

Foreword

Then felt I like some watcher of the skies
When a new planet swims into his ken;
Or like stout Cortez when with eagle eyes
He star'd at the Pacific—and all his men
Look'd at each other with a wild surmise—
Silent, upon a peak in Darien.

John Keats, "On First Looking into Chapman's Homer"

Discovery is a complex venture. Think about the sweep of time, internal and external space, and the role of technology in Keats's transformative discovery of the poet Homer. The formulation of the power and insight derived from reading Homer—a conceptual revelation within the mind of Keats—is expressed analogously as a real world observer who first sees a new planet or as explorers standing on a mountain top beholding for the first time the vast stretch of the Pacific Ocean, previously unknown to Europeans. Augmenting this astonishing array of observational distance (in a few deftly rhyming lines encompassing the cosmos and the vanishing far horizon of the earth) is the temporal distance between Keats as a nineteenth-century reader and the nearly 3,000 years separating him from Homer's Greece. The role of technology is determinative as well; in this instance, the book of Chapman's translation serves as a bridge that unifies these worlds and perspectives, and instigates the discovery. We can appreciate, via the trenchant proposition of this sonnet, that discovery is a multilayered conversation often mediated and partly determined by the technology of the era.

This superb volume of collaborative essays is threaded with technology—the digital equipment, tools, and resources upon which we have become dependent—and the means, mechanisms, programs, and projects developed by CLIR's postdoctoral fellows, who work within this flourishing digital environment to help manage, sustain, and extrapolate valuable information in support of higher education. The process of discovery—obtaining new knowledge, developing insight, uncovering what was previously unknown or invisible; the wild surmise of seeing clearly what had been incoherent, fragmented, or disjunctive—is a salient theme of each essay.

The fellows describe how knowledge is gathered, analyzed, and shared, always within the context of the new methodologies and intellectual strategies that have arisen in the academy as the digital revolution has taken hold. Each essay is a look into the working conditions associated with creating a new profession of expertise and responsibilities in response to emerging forms of

scholarly communication and pedagogy. From the eighteenth-century Age of Enlightenment onward, the chief objective of most colleges and universities has been to promote “discovery and advancement of new knowledge”; this collection of essays sits comfortably, formatively within that tradition.

As importantly, the essays also represent the most articulate, detailed evidence of a major shift in CLIR’s vision and mission over the last decade. Previously, the Council conducted research, convened review panels, and awarded fellowships framed by a pervasive theme—the preservation of and access to our cultural heritage. We still pursue this fundamental responsibility. However, we have augmented our agenda by taking a more active role; we are forging partnerships with libraries, cultural institutions, and communities of higher learning and collaborating with them to create programs to enhance research, teaching, and learning environments. CLIR means to influence and help direct the evolution of higher education in the twenty-first century thoughtfully, deliberatively, and over the longer term: to transform the information landscape in support of the advancement of knowledge. This approach can be described as a sustained innovation.

Like *discovery*, the term *innovation* adheres to higher education in varying degrees. The concept generally applies to business and corporate phenomena, but more recently has nested in discussions of higher education as both a warning and a way out of some of the problems that vex universities and colleges, such as the cost of tuition, the perception that research is too narrowly focused or abstract and does not serve the public good, and questions about the practical value of an institution’s curriculum. Almost invariably, a disruptive innovation is some form of digital technology. Most recently, MOOCs have taken center stage. These massive online courses, which can enroll more than 100,000 students, have been hailed within higher education as the future of pedagogy, with predictable exhortations to adopt these instruments of instruction or face obsolescence. Also predictably, the chorus of proponents has become more muted over the last few years as the costs, production complexity, market, and faculty investment of time have become better understood and more challenging.

The eager initial embracing of MOOCs and the attendant agitation are reminiscent of similar prognostications and heated prose two decades ago, when online course instruction was touted as the end of higher education as we know it.¹ Extrapolating, there appears to be a tendency both inside and outside higher education to grab onto the newest, brightest technological phenomenon; invest it with disruptive, transformational potential; and then walk back when the proof of concept falters. This is not to argue against experimentation and risk taking; it is to caution about the ad hoc nature of these technologies and the surprising lack of the skepticism and rigor of testing that attends other aspects of higher education.

The adoption of CLIR’s sustained innovation approach acknowledges that digital technology is indeed transformative and often disruptive, but it is also expensive, duplicative, and inefficient. Lessons are learned; projects fade into virtual fossils. We also believe that technology will eventually transform higher education and want to ensure that this transformation is well

¹ See Lewis J. Perelman, *School’s Out* (1993); and Wikipedia article on rise and fall of Fathom.com <https://en.wikipedia.org/wiki/Fathom.com>.

managed. Effective management takes years of sustained, coordinated, and coherent investment of funds and talent; continual planning for and adjustments of programs; and a vision that insists that the flourishing of digital technology, tools, and resources needs to be conceived as a systemic, interrelated ecology.

In this respect, this collection of essays by CLIR postdoctoral fellows is to date the most comprehensive and insightful guide to this philosophy in action. How are the people intent on transforming higher education accomplishing such a sweeping goal?

- By acknowledging that many of the most complex, trenchant challenges to the academy in our era cannot possibly be resolved by a single profession, organization, or institution (Waraksa)
- By articulating a new multifaceted program that can attract gifted, empathetic scholars supported by an evolving, rigorous curriculum (Coats and Shore)
- By recognizing the impeding bias that the obsolescent trope of lone genius and solitary author entails, and by collaborating interpersonally and interinstitutionally, working with colleagues, information technology programmers, librarians, and scholars to create new partnerships and new knowledge (Rose-Steel, Kouper, Parrott, and Rawson)
- By rethinking, enriching, and expanding the concept of a library from an institution of neatly organized analog materials to a vibrant portal to the future (Chen, Pickle, and Waldroup)
- By repositioning the library as an active partner in the effective incubation, development, maintenance, dissemination, and reuse of the raw materials of research (Flores, Brodeur, Daniels, Nicholls, and Turnator)
- By embodying a workplace approach that eschews tracks, hierarchies, and traditional or even trendy labels and instead aims for more fluid and programmatic matching of skills, methodological acumen, and intellectual interests to support research and teaching: a flexible matrix of talent as opposed to a siloed arrangement of narrow specialization (Sayre, Brunner, Croxall, and McGinn)

All of the projects and activities of the postdoctoral fellows are designed not to establish zones of exclusion, but to erect markers of intersection that are encompassing, formative, and extensible.

Because of this exemplary work, a new digital environment—a system of correlated parts and functions, with its attending cohort of expert professionals—will come to pass. Higher education should benefit greatly, as this virtual campus will facilitate new discovery; promote innovative thinking; respond to new, more intricate kinds of questions; support new forms of academic expression; have the ability to map and embed our questions as aspects of future inquiry—a collaborative ideation; preserve and make accessible data, tools, and applications; and evolve to meet the most demanding formulations of our curiosity, whether that curiosity, at first glancing, fixes on the far blue seam at the confluence of earth and sky, or further still on the light of a distant star.

—Charles Henry