/massive-open-online-courses-transform-higher-education-and-science>
- Weissman, J. (2014). “Highly educated, highly indebted: The lives of 27-year-olds, in charts.” *The Atlantic*. January 25. Retrieved at <https://tinyurl.com/n45hfmm>
- The White House, Office of the Press Secretary. (2013). “FACT SHEET on the President’s Plan to Make Colleges More Affordable: A Better Bargain for the Middle Class.” August 22. Retrieved at <http://tinyurl.com/krmn38y>