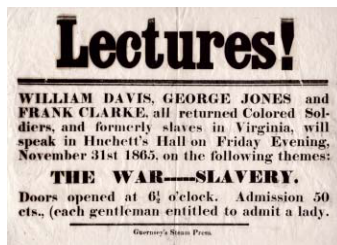


## The Digital Humanities Manifesto 2.0



### *a manifesto on manifestos*

--**definition:** a literal handbill, the manifesto reaches out. Its *manus* is both beckoning and fending off. It is a hand that has started to work the room hard, whether preaching, teaching, laying down or upending the law. Little does it matter if the chosen medium is the voice, the body, the printed page, or a pixelated scroll. Things hidden, if not since the beginning of the world, then at least by the generation of our immediate forebears, are being exposed to the day's harsh light; things that waver between the obvious and the scandalous, the heroic and the silly, the private and the public. What is urgent is to draw a line--the line between sinners and saints, passéists and futurists—while blurring other lines: between critics and makers, coders and cogitators, scholars and entertainers. If a bit of fun is had along the way, so much the better. Time is short; this is a genre in a hurry.




--**so:** if you are looking for linearity and logic ...



or for an academic treatise...



The genre here is all M's: mix :: match :: mash :: manifest.

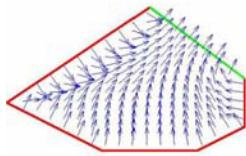
--**and:** if you are wondering who is reaching out here, the answer is plural. **The Digital Humanities Manifesto 2.0** was preceded by a 1.0 release which prompted commentary and, in turn, this redrafting. (Will there be a 3.0 release? .)

--**instruction manual:**

- 1) don't whine
- 2) comment, engage, retort, spread the word
- 3) throw an idea
- 4) join up
- 5) move on



### *what is(n't) digital humanities (and why it matters)*



Digital Humanities is not a unified field but **an array of convergent practices** that explore a universe in which: a) print is no longer the exclusive or the normative medium in which knowledge is produced and/or disseminated; instead, print finds itself absorbed into new, multimedia configurations; and b) digital tools, techniques, and media have altered the production and dissemination of knowledge in the arts, human and social sciences. The Digital Humanities seeks to

play an inaugural role with respect to a world in which, no longer the sole producers, stewards, and disseminators of knowledge or culture, universities are called upon to shape natively digital models of scholarly discourse for the newly emergent public spheres of the present era (the www, the blogosphere, digital libraries, etc.), to model excellence and innovation in these domains, and to facilitate the formation of networks of knowledge production, exchange, and dissemination that are, at once, global and local.

2

---

Like all media revolutions, the first wave of the digital revolution looked backward as it moved forward. Just as early codices mirrored oratorical practices, print initially mirrored the practices of high medieval manuscript culture, and film mirrored the techniques of theater, the digital first wave replicated the world of scholarly communications that print gradually codified over the course of five centuries: a world where textuality was primary and visuality and sound were secondary (and subordinated to text), even as it vastly accelerated the search and retrieval of documents, enhanced access, and altered mental habits. Now it must shape a future in which the medium-specific features of digital technologies become its core and in which print is absorbed into new hybrid modes of communication.


The first wave of digital humanities work was quantitative, mobilizing the search and retrieval powers of the database, automating corpus linguistics, stacking hypercards into critical arrays. The second wave is **qualitative, interpretive, experiential, emotive, generative** in character. It harnesses digital toolkits in the service of the Humanities' core methodological strengths: attention to complexity, medium specificity, historical context, analytical depth, critique and interpretation. Such a crudely drawn dichotomy does not exclude the emotional, even sublime potentiality of the quantitative any more than it excludes embeddings of quantitative analysis within qualitative frameworks. Rather it imagines new couplings and scalings that are facilitated both by new models of research practice and by the availability of new tools and technologies.

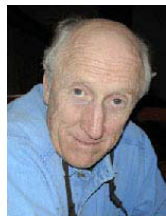


Interdisciplinarity/transdisciplinarity/multidisciplinarity are empty words ( ) unless they imply **changes in language, practice, method, and output.**

Empty or not, these words have paved the way. But now it's time to model the future through projects that do more than talk the talk.



The digital is the realm of the  : open source, open resources, . Anything that attempts to close this space should be recognized for what it is: the enemy.

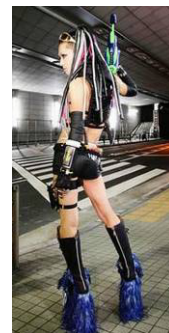


Digital Humanities have a **utopian core** shaped by its genealogical descent from the counterculture-cyberculture intertwinings of the 60s and 70s. This is why it affirms the value of the open, the infinite, the expansive, the university/museum/archive/library *without walls*, the democratization of culture and scholarship, even as it affirms the value of large-scale statistically grounded methods (such as cultural analytics) that collapse the boundaries between the humanities and the social and natural sciences. This is also why it believes that copyright and IP standards must be freed from the stranglehold of Capital, including the capital possessed by heirs who live parasitically off of the achievements of their deceased predecessors.

3



(guerrilla) action items:



**weak** = ignore the well-intentioned “voices of reason” that will always argue for interpreting scholarly or artistic fair use in the most restrictive manner (so as to shield the institutions they represent from lawsuits, no matter how improbable or unfounded); adopt vigorous interpretations of fair use that affirm that, in the vast majority of cases, scholarship and art practice: a) are not-for-profit endeavors whose actual costs far exceed real or potential returns; and b) are endeavors that, rather than diminishing the value of IP or copyright, enhance their value.

**medium** = circumvent or subvert all “claims” that branch out from the rights of creators to those of owners, the photographers hired by owners, places of prior publication...

**strong** = pirate and pervert materials by the likes of Disney on such a massive scale that the IP bosses will have to sue your entire neighborhood, school, or country; practice digital anarchy by creatively undermining copyright, mashing up media, recutting images, tracks, and texts.

Digital humanists defend the rights of content makers, whether authors, musicians, coders, designers, or artists, to exert control over their creations and to avoid unauthorized exploitation; but this control mustn't compromise the freedom to rework, critique, and use for purposes of research and education. Intellectual property must open up, not close down the intellect and *proprius*.

## **AP STANDS FOR APPALLING, FREE SHEPARD FAIREY!**

**DID A PENNY ESCAPE YOUR CLUTCHES? HAVE YOU NO SHAME?**

Digital Humanities implies **the multi-purposing and multiple channeling of humanistic knowledge**: no channel excludes the other. Its economy is abundance based, not one based upon scarcity. It values the COPY more highly than the ORIGINAL. It restores to the word COPY its original meaning: abundance.

COPIA = **COPIOUSNESS** = THE OVERFLOWING BOUNTY OF THE INFORMATION AGE, an age where, though notions of humanistic *research* are everywhere under institutional pressure, there is (potentially) plenty for all. And, indeed, there is plenty to do.



4




Digital Humanities = Big Humanities = **Generative Humanities**. Whereas the revolution of the post-WWII era has consisted in the proliferation of ever smaller and more rigorous areas of expertise and sub-expertise, and the consequent emergence of private languages and specialized jargons, the Digital Humanities is about integration and generative practices: **the building of bigger pictures out of the tesserae of expert knowledge**. It is not about the emergence of a new general culture, Renaissance humanism/Humanities, or universal literacy. On the contrary, it promotes collaboration and creation across domains of expertise. The expert is here to stay BUT:

--there's no reason for his or her natural habitat to fall *exclusively* within the walls of academe or think tanks)

--the demand for ever increasing degrees of specialization must be placed under constant pressure by the need for transversal, transdisciplinary, innovative thinking

Digital Humanities = **Co-creation**. Because of the complexity of Big Humanities projects, **teamwork**, specialized roles within teams, and "production" standards that imply specialization become defining features of the digital turn in the human sciences. Large scale, distributed models of scholarship represent one of the transformative features of the Digital Humanities.

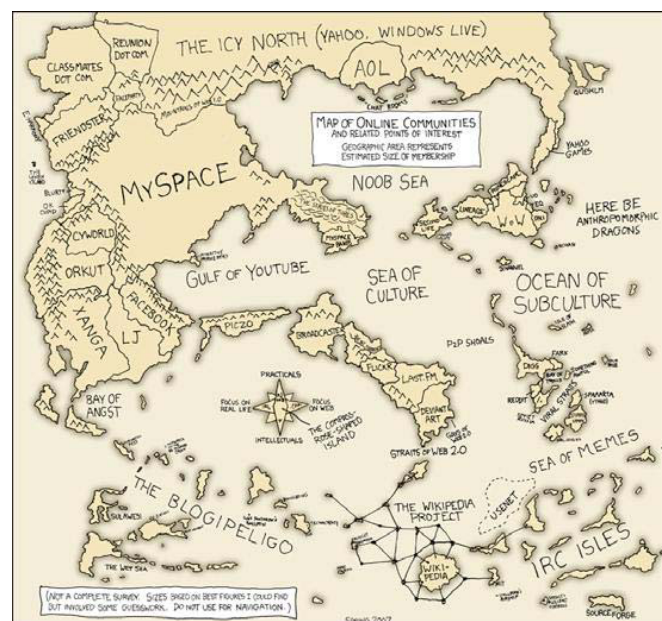
But there is ample room under the Digital Humanities  for the reinvention of the solitary, “eccentric,” even hermetic work carried out by lone individuals both inside and outside the academy. **The ant colony and the Ivory Tower**, the network and the monastery are both potential places of pleasure, knowledge, and reward within an economy founded on abundance. But we can no longer entrust knowledge creation and knowledge stewardship solely to the latter.

Modern scientific models of scholarship have prided themselves on the equation between rigor and the affect-neutral relaying of disembodied information. Yet this Enlightenment myth has long done battle with aestheticizing or styled forms of scholarly communication in ways that have become distinctive to the Humanities, and sometimes pitted them against prevailing practices in the social and natural sciences. Digital Humanities doesn’t preclude one or the other flavor of scholarship. It accommodates both. But **by emphasizing design, multimodality, and the experiential, it seeks to expand the compass of the affective range to which scholarship can aspire**. As such it gladly flirts with the scandal of entertainment as scholarship, scholarship as entertainment. It respectfully resists the notion that scholarship speaks outside of time, space, and the physicality of the human body. It is actively engaged in the task of creating an audience *—even a mass audience—*for humanistic learning.

**Process is the new god; not product.** Anything that stands in the way of the perpetual mash-up and remix stands in the way of the digital revolution. Digital Humanities means iterative scholarship, mobilized collaborations, and networks of research. It honors the quality of results; but it also honors the steps by means of which results are obtained as a form of publication of comparable value. Untapped gold mines of knowledge are to be found in the realm of process.

5

Today, the *universitas* (universe of knowledge) has become far too vast, multilayered, and complex to be contained within the walls of any single institution, even one as broadly conceived as the university. The (medieval) fiction of universal inquiry has long been belied by the reality of fields of learning restricted to a few choice areas and eras. The Digital Humanities embraces and harnesses **the expanded, global nature of today’s research communities** as one of the great disciplinary/post-disciplinary opportunities of our time. It dreams of models of knowledge production and reproduction that leverage the increasingly distributed nature of expertise and knowledge and transform this reality into occasions for scholarly innovation, disciplinary cross-fertilization, and the democratization of knowledge.





**throwing down the gauntlet I:** the most significant Web 2.0 creation to harness a mass audience and engage a mass audience in knowledge production and dissemination is Wikipedia. **Wikipedia** wasn't invented at/as a university. But it's fast on the way to becoming one (Wikiversity). Wikipedia is a model because it is far more than a set of contents: it represents a truly global, multilingual authorship and editorial collective for gathering, creating, and managing information.



**throwing down the gauntlet II:** take **Google**, like it or not. It originated at Stanford, but its home turf is in the corporate world. Yet its aspiration to become a modern-day Library of Alexandria and Oracle of Delphi is no longer wildly improbable: "to organize the world's information, making it universally accessible and useful" reads the Google mission statement. The Google homepage has become the portal to the world's (digital) information; Google Earth has become the normative *mappa mundi* now in the hands of the world community.

### our response?



not only to seek to understand and interrogate the cultural and social impact of new technologies, but to be engaged in **driving the creation of new technologies, methodologies, and information systems, as well as in their *détournement*, reinvention, repurposing, via research questions grounded in the Arts and Humanities:** questions of meaning, interpretation, history, subjectivity, and culture. The revolution is not about transforming literary scholars into engineers or programmers. Rather, it is about:



6

- expanding the compass and quality of knowledge in the human sciences
- expanding the reach and impact of knowledge in the Humanities disciplines
- direct engagement in design and development processes that give rise to richer, multidirectional models, genres, iterations of scholarly communication and practice

### the traditionalists' response?



- passively accept the tools handed down from the technological Olympus?
- weave lamentations on the decline of West?
- keep on doing what we have always done unto extinction?
- celebrate extinction or uselessness from seated atop a well-padded tenured chair and 401K à la Stanley Fish?
- turn the clock back?



Wiki-nomics is the new social, cultural, and economic reality for Digital Humanists. Technologies and content are mass(ively) produced, authored, and administered, even if shaped by specific communities of practice that generate, in turn, quality standards and models of best practice. Wiki-scholarship is



**iterative, cumulative, and collaborative.** Social media are the new laboratories of culture and knowledge making. In the humanistic domain, Wiki-nomics implies:

- a **reconfiguration** of the hierarchical relationship between masters and disciples
- a **dedefinition** of the roles of professor and student, expert and non-expert, academic and community
- new **triangulations** of arts practice, commentary/critique, and outreach, merging scholarly inquiry, pedagogy, publication, and practice.



*making theory, making practice*

Our emblem is a **digital** photograph of a hammer (manual **making**) superimposed over a folded page (the 2d text that now unfolds in **three dimensions**).

Centuries of text-based scholarship and the primacy of the press created the context within which print culture became naturalized. Needless to say, we are NOT arguing for the abolition of books; on the contrary, we are advocating for a **neo- or post-print model** where embedded within a multiplicity of media practices and forms of production. It is one in which architecture and design (again) features of how research questions get formulated as well as shaped, and styled. This is an incredibly exciting moment in which determining and designing the interface to information, data, and knowledge becomes just as central as the crafts of writing, curating, and coordinating.



print becomes  
knowledge  
become central  
communicated,

The dichotomy between the manual realm of making and the mental realm of thinking was always misleading. Today, the old theory/praxis debates no longer resonate. **Knowledge assumes multiple forms**; it inhabits the interstices and criss-crossings between words, sounds, smells, maps, diagrams, installations, environments, data repositories, tables, and objects. Physical fabrication, digital design, the styling of elegant, effective prose; the juxtaposing of images; the montage of movements; the orchestration of sound: they are all *making*.

Let's not forget: though their traditions were rooted in oratory and rhetoric, the modern Humanities disciplines were profoundly reshaped around and by the medium of print, just as now they are confronting the challenges of being profoundly reshaped by newly emergent digital norms and potentialities. What does it mean to study "literature" or "history" when print is no longer the normative

medium in which literary or historical artifacts are produced, let alone analyzed? What does it mean to think when thinking is decoupled from its exclusive reliance upon language and textuality? What does it mean, more generally, for humanistic knowledge?

In the 70s and 80s, women's studies, LGBTQ studies, ethnic studies, and cultural studies opened up the humanities to address issues of social, political, and cultural disenfranchisement and possibilities for re-enfranchisement. The Humanities was no longer the domain of the proverbial "old white man." Now, Digital Humanities deconstructs the very materiality, methods, and media of humanistic inquiry and practices. But we must persist in asking: Where did humanities disciplines come from, in response to what kind of needs, with what sort of explanatory power? How did its practices, truth-making strategies, knowledge products, media forms, and ways of evaluating utterances get naturalized? Traditional Humanities is balkanized by nation, language, method, and media. Digital Humanities is about convergence: Not only between humanities disciplines and media forms, but also between the arts, sciences, and technologies.

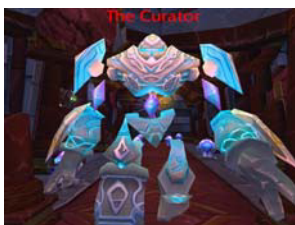
**The theory after Theory is anchored in *MAKING*:** making in the poetic sense of poesis, but also in the sense of design carried out in action, the modeling and fabrication of intelligent things, the generative and re-generative aspects of creation and co-creating. The 20th century left us with a vastly expanded set of spectacles arranged for our viewing pleasure. 21<sup>st</sup> century networks and interactions reengage the spectators of culture, enabling them to upload meaningfully, just as they download mindfully.



### ***curation as augmented scholarly practice***

Digital Humanists recognize **curation** as a central feature of the future of the Humanities disciplines.

Whereas the modern university segregated scholarship from curation, demoting the latter to a secondary, supportive role, and sending curators into exile within museums, archives, and libraries, the Digital Humanities revolution promotes a fundamental reshaping of the research and teaching landscape. It recasts **the scholar as curator and the curator as scholar**, and, in so doing, sets out both to reinvigorate scholarly practice by and demands, and to renew the and archives. A university become at least as much a



means of an expanded set of possibilities scholarly mission of museums, libraries, museum worthy of its name must laboratory as, say, a university library. An



archive must become a place of teaching and hands-on learning. The classroom must become a place of hands-on engagement with the material remains of the past where the tasks of processing, annotating, and sequencing are integral to process of learning. Curation also has a healthy modesty: it does not insist on an ever more impossible mastery of the all; it embraces the tactility and mutability of local knowledge, and eschews disembodied Theory in favor of the nitty-gritty of imagescapes and objecthood.

Curation means **making arguments through objects as well as words, images, and sounds**. It implies a spatialization of the sort of critical and narrative tasks that, while not unfamiliar to historians, are fundamentally different when carried out in space—physical, virtual, or both—rather than in language alone. It means becoming engaged in collecting, assembling, sifting, structuring, and interpreting corpora. All of which is to say that we consider curation on a par with traditional narrative scholarship. It is a medium with its own distinctive language, skill sets, and complexities; a medium currently in a phase of transformation and expansion as virtual galleries, learning environments, and worlds become important features of the scholarly landscape.

Curation also implies **custodial responsibilities** with respect to the remains of the past as well as interpretive, meaning-making responsibilities with respect to the present and future. In a world of perpetual data overload, it implies information design and selectivity: the channeling, filtering, and organization into intelligible and usable information; the digging up of new or long ignored cultural corpora. Most of these corpora are simply sitting in storage: less than 1% of the Smithsonian Institution's permanent collection is on view to visitors; less than 10% of an average research library's books are ever consulted; vast corpora of cultural materials lie outside the collection and acquisition missions of research libraries and archives. Archives will continue to undergo explosive growth. Digital Humanists must be there, alongside librarians and archivists, to think critically about the challenges and opportunities that such explosive growth provides.



**Curation is an augmented scholarly practice that also powerfully augments teaching and learning.** It summons future generations of humanists to set to work right from the start with the very stuff of culture and history: to become directly engaged in the gathering and production of knowledge under the guidance of expert researchers in a true laboratory-like setting.

The universe of Humanities research is vastly enriched by the addition of curatorial work to the range of recognized and supported "outputs" for scholarship. Curation creates the preconditions for modes of



scholarship that step outside the boundaries of one's own expert language into a more fluid public realm, where traditional forms of scholarship can be multipurposed for the large-scale participatory generation of archival repositories under the expert guidance of a scholar.



to ...

- the **open source** movement, Wikipedians, the librarians and archivists who understood the transformative potential of the digital long before the scholarly community began to awaken from its sleep
- art practices that **criss-cross** with new pedagogies and new forms of scholarly research
- practices of **(digital) estrangement** and **strange (digital) attractions**: the use of toolkits and data architectures that belong to the now for the study of the remote past
- the embrace of **creative dérives**: scholarly forms of steampunk, unusual meshings of macro- and micro-cultural history, the quantitative and the qualitative
- open-architecture** archives that are directly assembled by communities of practitioners and end-users
- creative commons** licenses
- legislators and leaders with the **courage and vision** required to reverse the forward creep of copyright holders' claims
- institutions like the Brooklyn Museum who have made their collection API's fully available so that **you can freely display collection images** and data in your own applications

10



to ...

- the great **diminishers**: they will reduce anything in digital humanities (it's *just* a tool; it's *just* a repository; it's *just* pedagogy). They have rarely, if ever, built software, parsed code, created a database, or designed a user interface. They are uni-medium scholars (most likely of print) who have been lulled into centuries of somnolence.
- the **false fellow travelers**: they will wave the banners of change with continuity on their agenda. What's at stake is not simply continuity vs. change but honesty vs. hypocrisy.
- all those who would falsely equate the tools of the present with a turn away from history in the name of **presentism, voguishness, or vocationalism**
- the **traffickers** in IP
- university legal offices whose definitions of Fair Use amount to **No Use**
- archives, museums, libraries, and corporations that restrict access by means of **cost barriers**

--the Stephen James Joyce's of the world who **restrict access** to the archives of their forefathers in the name of a "correct" interpretation  
--the US legislators and EU parliamentarians who, with the coffers filled with "donations" from Disney and Co., continue to extend **copyright protections** long beyond their natural expiration.



***disciplinary finitude (and the Humanities' infinite work)***

Disciplines and disciplinary traditions can be wellsprings of quality, depth, and rigor. They can also be bastions of small thinking, clerical privilege, and intellectual policing. But do traditional departments really provide an effective means to safeguard a central role for the Humanities in contemporary society? Why, then, haven't they evolved? Why defend the very disciplinary structures that emerged in the course of the formation of modern universities in the 19<sup>th</sup> century even when the intellectual ground has shifted out from under their feet?

Here are a few reasons (there are more):

the power of **tradition**  
cognitive **conservatism**  
nostalgia/**comfort**  
institutional **inertia**  
tenure and **promotion** systems  
lobbies and **bureaucracies**  
class **values**



11

Knowledge of the Humanities as constituted in the modern university has shaped lives, conveyed critical skills, provided a moral compass for human experiences, given pleasure and satisfaction, inspired acts of generosity and heroism. Digital Humanities represent an effort not to downplay or "downsize" these traditional merits but, on the contrary, **to reassert and reinterpret their value** in an era when our relation to information, knowledge, and cultural heritage is radically changing, when our entire cultural legacy as a species is migrating to digital formats. The work of the human sciences remains critically necessary in such as setting. BUT it cannot be carried out (successfully or, for that matter, interestingly) in the ways it was carried out for many many decades: in isolation, in disciplinary silos, in Ivory Towers, communicated in ever more hermetic language games, indifferent to the media revolutions underway within our culture as a whole.



So let's imagine **a new topography**: not just disciplinary, but one involving alternative configurations for producing knowledge--open-ended, global in scope, designed to

attract new audiences and to establish novel institutional models. Perhaps "Digital Humanities" itself becomes a distributed "virtual department" overlaid on current departments, weaving together shifting archipelagos of researchers from intellectually and geographically diverse disciplines on the basis of overlapping research networks.

Or, let's simply reinvent the department as a **finite knowledge problematic** which comes into existence for a limited period, only to mutate or cease as the research questions upon which it is founded become stale and their explanatory power wanes. Here are a few, real or potential such topographies:

**Department of Print Culture Studies:** The purpose of this department is to study the materiality of printed texts, constructions of authorship, linguistic forms, the history of the book, book publication, and distribution systems; antecedents to and descendents of print, as well as the relationships and tensions between print culture and digital culture. Its "masterpieces" will no longer be authorial, but will encompass the work of master printers, typographers, and layout artists who transformed standards and practices.

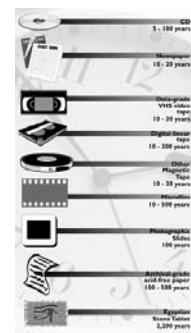


**Institute of Vocal Studies:** The historical and critical study of the voice as a communicative instrument, from the standpoint of the evolution of techniques of vocalization, shifting conceptions of the "natural," and the history of vocal effects. The field is divided between research into vocal performance in premodern rhetoric and song; and large scale automated mining of the archives of recorded sound.



#### School of Erasure Studies:

**Center for Comparative Literature and Media:** The purpose of this center is to study sonic, visual, tactile, textual, and immersive media within a medium-specific comparative framework. It approaches literature from the standpoint of its phenomenology and media history, tracing its evolution as a medium from its oral beginnings to manuscript culture to the world of printing. This center replaces the division of humanities departments according to media form (art history, literature, musicology, film, etc).



**Discipline of Cultural Mapping:** The purpose of this discipline is to examine the junctions between space/time, information, and culture. It brings geographic analyses together with historical methods, visual analysis, and the presentation of complex datasets and visualizations. It also examines the cultural and social impact of digital mapping technologies and the significance of these mapping technologies for understanding cultural phenomena.

**Laboratory for Cultural Analytics:** The purpose of this lab is to bring quantitative analyses from applied math, statistics, and the social sciences together with large-scale, complex social and cultural datasets.



Hack into old hierarchical university systems and send a few remixed ones our way!



***beyond digital humanities***

We wave the banner of “Digital Humanities” for tactical reasons (think of it as "strategic essentialism"), not out of a conviction that the phrase adequately describes the tectonic shifts embraced in this document. But an emerging transdisciplinary domain without a name runs the risk of finding itself defined less by advocates than by critics and opponents, much as *cubism* became the label associated with the pictorial experiments of Picasso, Braque, and Gris.

13

The phrase has use-value to the degree that it can serve as an **umbrella under which to group both people and projects seeking to reshape and reinvigorate contemporary arts and humanities practices, and expand their boundaries**. It has use value to the degree one underscores its semantic edges: the edge where *digital* remains contaminated by dirty fingers, which is to say by notions of tactility and making that bridge the (non-)gap between the physical and the virtual; the edge where *humanities* suggests a multiplication of the human or *humanity* itself as a value that can (re)shape the very development and use of digital tools.



We reject the phrase to whatever degree it implies a digital turn that might somehow leave the Humanities intact: as operating within same stable disciplinary boundaries with respect to society or to the social and natural sciences that have prevailed over the past century.

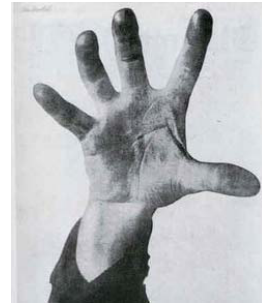


We further reject the phrase to the degree that it suggests that the humanities are being modified by the digital, as it were, “from the outside” with the digital leading and the Humanities following. On the contrary, our vision is of a world of fusions and frictions, in which the development and deployment of technologies, and the sorts of research questions, demands, and imaginative work that characterize the arts and Humanities merge.

Find a better label or phrase.

We'll rename the manifesto.

In the meantime, let's get our hands dirty.





## Image Credits

Page 1: Question marks: <http://degreeseach.org/blog/2011/06/online-universities-6-questions-to-ask/question-mark-2/>

Page 2: door <http://mattandjojang.files.wordpress.com/2010/08/open-door1.jpg>

Page 2: gorilla [http://www.monkey-pictures.net/gorilla\\_pictures.html](http://www.monkey-pictures.net/gorilla_pictures.html)

Page 3: "Flatulence Study" – image pulled from: <http://www.fitbuff.com/fitbuff-morning-mix-foiling-farts-creatine-works-1000-helmets/>

Page 4: "Mosaic Floor with Head of Dionysus"

Page 5: "Map of Online Communities" – XKCD Comics (<http://xkcd.com/>)

Page 7: Ivan Puni, Construction Relief, 1915

Page 11: "Cross on Mount Erebus"

Page 12: "Chart Showing Media Life Expectancies" – Michael W. Gilbert.  
<http://www.softpres.org/cache/DigitalMediaLifeExpectancyAndCare.html>

Page 12: Cavallini Oops eraser

Page 13: "Wall to the Abyss" (Hong Kong) -- [Peter Steinhauer](#)  
*Photograph*, 2008

Page 14: John Heartfield, "The Hand has Five Fingers" (poster), 1928.