The End of College: Creating the Future of Learning and the University of Everywhere

By Kevin Carey

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While other books have outlined the crises that face institutions of higher education in America (Blumenstyk, 2015; Selingo, 2013), Carey (2015) argues that these crises have been, in part, caused by and can, in part, be solved by burgeoning enterprises in instructional technology. In *The End of College*, Carey fervently argues that soon, the "University of Everywhere" will arise. This university will be digital, it will serve millions, and, most importantly, in relation to teaching and learning, it will be more effective than traditional universities could ever hope to be.

Carey paints a very unflattering portrait of traditional institutions of higher education. Although universities do provide students with a valuable credential (e.g., a college degree), their educational upshot is questionable at best. Carey argues that traditional universities are outmoded and self-serving and that, inevitably, innovations in instructional technology will transform and improve higher education.

Carey's critiques are valuable as they compel us to question the traditional model of higher education and to imagine how technology might redefine curriculum and instruction in this context. However, Carey's manifesto does not answer a more fundamental question: What should the aim of higher education be? Specifically, should higher education serve public or private interests? In this book review, I examine Carey's critiques and explore some of the unresolved issues that this book raises.

The Flaws of the Hybrid Model

Carey sets his sights on the "hybrid university model" (p. 36). The question as to what purpose the university should serve in American society is as old as Harvard's founding in 1636. American academics wrestled with seemingly mutually exclusive propositions: Should the aim of the university be to socialize students into the workforce by cultivating mental discipline and work ethic? Or, should higher education aim for all students to acquire a wide array of knowledge from multiple fields? Or, should the aim of the university be providing a bastion where professional scholars engage in research and create new knowledge? For better or worse, Americans settled on the hybrid model in an attempt to meld these multiple visions of higher education together. As the author states, "America was confronted with [these] three very different purposes for a university… [and] instead of choosing, American universities decided to do all three things at once, with consequences that last to this day" (p. 29).

The reader should note that the term "hybrid," in this case, is not referring to a brand of instruction (i.e., a mixture of face-to-face and online teacher-student interactions). Rather, the hybrid university model refers to a loose constellation of educational aims. The modern university tries to be all things at once: a liberal arts college, a research institution, and a supplier of credentials that increase a student's human capital. Within the hybrid model of the university, professors are expected to simultaneously conduct research *and* teach. Meanwhile, undergraduates are trained in a specialization (e.g., medicine, business), while also being asked to study a broad swath of scholarship (e.g., by taking core courses and electives). On top of this, the credential of the college degree is intended to signify that graduates are qualified for the demands of the professional workforce.

Interestingly, this dilemma is similar to the one Labaree (1997) outlines in relation to America's equivocal relationship to public education: Is public education's purpose to prepare workers for the needs of the workforce, to prepare citizens for active participation in a democracy, or to provide students with the opportunity for social mobility? Although these educational aims are, to some degree, at odds, Labaree observes that Americans want public education to serve all three purposes simultaneously, and, in Labaree's analysis, this guarantees that public education fails to achieve any of them. Likewise, Carey argues that the hybrid model of the university tries to do too many things at once, and, as a result, the university is less effective than it could be. As Carey writes, the hybrid model of the university "is a deeply flawed, irrational institution designed to be bad at the most important thing it does: educate people" (p. 36).

There are numbers to support this claim: According to one study, only one-third of students earn a degree within six years (Shapiro, Dundar, Wakhungu, Yuan, Nathan, & Hwang, 2015). Another study found that out of approximately 2,300 students at 24 different universities, 45% of these students made no significant improvements in their critical thinking skills during their first two years of college, and 36% made no significant improvements in their critical thinking skills after four years of college (Arum & Roksa, 2011).

If it is flawed, why has the hybrid university model become so pervasive? Carey points to the phenomenon of "institutional isomorphism" (p. 50). As universities began to proliferate throughout the country, each institution sought to emulate its predecessors in an attempt to appear prestigious (e.g., to be like Harvard). Because universities strive, first and foremost, to look like one another in an effort to be perceived as legitimate institutions, universities end up spending money on upgrading their status (through fancy facilities and famous faculty) rather than using funds to improve student learning. It is not that student learning is unimportant to universities; it is simply not their primary concern. As Carey writes, "Colleges weren't selling education [. . . .] they were selling the signs and signals of success" (p. 62).

Thus, in order to be considered a legitimate (and accredited) institution of higher education, colleges and universities must resist bold educational innovations (i.e., experimenting with new approaches in digital learning) and instead strive to resemble

other accredited and prestigious institutions (Delbanco, 2012). Institutions do not compete with one another by reimagining education; rather, they compete with each other by spending more money to aggrandize their own status.

Finally, Carey notes that not only is the hybrid university model less effective at cultivating student learning outcomes than it could be, but it is also unsustainable. As the world population grows and significant proportions rise out of poverty, the number of aspiring undergraduates will increase. As a result, "the number of *additional* people who will want a college education over the next twenty years could exceed the number of people who have ever been to college in all of human history" (Carey, 2015, p. 224). Building more and more traditional campuses is not pragmatic, and, therefore, Carey argues that the idea of the university itself must be reimagined.

Instructional Technology and Education

Carey's thesis is uncompromising:

> [W]hile an education in anything to anyone anywhere may sound utopian, an education in most things to most people in most places is a concrete, realistic goal that can be accomplished using existing technology in the near future. The question is not whether it will happen but who will make it happen. (p. 157)

Instructional technology, Carey argues, will make the "University of Everywhere" possible. All course materials, including books, lectures, videos, images, assignments, and notes can and will all become digitized (see Coyle, 2006; Darnton, 2008) and, thereby, become available to anyone in the world via the Internet.

Not only does the Internet allow for greater educational access; instructional technology affords students exponentially richer designs of curriculum and instruction than those offered in a lecture hall. One example is the simple yet significant ability to pause a lecture when viewing it on video as opposed to an in person presentation. There is, however, much more.

Traditional universities fail, Carey claims, because they are unable to differentiate instruction. He argues that "standard hybrid universities aren't equipped or motivated to do the extremely difficult work of helping students with vastly different individual neural patterns to achieve the same rigorous learning goals" (p. 82). This is a strong claim, but regardless of whether or not a university is motivated to differentiate curriculum and instruction, there is no denying that there are very real logistical challenges to differentiation in the context of higher education (Santangelo & Tomlinson, 2009). For example, a professor teaching a course with hundreds of students does not have time to differentiate the curriculum and instruction of the course for each student; furthermore, if teaching assistants are hired to help individualize the course for each student, these teaching assistants come at significant cost to the university. Carey's argument is that these logistical challenges and costs can be overcome fairly easily by employing instructional technology. By utilizing sophisticated algorithms, computer programs can

"provide much better educational experience for far *less* money than the current model allow[s], even while accounting for each learner's individuality" (p. 86).

For example, an interactive digital learning interface can instantaneously assess the gaps in an individual learner's knowledge and accordingly modify subsequent curriculum. Likewise, this interface can provide instantaneous formative feedback to the student, something impossible in the context of the traditional university setting where feedback is, comparatively, slow. Instructional technology, therefore, might be able to afford learners with a learning experience that provides them with instantaneous feedback, immediate assessment of their learning needs, and appropriate curricular accommodation. Such technology has yet to have been perfected, but, theoretically, the potential is there.

Again, it warrants repeating that Carey's argument presupposes institutional isomorphism: Universities seek to emulate the hybrid model of the university (i.e., a majestic campus with impressive lecture halls packed with students), because this is, culturally, how we envision prestigious universities. Carey is urging us to envision a radically different image of higher education. Specifically, if we allow the curriculum and instruction of universities to be facilitated through digital instructional technologies, then there will be two consequences: First, the hybrid model of the university, with its large lecture halls, will become obsolete; and, second, students will have access to fully individualized educational experiences. In the digital university of the future, students will have a greater chance of success at achieving learning outcomes because they will be engaging with learning environments that cater to their needs at every step, and furthermore, this individualized learning experience will come at only a marginal cost to the university.

Instructional Technology and Credentials

Another aspect of higher education that instructional technology can reform is the manner in which credentials are assessed and recorded. As discussed earlier, students and parents are willing to pay exorbitant tuitions, in part, because a college degree is currently a vital prerequisite for future professional opportunities:

> [P]eople don't borrow tens of thousands of dollars to merely acquire the knowledge and skills taught in college. They pay for the keys to a lifetime of educational opportunity and financial reward. Without a college degree, workers are categorically excluded from the most lucrative parts of the labor market. (Carey, 2015, p. 185)

In other words, part of the goal of going to college is receiving the credential of the college degree, regardless of what that degree actually signifies in terms of what has been learned. Seeing that a candidate has an undergraduate degree from Harvard says little about what educational experiences the candidate has had, nor does it say whether or not these educational experiences were effective in helping the candidate achieve specific learning outcomes. In fact, college credentials are traditionally based on arbitrary metrics, such as time (e.g., it is presumed that undergraduates will attend college for four years;

but, of course, the amount of time that an individual spends in college may or may not have any direct impact on what he or she learns while studying there). Even grades are not necessarily reliable or valid indicators of learning, given that grade inflation has been shown to be a pervasive issue in higher education and may not be reflective of actual learning outcomes (Jewell, McPherson, & Tieslau, 2013; Sonner, 2000).

Despite the fact that the college degree is, by itself, a murky measure of academic achievement, Carey argues that the reason the college degree is such a critical credential is because it is the most cost-effective way for an employer to sort through job candidates. Employers must make sound hiring decisions within a limited amount of time, and the college credential (coupled with the college's brand; e.g., Harvard, MIT) has, historically, served as an effective signal of success, achievement, and ability to fit into a professional organization:

> Large modern organizations are built around rules and structures and procedures. To succeed in them, people need to be able to fit into an organizational culture… [and] the college degree is overwhelmingly a signal of general cognitive ability, acculturation, aptitude for becoming a part of a large organization—and nothing else. (Carey, 2015, p. 196-197)

In other words, Carey is arguing that, not unlike institutional isomorphism, our culture holds an uncritical assumption that the traditional college degree signals potential for success. Prospective undergraduate students and prospective employers, therefore, believe that a college degree from a traditional, hybrid model university is a prerequisite to academic and professional advancement (even if the degree itself says little about specific learning outcomes).

We can, however, with the aid of instructional technology, reform how we think about the credentials granted by universities. Specifically, instructional technology and digitization enables individuals to display the precise learning experiences they have had along with their specific learning achievements. Carey points to the concept of "digital badges" (p. 203) that can be displayed within online communities. These "badges" can be substantiated through the digitization of all course materials (e.g., syllabi, tests, projects, assignments, lectures, notes, etc.), thus giving the worldwide, online community a clear glimpse into an individual learner's specific accomplishments, rather than just their final grades or the title of their terminal degree. These digital badges will thus give

> [. . . .] people the ability to communicate the breadth of their knowledge, skills, and ability to organizations and other people. Once that happens, and employers start to recognize the value of that information, the cornerstone of the hybrid university economy [i.e., the diploma] will begin to crumble. (p. 201)

Carey draws the parallel between this type of learning community and the videogame, *World of Warcraft*. As in the game, each student's academic credentials can be displayed electronically, for all to see (analogous to a virtual character's "experience points"). In *World of Warcraft*, the "game shows people exactly what they must accomplish to reach

the next level and displays their progress on the screen. Players show off their levels to their peers as ways of asserting status in online communities" (pp. 209-210). In a parallel fashion, institutions of higher education and prospective employers in the job market will be able to access and review each individual learner's "experience points" (i.e., concrete experiences with tangible proof of achievement) with clarity, precision, and efficiency. Through this advance in technology, the currency of the college degree as the comprehensive signal of cognitive ability and professional status will become increasingly obsolete. Instead, students and employers will turn towards the digital documenting of their specific learning experiences and outcomes.

Two Critiques: The Limits of Instructional Technology and the Danger of Neoliberalism

I believe that Carey makes a very convincing argument that the hybrid university model is somewhat artificial and less effective than it could be. Traditional universities are driven by improving their status and their brand (by increasing tuition rates, building impressive facilities, and recruiting eminent faculty) rather than being driven to improve student learning outcomes. As Carey argues, this makes sense: Parents and students (and employers) are interested foremost in the status and brand of the terminal college degree (not the specific learning outcomes). This has created an environment in which radical instructional reform is discouraged; yet as Carey outlines, the revolution of the curriculum and instruction of higher education through digital technology is most likely not a question of *if* but a question of *when.* I am convinced of this argument; however, I also have two critiques to offer.

First, even as innovations in instructional technology build powerful digital learning environments, we cannot necessarily conclude that these environments will infallibly engineer meaningful learning experiences for all students. Some scholars argue that no instructional method (no matter how adaptive) can ever guarantee meaningful learning (Biesta, 2007; Gottlieb, 2012). Therefore, we cannot conclude that instructional technology is a silver bullet. No matter how adaptive or sophisticated the technology, it will not guarantee meaningful learning for all students. Furthermore, some scholars have argued that the key to meaningful learning is the sensitive tact of the teacher, expressed and experienced through face-to-face human interaction (Saevi, 2011; van Manen, 1991). Thus, I have no doubt that instructional technology will improve educational outcomes for some students, but such technology will not eliminate the value of face-to-face teacher-student interaction or the value of other forms of interpersonal, experiential learning.

Second, Carey begins his book by highlighting a key dilemma: "America was confronted with three very different purposes for a university… [I]nstead of choosing, American universities decided to do all three things at once" (p. 29). The inability or unwillingness of the public to grapple with this dilemma is what, in part, continues to contribute to the inefficiency of the hybrid university model. Carey, however, never explicitly articulates or justifies what the aim of the "University of Everywhere" should be. He does imply

throughout his book that the primary purpose of education is social mobility (see Labaree, 1997); that is, education serves to augment an individual's human capital.

If not through the vague credential of the terminal college degree, then the more concrete and specific "digital badges" will serve as the signifiers of an individual's personal merit. Carey describes the digital badges as a "game [that] shows people exactly what they must accomplish to reach the next level." This implies that education is a "game" that each person plays in order to "reach the next level" (i.e., professional advancement). This is, in essence, a neoliberal vision of higher education (Giroux, 2010)—a landscape governed by consumers, markets, and self-interest.

This neoliberal agenda is also reflected in how Carey describes the process of learning. Carey admonishes future students in the following way:

> Technology will make education better, but not *easier.* Students working in personalized learning environments will experience less of the frustration that comes from incompetent, homogenous educational design. But they also will have fewer opportunities to float along a river of mediocrity and low expectations… There is not now and there never will be a substitute for the deliberate practice necessary to gain real expertise. (p. 248)

Thus, according to Carey, expertise (and capital) is acquired through hard work and deliberate practice. This is characteristic of the neoliberal argument: The world operates according to supply and demand, and individual success is a direct function of each individual's effort and personal talent (Apple, 2001; Giroux, 2008).

This neoliberal framework of higher education is not necessarily inappropriate; however, when it is adopted uncritically, it is dangerous.

When we equate neoliberalism with "common sense" (see Gramsci, 1971), then we lose sight of how education might not only serve the *private good* but also the *public good*. That is, one might argue that institutions of higher education can or should do more than supply credentials to further an individual's professional advancement; indeed, one might argue these institutions are essential to sustaining democracy (Giroux, 2008, 2010).

It is unclear how the practices of democracy and citizenship fit into Carey's vision of the "University of Everywhere." Carey argues that higher education should be privatized and that, although millions of students from around the world will be networked via technology, each student should take courses in order to advance his or her own self-interest (i.e., acquire his or her own "experience points" to get to the "next level"). If the market is allowed to drive higher education, then, indeed, the university will no longer be an engine of democracy. The "University of Everywhere" will become a vehicle for social mobility, rather than a space for mobilization, critical consciousness, and resistance.

There is no question that social mobility is one of the essential functions of education; however, rather than uncritically adopting a neoliberal model for higher education, such as that prescribed by Carey's 'University of Everywhere,' it may be better to consider other models that also value the public good.

In conclusion, Carey makes a strong case in his book that the "University of Everywhere" will provide future students with improved (and more cost-efficient) learning experiences. Additionally, the "University of Everywhere" will provide access to higher education to more people than ever before. Hence, it is exciting—and perhaps inevitable—to envision the end of college as we currently know it. However, the fact that the "University of Everywhere" can, and most likely will, exist someday does not answer the question as to what purpose this digital institution should serve.

What is the aim of the "University of Everywhere"? Answering this question lies outside the scope of Carey's book and outside the scope of this review. I encourage students, parents, teachers, and scholars to read Carey's book and to lend their voices to the discussion of the future of higher education.

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