The Game Has Changed

Colleges and universities have long competed against one another, measuring themselves in comparison to each other and holding tightly to their idiosyncrasies as defining elements of their status. But today, the distribution and reuse of information digitally via the Internet is rapidly changing the game, rewarding those who instead aggregate and scale toward a common infrastructure. It is becoming increasingly clear that neither the challenges that confront colleges and universities nor the solutions to those challenges are unique to each institution.

Charles Vest, president emeritus of MIT, foresaw this when he observed: “We are seeing the early emergence of a meta-university—a transcendent, accessible, empowering, dynamic, communally constructed framework of open materials and platforms on which much of higher education worldwide can be constructed or enhanced.” He also made it clear that this emerging meta-university posed no threat to residential campuses: “The meta-university will enable, not replace, residential campuses, especially in wealthier regions. It will bring cost-efficiencies to institutions through the shared development of educational materials. It will be adaptive, not prescriptive.”

Although Vest’s comments focused on courseware and educational content, we assert that the same forces apply to a wide range of institutional software, content, and service needs.

Currently in higher education, we are seeing a growing misalignment between the buyers (higher education institutions) and sellers in these areas. The commercial side has swiftly adapted to scale, consolidating in every domain where there are efficiencies in digital distribution and reuse. Many firms have bought up former rivals in order to vastly consolidate the suppliers of critical software, content, and services. They did so to achieve better economics by scaling the combined revenues of their acquired firms and splitting operational costs over more products.

Colleges and universities, however, remain highly fragmented with mostly one-off “deals” that aptly illustrate the price and cost inefficiencies of skewed markets. A large number of uncoordinated buyers will have little effect on pricing terms when a few suppliers are near oligopolies in terms of industry structure. Beyond price, colleges and universities are also collectively and unintentionally ceding critical capabilities in many categories of essential software, content, and services, necessitating that they buy these capabilities back from the commercial markets.

Within the academy, many have expressed outrage at the pricing and sales strategies of the aggregated commercial firms. We dismiss that point of view. The problem lies not with the commercial firms, who rightly endeavor to transfer money from higher education institutions to their shareholders. The problem lies in the behavior of those of us in higher education—the buyers who fail to aggregate at scale in the interests of our institutions. Achieving multi-institutional scale in order to level the playing field and become players in the new game in this era of digital distribution and reuse requires that we make behavioral changes. These changes are neither pro-commercial nor anti-commercial, and attempts to frame them as such are without merit. The changes are, rather, pro-institutional.

We must seek intentional interdependence as the default path. In 2012, we find ourselves in a constellation of academic villages that are redundant and expensive. We collectively must devote considerable time and talent to identifying the larger-scale, consortial models that can effectively reduce costs while enhancing the infrastructure and service provision for scholarship and teaching. Common to these efforts will be strong coalitions that bring together diverse institutions within a national framework; federating shared resources and interests, including collections, technology, and expertise; and a genuine, volitional dependency on other, participating institutions for the provision of what was once a locally owned and managed asset.

We must play chess, not checkers. When assessed from a strategic vantage point, the future of higher education rests on the ability to reconceive ourselves holistically, with the various components of scholarly information—discovering, reconstituting, publishing, sharing, and preserving knowledge—understood as interrelated and interdependent. The inherited norms, customs, traditions, and institutions that have structured research and teaching now need to be constructively challenged, redefined, and subsequently reassembled. The next two decades could witness an extraordinary fluorescence of activity among universities and colleges focused on repositioning, consolidation, and convergence. Higher education could make enormous contributions to ensure its vitality, expanding its capacity for future discovery and reimagining its cultural heritage while not compromising its exactitude and rigor; the prized idiosyncrasies and powerful identities would remain intact.

We must ensure collaboration success. The new environment will need to be designed and sustained by open, modular, and
distributed systems. For example, different search capabilities will need to be developed to fulfill the greatest efficiencies for asking and answering queries within this enormous trove of information. As the computer science professor Oren Etzioni wrote recently, the keyword has a profoundly limiting “gravitational pull.” He added: “Academics and industry researchers need to achieve the intellectual ‘escape velocity’ necessary to revolutionize search. They must invest much more in bold strategies that can achieve natural-language searching and answering, rather than providing the electronic equivalent of the index at the back of a reference book.”

Scholars and students will increasingly depend on the digital ecology for their intellectual productivity. The questions that are asked should become algorithms for future searches, just as the data and information obtained through queries and research projects should become part of a reconstituted database. Continual interaction between the human interlocutor and the information is essential, as knowledge gained by using the system can in turn enhance the system over time.

We must identify and reward collaboration leaders. Exemplary projects that are designed for interdependency include the HathiTrust, the emerging Digital Public Library of America, the Digital Preservation Network, Kuali, Sakai, and linked open-data efforts. The people who have developed and who currently guide these and other projects need to be supported and need broad help to ensure coherence at scale. Mechanisms to facilitate communication and align the technical evolution of these efforts are of immediate importance. In other words, the means to sustain collaborative behaviors must be created and funded.

We must rethink and rebalance, collectively eschewing traditional concepts and categories that define our current perceptions:

1. Stop thinking about projects as isolated, local activities. Rather, every major project is an element of a much wider environment of activity that needs to be federated at some level as a functional facet of the whole.

2. Promote large-scale efforts that bring together multiple elements of higher education (libraries, IT departments, scholarly societies, administration, research centers, publishers) and eschew proposals that rely on a single community or profession to solve a major challenge.

3. Eliminate statistic-based rivalries. Counting analog parts in a digital era is questionable; counting analog parts that are used to boost competition and create rivalries among higher education institutions is self-defeating.

4. Advocate for new service provision and professional development while eliminating selected traditional programs and positions that are inhibiting the development of a robust digital ecology for teaching and research.

5. Grow new efforts or projects as part of existing coalitions and partnerships rather than creating new, isolated groups that must later assess how to integrate and sustain.

6. Recognize the impediments of current organizational structures in higher education and its nested institutions.

7. Recognize the inhibiting and compromising effect of current terminologies (e.g., job titles, conference tracks, publication themes, fellowships, internships).

8. Abstract the fundamental purpose of higher education—to facilitate discovery and create new knowledge—and build from that premise a digital ecology that gives higher education far more control over its mission.

These shifts in behavior can result in a new mindset, a move away from each institution as an island, or volitional archipelago, toward a web of intentional interdependence for the software, content, and services that are necessary for the success of the academy. In the past decade, various collectives of colleges and universities have pioneered new ways to collaborate around digital, and in that decade, we have proved what is possible. Rethinking our current assumptions can motivate essential new behaviors among higher education leaders at all levels.

The game has changed. So must we.

Notes


3. The economist Milton Friedman wrote: “There is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud.” Milton Friedman, “The Social Responsibility of Business Is to Increase Its Profits,” New York Times Magazine, September 13, 1970.


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