Creating Value and Impact in the Digital Age
Through Translational Humanities

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> He who receives an idea from me, receives instruction himself
> without lessening mine; as he who lights his taper at mine,
> receives light without darkening me.

Thomas Jefferson to Isaac McPherson, 1813

Two hundred years ago, Thomas Jefferson argued that ideas animate the world when access to them is free of barriers. Like many of his peers, he believed that access to information is vital to the growth of knowledge and that knowledge and education constitute the only firm foundation for an informed citizenry. Knowledge, in other words, is a public good with vital civic purposes, and it can spread virally.

We can read Jefferson's radical argument for free culture as eerily prescient about the circulation of ideas in the digital world. In his day, when one lent a book to a friend, the borrower had access to it, and the lender no longer had access. Ideas were carried by physical objects, which were relatively scarce. Now, we inhabit a universe in which information is abundant and circulates virtually with minimal friction. Once information and ideas are in the digital realm, the cost of providing additional individual users with access to them approaches zero.

These new circulation patterns affect the humanities profoundly, making access to cultural content more democratic. But it is not just access that has changed. The basic tools for *creation*, *curation*, and *stewardship* are now in the hands of anyone who can get online. The open Web increases the impact of the humanities by enabling greater participation. And it adds to their value because the Web provides a newly efficient and accessible platform for disseminating humanities knowledge and expertise.

Today, the study of human thought, creativity, and history is expanding and evolving rapidly because of three factors:

1. A growing and increasingly accessible body of content created by more diverse populations
2. The availability of more tools for scholars and the public to interact with the substance of humanistic inquiry
3. The blurring of previously distinct roles of creation, curation, and consumption

Together, these developments are creating an engaged community of humanists practicing *translational humanities*, the application of humanities expertise in

domains beyond higher education and cultural heritage institutions. The Web offers nearly limitless scope for a large cadre of expertly trained humanists to apply their skills in media literacies, interpretation, research, and teaching in venues beyond the classroom and in careers beyond the professoriate. Because the general public can now join in the creation and curation of humanities content, something altogether new has emerged.

At the beginning of this century, we got a glimpse of how the Web would bring together public and scholarly energies to create a whole far greater than the sum of its contributors. Shortly after the attacks on American soil in September 2001, scholars at the Center for History and New Media (now named the Roy Rosenzweig Center for History and New Media after its founder) solicited testimony and commentary from the public about the event, creating a real-time archive of a crucial moment in the nation's history. This archive pioneered a deep collaboration between the public and scholars with historical and technical expertise to build what became the September 11 Digital Archive, now among the earliest digital archives ever created. The Library of Congress has acquired this archive for its permanent collection, thus ensuring continuing access to it in the future. Since 2001, the interactive Web has greatly expanded the demand for Web content. As demand grows, so does the value and impact of the content. How do we further enable online communities to leverage time and attention—the scarce resources of the digital economy?

Two actions are necessary to increase and sustain the value of public and scholarly contributions. The first is to make cultural content available to find, use, and interact with—with as few barriers as possible so that people can "do humanities." This step requires content, tools, and the expertise to create efficient and sustainable resources. The second necessary action is to ensure the literacy of users in the multiple languages of the media and communities that they encounter on the Web. Teaching digital literacies in primary and secondary education is among the best investments we can make to increase the demand for engagement with and critical reflection on the human condition.

The Internet does not necessarily lower the cost of creation, curation, and stewardship—on the contrary. But it spreads the cost of labor (much of it volunteer) and creates something of potentially greater social value. The current reductions in public funding at local, state, and federal levels demand that we focus on working at scale, engaging as many people as possible. Collaborating in open ways allows all hands to contribute content and all eyes to review, edit, and curate content. On the Web, individuals can participate in humanities with relative ease—even on mobile devices—and receive the rewards of participation with little or no money changing hands. Unlike money, ideas are not a finite resource that grows scarce in troubled economies. And the money that is invested can have a greater impact because of the global reach of the Web.

Understanding New Modes of Creation, Collection Building, Curation, and Stewardship

Open-access opportunities for the creation, collection building, curation, and stewardship of humanistic thought proliferate daily and are beyond enumeration. Open access enables the blurring of boundaries between formal and informal activities, between creation and consumption, and between the ways individuals and institutions work together. Following are a few instances to illustrate the eroding boundaries between expert and nonspecialist audiences.

Online creation. Creative thinkers and artists are using digital palettes both to extend the reach of their art and to make different kinds of art. David Hockney sketches on an electronic tablet as well as on paper, and he shares his creations as soon as he wants with whomever he chooses, bypassing traditional markets for sales and distribution. John Adams composes his operas on his computer. They are performed using computer-aided lighting design and stage machinery. Opera lovers share them on YouTube, creating new audiences for an old art form. He communicates directly with his audiences through his blog. Artist, designer, and digital humanist Mary Flanagan explores the ways in which digital technologies "bind research and cultural production" (Flanagan, n.d.). She is one of a number of digital creators developing interactive games that allow people to model new behaviors and explore new ways of thinking about ethical and moral choices. Such games simulate environments where people see themselves virtually as agents of change and confront the consequences of their choices. The use of these technologies and platforms as the preferred mode of creation and distribution means the public increasingly interacts with these art forms digitally, and researchers use digital technologies to create and publish their studies of audio, visual, textual, and spatial art.

Online collection building. Major collecting institutions with a public mission, such as the Library of Congress, the Smithsonian Institution, the New York Public Library, and the National Archives, have undertaken large-scale migrations of content online. In many cases, these institutions have increased points of access to the content by contributing these collections to the Internet Archive, Flickr, and the Digital Public Library of America, which may serve the vital role of providing unified search and discovery capabilities across a vast array of open-content collections.

Private collecting institutions and individuals have contributed to the public good as well by digitizing their collections and providing open access to them. Yale University makes its image collections as widely accessible as is appropriate, legal, and respectful of privacy rights. The John Carter Brown Library, which has incomparable historical collections of Atlantic cultures, has partnered with the Internet Archive to put its Haitian imprints online and provided special access (through CD-ROMs) to Haitian libraries devastated by the recent earthquake. The map collector David Rumsey has put online more than 38,000 historical maps and atlases from his private collection, with plans to do more. The maps are scanned at the highest possible resolution and are

freely downloadable and available with a suite of tools provided on his website. He has made these maps accessible through other portals as well.

The Internet Archive is an exemplar of digital collection building. It crawls the Internet to create an archive of the Web as it grows; this archive has collected 267 billion web pages, a number that increases daily. It also provides open access to books; moving images; and audio, television, and other collections that it scans. Perhaps most significantly, the Internet Archive provides a means for individuals and groups to upload their own content to increase its accessibility and to ensure its long-term persistence. The Internet Archive is a powerful model of how small organizations with a relatively modest budget can leverage the Web to build and share collections globally, combining individual efforts with institutional capacity.

Curation. Although the term *curation* has a technical meaning in library and archival contexts, Web users have adopted the term and use it in reference to virtually any interaction with content that adds value, including the creation of metadata and finding aids, translation, commentary, analysis, visualization, and other kinds of markup. In addition to exemplary projects, such as the New York Public Library crowd-sourcing site, What's on the Menu?, which makes its historic menu collection available for the public to transcribe (and which won the American Historical Association's Roy Rosenzweig Prize for Innovation in Digital History), there are other projects that draw on the expertise of the public to advance humanistic scholarship. These include the Papers of the War Department, a collection of handwritten documents dating from 1784 to 1800 that are not amenable to optical character recognition (OCR) and have been transcribed by individuals; Oxford University's Great War Archive, which asks people to add content relating to World War I; Metropolitalia at the University of Munich, which uses a gaming platform to populate a linguistic database, and so on. The Web can serve as both a local and a virtual community through its curation of history. John Oram, who by day works in technical sales and marketing for a Silicon Valley company, runs Burrito Justice, a site based in and focused on San Francisco that curates a vast amount of Web content (curation here being, in Oram's words, the "linking of disparate sets of data to uncover hidden relationships"); he is followed by more than 54,000 people on Twitter. Such sites spring up as ways to filter the Web and build communities around humanities content and activities.

Stewardship. Responsibility for the long-term preservation of and access to humanities content over time is normally the purview of reliably resourced institutions that span generations. Yet stewardship begins with the assumption of personal responsibility for things of value, as evidenced by the recent case of individuals and families in Timbuktu who secreted manuscripts from latter day iconoclasts bent on destroying objects that they deem sacrilegious. It is hard to imagine how such vital stewardship can be effected in the online world, given the ephemerality of digital content. Ensuring the existence of multiple copies is the first step in keeping content safe, even in the event that the original object perishes. A meaningful portion of the Timbuktu manuscripts had been digitized before the fall of the city, but much remains to be done there and at

other heritage sites. There is an imperative to digitize analog collections that are physically frail or otherwise endangered and to share them broadly. Organizations such as the National Film Preservation Foundation provide resources to small organizations and even individuals to digitize fragile and historically significant material in a variety of media.

Digital preservation begins at the time of creation, well before the digitized material comes to rest in a preservation repository, where it will be managed by professional archivists throughout its life cycle. Choosing which formats to use, deciding how to name and manage files, performing routine backup and migration—these are all critical preservation actions that individuals and organizations must take to help ensure that their content will be preserved. Institutions and individual experts, ranging in scale from the Library of Congress and university libraries to library school graduate students, are sharing knowledge about how to create content that can be readily preserved through blogs, podcasts, and Webinars.

With a bit more money and an accessible, shared infrastructure to take advantage of economies of scale, organizations would be able to leverage even more human capital to expand their reach. The Library of Congress sponsors the National Digital Stewardship Alliance, a network of preserving institutions that promotes digital preservation and supports the related activities of its members. Major research universities are beginning to assume responsibility for preserving digital research assets by designing and implementing the Digital Preservation Network, a system of distributed preservation based on the Internet2 model. But the sheer quantity of humanities content that is actively used and curated by the public—sites dedicated to food, films, gardening, music appreciation, for example—continues to outrun efforts to aggregate and preserve these materials.

Developing Translational Humanities Expertise

The need for translational humanities goes far beyond the Web, although the need is especially salient there. Translational humanities requires no dilution of expertise—on the contrary—but the ways expertise works in a complex environment differ from the ways it works in the academic world. Creating and promoting opportunities for translational humanities are causes now being taken up by leaders in scholarly societies, humanities centers, higher education administration, and some key funding agencies that support higher education.

The demand for humanities expertise beyond the traditional roles of research and teaching within higher education is increasing at precisely the moment when the demand for research and teaching faculty is declining. The number of tenure-track faculty positions is diminishing, budgets of humanities departments are decreasing relative to others, and some disciplines are experiencing collapse or elimination altogether. Furthermore, as reported in a previous Ruminations piece, the National Science Foundation found that "the number of doctoral degrees awarded in the humanities declined by 12%

between 1998 and 2008, while those in science and engineering increased by 20.4%" (Gessner et al. 2011).

The contours of this trend are as yet unclear and the reasons for the shift are complicated and fall outside the scope of this paper. Even with the shrinking number of humanists with doctorates, there are more individuals trained for the research professoriate than there are jobs available. That said, our increasingly complex and technologically driven society has a great demand for historians, foreign language and literature experts, ethicists, textual scholars, media experts, and professionals in many other areas of expertise. The need for such experts is greater outside the academic world than inside, and the current oversupply of such expertise in the academic world provides an extraordinary opportunity to move that expertise into the world where it is sorely needed—to infiltrate the spheres of government, business, media, and entertainment with humanities expertise in critical thinking about context, complexity, and contingency. This work goes beyond the Web, as no sphere of the economy is untouched by digital technology. Humanists' command of digital literacies may be specially prized in professions that address the real-world problems of people growing up as "digital natives."

A crucial first step in translation is to envision the difference between advancing humanities in the academic world and advancing humanities beyond this realm as one primarily of audience and address, not one of the nature of expertise itself. Very often, expertise in one domain of knowledge is opaque not just to the public, but also to other domains, impoverishing both without enriching the given domain of expertise. By forging paths from the development of deep content and methodological expertise in a humanities domain to work that employs such expertise in areas other than the tenure-track professoriate, we can advance scholarship and the public good at the same time. One such path, by now well trod and attracting a strong cohort, is in alternative academic careers, also called alt-ac. Here, humanities graduates are moving into libraries and laboratories to advance the collaborative and iterative nature of digital knowledge creation. We also see the development of the Praxis network, which aligns digital scholarship centers to provide a place for self-reflection, comparison, and the refinement of local strategies. At the same time, the network amplifies the centers' public profiles as models.

The great promise of translational humanities is to expand the reach of humanities expertise not only on campus, but far beyond to the public and private sectors. Scholarly societies such as the Modern Language Association and the American Historical Association, two umbrella organizations that have many nonacademic professional humanists in their ranks, are dedicating programs to address the translation of their disciplinary subjects and discourse to broader publics. This is also a topic of great importance to humanities centers, which act as fulcrums for innovation outside of departments and disciplines, and are developing opportunities for graduate students to gain exposure to several different career paths. The Simpson Center for the Humanities at the University of Washington has developed several programs that engage Seattle institutions and communities; it also offers a certificate in Public Scholarship. The Scholarly Communication Institute is currently

sponsoring a partnership between the [Consortium of Humanities Centers and Institutes](#) and [centerNet](#) (an international consortium of digital humanities centers and laboratories) to create pilot projects that feature non–tenure-track work as desirable career paths. CLIR is a leader in this field, sponsoring [post-doctoral fellowships](#) for humanists in partner institutions that are seeking exactly the expertise the humanists have for nonprofessorial positions. The [American Council of Learned Societies](#) also has stepped up to this challenge, offering prestigious post-doctoral fellowships aimed at moving graduates into public sector work.

Expanding Resources for Humanities

Open-access culture is not free. It can be secured only with resources and be productive only if people can read critically and communicate fluently in multiple media. The nonmonetary resources that culture demands—time and attention—are in theory accessible to all, and the Web can leverage these human resources in unparalleled ways.

But money is often a necessary catalyst. There are venues on the Web for raising funds for cultural projects, [Kickstarter](#) being the best known of its kind. Reliable long-term funding is indispensable to building and maintaining a public good such as the vigorous presence of humanities on the Web. Private foundations and public agencies (such as the [National Endowment for the Humanities](#)) provide crucial funds in areas that require the intensive dedication of human resources and technology to experiment and pilot new models for advancing the humanities.

Money can buy time, it can buy equipment, and it can command attention and provide validation to grantees. Yet, many institutions essential to the humanities—libraries, archives, museums, scholarly societies, presses—need financial aid for purposes beyond the digitizing of their collections and the retooling of their workflows. They need funds to secure the time for experimentation so that they can reinvent themselves organizationally and culturally to make a transition into the digital era. By nature, organizations dedicated primarily to a public mission will never be fully self-sustaining in the market economy. However, they can make themselves less vulnerable to budgetary contractions such as those experienced since 2008 by becoming more open and more accessible, as well as by feeding the growing demand for humanities online and thus strengthening their bonds with Web communities and constituents.

This is neither a radical nor a utopian vision for the new information economy. The idea of expanding resources for the humanities by expanding the circle of participants, of growing support for the humanities by growing humanists, is elementary economics. Even if funding to institutions does not keep pace with the needs of the humanities, the latter can advance through personal contributions of time and creativity. Openness has its hazards, but the abuse, misuse, or pilfering of content is more easily detected and corrected in an open environment. Wikipedia has proven a sustainable model for building and sharing knowledge because it invites contributions and provides a platform for

an "all-eyes" method of correcting and editing content; thus, it replicates the process of scholarship itself, in which information accretes, sources of facts and interpretations are cited and verified, and errors are culled over time. States of knowledge are works in progress, built over generations like medieval cathedrals. The more hands engaged over time in adding, sustaining, and building the edifice far beyond the dreams of those who laid the foundations, the longer the structures last, the deeper the layers of memories and meanings they accrue, and the greater the service they provide to society.

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