What is Arizona State University a case of? An essay review of *The fifth wave: The evolution of American higher education*

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In *The Fifth Wave*, Michael Crow and William Dabars compose a manifesto about the future of higher education based on Crow's presidency of Arizona State University (ASU) since 2002. In this volume as well as 2015's *Designing the New American University*, Crow and Dabars argue that ASU is the prototype for a new type of university, one that combines broad access to a comprehensive undergraduate education with a large research enterprise. Their explanations often struggle to free themselves from the prose. Yet at least among the current generation of institutional leaders, *The Fifth Wave* is the most forceful statement about the future of higher education.

There are two versions of the authors' argument in the new book, an explicit proposition and an implicit one. The explicit version argues for a set of features that Crow and Dabars associate with their proposed fifth wave of universities, a wave that they argue is
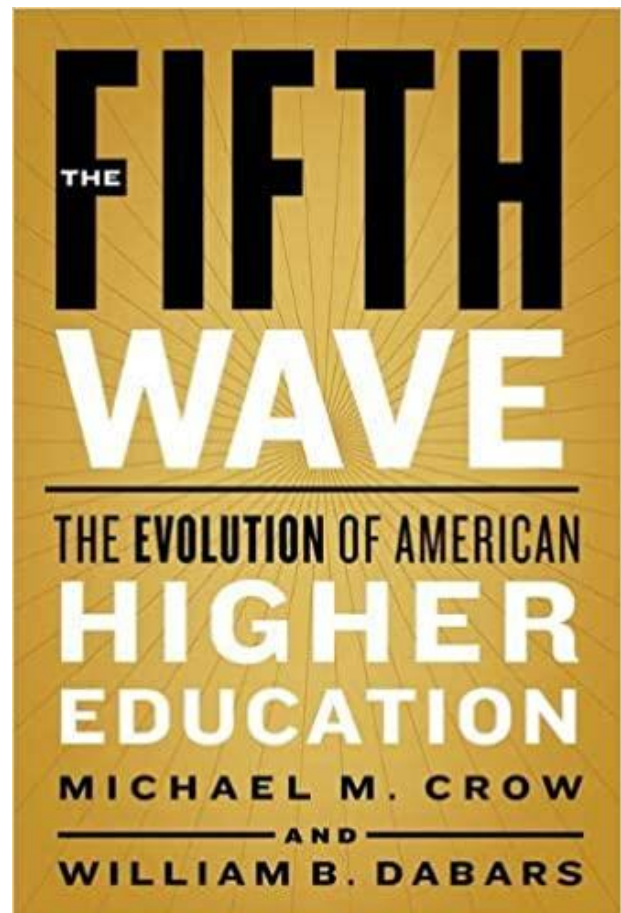
on the cusp of creation: (re)created by design, achieving long-term sustainability and resilience, leveraging "sociotechnical integration" and artificial intelligence to graduate master learners, colonizing multiple realms of teaching and learning, and reorganizing a university to be explicitly trans- and anti-disciplinary. The imagined fifth wave university promises to graduate adaptive master learners, address the global challenges of mass higher education, and solve great social problems. Behind this explicit proposal for a new type of university is an implicit and less utopian idea, the claim that comprehensive research universities are best positioned for the expansion and promotion of mass undergraduate education.

In support of the manifesto claim, Crow and Dabars attempt three broad tasks: making the case for mass higher education, criticizing elite higher education, and asserting that ASU is a prototype for a new type of university, one that can be designed for the outcomes they imagine.

Both the case for mass higher education and the critique of elite institutions will be familiar to those who follow higher education debates. Crow and Dabars combine a human capital argument with a faith in the talents of the American public, talents that they see wasted without access to a high-quality undergraduate education. Based on this faith, they criticize elite private and public universities for tying prestige to limited access. Combined, the eight Ivy League universities enroll only a few thousand more first-year undergraduates each fall than ASU admits as a single university. Likewise, the most prestigious public universities such as the University of California at Berkeley or the University of Michigan every year deny admission to thousands of qualified applicants.

In observing the limited-access elites of the late 20th century, Crow and Dabars spot a need and opportunity for a different type of university, one that combines a major research enterprise with broad undergraduate access and a commitment to the success of students. Crow and Dabars see ASU as the prototype of a new institutional form, what they previously labeled the New American University and now call the fifth wave of American higher education. The authors view ASU as a working model of what higher education in the future could and should aspire to.

To Crow and Dabars, an aspiring fifth-wave university must shift away from a *public agency* model serving as an education utility to a *public enterprise* model built for adaptability and resilience. Only as this more flexible organization can an institution of higher education be student-centered, solutions-oriented, connected to market needs, and built to maximize public value (p. 21). Crow and Dabars sprinkle through the book their list of key characteristics of such a public "knowledge enterprise," but one can group them roughly as assertiveness in public presence and internal flexibility. In terms of external relationships, they argue that a public-enterprise university must take an acquisitive approach toward resources, build autonomy, and assert its ability to solve major social problems: "Fifth Wave universities provide some of [the] few places where societies can identify, monitor, research, and mediate important social issues that straddle boundaries" (p. 331). Within the walls of the university, administrators must prize pedagogical innovation and problem-driven scholarship, leverage technology in every core operation, have a loosely-coupled structure rather than a centrally-managed bureaucracy, value variety, and simultaneously be lean and also have sufficient slack to redeploy internal resources as appropriate.

Why do they think of this type of institution as a fifth wave? In justifying the term, Crow and Dabars focus on what they

call a succession of four previous waves in higher education: colonial colleges focused on ecclesiastic leadership, early 19th-century chartered colleges, land-grant institutions established during and after the Civil War, and research universities invented in the late 19th century. They see these previous waves as archetypes, each one connecting a college or university's structure to a major social role. They argue that a new social role for universities requires a new type of institution.

The Implicit Proposition

Behind the utopian vision of a fifth wave of universities, there is a more pedestrian argument: a research university is the best institution to provide broad access to a high-quality undergraduate education. One can make this argument from the same basic critique of higher education, still using ASU as an example. This implicit proposition is consistent with the movement of a number of public American research universities toward emphasizing undergraduate access and success for first-generation students. Such universities include Georgia State University, Iowa State, Michigan State, Ohio State, Oregon State, Purdue University, the University of California at Riverside, the University of Central Florida, the University of Kansas, and the University of Texas at Austin – all of which are members of the University Innovation Alliance, along with ASU. Are Crows and Dabars making the stronger argument on behalf of their fifth wave, or on behalf of something more like the University Innovation Alliance?

The authors' critique of the California stratified model of higher education (pp. 204-207) is their best argument for centering undergraduate education in research universities. When he was president of the University of California in the post-WW2 era, and the architect of the 1960 California Master Plan for Higher Education, Clark Kerr articulated a hierarchical model for the whole

state (Marginson, 2016). Premier research would take place in a set of elite universities that had limited-access admissions: the University of California system. The majority of baccalaureate degrees would be earned in regional institutions that had limited scholarship and doctoral training--the California State University system, where graduate degrees are generally restricted to master's programs. Broad access would be available to a network of community colleges. In theory, transfers would allow for upward mobility among the three systems. In the view of Crow and Dabars, despite this once-appealing theory of distributed responsibility, California has underperformed in providing higher education to its citizens.

The recent work of Raj Chetty and colleagues suggests that the weakness of the California plan is not as clear-cut as Crow and Dabars maintain. The Cal State system provided significant social mobility to its students in the late 20th century (Chetty et al., 2017). Although the Cal State system's graduation rate was too low at that time -- as were the graduation rates for ASU! -- the success of its graduates is evidence that one does not need a research university to provide an undergraduate education with lasting social impact. However, the growth of graduation rates in a number of large research universities suggests the possibility for expanded and successful undergraduate education at research universities. One might reasonably conclude that an important change in the last few decades is this relatively new dedication of universities and their leaders to expanding undergraduate student success, even if that transformation is not Crow and Dabars's fifth wave.

How Does Higher Education Change?

This change across several recessions and declining public investment is notable and deserves explanation, and ASU is one of those institutions that would serve as an important

case. But Crow and Dabars do not present an explanation of the rise of growing research universities with successful undergraduate programs. Instead, they make a much more archetypal argument about change, leading to their claims about a fifth wave of higher education types. Both the archetypal argument and the use of ASU as a case study deserve careful examination.

Crow and Dabars base their broader argument on what they see as a history of four previous waves: colonial colleges such as Harvard created to train ecclesiastic leadership; early national chartered colleges such as the University of North Carolina and University of Virginia; land-grant institutions such as the University of Wisconsin that were first funded by the federal government in the Civil War; and late-19th century research universities such as Johns Hopkins University and Clark University. The authors' thumbnail history of higher education roughly follows the standard historiography but stops short after the spread of the early research universities. In their view, the fourth model is the current aspirational goal of a plurality of colleges and universities. Moreover, they claim that the attraction of the elite research university model is dysfunctional in an age that requires mass higher education and interdisciplinary scholarship. Crow and Dabars argue that the disciplinary organization of the modern research university has imprisoned faculty and their institutions. They label the obeisance to disciplinary nostalgia "filiopietism," an excessive veneration of tradition. And in turn, Crow and Dabars see filiopietism as driving the modern mimetic behavior of university after university – institutional isomorphism, to use the term from organizational theory.

The sweep of their narrative sketch is broader than what the historical literature justifies. In particular, Crow and Dabars claim that prior waves of institutional models matched the social needs present when they

developed, and embodied design constraints that eventually became dysfunctional (Crows & Dubars, 2020, p. 16). Most historians would not agree that the evolution of the modern university was shaped mostly or even directly by a succession of social needs. That does not mean there has been a complete disconnection between the evolution of higher education and that of the rest of society. There is always a dialectical relationship between higher education and broader social developments. However, Crow and Dabars imply a Hegelian model of institutional development, one that assumes a higher education Zeitgeist. This argument about archetypal succession is at odds with both their argument that institutions should take control of their future and the fact that institutions *have* attempted to control their destiny in the chaotic market of American higher education (Labaree, 2017). Many institutions aspire to become leaders and archetypes, but few succeed. To the extent that archetypes appear in the history of higher education, they do so only in retrospect.

The authors are uncertain about the relationship between the entire 20th century history of higher education and their argument about a fifth wave. On the one hand, they discuss and make use of 20th century developments. The story of California's higher education hierarchy is one of postwar systems development, and a story which Crow and Dabars criticize in making the case for mass undergraduate education centered in research universities. Yet it is also a significant part of the history, and it is one that the claims of *The Fifth Wave* largely ignore. The postwar era has been shaped mightily by democratic pressures on higher education, especially in the expansion of access that Crow and Dabars see as a moral obligation of great universities. It is also in the postwar era when several generations of ambitious university administrators grew their careers on expanded federal funding in research as well as public-private research

partnerships in medicine. The postwar generations of ambitious university administrators pushed their institutions toward greater prestige and more selective admissions. Suddenly every university president apparently wanted a little Research Triangle Park for themselves, and a prestigious medical school to boot.

Connected to postwar administrative ambitions is the growth of professional migration, especially of faculty among institutions, itself a critical part of the spread of academic culture and expectations. As many have observed, research faculty often see their allegiances more to their disciplines than to their current employers. That mobility allowed ASU to draw talent in the last 20 years during its transformation into the New American University. Professional mobility is also the mechanism for the movement of administrators who push limited-access norms, the norms that Crow and Dabars criticize. Those upwardly-mobile administrators were hired to serve institutional ambitions, and it is in that dynamic where institutional isomorphism truly lies, not in the supposed filiopietism that obsesses Crow and Dabars.

ASU as a Case Study

If Crow and Dabars see the need for a new type of university, they identify ASU as the necessary prototype of the fifth wave. In both of their books, they spend considerable space documenting the success of ASU in providing access and promoting student success while advancing the scholarship of faculty and other researchers. To summarize this claim, by almost any measure discussed in higher education, ASU's scholarship is on par with the elite, limited-access institutions that Crow and Dabars criticize. At the same time, ASU's undergraduate students have become successively more diverse and more successful. To a reader familiar with Michael Crow's public communications inside and

outside ASU, this material will read like the written version of his presentation style, at extended length.

This consistency of message has been an important tool for Crow in promoting the decision-making autonomy of the university in practice. Only by persuading key Arizona stakeholders of ASU's success could Crow have protected the university from typical political pressures placed on public higher education in the past half-century, and in a state that cut higher education funding to the bone in the past 15 years. With some justification, Crow has argued that ASU has thrived in a state with minimal long-term commitment to higher education. That claim has sometimes implied that all of public higher education needs to operate in the same relationship to state governments. In practice, Crow has long advocated for greater investment by the state of Arizona, if in carefully targeted language, even as he argued from his first weeks at ASU that the institution needed to find a much broader set of revenue sources. But many who share Crow's commitment to public universities might worry that policymakers in other states will see ASU's success as justification for further budget-cutting, with ASU slipping from a proof of concept for autonomy to an excuse for evisceration.

In discussing ASU's recent successes, the authors provide more demonstration of ASU's success than explanation of how the university came to its current position. One claim by the authors is that ASU's transformation was deliberately designed, an issue discussed below. But there are also important operational and strategic details that could have used more detail. Primarily, they do not explain how ASU's leadership gained and maintained autonomy vis-a-vis the state legislature, including the freedom to flexibly manage revenues from online programs and from property that the university acquired, flexibility that is far from

common in public higher education. In turn, the acquisition of those resources required forceful management of ASU's relationships with external partners, such as the online program management industry. Crow and Dabars are silent about ASU's actions in those business relationships. The specifics of ASU's growing autonomy matter, since control over one's destiny is one of the putative prerequisites of the fifth-wave university. In many cases, especially in the growth of online programs, other public universities have become entangled in long-term business relationships that put them at considerable disadvantage, far from autonomy or resilience (Mattes, 2017).

Can Universities Be Designed?

One of the claims about ASU made by Crow and Dabars is that its transformation was the result of a design process. They discuss in general terms the work of a University Design Team in 2003, a process that they assert was key to building creative and entrepreneurial interdisciplinary academic units and the other features they credit for ASU's transformation. Through *The Fifth Wave*, as well as *The New American University* (2015), Crow and Dabars highlight the idea of design as a useful process for creating or recreating universities. As Weiner et al. (2020) observed, design processes can be applied at many different levels from artifacts (such as the pencil; see Petroski, 1992) to systems and cultures. What Crow and Dabars describe is an aspiration to design and then engineer a single system, a research university. While the descriptions they offer are general, they present a picture of institutional design that is a more focused version of strategic planning: not so much the five-year plan of 101 benchmarks that has become the conventional approach in higher education but an aspirational process of both goal-setting and metamorphosis. To some extent, Crow and Dabars waver between a claim about intentional design on the one

hand and more "evolutionary" dynamics on the other (e.g., p. 262).

The history of the transformation of ASU is different from the participatory design process described in both books. There was a design process in 2003 and early 2004, but the reports written by the design team did not align closely with the future path of ASU. The work of the University Design Team focused on the status and placement of campuses and programs, with whose uncertainties both faculty and students reported anxiety (University Design Team, 2003a, 2003b, 2003c). In spring 2004, Crow's response to the University Design Team recommendations contained the first mention of new interdisciplinary academic units such as earth sciences, sustainability, or anthropology and social change. While the general principles that guided Crow's efforts were clear in his 2002 inaugural address – design aspirations and the core argument for a public research university with wide undergraduate access and an emphasis on student success – the pathway to success was different from what Crow and Dabars describe in retrospect. Crow's early statements as president both set long-term goals for the university and sketched several elements that developed in the next decade. To the extent that the changes in ASU were the result of design, they developed less from a broadly participatory process than in Crow's aspirational goals as articulated in 2002.

Setting aside ASU's institutional history, the idea of university design is one that has been a touchstone of Crow's discussion over the years about the future of higher education. It stems at least partly from his earlier scholarship on intentional national systems for innovation, especially the use of centrally-funded networks of research and development institutes (e.g., Colyvas et al., 2002; Crow & Bozeman, 1998; Niosi et al., 1993). In its essence, Crow and Dabars's ideas of institutional design comprise a claim about

the extent to which an individual college or university can control its future. Given that control of one's destiny is one of Crow and Dabars's requirements for a fifth-wave university, they are asserting that a design process is critical to achievement of fifth-wave status.

But what is included in the Crow and Dabars notion of university design? Their discussion of design includes aspirational goals but excludes two steps that much of the design world defines as fundamental processes: formative critique and iteration. Formative design critique can take many forms, but the essence is peer and audience feedback of some sort, feedback that then becomes part of additional work. In what sense might there be design critique in higher education? A design critique is not the same as public criticism: public universities are criticized all the time for all sorts of reasons, but that public reaction to a university is not a formal process focused on the goals of an intentional design. Many universities have either mandatory or invited reviews of individual programs, and the accreditation process is a type of review. But individual program reviews are not about the larger system, and accreditation at the scale of large universities is much less about system aspirations than about the defined scope of academic reviews, especially undergraduate education. What would a design critique for a university look like? In neither of Crows and Dabars's books do we learn their view.

Nor will readers find a discussion of iteration within complex systems such as universities. No matter how nimble a group of administrators might be – and Crow and Dabars argue that the phrase *nimble administrators* should not be an oxymoron – there are two challenges to an iterative process in higher education. One is the pressure on college and university leaders to leave a permanent mark on the institution, and to observers the resulting behavior often

looks like imposed dicta. This is the careerist incentive against iteration. There is also a normative incentive against iteration: which universities boast about skunkworks projects that morph and pivot as they grow? Instead, the general advice for any college or university leader is that centers need a minimum investment to succeed, academic initiatives require commitment from leaders, and presidents need to focus their fundraising time on major donors. An analysis of the challenges of iteration at a system level would be a valuable contribution to the arguments about design in higher education, and a novel one as well.

A reader could be justifiably disappointed that Crow and Dabars do not fully describe what a university design process would look like and do not make a detailed case that ASU's transformation followed a design process. Beyond those details, it is not clear how a design process is essential to the implicit proposition, that research universities are the best hosts for mass undergraduate education. Are institutional histories better explained by strategic design or by the consistent articulation of a set of values paired with a persistent operational push? This is a core question about ASU's own recent history. Crow's (2002) inaugural address stated clearly his commitment to broad access and student success, as well as expanding the university's commitment to the public interest. How much of ASU's relative success can be attributed to an explicit design process, and how much to that set of values and leadership consistency across almost two decades? With the implicit proposition in *The Fifth Wave* – that a research university is best equipped to provide access for successful first-generation students – one needs a strong culture that prioritizes access and student success. It is not self-evident that this goal requires the type of design that Crow and Dabars recommend. It is also doubtful that other research universities with success in boosting graduation rates engaged in the same

type of process that the authors claim took place at ASU . What appears common to these universities is the commitment to undergraduate access and success, as well as the marshaling of research university resources to build capacity for and focus on student success (pp. 185-189).

Higher Education to Benefit the Public

Crow and Dabars's focus on ASU as a prototype for the future of higher education leaves out alternatives to their vision of large public research universities with broad undergraduate access. These are alternatives not only to Crow and Dabars's proposed fifth wave but also to the dominant higher education practices and institutions that they criticize. Those omitted models are important in themselves.

Two alternative models are institutional types, including the regional public universities discussed above. The work of Raj Chetty et al. (2017) points to the California State University system, the City University of New York, and other comprehensive universities as systems that promote mobility for working-class students. These systems generally focus on undergraduate and masters students and serve local communities with a broad range of programs.

A second institutional type is that of historically Black colleges and universities (HBCUs). While never oversized research enterprises, HBCUs have graduated a disproportionate number of future Black professionals and researchers, and also were critical locations for young activists in the civil rights movement. At least in the analysis of Pike and Robbins (2019), after adjusting for a range of institutional factors, HBCUs have had meaningfully higher 4- and 6-year graduation rates than other institutions over the past few decades. The most successful HBCUs have combined a driving mission

with a close sense of community to nurture multiple generations of Black leaders.

In addition to these alternative institutional types, it is important to acknowledge other ways that faculty and institutional leaders discuss the public value of higher education. Crow and Dabars focus on the value of use-inspired research, much of it interdisciplinary or transdisciplinary. This is an updated version of the public mission of land-grant universities: applied knowledge for the public good.

This emphasis on applied research *projects* is different from one of the most important ways that scholarship already enters the public sphere: as *ideas* for people to discuss far beyond the walls of a university. Despite Russell Jacoby's (2000) lament about the decline of public intellectuals a quarter-century ago, public intellectual work is alive, well, and arguably expanding. University presses maintain an outsized role in public intellectual work, despite decades of disinvestment by host universities. A newer example is the role of newspaper sections such as "The Upshot" of the *New York Times* and "Made by History" in the *Washington Post*, which invite a range of writers to provide perspective on current issues from social-science and historical angles, respectively. And there are podcasts; oh boy, are there podcasts. Importantly, this is the type of work that does not require a large institutional commitment; a much smaller institution than ASU can make a long-term strategic investment in expanding the impact of their faculty.

Finally, as they acknowledge, Crow and Dabars are far from the first authors to make a broad argument for higher education that operates on behalf of the public. But in the details, they omit mention of organizations that currently argue for how the general public benefits from higher education. This includes older consortia such as the liberal-arts Association of American Colleges and

Universities, faculty groups such as the American Association of University Professors, and newer groups such as the National Forum on Higher Education for the Public Good.

Crow and Dabars acknowledge most of these alternatives in passing, but only in fleeting terms. *The Fifth Wave* is a manifesto *because* the authors dance around this question of competing models for advancing the public interest in higher education. Their primary argument is that there needs to be a movement away from the dominant models of the past. But what if there already exist successful models and ideas, especially if those models and ideas have never been dominant? ASU is a unique case of the successful reinvention of a large university under a single leader. What is not clear is whether that type of effort in other places would be more successful than the competing models of advancing the public interest in higher education.

The Audience for *The Fifth Wave*

Close observers of colleges and universities might have additional questions after finishing *The Fifth Wave*. For example, how does Crow and Dabars's picture of current disciplinary rigidity compare with the professional schools that have dominated growth in higher education in the past half-century, alongside the growth of health divisions? The claim about disciplinary rigidity (p. 316) ignores the varied structure of professional schools (business, education, and engineering), which have far less canonical academic organization than colleges of arts and sciences. Certainly, organizational variation across institutions has not help raise the status of colleges of education within major research universities (e.g., Herbst, 1989; Jonçich Clifford & Guthrie, 1990; Labaree, 2006). In other words, there are plenty of innovative organizational structures that have produced neither institutional leverage nor respect.

A second question concerns the arguments by Crow and Dabars about the role of universities as so-called boundary organizations, where collections of faculty and large research teams can apply their skills to practical problems. In this view, universities sit usefully at the border between the esoteric and the worldly. Oddly, their claims about universities as boundary organizations use pedestrian examples of the modern university: patents and research centers (pp. 329-336). As the authors note (pp. 379-380), these have existed for decades. It is not clear from their description how research institutes and centers at ASU are qualitatively different from those at other universities, or why its applied research is different in kind from agriculture extension services at land-grant universities or so-called translational scholarship in health sciences. An alternative concept may be more useful, if it differentiates ASU less from other institutions: colleges and universities are inherent "third spaces" that provide opportunity for interaction and intellectual interchange that happen in few other places. The third-space framework does not support an argument about fifth-wave universities, but it encompasses applied research activities as well as the capacity of higher education to incubate influence more generally, including in the humanities and the social sciences.

These are the questions of an insider, a contingent and then tenure-track faculty member for more than a quarter century. Readers who work in the bowels of higher education should understand that *The Fifth Wave* (2020) and *The New American University* (2015) may not have been written for them. The primary audience appears to be fellow administrators, and perhaps state- and national-level policymakers interested in higher education and hoping for new ideas. In both of these realms, the books fail at one level and succeed at another. The books needed much more editing to reach their intended audiences; a tighter structure and more selective bragging on behalf of ASU

would have served the manifesto claim better. Yet, despite the likely skepticism with which many will greet Crow and Dabars's utopian vision, the books gather together the most idealistic form of an argument that Crow has been making for almost two decades, one that sees a central role in democratic life and policy for broad access to higher education and research universities.

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