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"Codes for a Sustainable Humanities: Projects, Processes,d and Stories"

In 1968, as I was beginning my doctoral education, president emeritus of Columbia Jacques Barzun published his take on the state of the academy. Of The American University, he observed:

> Federal transfusions of cash will keep the great heart pumping; friends will rally round and bring jam (rarely meat); and commencement speakers will administer with a free hand the drug of self-praise.
>
> Then the parts will begin to drop off, as the autonomous professor has begun to do; or go into spells of paralysis, as the student riots have shown to be possible. Apathy and secession will take care of the rest, until a stump of something once alive is left to vegetate on the endowment or the annual tax subsidy. (240-1)

For Barzun, the metaphor of choice was the university as patient, wasting away in an ICU unit, gangrenous, comatose. Two things stuck out for me in Barzun's portrait of the academy. The first is the confidence he exudes that the funding of higher education will continue to be robust. And the second pertains to his dismissal of the new technological accouterments of the scholar/teacher's life. Here he is on the "clutter of machinery, the so-called aids to teaching. Some are excellent, like the equipment of a language laboratory, various projector devices, and certain films for scientific or medical demonstration; others are fraudulent or futile" (235).

Fast forward from 1968 to 2012. Like Barzun, we are trying to grasp what we see to be the future of higher education. Yet, funding and technology are not sidebars to that future; they are driving the macronarratives that are shaping us and the stories we tell of our lives as scholar/teachers. Here are four of those macronarratives.

The first macronarrative is one that tells the story of the retreat of state commitment to public higher education in the United States and elsewhere. As an example, here is the story from my state. In a recent open letter to President Obama, University of Michigan President Mary Sue Coleman wrote: "Higher education is a public good currently lacking public support. There is no stronger trigger for rising costs at public universities and colleges than declining state support. The University of Michigan and our state's 14 other public institutions have been ground zero for funding cuts. The state's significant disinvestment in higher education has been challenging: a 15 percent cut in the last year alone, and a reduction of more than 30 percent over the last decade" (online UM Record December 16, 2011). We know too well the effects of this disinvestment in higher education include the corporatization of the university, the casualization of the workforce, a contingent workforce whose demographic is disproportionately female. The emphasis on assessment and the marginalization of those academic programs that are not “profit centers,” many of which are in the humanities. The prohibitive debt load for students and parents. The unsustainable opportunity costs for doctoral education. The expansion of a for-profit higher education that consumes an increasing portion of government backed student loan monies while failing to offer services that ensure successful completion of academic courses and degrees.

And the increasing national education deficit. In the United States, for instance, recent data from the National Center for Education Statistics indicate that the percentage of 25-29 year olds with a bachelor’s degree or higher has, after climbing from 22 to 32 percent from 1975 to 2000, remained flat over the last decade. Given the importance of an educated citizenry in a knowledge economy, the figure of 32 percent should give us pause, especially since it is no longer rising as it did from 1975-2000.[i] With the disinvestment in higher education at the state level, we are building an increasing deficit in educational achievement in the United States.

And what about the education deficit on a global scale? In answer, let me recite the John Daniels Grand Challenge, a challenge presented by Dr. Dan Adams in his plenary talk at the recent HASTAC conference held at the University of Michigan in early Decembner[ii]:

- Half the world’s population is under 20 years old.
- Today, there are over 30 million people qualified to enter a university, but no place available. During the next decade this number will grow to 100 million.

- In most of the world higher education is mired in a crisis of access, cost, and accessibility. The dominant forms of higher education – campus-based, high cost, limited use of technology – seem ill-suited to address global education needs in the decades ahead.
- To meet this staggering global demand, a major university needs to be created every week.

This Grand Challenge speaks to the scale of the world's deficit in providing broadly distributed access to higher education and preparing future generations for the postindustrial knowledge economy. In all the talk of the benefits of globalization, in all the championing of neoliberal values of free markets, of openness, access, of mobility and free-flowing information (Lambert-Beatty Signs winter 08, 325), the immobilities of peoples and ideas, the inaccessibility of information and educational opportunities are too easily obscured.

There is a **second macronarrative** being written about higher education in the coming decades that has to do with the redefinition of an "institution" of higher education. How is the university of the next decades going to be scaled? The concept of the university is being rethought away from the notion of the singular institution in a local setting. Major universities have already become "global" institutions. Many have campuses in other places around the world; and if not campuses, they have joint programs and research initiatives. Some regions of the world are modelling transnational consortia. In Europe, for instance, the Bologna Treaty has brought Eurozone institutions into the European Higher Education Area, facilitating the movement of students from country to country for the purposes of enrolling in academic programs.

In the United States, we might well see initiatives to think regionally about higher education. In “A Master Plan for Higher Education in the Midwest,” James J. Duderstadt, president emeritus of the University of Michigan, calls for “*acting regionally while thinking globally.”* “The Midwest,” he writes, “needs to develop a more systemic and strategic perspective of its educational, research, and cultural institutions—public and private, formal and informal—that views these knowledge resources as comprising a knowledge ecology that must be adequately supported and allowed to adapt and evolve rapidly to serve the needs of the state in a change-driven world, free from micromanagement by state government or intrusion by partisan politics.”

Institutions in the public and private sectors have been innovating on the model of a distributed (or mixed model) learning environment that alters the relationship of the student to the physical plant of the college or university and to professors and peers. The initiatives of “Digital Harvard” and Harvard’s Berkman Center for the Internet and Society are cases in point. The shift to online coursework can be exploitative of certain cohorts of students and undermine the interactivity common in on-campus learning environments. But ethically-driven and thoughtfully conceptualized distributed learning and scholarly environments, can contribute to the development of mobile transdisciplinary collaboratories of faculty, enrolled students, and lay researchers.

We are already seeing evidence of distributed, collaborative programs in the humanities. One such program is the joint Duke University – University of North Carolina, Chapel Hill, Graduate Program in German Studies.

A third macronarrative being written has to do with the ecology of "knowledge." How we know and produce knowledge is itself changing. The library as a repository of knowledge has radically changed. Well over sixty universities and consortia members have joined in the Hathi Trust, pooling their library holdings for digitalization – what Duderstadt describes as the "twenty-first century analog to the ancient Library of Alexandria" (89). The Hathi Trust will eventually make this digital library accessible to students and scholars around the world (90), when copyright issues are resolved. The scale of the archive has changed as well. Purposeful and accidental archives abound, as do databases ripe for mining. At the HASTAC conference, in December 2011, Josh Greenberg talked of the expanded scale of research and the new kinds of questions that can be asked through what he terms the macroscopic capacities of Big Data – "something that lets you see broad/big. Something like seeing society."

The constellation of changes brought through new technologies will affect not only the scaling of our work but the production and circulation of it as well. Scholarly publication is our common term of reference for work produced within the traditional publishing system. We conceive of the culmination of our scholarship as the short-form essay and as the more highly-valued book or monograph form. But instead of asking one another on year-end reports, what have you published, we need to be asking how have you been communicating your work. In the humanities, invocation of the term scholarly publication directs attention to the end product of scholarly work, "the book," and its materiality. Invoking the term scholarly communication directs attention to the processes of scholarship: its germination, its unfolding through particular forms of interpretation, argumentation, and presentation; its environment of composition; its media of presentation; its preparation for circulation; its circulation, reception, and increasingly its reuse.

We know that we have entered the post-traditional publishing system. The old business models of academic presses are no longer tenable. Libraries are not purchasing every book published in humanities fields. The average print run for hard bound copies of a book is 400; the average print run for paper is 600 (Pochoda personal correspondence). Confronting such small sales projections, university presses are developing new business models and piloting new publishing ventures. This situation does not mean that the book is no longer tenable as a mode of circulating knowledge. As Tara McPherson observes, "the book is unlikely to go away anytime soon. . . . It will continue to circulate in its revered tangible form, easy to take to the beach, the bed, or the bath. But it will increasingly change, yielding in many instances its fixed physicality to the more mutable forms of digital data" (3). So, the book as we know it will continue on. But it will be only one form of "bookishness" (McPherson's term) – which will take a variety of forms.

If you read nothing else in the next couple of weeks, go online and find the report written by Abby Smith Rumsey, Director of the Scholarly Communication Institute at the University of Virginia, entitled "Emerging Genres of Scholarly Communication." The report begins with the pronouncement: "Current print-based models of scholarly production, assessment, and publication have proven insufficient to meet the demands of scholars and students in the twenty-first century." Rumsey goes on in SCI8 to "reimagine the ecology of scholarly publishing, based on careful assessment of new genres, behaviors, and modes of working that have strongly emerged" (1-2).[iii]

This new ecology of scholarly communication involves an ensemble of actors: individual scholars, libraries and librarians, publishers, computer technicians, administrators, funders, and heterogeneous users. In this environment, scholars are multiply-positioned as not only authors, but also collaborators, publishers, disseminators, and curators of their work.[iv] And they will become active interlocutors with users of their work, who as Rumsey notes, "are each and every one potential authors and publishers as well as readers" (9). But they are different kinds of readers. As "users of content, "the new audience expects not only to read, but to listen, to look, to download and re-use" (SCI8 12). Scholarly communication in the next decades will move forward through the mobilization of scholarly networks, networks that include not only scholar-peers but graduate and undergraduate students. Scholarly networks that are not only institutionally-based but global in their configuration.

This digitalization of scholarly work in the humanities doesn't just involve the transformation of codex into code, the book on the page to the book on the screen; digitalization brings new modes of research, new formats of presentation, and new platforms for organizing knowledge, orchestrating argument, and visualizing intellectual exchange. The value of humanities scholarship lies in the interpretive capacities to illuminate; and new modes of scholarly communication can enable us to expand our interpretive capabilities by tracking multiple interpretive paths through an archive.[v] Moreover, in a "born digital" environment, the flexibility of genres and modes of scholarly communication will eventuate in more diversity in the forms of interpretive work, some of which will be singly-authored and some of which will be collaborative and multiply-voiced (McPherson 3/11).

Humanities scholars will communicate their work in this complex, shifting environment with its new ecology of bookishness and its new multiplicity of modes of scholarly communication. Old forms of bookishness will persist and new forms of bookishness will emerge. Old habits of doing scholarship will persist. Collaborative habits will become increasingly important. The book as we've known it will no longer be the sole "gold standard" of our project. The currency of our work will be multiple. And it will be presented not as inert, but as interactive and in process. As Dan Cohen remarked at the HASTAC conference, the "inert" model of scholarly publication is becoming outmoded (cite paper). He challenged those assembled, asking: "How can we wean ourselves from the inertness of knowledge, the sense that once it's in a book, it's done." Cohen opines that we can have "sort of" publishing, the publishing of bits and pieces of scholarly and theoretical work, some of which will be in blogs, and other forms.[vi]

A **fourth macronarrative** has to do with the shifting relationship of scholars to their work.

We have new options for communicating our work and for making that work accessible to scholars and students in impoverished institutions and to the public around the world. We can place our work in a larger conversation in our fields; and we can address issues of the social justice of knowledge related to the disparities between the technology haves and have-nots; and the resource rich and resource strained institutions in this country and around the globe (site Siva's presentation). The term for this capability is open access.

Many of us are familiar with current trends in open access. OCW- open courseware is one such movement, started at MIT where faculty voted to make syllabi and other course materials available to the public. Now some 1000 institutions have some kind of OCW commitment "to distribute their own learning assets to the world," as Jame J. Duderstadt, President Emeritus of the University of Michigan, terms it. The Hathi Trust is another such accessible archive. And there is Coursera – a teaching project of Stanford, Michigan, the University of Pennsylvania, and Princeton – for offering a range of courses to thousands of people worldwide through open access. You may also know about the Hathi Trust. Yes, copyright issues need to be resolved – but the Hathi Trust aims to make this digital library accessible to students and scholars around the world (90) and to the general public.

What does "open" mean, in the phrase open access? The ideal notion of open access, as my friend Phil Pochoda, former Director of the University of Michigan Press tells me, is that the communication of scholarship is paid for by academic institutions and opened up for free distribution to anyone, academics, students, and lay people alike. Open access is increasingly a central feature of scholarship and research in medical and scientific fields. Here in the States, the Faculty Senate at the University of California, San Francisco, arguably the most prestigious life sciences center in the country, days ago voted “to make electyronic versions of current or future scientific articles freely available to the public.” UCSF is among the first of the Research 1 public universities to do so.

Few humanities scholars are at the forefront of the open access movement. Dan Cohen is one of them. Cohen makes the case for open access initiatives in the humanities in economic terms, but economic terms we are not used to confronting. He says that those who make the case against open access by means of a cost-benefit analysis

> often forget to factor in the hidden costs of publishing in a closed way. **The largest hidden cost is the invisibility of what you publish.** When you publish somewhere that is behind gates, or in paper only, you are resigning all of that hard work to invisibility in the age of the open web. You may reach a few peers in your field, but you miss out on the broader dissemination of your work, including to potential other fans.”

This is a high cost to pay for maintaining the status quo in our approach to our work. So I anticipate that more and more humanities scholars will begin to place their work in open access venues and institutional repositories, to to become familiar with “Creative Commons Licenses” through which we keep copyright to our work and make it accessible to others for copying, distribution, attribution, and use. Scholarly communication in a creative commons license environment may be awhile getting here; but at this time humanities scholars are beginning to converse with editors about routes to open access, to publish in open access journals or through the Open Humanities Press. Others are experimenting with the process of open peer-to-peer review, as Kathleen Fitzpatrick has done with a prepublication version of her book Planned Obsolescence. And scholars, as curators of their work, will be depositing books and articles in institutional repositories where they are openly accessible.

These changes and challenges lead to a fifth macronarrative – one that has to do with the agent of knowing, the scholar him or herself. What kind of subject will the one who seeks to know, pursues learning, engages in research be? What will be the implication of the shift from the alphabetic self to the digital self? Will we become "posthuman" scholars? And in what sense?

I don't have time this afternoon to parse the strands of posthumanist thought; but what I can do is offer some impressionistic observations about the scholar-subject that is emerging. Offering one self-portrait of the posthuman scholar, William J. Mitchell invokes the term "Me++" to designate the subject as a composite of fleshware, hardware, and software.[vii] "I am plugged into other objects and subjects in such a way that I become myself in and through them, even as they become themselves in and through me," he observes in his 2003 Me++: The Cyborg Self and the Networked City (62). In this autobiographical manifesto of "the electronomadic cyborg," Mitchell's self-presentation riffs on the Cartesian cogito: "I link, therefore I am" (62). We might label this witty posthuman quip Mitchell's "cybercogito." This Me++ subject is at once custom-designed via enhanced embodied capabilities and radically-extended via technological devices and digital networks. One way to imagine the Me++ scholar is as a performative of hyper-individuality, hybrid materiality, and networked relationality. Another is to see him or her as a conjunction of carbon and silicon.[viii]

What impact will the Internet of Things[ix] with its "ambient intelligence and autonomous control" have on the production of knowledge. And how will the Internet of Things intersect with the Internet of People to produce Knowledge? As a recent Harbor Research White Paper notes, the "connectivity of people and connectivity of devices are no longer independent phenomena" (6).[x] Of course, this is the news from the business world; but the effects of this intersection will be felt in the world of non-profit institutions, including higher education.[xi] For instance, scholars in the computational social sciences are beginning to exploit the capacities of the "semantic web" in their work. (The semantic web locates reasoning capabilities in software; as a result, data on website can be presented in structured formats so that other systems/sites can then apply logic to interpret that data.[xii])

The new scholar subject in the humanities will be at once a multimediated self-presenter; a self-archiver; a bricoleur of intellectual inquiry, individual and collective; an anonymized database; a networked node of a knowledge collaborator involving scholars, students, laypeople, smart objects, robots. The title of David Weinberger's recent book captures the complexities and perplexities of the scholar's life that is becoming: <u>Too Big to Know: Rethinking Knowledge Now That the Facts</u>

Aren't the Facts, Experts Are Everywhere, and the Smartest Person in the Room is the Room.

Where, oh where, is a Sustainable Humanities?

Let me then return to the question of the humanities. In these times, everything seems to be lined up against the humanities. Our enrollments are shrinking; as are our majors. Our funding is decreasing as a result of corporatized assessment and value-setting. Our mode of scholarly communication is in unsettling transition. Our fields are becoming feminized, with a large proportion of contingent faculty. The humanities threatens to become, as MLA President Russell Berman has noted, a "service provider" within the academy.

The environment ahead in humanities higher education will be as different from what many of us came through in the 1970s and 1980s as that period was different from the mid 1950s. The change we confront ranges from the organization of objects on our desktops to the global circuits that connect us to scholars, students, and publics around the world. Our professional identities and lives are being reorganized and rescripted. We can respond to this situation in various ways. We can turn back in nostalgia and talk of a time when the humanities was the revered center of liberal arts education. We can rest on self-righteous laurels, arguing that only we can lead the way through these times with our keen powers of critique. We can put our heads in the sand. We can play the victim.

Or we can roll up our sleeves and forge an action plan for a sustainable humanities. Here is my five-point plan.

1. We forge a new ethics and praxis of scholarly communication. The MLA has led the way here, renaming the Scholarly Publication office the Scholar Communication Office now under the leadership of Kathleen Fitzpatrick. And there will be a new concept of "the book" itself – as distributed, in process, multiply-mediated.
2. We reconceptualize our scholarly ecology as a flexible collaborator addressing multiple publics. In this scholarly ecology we may continue to understand ourselves as autonomous producers of knowledge; but we may also shift into relational co-production involving our students, our colleagues, computer engineers and architexts, and strangers of the crowd.
3. We rethink our relationship to our scholarship. Instead of maintaining an ownership model of our work with commitment to a closed system of communication, we can move toward another model based on the concept of open access and a more generative environment of exchange with multiple publics as we go global and steward the local.
4. We transform doctoral education in the humanities.
5. (I have a further point in my five-point plan that I will get to in my conclusion.)

Expanding forms of the dissertation

For me, the place to really tackle doctoral education in the 21st century is with the dissertation. Let me offer you my arguments for expanding the forms the dissertation can take.

Our over-investment in the dissertation monograph and the extended time-to-degree to meet this requirement has significant consequences for our students, raising ethical questions about our obligations to the next generations of language and literature scholars. The inflationary rise in the cost of higher education has lead to the rise in debt level of students upon graduation. The financial costs to students will undoubtedly continue to rise as the current budget crises prompt more cuts in fellowship funding, travel funding, and summer stipends. Many students stay on track, but others watch debt accumulate, lose steam, dissociate from peers, avoid mentors and advisors, suffer disenchantment with their topic, stall out. After fellowships and teaching positions dry up, some slip away entirely. As a result, students invest a significant portion of their lives and resources in doctoral education without experiencing the satisfactions of completion, whatever career path they follow. Moreover, the extended time-to-degree has for decades negatively impacted women's decisions regarding relationships and child-bearing. Delay of personal life has always been an issue for women in the academy. Yet, job satisfaction and career development in our profession, as the recent MLA report on the associate professor rank observes, is related to the satisfactory balancing of work/life desires and obligations. (Is this true of the report?)

But the urgency of this conversation about the dissertation monograph cannot rest entirely on the ethical and practical issues raised by the current time-to-degree situation. It must proceed from a recognition that at this historical moment we must grab the opportunity to redefine the intellectual mission of the PhD as a project. The quality, extension, and liveliness of our scholarly conversations in the next decades depend on this redefinition.

In 2010, I dedicated two of my MLA presidential newsletter columns to making a case for expanding forms of the dissertation. I mounted nine arguments for expanding forms of the dissertation. Here they are in condensed form.

1. The digital revolution requires us to prepare students for new research practices and new modes of scholarly communication. Doctoral students in the modern languages and literatures will increasingly create and use digital archives and innovate digital modes of scholarly presentation and communication in the next decade. They will have access to new funding opportunities, made available by foundations and the NEH, and through corporations such as Google. Yet the current dissertation monograph remains inflexibly wedded to the traditional book culture format; and the habits of inquiry and production it reinforces may not train doctoral students in skills necessary to navigate this emergent environment deftly.

2. Future faculty in our disciplines will require flexible and improvisational habits of mind to bring their scholarship to fruition; and they will develop new reading habits. Scholarly inquiry will move forward through the mobilization of scholarly networks, networks that include not only scholar-peers but graduate and undergraduate students. Thus, the singular and solitary model of the dissertation monograph as proto-first-book is fast becoming out of sync with the scholarly world more and more dependent on collaboration for scholarship within and across disciplinary boundaries and via digital media. Remaining wedded to the dissertation

monograph as an isolated venture will limit students' preparation for this increasingly collaborative scholarly world of global networks.

3. A shorter time-to-degree with flexible dissertation models would help us "oxygenate" our departments and programs. (The phrase is Louis Menand.) And it would help us realize our commitment to making advanced humanities study accessible and imaginable for underrepresented groups. For potential applicants from nontraditional and underrepresented groups, the route ahead seems formidable when the average time-to-degree is nine plus years: seven to ten years of learning and apprenticeship, potentially high debt, and solitary labor. It is no wonder that the students we seek migrate to disciplines and programs that take less time, promise a more recognizable economic pay-off, and offer a quicker return to communities of affiliation.

4. The time and stress involved in completing the dissertation monograph now absorb the psychic, affective, and intellectual energies of doctoral students, often overwhelming what attention they might want to direct toward preparation for future teaching. Our students will be short-changed if they do not graduate as skilled teachers, excited to be in the classroom and adept at engaging classes of various sizes, of diverse student literacies, and of different kinds of students; and familiar with and innovative in digital teaching environments.

5. We need to prepare future faculty to write and communicate their work in different modes and for different audiences. This involves expanding the forms of writing, the styles of writing, the audiences for writing. The era of overspecialization and the insider's language and rhetorical mode is on the wane.

Our students need to gain confidence and facility in writing for multiple audiences, and for telling good stories about what they do in lively language for non-specialists. Facility in addressing non-academic audiences would better position future faculty to engage in public scholarship.

6. A one-size-fits-all model of the dissertation monograph is inadequate preparation for diverse professional environments because its fetishization is tied to the one-model-of-success ethic pervasive in graduate programs - becoming a tenure track professor at an R1 institution. Many of our students (the one-third) will find academic teaching positions in institutions radically different than the ones where they received their training. We need to prepare them to thrive in diverse kinds of institutions. And given that only one out of three admits to doctoral programs will go on to an academic position on the tenure track or in full-time non-tenure track employment, we need to prepare students to move into a variety of positions in and out of the academy. Practically, we need to optimize the range of opportunities our graduates can pursue. Some will move to the new fields at the intersection of literary studies and information science; some to the non-profit world of the humanities workforce; some to the world of government and public policy.

7. Introducing alternative forms of the dissertation and weaning our programs off the proto-monograph as the only indicator of promise, readiness, and dedication to the scholarly work of our discipline will be one contributor to decreasing time-to-degree and eliminating time-to-attrition. Yes, time-to-attrition. Recent data from the Council of Graduate Schools indicates that the 10-year completion rate of humanities PhDs is 49%, one of the lowest in the sectors of

higher education measured for this metric.[xiii] (The study, presented as "The Path Forward," was based on the cohorts beginning doctoral programs from 1992-94 through 1994-95.) Pondering this patter, David Laurence at the MLA opines that "[c]onceiving and completing the dissertation remains the chief obstacle to student progress, gatekeeper to the degree, and discriminator among those who do earn the degree in the competition for tenure-track positions" (6). Time-to-attrition is directly linked to the dissertation as proto-monograph. We cannot afford to lose our students and the funding that we have invested in them. And we should not perpetuate a system in which humanities debt level, as Doug Steward has recently explained, is particularly high for graduates (from the data from the Survey of Earned Doctorates). What is most worrisome is that the data reveal that students of color accumulate levels of debt far above the mean. (Cumulative debt for African American PhD recipients, according to the data, rises to a mean of $38,586. [Steward 1].)

8. Expanding forms of the dissertation may impact the current imbalance in the academic workforce. A shorter time-to-degree will mean that doctoral students will not be forced due to financial exigency to seek part-time teaching as they linger on to complete a monograph dissertation. The elimination of time-to-attrition will mean that fewer students will leave our programs ABD, only to enter the cohort of applicants for part-time teaching positions where they are paid woefully inadequate wages and work in far from optimal conditions. Our doctoral students will graduate with the multiple skills and experiences that will serve them well for jobs outside as well as inside the academy; and this shift will decrease the pool of PhDs seeking

part-time work and getting slotted into dead-end academic jobs without adequate compensation, benefits, and working conditions.

These are the reasons. Now what might this new dissertation look like. Well, after the initial meeting of the MLA working group on the new dissertation, we came up with a definition of the new dissertation that I want to present to you. In response to the question "What might the expanded forms of the dissertation look like" we drafted the following statement.

Toward a working definition of the new dissertation.

> The dissertation in the humanities is commonly thought of as the "culmination" of doctoral education. We prefer to see the new doctoral dissertation as the "generative launch point" of a future career in the humanities, a sustained engagement expressed across a variety of communicative modes and vehicles. Through producing the ensemble of forms in the new dissertation, the doctoral student masters the art of entering a scholarly discourse (facility in close reading, theoretical framing, and extended analysis); gains skills in multiple forms of scholarly communication; develops a range of scholarly voices; and mines the potential of addressing diverse communities. He or she becomes responsive to the fit between the topic and the mode of communicating that topic, as well as thoughtful about the consequences of choosing a particular mode of scholarly communication. In an environment in which the book is gradually being decentered as the "gold standard" for scholarship in languages and

literatures, the Ph.D. capstone project provides an emerging scholar with a range of directions (both in terms of research question and in terms of scholarly genre) for future work. This multimodal engagement with the field ensures that the doctoral student is prepared to convey to students the pleasures and challenges of immersing oneself in language, literatures, and other cultural forms; to convey to colleagues innovative approaches to the field of study; and to convey to the public the critical issues confronting the humanities and excite that public about the work of the humanities in the world. Its aim is ultimately to prepare future humanists inside and outside the academy to remain innovators across the life span of their careers.

So what might this multimodal engagement look like? The most commonly-proposed alternative to the long-form dissertation is the "suite" of (three or four) essays, a concept of the dissertation advanced fifteen years ago by David Damrosch in We Scholars (162). A suite might involve a theme and its variations; or a set of distinct essays, probing different topics, using different methods or theoretical frameworks. The emphasis here would be on honing skills in the short-form (of 35-45 pages), precisely structured, persuasively argued, elegantly written, at once lean in purpose and compelling in the story it tells. I have come increasingly to understand the importance of helping our students with this form. From my own experience, I suspect we are often more lenient in our response to the long form dissertation than we would be with the short form.

Yet there are other forms that could be combined into an ensemble dissertation. Let me review the ones I noted in my column:

- Composing, displaying and linking a digital project potentially valuable to other scholars, teachers, and students. As Kathleen Woodward suggests, such projects might be conceived under the rubric of "curation" rather than argumentation.
- Undertaking a "collaborative" project with other students or a faculty advisor. Such projects might eventuate in a digital project (a scholarly edition, for example) or a publishable essay.
- Translating an original scholarly source or literary work, and appending a meditation on translation as a practice.
- Preparing a teaching portfolio, including an extended essay on pedagogy and a design for sequenced courses geared to different levels, class sizes, and audiences. Or writing an essay on the intersection of scholarship and teaching in the classroom.
- Pursuing a project of "public scholarship," as sketched by Julie Ellison and Timothy K. Eatman in "Scholarship in Public," possibly undertaken in a community external to the academy or addressed to issues of public policy.

I want to emphasize again, that the new dissertation could be thought of as a portfolio of projects. Doctoral programs could determine what options to make available to students. Or students and faculty advisors could determine what portfolio of projects best prepare doctoral students for futures in the profession.

I am advocating reconceptualizing the doctoral dissertation because it is the place to start an entire reconceptualization of the humanities doctorate. Expanding forms of the dissertation will have an impact on how we think about coursework, pedagogical training, professionalization, and advising. It will change how we think of progress to degree. Coursework might include multimodal forms of scholarly communication, among them blogging, interactive research, and collaborative writing, and studies in digital environments. The introduction to graduate studies might be reconceptualized as a discussion of the future of scholarly communication. We might place more emphasis in all coursework on scholarly voice. We might add the skills of curation and advocacy to those of deep reading. We might build into doctoral education some component that looks to alternative careers; internships; transferable skills such as grant-writing (see Krebs.) And we might implement new kinds of doctoral programs, in, say, Narrative Medicine, Archives, Curation and Humanities Databases, Literatures, Languages, and Public Policy, and Humanities and Publics.

Conclusion

Obviously, rethinking the dissertation will spark energetic debates and require hard work: Debates about the evaluation of new model scholarly communication. Debates about how to determine crediting systems for collaborative work (SCI8 19). Debates about "scholarship in non-textual media" (SCI8 12), including what the SCI8 report terms "multimedia argumentation." Debates about the effects and efficacy of open review processes (SCI8 19). Debates about the value of curation, editing, and archive-building. Debates about hiring priorities and practices. Debates about the technology itself, about social networks and apps for PDAs and cell phones that can be mobilized to advance scholarly inquiry and engage students in this work. These are going to be important debates to have.

These are debates and projects through which we can update our macronarrative of the humanities. This is the fifth item in my five point plan for a sustainable humanities. Beleaguered, many of us mount passionate defenses of the traditions of scholarship in the humanities and lodge passionate critiques of the new ecology of knowledge. Such defenses have their place in the current environment of higher education; but they cannot be the end of our effort. Here are the critical issues of our time. How do we live in a world of too-much information? How do we differentiate purposeful archives from accidental archives from databases? (a la Tara McPherson)? How do we know and how do we know who we are becoming? Our project in the humanities has been to offer theories; spur critical engagement; reanimate the past; imagine alternative possible futures; model pleasures in our abundance of languages; mine the impact of a word, a metaphor, a phrase; "read" deeply. We will be the only place in the academy where the scale of work reaches from the singular word to the expanse of Big Data. The place where the focus is at once on the affective attachment of individuals to cultural products and ideas and on the historical sweep of cultural formations. We will continue to be the place of the singularity and the crowd, of the historical and the contemporary. Interpretation, from the level of the word to the level of big data, is about storytelling; and we know storytelling. We are positioned to analyze the stories that are told of the human, the social, and the technological.

Transforming doctoral education in the humanities, forging a new ethics and praxis of scholarly communication, reorienting our relationship to our scholarship, reconceptualizing our scholarly ecology as a flexible collaborator addressing multiple publics, and renarrativizing the centrality of the humanities. **This is my five-point plan for a sustainable humanities.** Yours will be different. There is no one way to proceed. Part of me wants to see a white paper on a sustainable humanities, involving the professional organizations, the NEH, and the Presidents of universities and colleges. But I also know that we need to proceed, not through a published paper but through our local acts on our campuses. Spurring debate about doctoral education, developing new graduate certificate programs, seeking nimble, imaginative, and daring candidate, championing more flexible tenure and promotion guidelines, communicating through open access venues, engaging the public in our work. The time to begin is now.

Please note: the endnotes and bibliography for this paper are not completed.

[i] [Statistics from the National Center for Education Statistics: "Between 1975 and 2010, the percentage of 25- to 29-year-olds who had completed a bachelor's degree or higher increased from 22 to 32 percent; however, most of the increase occurred prior to the last decade. Between 1975 and 2010, the percentage who had attained a bachelor's degree increased from 24 to 39 percent for Whites, from 10 to 19 percent for Blacks, and from 9 to 13 percent for Hispanics. In 2010, some 7 percent of 25- to 29-year-olds had completed a master's degree or higher. The percentage of Asians/Pacific Islanders who had attained a master's degree in 2010 (18 percent) was higher than that of their peers from all other races/ethnicities: 8 percent of Whites, 5 percent of Blacks, and 2 percent of Hispanics had attained a master's degree in 2010." http://nces.ed.gov/fastfacts/display.asp?id=27]

[ii] (Daniels is the former Vice-Chancellor, Open University, and current President/Ceo of Commonwealth of Learning.) Daniels has been involved in something called the Commonwealth of Learning out of Vancouver, under the auspices of UNESCO. This is an initiative to address this global deficit in access to a higher education. (perhaps add more here). The information contained in the penultimate slide of a presentation that Daniel E. Adams, W. K. Kellogg Professor of Community Informatics, Professor of EECS, and Associate Vice-President for Research Cyberinfrastructure at the University of Michigan, gave at the December meeting of HASTAC that took place at Michigan. He presented to us

[iii] The SC I8 report provides an illuminating visual schema for thinking about process – authoring, publishing, stewardship, and use – and the actors involved – producers, disseminators, stewards, and audiences. (5).

[iv] In the words of the working paper, scholars, technicians, librarians, will collaborate in an environment in which scholarship is "born archival" (9).

[v] I'm reminded here of how it is we approach graphic memoir, which I've been teaching recently. As theorists of graphic narratives emphasize, in graphic narrative the visual is textualized and the textual is visualized; and the words may narrate one thing and the visuals tell another; while the syncopation of frames and gutters projects yet other stories and meanings.

[vi] Cohen also asked, "can you 'almost' publish your scholarly work?" In other words, can there be "partial" communication, "sort of" publishing of bits of work

[vii] The double plus here evokes the double plus in the coding language C++.

[viii] I read recently about a "loosely organized group known as the Quantified Self," centered in Boston. The Quantified self is constituted of people who digitally self-monitor their bodily processes. One might think of the self in this context as a site of time-stamped data. But the thing that interested me about the Quantified Self is the capacity of people to become contributors to Big Data; databases that will be the source of research in the biomedical sciences. In her recent piece on the Quantified Self, Emily Singer observes that "the most interesting consequences of the self-tracking movement will come when its adherents merge their findings into databases. The Zeo, for example, gives its users the option of making anonymized

data available for research; the result is a database orders of magnitude larger than any other repository of information on sleep stages." (41). She also notes that "[p]atient groups formed around specific diseases have been among the first to recognize the benefits to be derived from aggregating such information and sharing it." (43). (Anonymized communities.)

[ix] The Internet of Things encompasses smart devices that link with other devices.
[x] "These phenomena are not just about people communicating with people of machines communicating with machine: it also includes people communicating with machines, and machines communicating with people. The Internet's most profound potential lies in the integration of smart machines and people—its ability to connect billions upon billions of smart sensors, devices, and ordinary products into a "digital nervous system" that will smoothly interact with individuals. . . . In fact, combining device connectivity with social networking platforms opens the potential for substantially new forms of collaboration between people and things. Connectivity of people and connectivity of devices are no longer independent phenomena. (Harbor Research 3-4,6) (White Paper, The Internet of Things Meets the Internet of People, Harbor Research, Inc. http//:harborresearch.com
[xi] With access to knowledge available through even the smallest of our electronic prostheses – the cellphone – more and more people will be users of, and contributors to the scholarly enterprise and its networks of communication. There will also be distributed labor through such mechanisms as "Amazon mechanical turk" - a service that breaks research and production into a set of small tasks and then finds people who will complete them on line. This is a form of crowdsourcing and researchers are talking about how this service can be used for data collection and analysis (TSG, personal conversation). We already observe citizen science activity in the research sciences. "**Foldit is a revolutionary new computer game enabling *you* to contribute to important scientific research. This page describes the science behind Foldit and how your playing can help."**
[xii] Software is reasoning, can reason about information that's online. Computational social science: look at the Berkman center for archive of recent talk on this.
[xiii] A cautionary note on statistics is needed. David Laurence wrote that "The finding that the humanities have a 49% completion rate, and that the completion rate in the humanities is the lowest of all disciplinary branches, are in part artifacts of this 10-year wall" (personal correspondence).