Debates in the Digital Humanities

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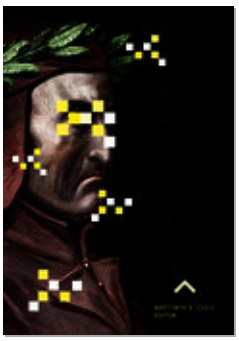

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Time, Labor, and "Alternate Careers" in Digital Humanities Knowledge Work

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The quick transition of "#alt-ac" from Twitter hashtag to term of art has been an index of its evident utility: as a rubric for discussing a topic that has long been in need of a name, a terminology, and an agenda. The alternativeness of careers in digital humanities has in fact been a subject of long debate and much concern; many early researchers in what was then termed "humanities computing" were located in liminal and academically precarious institutional spaces such as newly created instructional technology support units and grant-funded research groups. Much energy was devoted—then as now—to discussion of how and whether this domain could become a discipline, with its own faculty positions and academic legitimation. And although those faculty positions and degree programs are starting to appear, many jobs in what is now called "digital humanities" are still para-academic, though their funding and institutional position has been consolidated somewhat. What has received less discussion, interestingly, is the word "career" itself. Its origins in horse racing ("the ground on which a race is run, a racecourse . . . a short gallop at full speed"[1]) are long past but not irrelevant: the word articulates a sense both of boundaries for a specific type of effort and of the intensity and directedness of the effort itself. In professional terms, a career has both direction and impetus; it is inescapably competitive.

The phrase "alternate careers" is thus remarkable at second glance not for suggesting that there are alternatives but for the centrality it still accords to those academic careers that are not alternate. This centrality is not just an effect of graduate study and not only perceptible within the academy; it shapes the way universities are understood as workplaces even by those who stand outside them. So, for instance, when I mentioned to the person who was fixing my truck that I worked at Brown University, without giving further detail, he assumed that I was a professor there. (If he was being deliberately flattering, the point is surely the same.) As a guess, this was not only wrong but a poor play of the odds: faculty positions make up only

about 30 percent of all full-time employees at Brown, whereas 45 percent are some other kind of professional: technical, administrative, legal, executive, and managerial. Thus on the basis of pure statistics (and even allowing for my apparent level of education and socioeconomic positioning), I am much more likely to be anything but a faculty member. The professoriate, though, provides the characteristic paradigm through which we understand the nature and function of the university: an institution composed of professional faculty whose job is to teach students and to perform research.

This idealized view stands in for the real complexity of the university as an institutional ecology of work—in which every hour of faculty work is brought into being by hundreds of hours of time spent maintaining the physical and administrative space within which that work is conducted: libraries, network, payroll, buildings, and all the rest of it. But it also stands in for, and obscures, the real complexity of even the "purely academic work" that goes on within the university. The sketchy wireframe figure of the professor suggests a division of labor and a level of intellectual independence that, in the emerging age of digital scholarship, is increasingly obsolete. It also suggests a strongly defined intellectual and professional career trajectory that, as Alan Liu astutely observes in *The Laws of Cool,* may no longer be characteristic of modern knowledge work: "to be a professional-managerial-technical worker now is to stake one's authority on an even more precarious knowledge that has to be re-earned with every new technological change."[2]

To fill in these complexities is to gain a clearer understanding of how other kinds of academic jobs stand in relation to that of the tenured faculty and also to see how those relationships have been structured in the academic imaginary. These "alternative" or "para-academic" jobs within the academy have a great deal to teach us about how academic labor is quantified, about different models of work and work product, and about the ways that aptitude, skill, expertise, and productivity are weighed in assessing different kinds of work.

Situating the discussion within the domain of digital humanities puts these issues into more specific focus. It brings into view a wider range of work practices and roles: the novel job descriptions that arise out of digital humanities project work but also the novel forms of academic practice that even conventional academics find themselves undertaking when they embark on a digital project. But it also sharpens our attention to the question of what "knowledge work" really is and where its boundaries lie. The tension within the domain of digital humanities work between the practical and the theoretical, the technical and the scholarly, recapitulates a familiar dialectic within the traditional academy but does so in a way that prods us toward a new synthesis. If we understand "knowledge work" as a material practice, we may come closer to demystifying it.

In what follows I am going to set out some case studies based on my own work experience and try to unpack their significance and what they can reveal about different kinds of academic work.

Teaching Fellowship

My first job in the academy, as for so many people, was as a graduate teaching fellow. Precisely because of the self-evidence of that term as a designator of a certain kind of job, let me be deliberately obtuse and pretend that we know nothing about how such jobs work and what they entail. From my viewpoint as an early stage graduate student at Brown in 1991, the significant parameters were essentially these. My pretax income for the academic year was $12,500, and my formal work responsibilities were to prepare and teach two undergraduate writing courses of my own design. The time commitment for my teaching responsibilities was assumed to be approximately twenty hours per week. In addition, it was assumed that I would undertake my own research and make progress toward my PhD.

A few points are worth noting here: first, that the research I conducted as a student (preparing for professional advancement through field exams, writing conference papers, and participating in the intellectual life of the department by attending public lectures and university seminars) was not considered work, or at least not compensable work. In my first year, like all graduate students at Brown with financial aid, I received a fellowship that provided me with a living stipend and a tuition waiver, but even in that case my research would not have been characterized as work I was doing for the university. Students are positioned as net gainers from, rather than contributors to, the reservoir of knowledge the university contains, and the fellowship stipends they receive are characterized as "aid" rather than as compensation. And second, although the compensation for the formal "work" portion of my activities was reasonable (formally, about twenty-five dollars per hour for twenty-six weeks' work at twenty hours per week), as an annual income it was quite modest, and yet it would have seemed remarkable and inappropriate to hold any additional job. In other words, while formally compensating me for only part of my time, the university implicitly laid claim to all of it.[3] What is interesting about this point is not the question of whether that claim is legitimate but rather the effect it had on me: namely, the idea that I was accountable for all my time to the PhD program I was in, not just for my paid duties or even for a standard forty-hour work week, but potentially all the hours not devoted to sleeping and eating. Anecdotal evidence suggests that this erosion of a boundary between the professional and personal space is a familiar and very common effect of graduate study, and (even more anecdotally) I would observe that the people who typically enter a graduate program are likely to have the kind of personality that lends itself to this erosion: highly motivated with a strong sense of duty and an established habit of hard work and deferral of personal pleasure (or an ability to experience hard work *as* pleasure). In my own case, lacking any common sense about how to set practical boundaries on the work to be accomplished, I tended to feel that the research

work required of me was effectively limitless: that no amount of effort could be sufficient to really complete it and that therefore no time could legitimately be spent on anything else.

Salary I: Free-Floating

My second job at Brown was as a full-time staff employee at the Women Writers Project (WWP), working as the managing editor for a series of books the WWP was publishing at the time with Oxford University Press, at an annual salary of twenty thousand dollars. Again, it may be useful to take a deliberately naive look at this job to understand how it was conceptualized. The WWP at that time was an independent unit reporting to the dean of the faculty, and its funding was derived partly from grants and partly from the university. It had originated in the English Department, and its agenda was still largely set by its faculty advisors, but its grant funding was awarded in large part because of its exploration of the use of digital technology, and the project was thus recognizable (to contemporary observers) as a hybrid: a project with a literary research agenda, using technology as a tool in furthering scholarly goals. The project was codirected by Susanne Woods (a full professor of English) and Allen Renear (a member of the staff in Computing and Information Services but holding a PhD in Philosophy). Its other professional staff included a programmer and the managing editor position that I held. Despite its traditional title, this job had an unusual profile, resulting from the experimental way in which these books were being produced: by converting the WWP's SGML files into a format that could be read by FrameMaker, which we then used to produce camera-ready copy following the press's specifications. My sole qualifications for the job were a familiarity with the content of the books and the management of the series (as a result of earlier proofreading work) and a willingness to learn anything else required by the job: page layout, FrameMaker, book production processes, the principles of textual editing, and enough about SGML to work with the project's programmer to troubleshoot the conversion mechanism.

It is worth noting that this job, like many jobs at the time in what was not yet being called "digital humanities," had no discernable career trajectory. The project's directors had other "real" jobs (as faculty, as permanent staff in the IT organization), and the project's programmer could, by gaining further experience and skills, advance to other more senior programming jobs; but the managing editor position (for a graduate student who was still in principle planning to become a faculty member at some point) did not look like part of a track of professional advancement, at least not within the academy. The job skills cohered only in the context of the work of the WWP, but even there they did not represent either a permanent niche or a developmental stage toward one. The job was in effect an emergency response to a sudden and temporary need.

Consultant

In 1994, a few years after my start at the WWP, the project was absorbed into the newly formed Scholarly Technology Group (STG) and became part of Brown's Computing and Information Services (CIS) department. My own job responsibilities by this time had changed: I was working as the WWP's textbase editor, with responsibility for overseeing and documenting the WWP's text encoding work and research on applying the newly published Text Encoding Initiative (TEI) P3 Guidelines to our textbase. However, a more dramatic change was the way in which our work was conceptualized in fiscal terms. STG was organized as a "cost center," with some funding from the university but also the ability (and the responsibility) to bring in income from outside sources such as grants and contracts. A significant part of STG's early development was the establishment of a fiscal model in which all STG projects (including the WWP) were understood as paying customers of the STG organization. For each staff member, STG set a level of overhead based on the amount of time that person could be expected to work on projects (rather than administration or other nonbillable tasks), and an overall overhead rate was determined that could be applied to all STG work as part of the billing structure. So, for example, if I was assumed to have 60 percent billable time (or approximately one thousand billable hours per year), then each hour worked not only would need to be charged at the hourly fraction of my salary and benefits but would also need to include an overhead amount to cover the 40 percent of my time that could not be billed out, plus the time that our office administrator spent handling payroll and grant administration, and so forth.

I'll have occasion to revisit this financial model later in this essay, but it is worth observing here that it provided a fascinating view into how academic work is conceptualized. From STG's point of view, this model was absolutely essential to the group's successful operation because STG was expected to cover the bulk of its own costs through grants, contracts, and other external income. As a result, any nonbillable work (such as basic administrative operations, the maintenance of our servers, keeping up with e-mail, attending meetings, participating in university bureaucracy) had to be paid for through the billable hours that were paid by projects. Each hour of project work, in other words, stood on the back of a fairly substantial apparatus that was necessary to make that hour possible. Without the e-mail, the payroll, the servers, and so forth, project work wouldn't be possible. However, for many collaborators and funding agencies, this model appeared not only counterintuitive but deeply troubling because it made our work look much more expensive than anyone else's. An hour of work from a staff member being paid forty thousand dollars per year cost far more than the fraction of salary and benefits that person actually received. However, that additional cost represented the actual cost of bringing that work to market, so to speak. The concept of overhead is of course familiar in another

form (that of indirect costs), but indirect costs are not typically charged in the kinds of mutual exchanges of labor that we were often engaged in.

The result of this cost model for STG and WWP staff was also interesting. All of us became used to thinking of ourselves as consultants: people who might work on many different projects during the course of the year as called upon. One did not necessarily identify strongly with any single project, but one became adept at projecting oneself imaginatively into the space of each project, in turn, mastering its particular constraints and terminology so as to be able to act (program, design, research, encode, etc.) appropriately within the project context. This provisional identification with multiple projects gave us all a peculiar facility for seeing projects at a kind of metalevel: understanding their commonalities *as projects* and observing the types of problems and design challenges that emerged repeatedly. We gained a similar understanding of the disciplinary language and motivations that inhabited such projects: again, not as a matter of personal identification as a scholar in a certain field but rather as someone who is able to observe disciplines from a perspective slightly to one side.

Salary II

At a certain point, STG was reorganized to eliminate its reliance on outside funding and reduce its level of financial risk, and at this point the WWP was moved outside of STG and established as a separate unit, also within CIS but funded entirely on soft money. My job during this period was thus that of a typical salaried staff member, except that all the funding for myself and my WWP colleagues had to be raised either through grants or through licensing income from Women Writers Online (which by this time was starting to generate significant revenue). The result of this multiplicity of funding sources, however, was to reproduce in many ways the fiscal psychology of our time as consultants, in the sense that we remained very much aware of how our time was being spent and funded. In a year when the WWP had a grant from the National Endowment for the Humanities (NEH), part of our time would be allocated to the work for that grant (and paid from the grant ledger) while the rest would be allocated to WWP activities (and paid from license income). From time to time, when a shortfall in grant funding left us with a deficit, some staff time was "bought" by STG for specific projects.

Most recently, the WWP and STG have both been moved into the university library as part of its Center for Digital Scholarship. Although this move has not changed the WWP's fiscal arrangements, it has meant a subtle shift in how our work is construed in relation to the scholarly mission of the university. As a member of the library staff, my PhD in English no longer looks like a professional anomaly as it did in CIS, and the WWP's cultivation of a scholarly community for our publications, conference, and outreach programs is easier to harmonize with the digital

dimensions of our research. Perhaps most importantly, the idea that we conduct research seems natural and in keeping with the library's larger mission.

Freelance

Running in parallel to this entire narrative is another with an entirely different developmental trajectory. Since 2000, my partner and I have had a small consulting business through which we have worked on an eclectic range of projects, ranging from simple database development to digital publication to grant writing. Like my teaching activities at the University of Illinois discussed later, this is for me a strictly evenings and weekends and vacation activity (though for my partner it is his job). Almost all our projects have some connection with digital tools, formats, or activities,[4] but it is not our purely *digital* expertise that is most important in these projects but rather our *digital humanities* expertise: in the sense that our literacy in a range of humanities disciplines and our skills in writing, strategic planning, and information design are essential in making our digital expertise useful to our clients. The success of the consultancy, in other words, arises directly out of (and has as its necessary precondition) an engagement with academic practices, standards, and subject domains. In an early interaction, one client said that what she found valuable about our intervention was that it mediated usefully between purely technical information on the one hand (which did not address her conceptual questions) and purely philosophical information on the other (which failed to address the practicalities of typesetting and work flow). We enabled her to understand how the decisions she was making about information modeling would affect both the intellectual content of the electronic publication and the realities of getting it produced.

Like all knowledge work that identifies itself as a species of "consulting," what we are doing in this role is situating ourselves as apart from—and even to a certain extent "above"—the knowledge domains of our clients. Just as critical theory came in the 1980s to occupy a position of metanarrative with respect to the traditional academic disciplines, so consultancy positions itself as a kind of metaknowledge, an expertise concerning the ways in which knowledge work is conducted. It's useful in the context of this essay to understand the value of this type of work—and indeed I have been arguing in favor of it throughout—but it is also important to put some critical pressure on the terms of its self-valuation.

The value of this kind of consulting work—for both the consultant and the client—is the self-consciousness it provides concerning the nature of the work being done and the terms on which it is conducted. A typical situation for a consultant is to be asked for help addressing what is taken to be a small practical problem. In the process of learning the context for addressing this problem, the consultant and client discover that in fact the practical problem arises from a deeper set of issues that had not been fully analyzed or understood, because the client was too close to them (or lacked the perspective) to see them. The consultancy relationship forces

the client to articulate, for a stranger, premises and assumptions that may never have been stated plainly before—indeed, may never have risen to the level of visibility. For the client, self-consciousness results from having to bring all of this to articulation, and the result is often a better (because more explicit, transparent, and widely shared) set of intellectual configurations within the client's project or environment. For instance, work processes might be explicitly documented; latent disagreements might be brought to the surface and resolved; methodological inconsistencies or lacunae might be examined and rationalized.

Self-consciousness in the consultant arises partly from habitual exposure to infinite variety of beliefs, ways of doing things, and systems of value and partly from the constant projection of oneself into other people's imaginative spaces. The consultant must identify, however briefly and professionally, with the client's situation in order to provide useful advice while retaining enough distance to provide advice that goes beyond what the client would come up with on his or her own. Even as we treat self-consciousness as an *outcome* of this work, though, it may turn out to be more importantly a *precondition* of it, in the sense that people with this turn of mind (or training) will tend to approach their work in this spirit and may gravitate toward consulting roles no matter what their actual jobs.

With these points in mind, it is interesting to observe that digital humanities, as an institutional phenomenon, has evolved very substantially out of groups that were originally positioned as "service" units and staffed by people with advanced degrees in the humanities: in other words, people with substantial subject expertise who had gravitated toward a consulting role and found it congenial and intellectually inspiring. The research arising out of this domain, at its most rigorous and most characteristic, is on questions of method. Indeed, digital humanities has taken and been given responsibility for reforming the humanities disciplines, in virtue of the fact that it requires an attention precisely to method. By formalizing humanities research practices and rendering explicit the premises on which they rest, digital humanists also make possible critique and change.

My own professional preparation for working as a consultant, as this narrative has already shown, was in fact my acculturation as a para-academic: my various jobs in publishing, editing, supporting, teaching, grant writing, and studying. What interests me most about this work, though, has to do with the ways that various kinds of knowledge—technical, scholarly, practical—are valued. I suggest that there are at least two forms of valuable knowledge in play. The first is the knowledge that the client values because they are glad they don't have it (or have responsibility for it): they value it in the consultant because it represents what they think they are buying. Technical knowledge falls into this category: in my case, knowledge of XML, databases, electronic publication systems, digital project management. The second, more problematic category is the knowledge that makes the first type usable to the client—namely, the metaknowledge through which the consultant grasps the client's subject area. In my case, this includes familiarity with scholarly editing and with methods

of literary scholarship; and, despite the fact that my technical knowledge would be unusable without it, this knowledge also constitutes a kind of subtle structural irritant in the consulting relationship. Precisely because of its potential value (if I were being considered as a colleague), it must be explicitly devalued here to show that I am not so considered: it creates a necessity for gestures of demarcation by which the boundaries of my role can be drawn, with technical knowledge on the inside and subject knowledge on the outside.[5]

I'd like to describe one project in particular that may be illuminating in this context, namely the work that my partnership has been doing on the Modern Language Association's (MLA) New Variorum Shakespeare (NVS) Editions, starting in 2003. Our work has been focused on developing specifications for representing these editions in TEI and XML and for accomplishing the encoding of the three most recent editions, plus associated other tasks. As already suggested, our technical expertise (in this case, familiarity with markup languages and XML publishing) had an obvious relevance and importance, but arguably more important was the ability to understand and explain the editorial significance of technical decisions and to serve as a bridge between the two strands of the project: the project's editorial work (conducted by senior humanities faculty) and the project's technical implementation (overseen by professional staff at the MLA who manage the production of the editions in print and digital form but for whom the XML is largely unfamiliar terrain).

For this project, we began by examining the intellectual specifications for the edition, which were described in the editorial guidelines: these prescribed (most significantly) the organization of readings from the textual witnesses that are collated for each edition, the organization and presentation of the commentary in which the editor summarizes the history of criticism on each line of the play, and the arrangement and representation of the play text. From this information we were able to create an information model of the edition: essentially, an understanding of what the informationally significant components of the edition are and how they are functionally related to one another. For example, each textual note (representing the set of variant readings on a given word) must contain both a reference back to the line containing the word in question and a formally organized arrangement of readings; each reading in turn contains the textual variant and a reference to the witness(es) where that variant is attested. We then formalized this information model in a TEI schema, through which these informational nodes and relationships could be expressed and constrained.[6] Finally, we wrote comprehensive documentation of the encoding practices required to produce a TEI version of an NVS edition and tested the entire system through the process of encoding three successive editions and creating working output of various types.

This development process, effecting as it did a complete translation of editorial methodology from one medium into another, also produced an interesting shift of perspective. In a classic edition project—such as the NVS notably was when it was a print-only edition—there are many kinds of knowledge in operation, including the

literary and editorial knowledge that is responsible for what in FRBR (Functional Requirements for Bibliographic Records) terms would be called the "work" and its "expression,"[7] the knowledge of production systems such as copyediting and book design that is responsible for creating a high-quality "manifestation," and the knowledge of publication-related activities such as printing and bookbinding that go into producing the individual "items" that one can buy and shelve and read. In this universe the editorial knowledge that produces the work is understood to operate at the highest level: it directs and motivates the others and carries a kind of cultural authority as knowledge work in relation to their instrumentality. At the start of our work on the NVS, this relationship between types of knowledge was also in operation with respect to the digital implementation of the project: the XML encoding of the text was being treated as part of a typesetting process and was being executed in that spirit, as a way of producing a manifestation or set of items rather than as a process with implications higher up in FRBR's great chain of being. The discourse around the use of XML was substantially instrumental: it concerned the practicalities of supporting a digital interface and generating PDF output and similar issues.

Treating this work as information modeling, however, has produced a subtle shift in these relationships. Most significantly, it has repositioned the TEI/XML: no longer solely as part of a production workflow aimed at producing output but rather as the formal (and authoritative) instantiation of the knowledge that constitutes the edition, as the information model for the edition itself. Where in the print production process the editorial manuscript was taken as the most informationally rich artifact in the ecology (whose contents would be translated into an effective print carrier for those ideas), in the digital process the editorial manuscript is a precursor to that state: the XML encoding brings information structures that are *latent* or *implicit* in the manuscript into formal visibility. Once completed, the XML data carries in itself the information needed to generate all the possible manifestations of the edition: in print, in PDF, in interactive forms, in visualizations derived from the data, in Braille, and so forth. The knowledge that in this work process is positioned as "technical," in other words, actually turns out to be the metaknowledge through which the original motives of the NVS editions can be projected into a different medium with different representational properties.

Faculty

The final dimension to this complicated professional identity is in many ways the most conventional: a turn to university teaching. Since 2005 I have held an appointment as an adjunct instructor at the Graduate School of Library and Information Science at the University of Illinois at Urbana-Champaign (UIUC), teaching a course on electronic publication standards and technologies each fall through their distance learning program (known as LEEP). I am paid by the course at typical adjunct rates, and I teach (including class sessions, responding to student work

and questions, and all administrative functions) during the evenings and weekends. From UIUC's point of view, the appointment is 25 percent of a full-time equivalent (FTE) (a four-course load being a full-time job), and in fact the time commitment does work out to approximately ten to twelve hours per week.[8]

Because the LEEP program enables students to complete a Master of Library Science (MLS) degree without moving their residence or leaving their jobs (in many cases LEEP students continue to work full time), many or most of the students in my class are already engaged in careers in digital publishing, librarianship, and other kinds of work for which an MLS degree is a strong credential. For them, the knowledge associated with digital technologies is both instrumental (a job skill that can immediately be applied in very practical ways) and foundational (a set of concepts and technologies that intersect with and enrich other dimensions of library and information science). For many of them, their working lives within the academy will be very much like mine, though probably less peripatetic; as librarians their work will be positioned at the intersection of three different paradigms of knowledge: subject expertise, "practical" or "technical" skills, and a kind of metaknowledge that inheres in their mastery of information science (i.e., the organization and management of knowledge *across* and *apart from* specific subject areas). Depending on the specific job and institutional location they find themselves in, any of these three domains may be construed as yielding "research" on which they might publish, present at professional conferences, and gain professional advancement.

What does my professional experience and training look like within this ecology? What from my history is taken to be relevant for these students, and how (the reader might ask) does someone who took fifteen years to complete a PhD in English Literature look like a plausible faculty member in a school of library science? Interestingly enough, what has proven most useful (and what students most remark on in their evaluations of the class) is the kind of embedded knowledge I represent: the understanding of methods, approaches, and strategies that arise out of real-world experience at a functioning digital publication project (i.e., the Women Writers Project). The course I teach covers a number of highly technical subjects (schema writing, XML, metadata), but its emphasis is strongly on how we can understand the significance and contextual utility of these technologies within a set of larger strategic concerns. Although on paper I only became a plausible hire with the completion of my PhD, the credential that really grounds the teaching I do is actually the fifteen years I spent *not* completing that degree and working instead in the variety of roles detailed earlier.

Stepping Back, Further Thoughts

These examples, for all their variety of institutional location and functional modality, are actually remarkably consonant with one another: one striking observation here may in fact be their similarity with respect to the actual work being done,

coupled with the range of ways in which this same essential set of tasks can be framed and paid for. At the same time, from another perspective their differences are most salient: for the typical humanities faculty member, most of these paradigms of work are equally alien; only the first will look truly familiar (the adjunct faculty position is familiar but not to be identified with). Examining these two cases for their commonalities, we can suggest that what characterizes mainstream academic work is two qualities. The first is the unlimitedness of the responsibility: work interpenetrates life, and we do what is necessary. For instance, we attend conferences without there being a question of whether it's our "own" time or our employer's time; there is no concept of "vacation" during the academic year and very little functional conception of "business hours" except as a personal heuristic device. The second, related characteristic is the way time is conceptualized as a function of work practice. Time for academics is not regulated in detail, only in blocks. (For nine months you are paid; for three months you are free to do other things; at all times you should be working on your next book.)

Most digital humanities work, however—as performed by library staff, IT staff, and other para-academic staff who are not faculty—is conceptualized according to one of the other models: hourly, by FTE, or as an agenda of projects that granularizes and regulates the work in quantifiable ways. Increasingly, the use of project management tools to facilitate oversight and coordination of work within IT organizations has also opened up the opportunity to track time, and this has fostered an organizational culture in which detailed managerial knowledge of time spent on specific tasks and on overhead is considered virtuous and even essential. As we have seen, in an organization like the early STG, such tracking was a structural requirement for billing; but, even in organizations where the idea of "billing" time to a project is simply an enabling metaphor, the use of time management as a way of understanding work processes and achieving greater efficiency and productivity is clearly immensely appealing.

These terms of value—efficiency, productivity—are not inapplicable to traditional academic models of work, but their applicability is considered strictly voluntary, qualitative, and relative. We can gauge the importance of voluntariness here by observing the shock and disgust with which attempts to increase productivity (e.g., by increasing class size or stipulating specific levels of scholarly output) by external enforcement are greeted: academic work is considered to have the privilege of self-regulation, being in this respect more like the work of a poet than of a journalist. The importance of qualitative rather than quantitative measures of work is similarly a kind of class marker: the cases in which specific metrics are typically applied (e.g., number of students and courses taught, quantity of committee work) are those that are least felt to be characteristically *scholarly* work. Quantifying scholarly output can only be done at the crudest level (e.g., number of books or articles published), and the relative and comparative nature of these assessments quickly becomes apparent: a monumental, groundbreaking book is worth much more (but how much more?)

than a slighter intervention, and it takes a complex apparatus of review to establish, even approximately, the relative value of different scholarly productions.

For the para-academic digital humanities workforce, these different paradigms of value operate and interact in complex ways. In my own experience working in an IT organization (with time regulated by the hour or the project), the tension between quantitative and qualitative measures of productivity was a constant source of methodological self-consciousness. Within the most local organizational context (the Scholarly Technology Group, whose name sums up the conundrum), this tension was understood to be an interesting problem rather than a practical difficulty: we knew ourselves to be doing cutting-edge research at the same time as we were producing useful projects, and at a metalevel we were fascinated by the interplay of these two undertakings. However, the parent organization (the more unequivocally named Computing and Information Services department) understood our work to be much simpler to define and measure: we were supporting faculty projects, and completing those projects successfully was a desirable and quantifiable outcome.[9] As a historical matter, it is also worth noting the evolution of these practices and expectations: members of CIS from its earliest days remembered a time when the organization was much more research oriented, developing experimental software tools and providing much more improvisational and open-ended forms of support. The transformation into a modern IT organization involved the importation of work and management practices that were explicitly derived from the corporate rather than the academic world.

What are the larger effects of accounting for time and regulating it in these ways? One important effect is that time and work appear fungible and interconvertible. The calculus of time and effort by which we know the cost and value of an hour of an employee's time is also the basis for assessing how those resources could be used otherwise. On the spreadsheet that tracks the project, that unit of funding (time, product) could be spent to purchase an equivalent quantum of time or product from some other source: from a vendor, from an undergraduate, from a consultant, from an automated process running on an expensive piece of equipment. The precise quantification of time and effort permits (and motivates) a more direct comparison of work according to metrics of productivity and speed and permits a managerial consciousness to become aware of all the different ways of accomplishing the same task with available resources.

This last formulation—accomplishing the same task with available resources—reverses the narrative of academic work that is on view at liberal arts colleges and research universities, in which a thoughtful person pursues his or her original ideas and is rewarded for completing and communicating them. In this narrative, the defining and motivating force is the individual mind, with its unique profile of subject knowledge and animating research vision. The managerial consciousness turns this narrative on its head by suggesting that in fact the task and available resources are the forces that most significantly define our work and that the choice of person

is almost a casual matter that could go one way or another without much effect on the outcome. We can see this reversal even more clearly in the way that—extending the idea of fungibility—this quantification of time also permits us to deal, managerially, with fractions of people. It is common in project discussions (and I find myself speaking this way quite often) to say something along the lines of "We need about a quarter of a person for a year," or "That project will take half a programmer." Witticisms about "which half?" aside, the effect of this model of work is to treat people as resources—as a kind of pool from which one can draw off a quantum of work when needed. The result of this fractionalization may be felt as a positive or negative effect: either of fragmented attention or of fascinating variety. But in either case it constitutes a displacement of autonomy concerning what to work on when and how long to take, from the staff member to the managerial consciousness—again, a reversal of the classic narrative of academic work.

It is tempting to suggest that this labor is—structurally, at least—alienated and to some extent exploited. While we can immediately distance ourselves from the melodrama of comparing a programmer who makes sixty thousand dollars a year with a food services worker making a fraction of that amount, we can fruitfully pause over the marked difference between this kind of para-academic labor and the characteristic model of labor by which the academy is recognizable. What *is* the effect of this fungibility, this depersonalization of labor on the para-academic staff? What is my life like as a worker (and a self-conscious manager) in these conditions?

One point worth making at the outset is that many of the people in the para-academic jobs like mine are (like me) people who originally planned to be academics in the traditional sense. Of my seven closest colleagues during the past four years, five have pursued (and four completed) a PhD. Our expectations of what work should be like are strongly colored by the cultural value and professional allure of research, and we expect to be valued for our individual contributions and expertise, not for our ability to contribute a seamless module to a work product. Our paradigm for professional output is authorship, even if actual authoring is something we rarely have enough time to accomplish.

One would expect the result of this mismatch of training and job paradigm to be disappointment, and in some cases it is. But in a way, my colleagues and I are anomalies: a transitional phase between an older, secure academic identity with which we strongly identify and a new, authentically para-academic identity that is still coming into being. Trained with the intellectual self-assurance of academics (but tempted away or derailed from that professional path), we do our work *as if it were scholarship*, cheerfully and ironically aware that we are also in some sense a fungible labor pool. Having been hired and acculturated in our jobs at a time (say, 1993) when those jobs were absolutely unique—and in some cases created specifically for us—we have no doubts about our own unique configurations of expertise and experience. Our work may be modeled as fungible, but we ourselves do not feel at risk. Moreover, because of our characteristic interest in metaknowledge as

consultants and digital humanists, we construct a satisfying and holistic research narrative out of self-study: a quasi-anthropological scrutiny of our work environments that constitutes a form of suture.

But in 2025, what will the now-commonplace jobs (web programmer, digital project coordinator, programmer/analyst, and so forth) look like as professional identities, especially to people who may never have imagined themselves as scholars in the first place? In particular, I wonder whether the digital humanities may cease to operate as a locus of metaknowledge if (or, less optimistically, when) digital modes of scholarship are naturalized within the traditional disciplines. In that case, would these para-academic jobs lose their distinctive structural role in the ecology, their ability to foreground method? Or, from another angle, does the inevitable naturalization of these jobs as a routine career (rather than an odd alternative to a mainstream narrative) reduce the incumbents' sensitivity precisely to issues of method, discourse, and professional identity? Will a new set of credentials arise through which these jobs can be trained for and aimed at, avoiding the sense of professional anomaly that (in my experience at least) produces such a useful form of outsiderism?

Coda

Those who catch me in moments of professional frustration have heard my standard vision of a truly alternative career: becoming a goat farmer. As fond as I am of goats, what this idea really represents for me is a reminder that ultimately what we do is work and that there's useful work to be done wherever we look. Those of us who work in the academy and the para-academy are lucky to have jobs that are (for the most part) steady, physically harmless, flexible, full of cultural value, and opportunities to learn. If our jobs also give us a sense of identity, that is both a bonus and a pitfall: a source of inspiration and also an opportunity to confuse our own worth with what the job seems to confer on us. This is a risk to which the academy seems peculiarly prone: witness the fact that for most PhD candidates the idea of accepting a job other than a tenure-track faculty position is tantamount to an admission of failure. The reason why Mr. Silva assumed that I was Professor Flanders—the reason that no alternative is visible to him—is that no alternative can be articulated by the profession itself. And yet the vast preponderance of actual *work* involved in creating humanities scholarship and scholarly resources is not done by faculty. As we already noted, for every hour of scholarly research in an office or library, countless other hours are spent building and maintaining the vast research apparatus of books, databases, libraries, servers, networks, cataloguing and metadata standards, thesauri, and systems of access. If the academic mission, in its broadest sense, is worth doing, all parts of it are worth doing. Our own location within this landscape—the job we were hired to do—is in the final analysis a space of work like any other, with contours determined by our aptitudes and training.

For this reason, I think one of the most interesting effects of the digital humanities upon academic job roles is the pressure it puts on what we think of as our own proper work domains. In the archetypal digital humanities collaboration, traditional faculty explore forms of work that would ordinarily look "technical" or even menial (such as text encoding, metadata creation, or transcription); programmers contribute to editorial decisions; and students coauthor papers with senior scholars in a kind of Bakhtinian carnival of overturned professional usages. Examples of this are real and yet also imaginary, in the sense that they are not taken as actual models to be generalized but as exceptional cases that we can celebrate without imitating. Nonetheless, in my own experience these interactions have had very specific, beneficial effects on all participants that are worth generalizing if we can. For faculty, involvement in other kinds of work provides a perspective that cuts across the grain of standard academic work practices, and it gives a vivid and well-grounded understanding of how scholarly ideas are instantiated in digital research projects. For technical staff, these collaborative relationships produce a much richer intellectual context for their work and also convey a sense of the complexity of humanities data and research problems, which in turn makes for better, more thoughtful technical work. For students, the opportunity to work on real-world projects with professional collaborators gives unparalleled exposure to real intellectual problems, job demands, and professional skills across a wide range of roles, which in turn may yield a more fully realized sense of the landscape of academic work.

With these benefits in mind, there are a few things that we can do to encourage these interactions and to develop a professional academic ecology that is less typecast, that obscures less thoroughly the diversity of working roles that contribute to the production of scholarship (digital or not):

1. Make it practically possible and professionally rewarding (or, at the very least, not damaging) for graduate students to hold jobs while pursuing advanced degrees. This would involve rethinking our sense of the timing of graduate study and its completion: instead of rushing students through coursework, exams, and dissertations only to launch them into a holding pattern (potentially for several years) as postdocs, finished but still enrolled students, or visiting assistant lecturers, graduate programs would need to allow a bit more time for the completion of the degree and ensure that students graduate with some diversity of skills and work experience.
2. Devote resources to creating meaningful job and internship opportunities at digital humanities research projects, scholarly publications, conferences, and other professional activities with the goal of integrating students as collaborators into these kinds of work at the outset.
3. Encourage and reward coauthoring of research by faculty, students, and para-academic staff. This involves actions on the part of departments (to create a welcoming intellectual climate for such work) and on the part of

journals, conferences, and their peer review structures to encourage and solicit such work and to evaluate it appropriately.

NOTES

1. Oxford English Dictionary Online, s.v. "career, n," accessed September 12, 2011, http://www.oed.com/view/Entry/27911?rskey=JoMCBM&result=1&isAdvanced=false.

2. Alan Liu, *The Laws of Cool* (Chicago: University of Chicago Press, 2004), 19.

3. When I was a graduate student I was permitted to hold other on-campus jobs without any limitation on the number of hours worked, but more recently the graduate school has placed fairly strict limitations on the number of hours graduate students may work while receiving financial aid (i.e., fellowships and teaching assistantships).

4. With a few notable exceptions: one or two small bookbinding projects and a handmade rudder for a sailboat.

5. From a practical perspective this is an entirely reasonable clarification, since it makes clear where each set of responsibilities lies—it would not do for me to imagine that I am part of the editorial team, simply because I am helping write the grant.

6. It is worth noting for the curious that the resulting schema is a TEI customization, in which some modification of TEI structures and some new elements were required to accommodate the structural and practical requirements of the NVS editions.

7. In FRBR , the entity termed the "work" as a purely intellectual object that is made present in language as an "expression," then instantiated in specific publications as a "manifestation," and finally given physical form in specific, individual "items" that can be held in the hand, defaced, annotated, and thumped for emphasis. See http://www.oclc.org/research/activities/past/orprojects/frbr/default.htm.

8. From Brown's point of view, this work is a potential conflict of interest and poses some interesting questions about what it means to be exempt staff. In principle, full-time salaried work at Brown means being available to work as required by the demands of one's job description, without being paid overtime, so an evening job constitutes a potential source of competition for my time. In practice this has not been a problem as long as I keep my work hours at Brown strictly free of non-Brown work activities and complete my Brown-related work satisfactorily.

9. The management instruments arising out of this relationship were fascinating in themselves: complex spreadsheets with columns showing dated progress and taxonomies of project status with elaborate accompanying commentary explaining why each project was a special case.