

THE MARKETPLACE OF IDEAS

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Culture and Technology: The Way We Live Now, What Is To Be Done?

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[Abstract: The paper addresses the so-called “Crisis in the Humanities” in the context of two of its most apparent symptoms: the digital transformation of our museums and archives, and the explicitly parallel “Crisis in Tenure and Publishing” that has more recently come to attention. It introduces and frames a practical proposal, now underway, for dealing with both. This is the NINES initiative: Networked Infrastructure for Nineteenth-century Electronic Scholarship. The rationale of NINES is described, including the initial set of digital tools now in active development. The general aim of NINES is to move the rethinking of literary and cultural studies, method as well as theory, by establishing an institutionalized mechanism (peer-reviewed) for new kinds of digital-based analytic and interpretive practices.]

More than 100 years ago Arnold looked to France as a model for a salutary “Influence of Academies” on culture in general. 25 years ago

Arnold's academic inheritors appeared to be living the realization of his hope. But then came the crash. Humanities scholarship and education has been a holy mess for some time. Looking at the way we live now in the academy, one can hardly not recall Trollope's dark portrayal of *The Way We Live Now*. What's going on? Where are the snows of yesteryear?

I feel especially fortunate to be asked to speak about these matters here at University of Chicago. As some of you perhaps know, I regard U of C as my intellectual birthplace. I took my first job here in 1966 and spent ten years having my mental and spiritual being completely transformed by the intense intellectual life that the university is so famous for.

And this is for me more than a second coming, it's a third coming, unheralded I believe in Christian eschatology. A year ago this very month the university again became a center of my attention because of Tom Mitchell's call to convene the editorial board of *Critical Inquiry*. Some of the most distinguished academics on this continent gathered to make an assessment of "The Future of Criticism", and in particular of Critical Theory (so-called). I missed the Friday night pep-rally for the symposium but made it for the key event, the day-long Saturday discussions.

I came home from that meeting shocked and more than a little dismayed by what I learned. Most of us registered, one way or another, the

malaise that had grown widespread in “the humanities”. This awareness represented an important state of cultural awareness and I wasn’t particularly disheartened that we were all uncertain about how best to deal with the problems we talked about.

Something else was troubling, however: the degree of ignorance about information technology and its critical relevance to humanities education and scholarship. I’ve spent almost 20 years studying this subject in the only way that gives a chance of mastering it. That is, by hands-on collaborative interdisciplinary work. By designing and building the tools and systems that alone will teach one what these tools are and what they might be, what they mean and what they might mean. You don’t learn a language by talking about it or reading books. You learn it by speaking it and writing it. There’s no other way. Anything less is just, well, theoretical.

So far as information technology concerns traditional humanities, the issues are far more clearly understood in Europe than they are in the United States. Moreover, if you want to engage serious, practical conversation about humanities education and digital culture, our most distinguished humanities research institutions – with few exceptions -- are not the places to go.

The CI meeting explained why. We're illiterate. Besides myself, no one on the CI board can use any of the languages needed to communicate in and with digital instruments – not even elementary markup languages. Most had never heard of TEI and no one I talked with was aware of the impact it was already exerting on humanities scholarship and education. The library, especially the research library, is a cornerstone if not the very foundation of modern humanities. It is undergoing right now a complete digital transformation. In the coming decades – the process has already begun -- the entirety of our cultural inheritance will be transformed and re-edited in digital forms. Do we understand what that means, what problems it brings, how they might be addressed? Theoretical as well as very practical discussions about these matters have been going on for years and decisions are taken every day. Yet digital illiteracy puts us on the margin of conversations and actions that affect the center of our cultural interests (as citizens) and our professional interests (as scholars and educators).

This situation has to change, and in the last part of this talk I will briefly describe a project called NINES that would if successful help the change along. The project is practical in two ways: it addresses some of the most basic needs and self-interests of the working scholar; it circumscribes

its work to a specific interdisciplinary region which scholars can, if they choose, direct and control.

What seems to me impractical is to continue addressing the crisis in humanities scholarship and education in the theological terms of “critical theory” and “cultural studies”. Fifteen years ago few registered the intellectual emergency that is now so apparent. E. P. Thompson’s 1978 *The Poverty of Theory*, a prescient work, was scarcely engaged. Thompson seemed one of those truculent British Marxists, good in the trenches, like his revered William Morris, but not equipped to handle the spectacular illusions of Late Capitalism.

Non sumus quales eramus. But if we are all now sadder men and women, are we any wiser? It’s a nice question. From the perspective of the CI participants, the symposium was a gathering of troubled eagles; to the reporters from New York and Boston, it recalled nothing so much as Chaucer’s *Parliament of Fowles*. Certainly the intramural scene has changed. The last issue of CI collects the thirty “statements for the conference” (324) that we participants were asked to make in order to set up the symposium’s discussions. The commentaries are all searching, serious, often self-critical. But are they self-critical in any meaningful, practical sense?

Judge for yourselves by considering for a moment the way the issue opens: with a lecture Bruno Latour gave at the Stanford Humanities Research Center the week before the April meeting of the CI board of editors. The lecture is a severe critique of critique from what D. G. Rossetti called “an inner standing-point”, that most telling critical position of all.

Let’s look more closely at this brilliant essay. Latour summons for review the “dismal” state (“dismal” is his word: p. 241) into which “critical theory”, including his own work, has fallen. It is a splendid display – a Houyhnhnm addressing the horses of instruction – and carried off with superb grace and vigor. “A certain form of critical spirit has sent us down the wrong path”, Latour declares, adding that “If [the critical mind] is to renew itself and be relevant again [it must cultivate] a stubbornly realist attitude [that deals with] what I will call matters of concern, not matters of fact” (231). Latour then proceeds to tease out this distinction by way of an elegant tour of critical philosophy, from which emerges a new hero of our own time – Alfred North Whitehead.

Latour celebrates Whitehead for exposing the symbiotic relation between “matters of fact” on one hand and “cultural critique” on the other. In each case we are delivered over to what Latour describes as

a poor proxy of experience and of experimentation, and, I would add, a confusing bundle of polemics, of epistemology, of modernist politics that can in no way claim to represent what is requested by a realist attitude. (245)

I won't spoil Latour's paper with a clumsy précis of my own. In this plea for "experience and experimentation", however, one passage particularly caught my attention. Latour is trying to tell us how to secure our new saving grace, how "To retrieve a realist attitude":

To retrieve a realist attitude, it is not enough to dismantle critical weapons so uncritically built up by our predecessors as we would obsolete but still dangerous atomic silos. If we had to dismantle social theory only, it would be a rather simple affair; like the Soviet Empire, those big totalities have feet of clay. But the difficulty lies in the fact that they are built on top of a much older philosophy, so that whenever we try to replace matters of fact by matters of concern, we seem to lose something along the way. It is like trying to fill the mythical Danaid's barrel—no matter what we put in it, the level of realism never increases. As long as we have not sealed the leaks, the realist attitude will always be split [sic]; matters of fact take the best part,

and matters of concern are limited to a rich but essentially void or irrelevant history. (243)

But big totalities often exhibit enormous staying power: the Roman Church and Christianity are pretty impressive as totalities go. The American Imperium has its feet of clay pretty well on the ground, and even the British Empire is scarcely an obsolete power. We could all cite numerous examples. Even when these totalities seem as perished and gone as Shelley's Ozymandias, they find ways to survive in their death-states, like Pynchon's Thanatoids. Shelley's more skeptical friend Byron had a clear if mordant view of these "dead but sceptred sovereigns who still rule/ Our spirits from their urns".

Latour's argument, like his prose, seems to have lost something along the way. Surely this jumble of mixed metaphors is but a "poor proxy of experience and experimentation", "a confusing bundle of polemics, of epistemology, of modernist politics that can in no way claim to represent what is requested by a realist attitude". Reading this passage we recall – I recall, anyhow – Lenin, and I wonder: But what is to be done? "Experience and experimentation" signal at courses of action. And then I think of Goethe: "Am Anfang war die Tat". And finally, of course, Marx: "The

philosophers have only thought to interpret the world. The point is to change it.”

Marx and especially Lenin focus on the practical social actions that bring about real world revolution. They think about how to change the world. But we all live in many worlds, most of them more circumscribed than the ones Marx and Lenin had in view. As that old Beatles song sweetly argued, “You don’t have to change the world” to make a difference that makes a difference. Ways of thinking about social action, about wanting “to make a revolution”, might be usefully scaled down and re-applied. We don’t need to know everything before doing something. There’s a time for every purpose under heaven. Sometimes thinking about big totalities is helpful, sometimes it isn’t. Helpful for thinking, helpful for social action.

Texts like Latour’s, like this one of mine, are forms of social action. They are polemical moves looking to bring about change in the operating system of an ideological apparatus – the academy. But can Latour’s call for “experience and experimentation” be realized – I mean realized beyond the academy’s shop talk, so ludicrous or irrelevant to the nonunionized world around us? I don’t think so. Latour’s call is abstract, a rhetorical gesture. We hear it and we ask ourselves what Eliot Ness asked in *The Untouchables*? “But what are you prepared to do?”

The call for the scholar to undertake a citizen's active life is imperative, certainly at this time. It is a call we sometimes (and for good reason) fail to hear. For we know that scholarship and science cannot thrive outside a monastery, a library, a laboratory, an ivory tower – even a think-tank! But those places and we who use them must be socially secured. Tennyson's "The Lady of Shalott" is a cautionary tale for every intellectual. Ladies and gentlemen, we cannot live in art or ideas, we must dispraise a fugitive and cloistered virtue. The life of the mind is no life at all unless lived by a citizen in the world.

I won't presume to say anything more on that subject. "Each to himself must be the oracle" about how we fulfill our direct citizen's obligations. The state of our public life is disgraceful and dangerous. We have elected a government whose president tells us without shame that he listens for the infallible voice of a God, rather than to the fallible voices of thoughtful men and women, when he wants guidance in executing grave public decisions. In face of this situation, all of us have clear civic duties.

I am not here to talk about those matters, however, which I know we all know only too well. My concern today is strictly intramural and academic. And if the problems of our tight little island seem less important than our country's problems, they are certainly no less pressing. We have

obligations as we are scholars, obligations that society expects us to meet because of our special educator's vocation. What is to be done here, in the academy?

A small beginning might come if we stopped the cant that pervades so much of our discourse. The media have no trouble satirizing intellectuals who appear to see all things through the narrow chinks of our academic cavern. An especially dismal aspect of our professional writing today is its ineffectual angelism, our jargon of moral, social, and political action. It is pervasive. But to be "transgressive" in a PMLA or CI article is surely not something devoutly to be wished. It is regularly no more than a rhetoric of displacement, the treason of the intellectuals, the sign of a transgression that has no referent. The worst of such writing, for the humanities scholar anyhow, is its abuse of the language we have sworn to preserve and protect.

To begin with such a practical self-criticism would make a real difference in the way we execute our scholarship. It would work to overthrow the "cant political, cant moral, and cant poetical" – as Byron called it in his day – that pervades our intramural journals.

But scholars, especially humanities scholars, face another set of problems and obligations – perhaps even more serious, certainly much less tractable. To expose them clearly I shall revisit the crisis in the humanities

from a slightly different perspective. Next to CI's apprehensions about the state of Critical Theory let us set Stephen Greenblatt's more pragmatic concern with "The Crisis in Tenure and Publishing".

We'll begin with a fact of great concern to scholars: most university presses are running at increasingly sharp deficits. Given the current model of academic publishing, this trend will not be reversed, as everyone inside the university publishing network knows. We scholars are producing larger and larger amounts of content and passing it to a delivery system with diminishing capacities to sustain publication of the work. As an editor of a monograph series, the Virginia Victorian Studies, I have seen how this pressure alters what a university press is prepared to undertake. The notorious stigma that has grown up recently against "single-author studies" is only one drear sign of the difficulty.

But that is to speak only of book publication. We should be aware that a parallel problem, every bit as dire, exists for periodical publication, where a similar dysfunction between available content and available publishing venues can be observed. In each of these cases the university library has become almost the only reliable purchaser of scholarly books and periodicals; and every year, as we know, library funds for such materials get cut further

Many also realize that online scholarly publication is the natural and inevitable response to this general problem of scholarly and educational communication. How to bring about the transition to online publication is the \$64,000 question. And it's not the technology that makes the problem so difficult, as the examples of online journal publication, JSTORE (<http://www.jstor.org/>) and Project Muse (<http://muse.jhu.edu/>), demonstrate. The Jordan will not be crossed until scholars and educators are prepared not simply to access archived materials online, but to publish and to peer-review online – to carry out the major part of our scholarly and educational intercourse in digital forms.

The institutional resistance to such a major change in scholarly work behaviors is widespread, deep, and entirely understandable. It is not in the short-term (immediate) interest of scholars or their institutions to make a transition to digital work. The upfront costs are high, the learning curve is steep. Most telling of all, the design of the in-place paper-based system has the sophistication and clear strengths that come from hundreds of years of practical use. With rare exceptions, established scholars have the least practical involvement with information technology. This too is understandable. The known scholar can still, usually, get his or her work

published in the usual paper-based ways precisely because they are known, if diminished, quantities.

The consequences of this situation are apparent. For traditional paper-based work, “the Crisis in Humanities”. For digital humanities, another form of that crisis. Digital scholarship – even the best of it -- is all more or less atomized, growing like so many Topsies. Moreover, these creatures are idiosyncratically designed and so can’t easily talk to each other. Worse still, they typically get born into poverty -- even the best-funded ones. Ensuring their maintenance, development, and survival is a daunting challenge. Worst of all, the work regularly passes without much practical institutional notice.

“What is to be done?” Lenin’s famous question is very much to the point here, for our scholarship is facing a future that is at once certain and uncertain. It is going to be cast and maintained and disseminated in digital forms. We may not now approve of this but it is nonetheless inevitable. We may not now know how to do this but we will learn. Because we have no choice. And we will learn by doing – or, as the poet (Roethke) said, we’ll “learn by going where we have to go”.

In that context, I want to give a brief description of the NINES project (or 9S: Networked Infrastructure for Nineteenth-century Electronic Scholarship). It is a three-year undertaking initiated by myself and a group of scholars to establish an online environment for publishing peer-reviewed research in 19th-century British and American studies. Although the resource will have significant pedagogical and classroom components, it is primarily an institutional mechanism for digitally-organized research and scholarship.

NINES is conceived partly as an professional facilitator and partly as an advocacy group to protect the interests of scholars and educators. It is, as they say, results-oriented. It has three objects in view.

1. To develop an administrative and editorial design model for digitally coded scholarship. The model should permits cost-recovery for its publication, on one hand, and on the other strong incentives for scholars to contribute their work to the project.
2. To set in operation an institutional venue and set of instruments for directing and controlling the digital production of this design model (real connections to the day-to-day lifeworld of working educators and scholars).
3. To create an initial set of analytic and interpretive tools that scholars will find interesting, helpful, and easy to use. These are tools that enable a

scholar writing or editing in a relatively traditional way to have the work aggregated into the network of electronic materials and disseminated in various ways and forms, including paper forms. We are also creating tools that promote entirely new kinds of scholarly investigations, analytic and interpretive, individuated as well as collective.

The Design Model. The key feature of the design model is to aggregate scholarly work in a single integrated network. A currently operational design system like Fedora (<http://www.fedora.info/>), which aggregates many different types of digital object in a single, logically integrated network, illustrates the kind of functionality this model should have.

One important function of this design model should be to save as much of current high-quality digital work as possible, even if current technology and historical circumstances permit something less than complete integration of all types of current digital projects. We can and should begin this process of integration and thus, as the poet said, “learn by going where we have to go”. The second important function should be to establish an initial set of standards that new scholarly work must meet if the work is to be included in NINES.

The design model will establish a normative markup schema for material that is included in NINES. The schema will wrap around a core text-markup based in TEI, and the expectation will be that new material for the NINES environment will be author-prepared in accordance with this schema – much as now, when preparing copy for publication, one organizes it according to certain conventional protocols (MLA Style, for instance).

The Institutional Venue. What is envisioned here is an interconnected pair of professional instruments that will function like the editorial board of a journal, on one hand, and a university press on the other. That is to say, one needs an institutional mechanism that can store, manage, and distribute educational content of various kinds. Educational content enters the environment through a network of controlled peer-gatekeeping functions. The scholars involved in NINES oversee the editorial content and its form within an automated content management system that is maintained by “the publisher” of NINES materials.

The institutional situation would not differ substantially, at least in its general form, from the paper-based mechanisms now in place. Scholars

produce content and publishers distribute the content. Digital tools, however, permit much greater flexibility in the kinds of coordination that can be imagined both on the content creation and the content distribution side. It is by no means clear, for example, whether a library or a consortium of libraries might not now be the most useful way to manage the bulk of scholarly publication and distribution.

So far as NINES is concerned, the project can begin even if this matter remains unsettled, as it clearly is at least for the moment. What a consortium of scholars like NINES can do is offer to a publishing instrument – press or library or some other instrument – a guarantee of high-quality scholarly content that is organized in such a way that the scholarly community at large will want to contribute to the knowledge-network and to use its resources.

The Editorial and Critical Tools. NINES is an initiative to draw the interest and resources of the pair of institutional venues – the scholars and the publishers – so that both will actively seek to enter into a new kind of (online) relationship

The crisis in publishing and tenure is already a spur toward online scholarship. Providing a design model for gathering, organizing, and

distributing such work is a necessary response to this situation. The two key agents in the production process must have confidence that an online model is feasible: the scholars who produce and use the material, the publishers who maintain and distribute it.

That confidence can be built if an organization like NINES puts at the disposal of these agents a suite of tools that advance research and teaching work in ways that are not possible with paper-based tools. These tools must be easy to master and to use. Above all they must promote educational and research work that is intellectually stimulating.

The design model sketched above is itself part of this suite of tools. But the plan of NINES is to develop software that has been conceived specifically for scholars and educators working in the humanities, and in particular in literary and cultural studies. A suite of software tools is already in development for NINES and will be ready for use in 2005.

First of all, a project like NINES requires some basic editorial devices.

1. An XML editor for generating traditional textual materials – editions as well as any form of critical or interpretive commentary -- to a uniform markup standard. This editor is being designed so that it can be as easy to use as traditional text editors like WordPerfect or Word.

2. A markup schema designed specifically for literary and cultural studies materials. This schema will wrap a given electronic document and supply it with a basic set of metadata for integrating the document into the electronic environment of which it is a part and connecting to larger related environments.

Beyond those instruments, we are building digital tools that can execute critical and interpretive operations of a much more complex order. These tools facilitate actions that humanists already perform in paper-based environments. But they use the special capacities of computerized systems to augment our traditional interpretive activities.

3. A text comparison tool called JUXTA for comparing and collating textual similarities and differences in a given set of equivalent documents. Since the critical re-editing of our inherited corpus will necessarily occupy a central focus of coming humanities scholarship, a tool of this kind is fundamental.

4. An online playspace called IVANHOE for organizing collaborative interpretive investigations of traditional humanities materials of any kind.

Applicable for either classroom or research use, IVANHOE's design has a double (dialectical) function: to promote the critical investigation of textual and graphical works and to expose those investigations themselves to critical reflection and study.

5. **CRITICAL REASSMBLINGS.** In collaboration with a project to redesign the Rossetti Archive, NINES is developing a data model and set of tools that will allow users of digital resources to assemble and share virtual "collections" and to present annotated "exhibits" and re-arrangements of online materials. These critical rearrangements can of course bring together materials that are variously diverse – materially, formally, historically.

The first Rossetti rearrangementss will be undertaken by the Archive's general editor and by a few invited literary scholars and art historians, who will act as guest critics and curators, offering radically different perspectives on Rossetti and his circle, all based on the same corpus of digital files. Later, individual users will be able to assemble and comment on Archive materials in private collection spaces, choose whether to make those assemblages available to others, and then build and share annotated exhibits based on their own virtual collections or on existing, user-created work.

This toolset aims to reveal the interpretive possibilities embedded in any digital archive by making the manipulation and annotation of archived resources open to all users. Once the basic collection/exhibition schema has been tested on the Rossetti Archive, it will be made available to all NINES projects.

6. **The 'Patacritical Demon.** This is a tool for tracking and visualizing acts of critical reflection and interpretation as they are being applied in real-time to specific works, and in particular to imaginative works like poems or stories. It is a device for addressing the following problem: How does one formalize "exceptional" and highly subjective activities like acts of

interpretation and at the same time preserve their subjective status. The ‘Patacritical Demon exists now only at an early design stage but we expect to begin development work in a year. Its name, incidentally, derives from Alfred Jarry’s proposal for a science that he called ‘Pataphysics, that is, “a science of exceptions”’.

Like IVANHOE and JUXTA, The ‘Patacritical Demon outputs XML coded data. Consequently, the work done with all three of these interpretive tools can be integrated with the rest of the NINES-environment materials.

Oh yes, one other thing. Whatever happens with NINES – whether that institutional event takes hold or not – these critical tools will be built. They will also be freely distributed to anyone who wants them.

Conclusion

Well, as I remarked 40 minutes ago, I’m a book scholar, about as traditional as you get. My work, including my theoretical work, is historicist and even philological and my orientation is decidedly humanist. “Glory to man in the highest, for man is the master of things.” That notorious and cunningly ironical line from Swinburne is very much to my taste. Men (and women) are indeed called to the mastery of things. Of things precisely. Of

people and of life events we are and always will be participants and students, never masters. Drawing that distinction is what it means to be a humanist.

Today some new things have to be mastered. Or rather – to recall Latour – we have to be concerned about these new things, about how we make them and what we use them for. We will do this by becoming students again – a role that, as educators and humanists, I think we’re especially apt for. Of course some of us won’t choose to undergo retraining and that’s alright. But whether we choose to or not, we should all be clear about the slow train that’s coming and that won’t be sidetracked. “The Publishing and Tenure Crisis” is one certain sign of what’s happening. So is the digital transformation of our research archives, the seat of our cultural memory.

NINES is a proposal to engage with these problems in specific and practical ways. It takes a relatively short rather than a long view – because in matters of concern to us, we are always humanists. We know that our longest views, our totalizing conceptions, are finally only heuristic and hypothetical. But that humanist understanding is exactly why, as Shelley observed, we cannot “let I dare not wait upon I would”. We have to get going now, we can’t wait to see if there’s more to learn. Of course there’s more to learn, but we have to fare forth if we’re to know what we need to

know. We have to set the stage for our failures if we're to have any chance of succeeding.

One last point that is worth your reflection. Capitalist entrepreneurs are already actively trying to gain control over as much information as they can. Perhaps never before has knowledge been so clearly perceived as a fungible thing, as a commodity to be bought and sold. Humanities scholarship has a calculable market price, and the market will work to buy low and sell high, as the dreadful examples of Elsevier and Kluwer have recently revealed to the science community.

I don't know if we will be successful in our primary objective: leveraging NINES to assemble an initial body of peer-reviewed online scholarly work that a publishing venue will want to distribute and sell. A model of this kind can clearly work, but whether the agents needed to make it work will decide to do so is unclear. But that matter won't become clear, one way or the other, until we undertake to design and implement the model. NINES can only exist in practice, not in theory.