# critical
# making
# DESIGN and
# the DIGITAL
# HUMANITIES

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# critical making
## DESIGN and the DIGITAL HUMANITIES

project

digital

humanities

new

activity

practice

process

analysis

different

book

media

content

research

use

field

future

# Clues. Anomalies. Understanding.

Detecting underlying assumptions and expected practices in the Digital Humanities through the AIME project

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**Abstract**

Imagine a collective inquiry presenting its results before the collaboration has even started; an academic book without footnotes and references; an open, on-and-off-line platform to collaborate with peers where all must subscribe to a strict protocol to express their ideas. This is the AIME (An Inquiry into Modes of Existence) project. It is an experimental intertwining of analog and digital practices often contradicting the norms and formats they belonged to, thus creating expectations and protestations from different communities of users. Adopting a critical position toward the project, we multiplied the listening devices to collect these accusations. We propose, here, to reframe them as ***clues*** to detect the different practices and assumptions at work in collaboration-based projects, design, and Digital Humanities communities. This paper details the methodical activity of collecting clues, grouping them in specific ***anomalies***, then explicating the choices that generated them. In a situation where Digital Humanities are still delineating their position and role in the wider academic environment, our way to study the AIME project will help reframe the role of experiments in the Digital Humanities. This study about AIME enables an ***understanding*** of some underlying assumptions and expectations in Digital Humanities.

This article has a digital component available at http://bit.ly/dhanomalies

Keywords: anomalies, close reading, collaborative frameworks, critical and speculative design, digital humanities

## Introduction

An Inquiry into Modes of Existence (AIME) project tried to explore the many discrepancies between the description that the Moderns are offering of their values and the ways they are defended in practice. For instance, there is a huge gap between Science capital S and the scientific institutions. There is almost no relationship between Technology as it is hyped and the ways technical artifacts are actually produced. This gap also exists in law, politics, religion, etc. Such discrepancies raise the question of deciding which version of their values the Moderns are ready to defend: the official one or the more practical ones? In order to pursue such a vast inquiry, we needed to transform the inquiry of a lone ethnographer into a collective undertaking of a community of co-inquirers. In order to achieve this transformation, in addition to the publication of a book, we produced a series of workshops and meetings and the design of a digital platform with the intention of testing and expanding the preliminary results of the inquiry.

Figures 1a–1b. The first instance of the project: the "report". It features neither footnotes or glossary, nor any critical apparatus, while it presents a report-like index that provides the reader with a very precise overview of the contents. The graphic layout has been kept consistent between the French and the English version since some typographic elements, the expression in small caps or in square bracket, are signalling a link towards the digital platform. The first ones are "links" to vocabulary entries, the latter to mode or crossing descriptions.
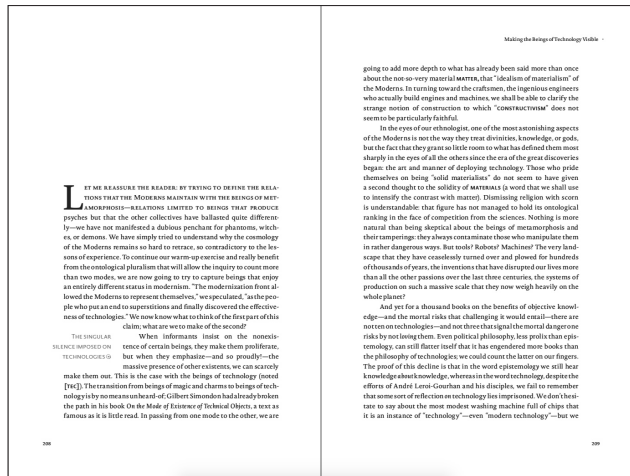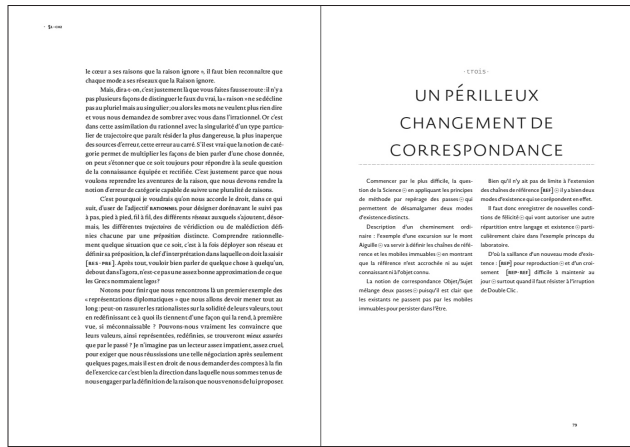
Figure 1c–1e. The second instance of the project: the digital platform. It is composed of two different interfaces, the first one named "book entry", features all the items of the project in a layout composed of four columns. The reader is left free to navigate through a non-linear logic by clicking through the links bounding the diverse elements of the inquiry. The second interface, called "crossings entry", displays the elements of the inquiry as sorted through the theoretical framework of the project, that is modes and their crossings.
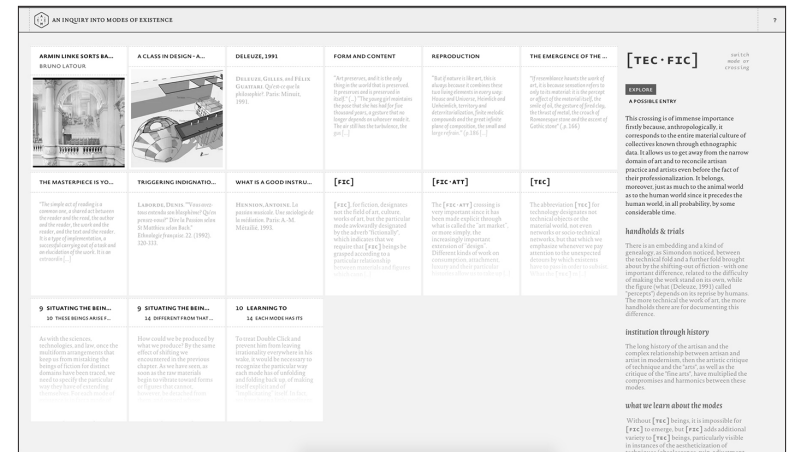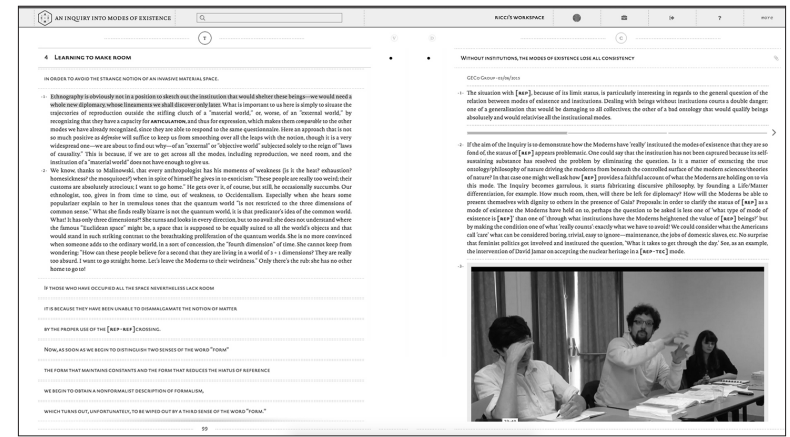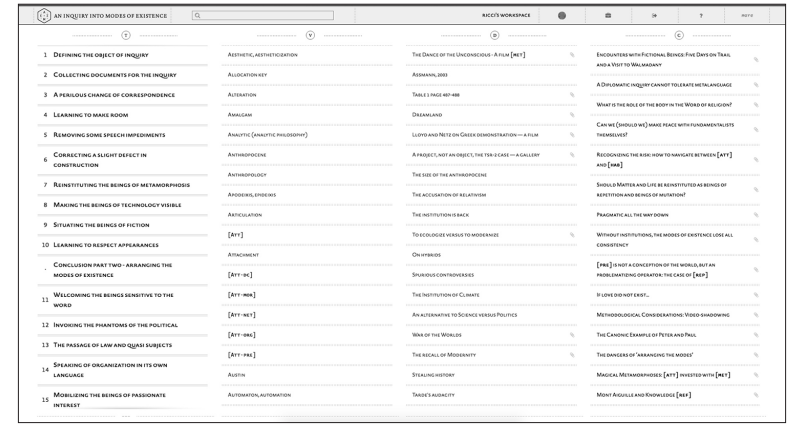
This is where AIME project overlaps with innovative practices in Digital Hu-
manities (DH). This meant we had to build, technologically speaking, an on-the-fly
experiment that depended as much on the scholarly practices of philosophy and
anthropology as on the many new skills and habits of the emerging DH field. Over a
four-year timespan, a vast and diversified *set-up* of technologies[1] has been designed,
developed, tested, and modified. Some of them clearly achieved the foreseen objec-
tives, whereas others did not. For most of them, we struggled to design their features
and to understand their agency. Although challenging from a management and
scholarly point of view, this was not completely unexpected. AIME has provided the
rare opportunity to craft all at once a new method of inquiry in philosophy, its own
content, its format, and a way to disseminate its results, all the while striving to build
an innovative relationship with a diversified spectrum of readers. In a more than cha-

otic trajectory, design practices played a major role, acting as critical and speculative
agents[2]. To understand the role of AIME in the field of DH, as well as what has to be
retained as good practices and what should be avoided in similar future projects, we
offer here a thoroughgoing analysis. It is an empirical observation — to this extent we
will try to adopt the same research posture as the AIME inquiry itself — based on the
gathering of different feedback collected with heterogeneous strategies: from digital
methods of research to web analytics; from qualitative interviews to an
online questionnaire.

## AIME and its Digital Humanities set-up

Johanna Drucker (2013) stated that finding a vocabulary — and we would also add
finding the meaning (*what it is*) and the sense (*what it does*) — of a new technology
(and here the new technology is the entire AIME set-up) takes time. During the initial

1      Here the term set-up refers to the network of complementary instances of the project:
interconnected material artifacts (i.e. print, web interfaces, meeting rooms) as well as people
with their skills supporting an ecosystem of distributed practices.
2      Lukens' (2011) definition perfectly describes our design attitude in engaging with the
project: "Speculative design is an approach to design that emphasizes inquiry, experimentation,
and expression, over usability, usefulness, or desirability. A particular characteristic of speculative
design is that it tends to be future-oriented."

## Enquête sur les Modes d'Existence
schematic table
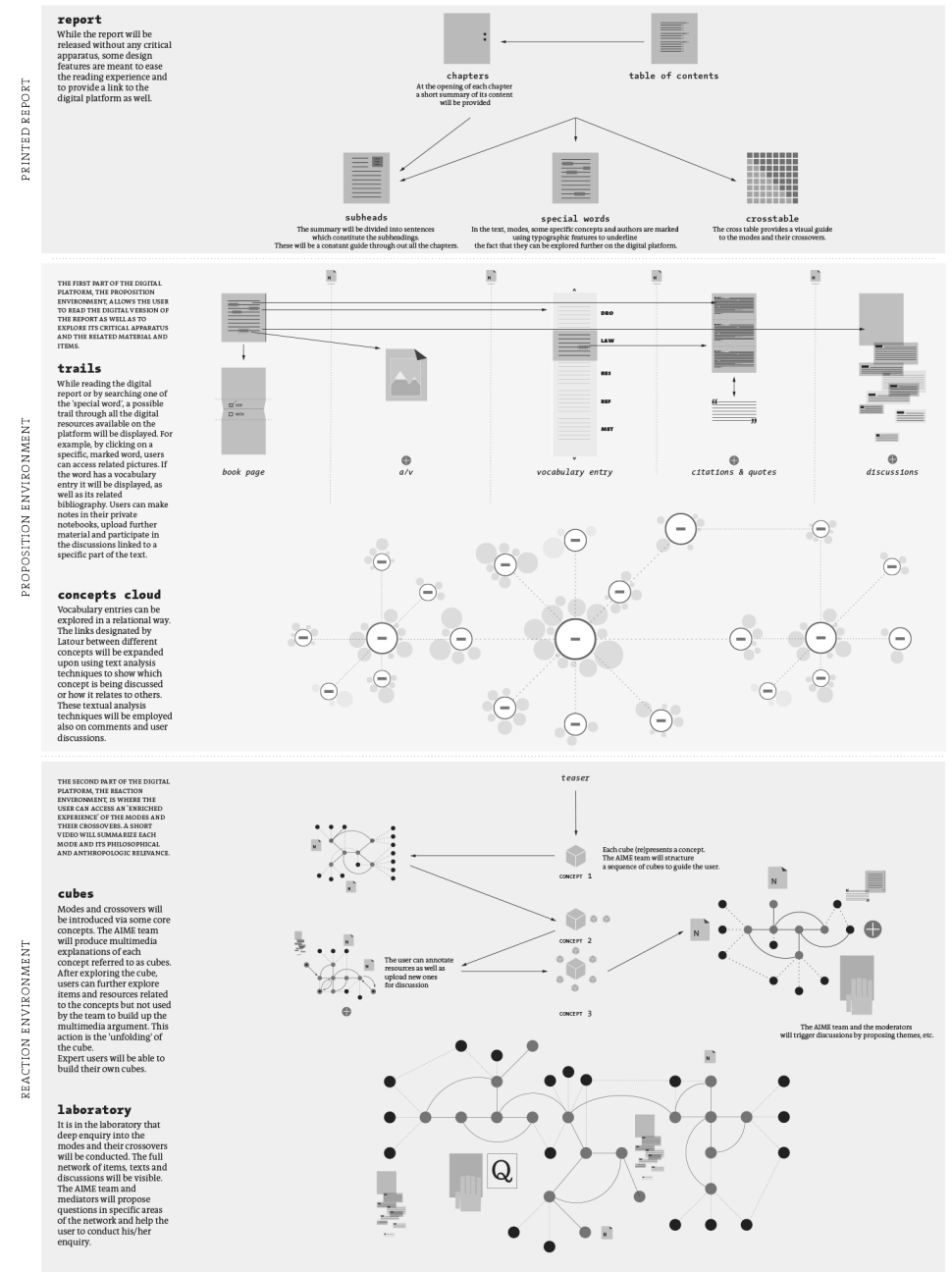
development of AIME set-up, only a few components were presupposed and could be identified via a specific nomenclature. One of these is the principal investigator (PI): Bruno Latour. In one of the first public presentations of AIME, delivered in late 2011, he defined AIME as a collective procedure triggered by a series of troublesome anthropological and philosophical questions. AIME's ambition was to invent a specific medium for an empirical[3] inquiry. The inquiry had started 25 years earlier as a personal endeavor[4]. Given the huge scope and topic, it now had to be opened to other researchers willing to use the AIME protocol and method (borrowed from William James) in order to validate and expand the results. In this presentation, the moments of hesitation about the medium are clear, and the names for designating technologies and procedure are shaky, signaling something still to invent. Leaving the philosophical community to judge the relevance and quality of the AIME arguments, in this paper we dedicate ourselves, instead, to describing the evolution of these hesitations. They evolved into a chimera whose body parts do not have a clear identity, becoming one of the "strange beasts" described by Ludovico (2012). Thus, here was

MENTIONING BOOK
y 34    n 5

CALLING IT REPORT
y 9    n 30

MENTIONING MEETING
y 7    n 32

MENTIONING COLLABORATIVE ASPECTS
y 12    n 12

MENTIONING DH
y 23    n 23

a collaborative inquiry presenting some results before the collaboration was even started; an academic book without footnotes and references; an open, on-and off-line platform to collaborate with peers where subscribing to a strict protocol was required. It is a set-up that was composed before it was able to be described[5]. Eventually, we identified some BUILT-IN EXPECTATIONS where the produced artifacts did not present all of the features required from the general type of media they belonged to.

Observing how people described AIME is enlightening. By analyzing 39 web pages retrieved by employing five different search-engine queries, selected according to their relevance and pertinence (Rogers, 2009), almost all the pages mentioned the book[6], but only a few of them called it a report. While it is easy to label a printed aca-

demic artifact as a book, "the very best 'interface' ever designed" (Ludovico, 2012) to convey arguments, it has been fairly impossible to reinforce its unstable nature by associating it with the word "report". It is a kind of MISMATCHING OF LEXICAL REFERENCES where the labels used for an established artifact didn't fit with "new" experimentation. Another interesting element of reflection emerged from the relatively small number of pages mentioning AIME as an experiment in DH, even though, looking at Twitter activity during the DH2014 meeting, Latour's keynote speech received a great deal of attention. These initially high expectations were quickly frustrated by the clumsiness of the first version of the online platform and by the type of DH activities conducted on it. Aren't these clues of a kind of MISALIGNED SET-UP PRACTICES for DH, where data visualization and large datasets are supposed to be the "new" norm, whereas the close reading of large numbers of documents is not?

Almost all the pages retrieved above mentioned the AIME collaborative aspects of the digital platform,[7] but only a few cited the face-to-face meetings[8] that had been widely communicated. This lack of citation is in marked contrast to the other digital methods analysis (Rogers, 2013) that we conducted using Twitter. Having a look at the graph produced by connecting hashtags and users certainly gives the impression of a complete contrast.

Evident at first glance is a polarization between AIME and its PI. It is probably the clue of a PERSONALITY AND STATUS REFRACTION where the reputation of a specific project actor multiplies engagements with the project itself. If we remove the two main nodes, a clearer view of the discussion around AIME arises. Some discussions are shown to be revolving around DH memes (eg. #digitalhumanities) and are clustered around the various AIME workshops and side events (eg. #thatcamplyon). As would

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3    It is empirical in the sense that the demonstration and discussion of the philosophical arguments are grounded on anthropological experiences fostered by diverse types of documents (iconic, audio visual, textual...).

4    For an historical account of the project see (Latour, 2013).

5    Obviously this does not mean that we had no plan or strategy. It is simply that these were anticipated as achievements of the philosophy itself. Figure 2 is among the very first comprehensive depictions of the project.

6    The first community-oriented instance of the project is a printed artifact called "preliminary report". However, designating it as a philosophical book may be dangerously misleading. It does not present the expected conventional cognitive and cultural features expected from a philosophical book. It features neither footnotes or glossary, nor any critical apparatus. It presents

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additional characteristics atypical of philosophical book templates, such as expanded margins and a report-like index that provides the reader with a very precise overview of the contents. This first printed instance is, therefore, an incomplete or defective version of a philosophical book. This incompleteness is intentional; it is a call for reworking the project along with the other instantiations of the inquiry, and especially the digital interfaces of the project.

7    The digital interfaces of the project find their unity in a shared URL: modesofexistence.org. This accesses a blog-like home page and two interfaces for the inquiry contents.
The first interface (modesofexistence.org/inquiry), named "book entry," features the elements of the project in a layout composed of four columns: the first presents the preliminary report (TXT), then comes a vocabulary discussion and definition column (VOC), then contextual documents along with bibliographical references (DOC), and, last but not least, collective contributions pointing at elements from the three previous columns (CONT). The reader is then left free to navigate through a non-linear logic by clicking through the links bounding the diverse elements of the inquiry, reassembled through specific visual agencies depending on the main element read by the visitor. The second interface (modesofexistence.org/crossings), called "crossings entry,"displays the elements of the investigation as sorted through the theoretical framework of the enqui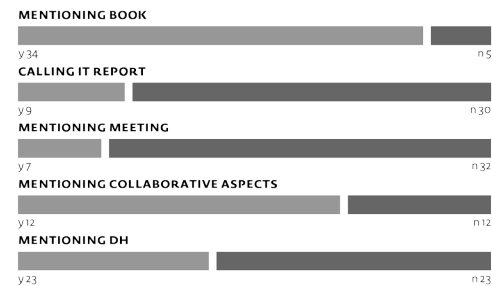ry, that is modes and their crossings. It allows for the building of alternative and nonexclusive pathways, called scenarios, into the network of contents (book paragraphs, vocabulary entry, documents), each scenario intended to shed new light on the meaning of modes and their crossings.

8    Another instantiation of the project consisted of physical meetings gathering various people interested in specific modes and responding to a call for contributions on the digital version of the inquiry.
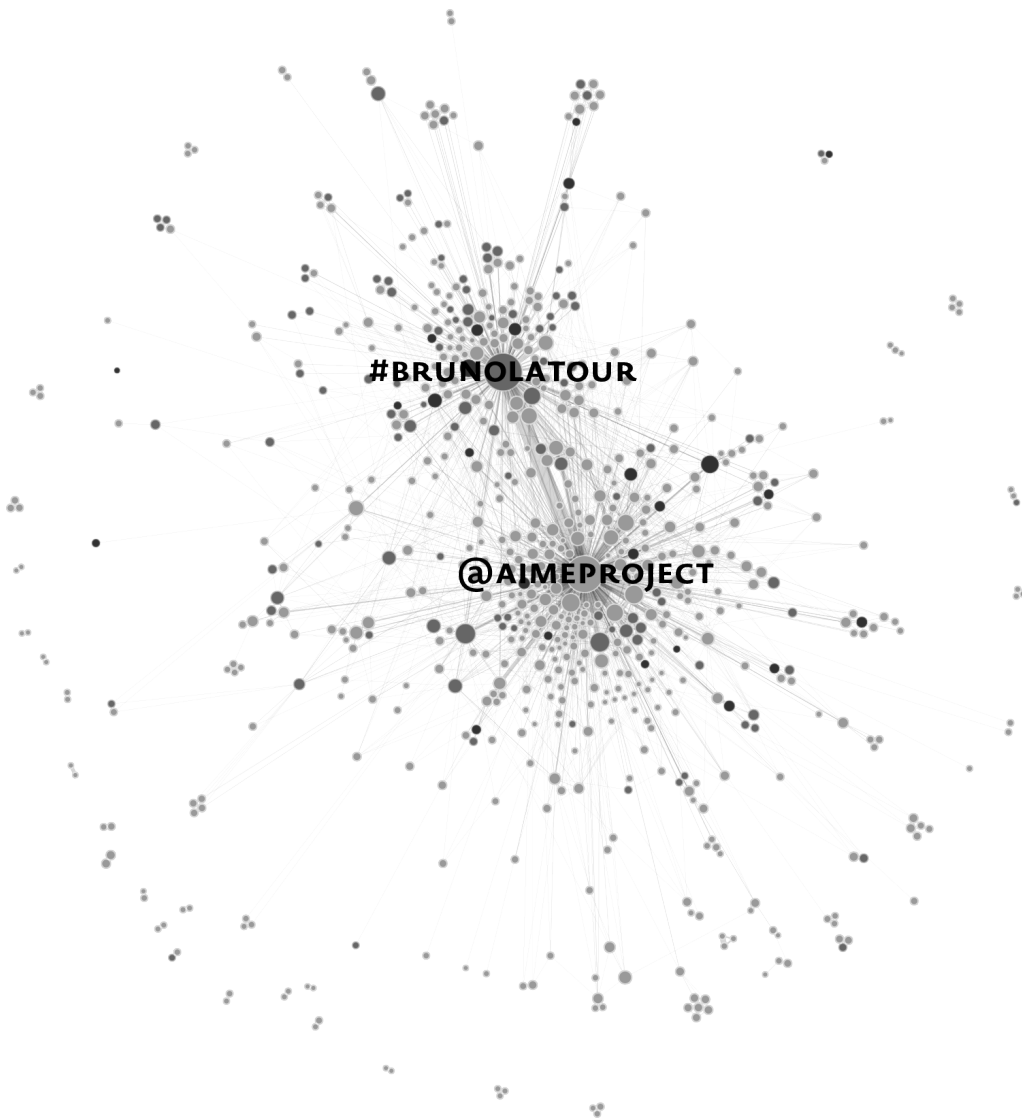
Figure 4.
Graph depicting the link between users (@) and hashtags (#) for the AIME project.
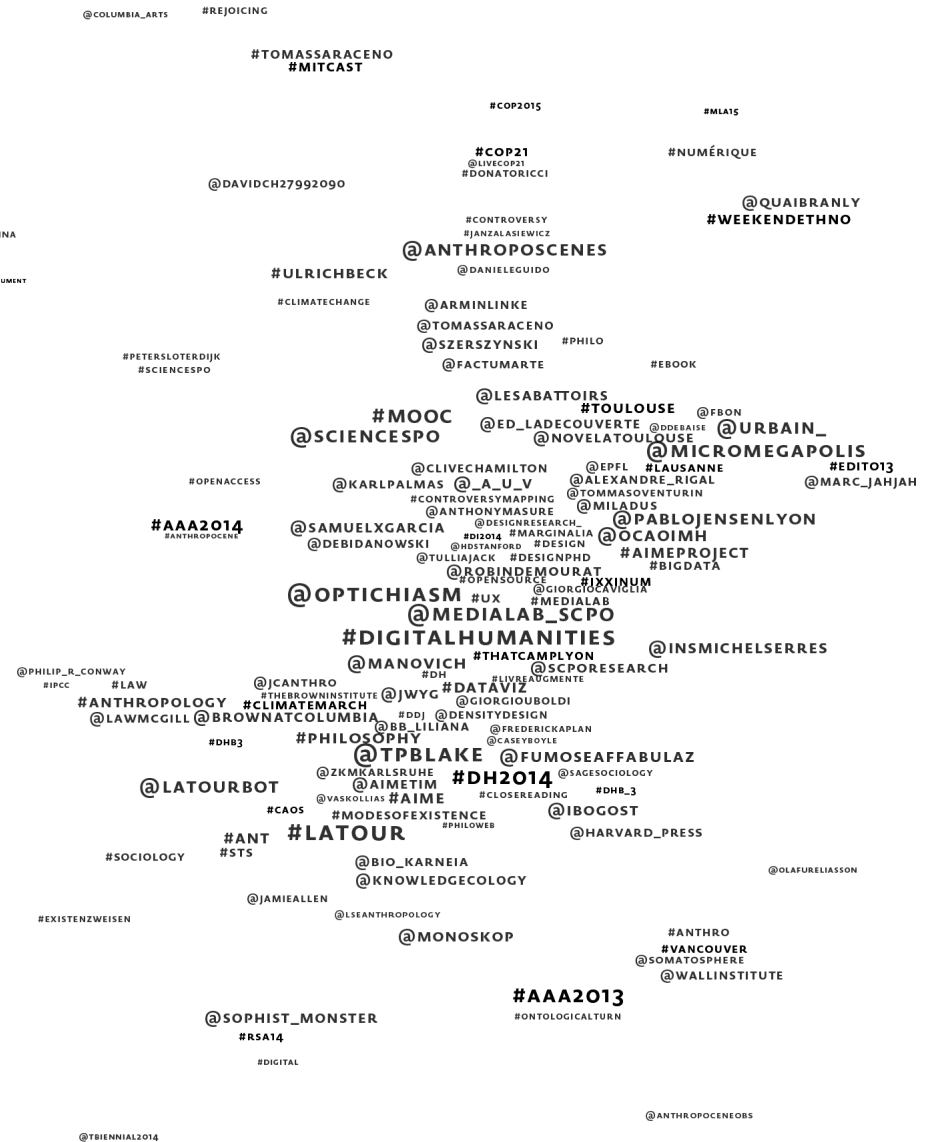


Figure 5.
Graph depicting the link between users (@) and hashtags (#) for the AIME project. The nodes @aimeproject and #brunolatour have been removed to show how the network is organized around the events #.
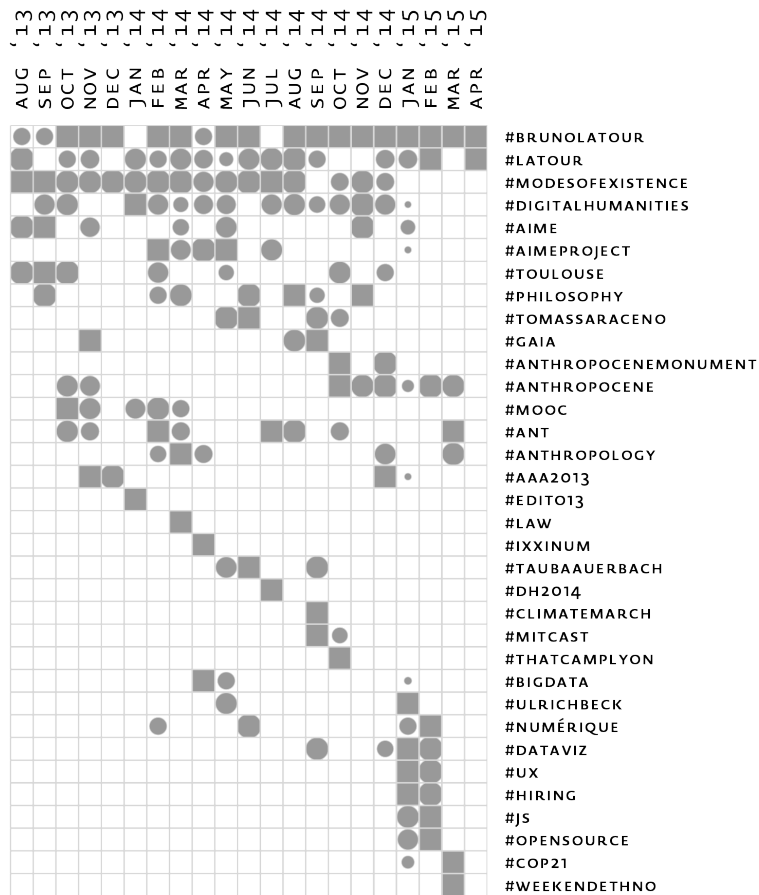
Figure 6. Heatgraph depicting the relevance of the different # during the time of the project. The first five are present during all the time of the observation; all the others are clustered in specific moments.

Column headers (timeline): AUG '13, SEP '13, OCT '13, NOV '13, DEC '13, JAN '14, FEB '14, MAR '14, APR '14, MAY '14, JUN '14, JUL '14, AUG '14, SEP '14, OCT '14, NOV '14, DEC '14, JAN '15, FEB '15, MAR '15, APR '15

Row labels (#):
#BRUNOLATOUR
#LATOUR
#MODESOFEXISTENCE
#DIGITALHUMANITIES
#AIME
#AIMEPROJECT
#TOULOUSE
#PHILOSOPHY
#TOMASSARACENO
#GAIA
#ANTHROPOCENEMONUMENT
#ANTHROPOCENE
#MOOC
#ANT
#ANTHROPOLOGY
#AAA2013
#EDITO13
#LAW
#IXXINUM
#TAUBAAUERBACH
#DH2014
#CLIMATEMARCH
#MITCAST
#THATCAMPLYON
#BIGDATA
#ULRICHBECK
#NUMÉRIQUE
#DATAVIZ
#UX
#HIRING
#JS
#OPENSOURCE
#COP21
#WEEKENDETHNO

## Methodology: multiplying listening devices

This is a shallow *understanding* of what the AIME project did, trying to recombine inventive and classic intellectual technologies. With different timing in each case, the project created different expectations from various communities,[10] philosophers, designers, and DH researchers, as well as created a wide range of frustrations and protestations.

We are proposing to reframe these different elements as *clues* allowing us to detect different *analogous*[11] practices and assumptions at work in philosophy, collaboration-based projects, design, and DH communities. In order to do so, this paper will:

- detail the methodical activity of collecting different criticisms and analyzing the data produced by the project;
- interpret them as *clues* signaling *anomalies* (expressed in SMALL CAPS) grouped into main 3 families;[12]
- look for an understanding by eliciting, using an insider point of view, the choices which eventually generated them;
- evaluate each AIME project anomaly as: a) a future norm (innovation), b) a useful mistake for similar experiments in the future, or c) an uncertain anomaly, which reveals nonetheless underlying assumptions in the audience and participants.

What is at stake here is the evaluation of the process of building set-ups central to the DH hermeneutics (Ramsay, 2011). In a situation where the DH is still delineating its position, shape, and role (Svensson, 2010), our way of studying the AIME project —focusing on what has been done and said more than on what it is — will help to produce a wider understanding of some assumptions and expectations about DH itself.

The DH field is increasingly heading to a certain stabilization of formats, methods, and goals,[13] supported by the development of shared standards and infrastruc-

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be expected, discussions appear around the usual fields of study with which the PI is associated (#sociology, #ANT[9], #STS) as well as other projects conducted by him (#mooc, #cop21). Here we can see a sort of AMALGAMATION OF HETEROGENEOUS PUBLIC, where the composition and scale of the communities being formed do not fit with what had been expected. The projected audience did not conform to a single discipline/community, which engendered some confusion, thereby leading to misunderstandings.

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9     ANT stands for Actor-Network Theory, while STS stands for Science and Technology Studies

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10     For a thorough, qualitative analysis of AIME project's outsiders diverging expectations, see Nyrup and Thomsen (2015).

11     Here the word analogous is in contraposition to the word anomalous as for the linguistic quarrel of ancient started in ancient Greece and then developed in Rome. While the doctrine of the analogy fostered the idea of a rational language stemming from regular fixed grammatical rules, the doctrine of the anomaly saw language as a spontaneous phenomenon crafted by its living use, evolving and modifying itself, thus admitting divergences and irregularity. The meaning of the term should not be taken in contraposition to digital.

12     A further family has been identified as well. We have temporarily dubbed it DEVELOPING THROUGH PUBLISHING, which refers to the peculiar process of developing a project while having already constituted an audience around its first instance, and to the role of different team members in such an endeavor. Since it is still under elaboration, we prefer not to publish it here and develop it in future contributions.

13     Although not in a strictly rigid normative sense, it could be cited as a clue toward this need of standardization noted in a passage from the book *Digital Humanities* (Burdick et al., 2012): "Curation, collection, and data management are cohering around shared standards, while concrete rationales for the production and deployment of Digital Humanities methodologies have emerged in the academy."

In order to detect AIME's anomalies, we designed a series of listening devices, both inquiry methods and visual instruments that enabled us to grasp reactions and practices produced by the project. They were purposed for both design research and for more pragmatic project management reasons. These devices harvested data from October 2013 to April 2015:

- a systematic analysis of the project's mentions over the web;
- an analysis of AIME-related twitter activity[15];
- a questionnaire analysis, based on a study involving 249 out of the ~6000 users registered in the project's platform at the time of collection;
- a platform's database analysis featuring recordings about enlisted co-inquirers and their writing and annotating activities;
- an analysis of Google analytics data about the digital platform;
- a series of interviews with team members conducted by an external researcher during the most active phase of the project.

The above-mentioned devices allow us to make use of quantitative and qualitative, enunciative and practical, and insiders' and outsiders' data. We analyzed each of these sources, considering all the traces collected after the passage of the project as clues requiring an inferential explanation.

## Anomaly family #1: displacements in acknowledging on-and-offline practices ecosystem

| People misses or expects from some parts of the set-up features that were either present in another part/media or absent from the whole project. | | | |
|---|---|---|---|
| Methods | Clues | Anomalies | Understanding - explanation |
| Web pages review | External reviews reveal missing connections between the different instances of the set-up, or confusing some of them with resembling format | MISSING CONNECTIONS BUILT-IN EXPECTATIONS | Old and new media forms and formats are loaded with expectations about DH artifacts functionality and status<br><br>People tends to consider as autonomous the different instances of a project |

Since its objective was to test the same theoretical hypothesis within diverse media and towards diverse audiences, AIME has been conceived to support a series of complementary on- and off-line, textual and visual, specific and generic media-scholarly practices. Looking at the project reviews and external online reports, some

tures.[14] This tendency toward a "conventionalization" is motivated by the need for technical interoperability and methodological comparability of research programs and projects. It is also driven by empirical, trial-and-error procedures toward new research methods: a lot of projects are trying to establish a more stable basis stemming from previous experiments and available for further projects. This incremental approach could be described as a *conventional* (Manzini, 2015) — we would rather say an *analogous* — way of solving problems that is opposed to a *design* — we would rather say *anomalous* — mode grounded in our ability to "imagine something that is not there". Acting in this mode, the highly idiosyncratic activity of AIME could be a useful instrument to observe which *conventions* are populating, in terms of practices as much as values, the communities of Digital Humanities. Our investigation could then inform us about how much the AIME project has been an *anomaly* to these emerging conventions. Anomaly here is not opposed to normativity (*nomos*) but to regularity (*omalos*) (Canguilhem, 1989). This notion is flexible enough to compare the project with its hosting environments while avoiding too sharply-edged distinctions (normative vs. exceptional) and respecting the highly empirical statements of digital humanists while questioning them. We argue here that both approaches, analogous/conventional and anomalous/design, are complementary in order to understand the activity patterns of an object of concern such as Digital Humanities. However, as analogies rarely provoke reactions and are thus difficult to trace, focusing our attention on which DH *anomalies* the AIME project has produced would allow for a richer and softer interpretation of DH's implicit and explicit emerging analogies.

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14    See, for instance, the DARIAH European infrastructure: dariah.eu and the Research Infra-structures in the Digital Humanities from ESF: esf.org/fileadmin/Public_documents/Publications/spb42_RI_DigitalHumanities.pdf

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15    Everything written by, addressed to or containing @AIMEproject, modesofexistence, modes_of_existence, "Bruno Latour", brunolatour, modes?[_]?of[_]?existence|#brunolatour|aimeproject, aimeproject.org. Their relevance has been determined by a qualitative evaluation of them.

reactions were aligned in their understanding of this *multimodal*[16] strategy. However, others revealed that this distributed media organization ended up with some MISSING CONNECTIONS between the components of the project. Some descriptions simply did not take into account one or several of the project instances, pointing out, in their critique, a lack of consistency or solidity, while other ones found fault in one instance, not to propose the functionalities that were aimed at being fulfilled by another one. Hence, the printed instance was blamed for not providing contextual references — they were available in the 'book entry' of the digital platform; the 'book entry' of the platform was accused of not allowing enough discussion and debate, which were designed to be held during physical events, and so on. What had been conceived of as a distributed environment of complementary workplaces, was received in these cases as a hegemonic and constraining factory for digital intellectual labor[17].

Another source of displacement in the understanding of the project came from BUILT-IN EXPECTATIONS and the deceptive, although natural, comparisons they made explicitly or implicitly between AIME specific artifacts and more widespread new media formats[18] with which they shared some features or methodological resonances. Indeed, while the printed artifact has been criticized for being flawed as a defective version of a "philosophical book" due to its lack of critical apparatus, more subtle analogies were made regarding the digital instances.

The principle of a collective endeavor supported by digital means and framed through systematic guidelines often caused the project to be likened to an encyclopedia.[19] This has been reinforced by some AIME platform features, such as its extended glossary (voc column of the 'book entry'), its systematic organization through modes of existence, and as a network of linked entries. Therefore, these latter similarities caused multiple, related protestations about the absence of some topics judged as mandatory in the AIME database (e.g. feminist history, petro-chemicals, etc.) or more

broadly a supposedly exhaustive and, thus, hegemonic approach to AIME's philosophical project, namely the description of the Moderns, contradictory to the scope of the project.

We also noticed that the project has been recurrently compared to the archetype of Wikipedia and its corresponding principles of organization. Wikipedia's approaches to *crowdsourcing*, *source citing*, or *content mutability* were projected on AIME's own principles, and seem to have produced misaligned requirements about its content management policy and collective organization[20].

Another recurrent comparison was with blogs, from the PI's argument about blogs being the opposite of the project's principles of collaboration, to external critiques emphasizing the similarities between the two forms, and thus the lack of "originality" of the set-up, contradicting its claims of exceptionality. Comparison with blogs provoked the evaluation of the project in terms of innovation, and its distance from the *conventional* point of reference of blogs. It also imported false expectations regarding a presumed easiness to comment upon and discuss user contributions.

We could try to explain the MISSED CONNECTIONS provoked by the project as a clash between the tradition of the humanities to use (one) text as the main (and only) medium for intellectual argument, and AIME multimodal shifts through several complementary instances. But if we then try to understand them in the specific context of DH experiments, some MEDIA-RELATED EXPECTATIONS may also have been caused by the heterogeneity of the AIME set-up in terms of templates' compliance or divergence: on the one hand various generic media and tools used for the project life (Twitter, AIME blog, mailing list, shared on-line meeting materials), and on the other hand the parts that were specifically designed for the inquiry. The latter presented a strong visual and organizational homogeneity (for instance, book and interfaces were presented with the same typesetting and colors, dialoguing with similar visual codes). It could be stated, firstly, that their peculiarity asked for some linking with existing templates, provoking the displacements that we have described. Secondly, the specifically new artifacts were perceived as designed to fulfill every cognitive and intellectual expectation of such a project, while some of them, like project discussion and scholarly debate, could and have also been fulfilled by more generic media such as twitter or blogs.

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16    As McPherson (2009) stated, a multimodal scholar should make profit of a variegated array of literacy forms. She goes further in posing a question that was at the very core of AIME: "How do you 'experience' or 'feel' an argument in a more immersive and sensory-rich space?"

17    This latter feeling could also have been favored by the technical problems faced by the site, which made it slow and irritating, due to its experimental and evolutionary history. The lack of seamlessness may have engendered some doubts about the relevance of such an ecosystem of instances: "In any case, it is faster and easier to negotiate the book via a PDF file than through the web interface, or certainly it is better to keep ready to hand the PDF or the paper copy when waiting for the website to slowly grind back into life." (Berry, 2014)

18    Namely social media platforms, blogging platforms, wiki websites, academic documents, online repositories, and digital archives.

19    This distinction has been underlined several times and in different writing; for further discussion see (Ricci and De Mourat, Forthcoming; Ricci, 2013) and (De Mourat, Donato Ricci and Boulanger, 2014).

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20    See also anomaly family #3.

## Anomaly family #2: interface-driven methodology and its encounters with scholarly publics

*The practices proposed to the co-inquirers in order to fulfill the project methodology did not fit with the large spectrum of skills demanded.*

*The peculiarity of the intellectual and practical requirements to contribute provoked a certain intimidation to potential contributors.*

| Methods | Clues | Anomalies | Understanding - explanation |
|---|---|---|---|
| Database of users' visual analysis<br><br>Website analytics visualization<br><br>Questionnaire visual analysis<br><br>Twitter activity analysis | A small number of the participants contributed to the project.<br><br>A small number of the participants presented both "traditional" and "digital" literacy skills needed to fully participate to the project.<br><br>People practicing the whole set-up were more likely to contribute successfully to the project. | EVOLVING SET OF SKILLS<br><br>UNUSUAL BLEND OF PRACTICES<br><br>MISMATCHING OF LEXICAL REFERENCES<br><br>MISALIGNED SET-UP PRACTICES | There is a tension between interface-driven methodologies and the DH users' various literacies.<br><br>Supporting collective inquiries through the design of new digital tools demands long learning curves.<br><br>Relying on complementary and non-digital instances helped to engage participants in a complex scenario of use. |

Figure 8.
Timelines depicting the number of contributions created per day (top chart), and the cumulative time spent by readers on the website (middle chart), in relation to the AIME events agenda preceding or following a peak in activity.
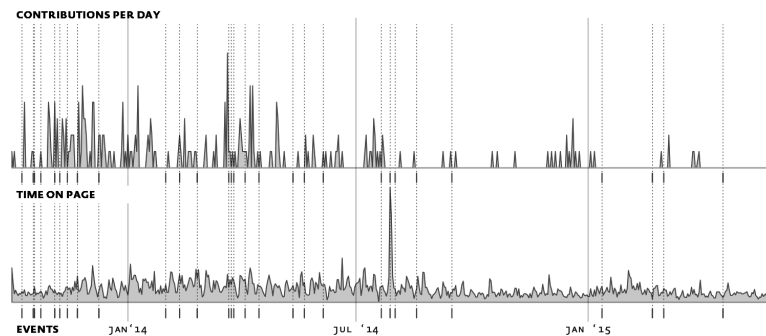


Once the different reactions provoked by AIME were observed and analyzed, we could focus on the very activity of people engaged with it. The possibility of contributing to the inquiry was meant to be open to diverse practitioners and scholars able to witness the clashes between the "modes of existence". This process required an EVOLVING SET OF SKILLS: the co-inquirers should have known the main inquiry narrative by having read the report (traditional humanities literacy skills), then to have navigated through the extended contextual contents on the "book entry" ("digital literacy" skills). There, they could bookmark some excerpts through a specific functionality. Eventually, they were encouraged to propose a "contribution" to the inquiry by attaching to one part of existing content a production of their own

Figure 9.
Timelines depicting, per day, the number of consultations of each of the four columns of the "book entry". Namely: text column — featuring content of the printed instance, vocabulary column — acting as a glossary, documents column — featuring bibliographical references and media documents, and contributions column — featuring co-inquirers productions. These are compared with the project agenda of events. It can be seen a proportional rise in consultation of "contributions" as compared to "text" that correlates with AIME events.
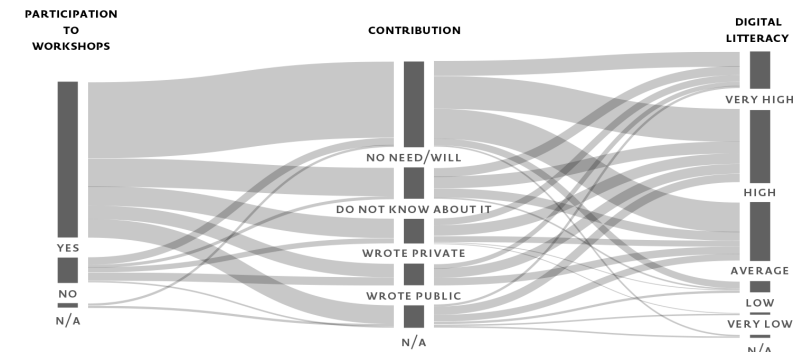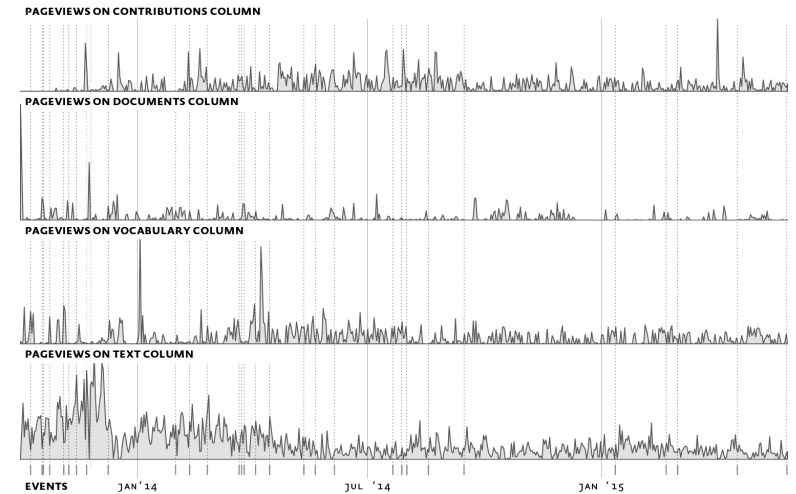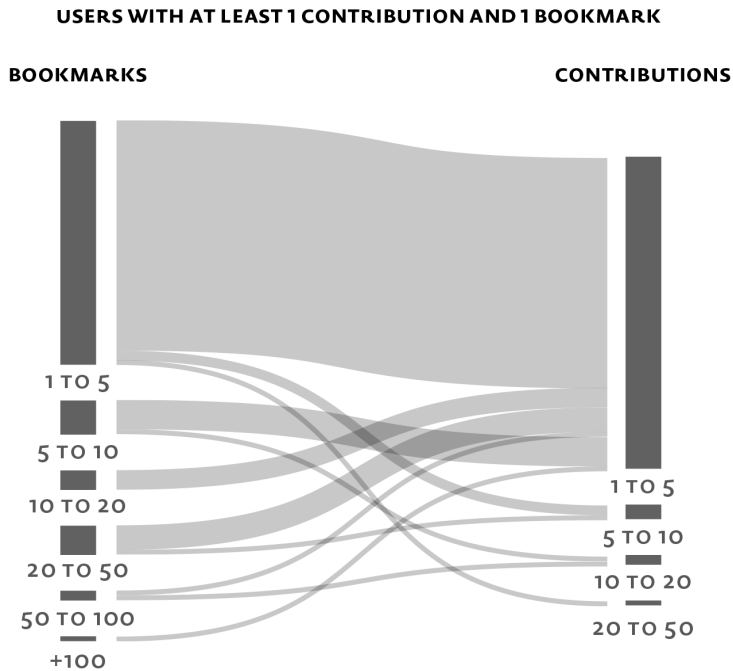


Figure 10.
Alluvial diagram depicting the co-inquirers' answers to an online questionnaire involving 249 respondents, and showing the correlations existing between their participation in workshops, their attitude and practice towards the contribution activity, and their digital literacy. The majority of contributors were involved in workshops, and declared to have a high or very high level of digital literacy.



in order to amend/expand the original PI work (philosophy and anthropology-related skills). In this process, a huge role was also played by the face-to-face meetings, mainly aimed at discussing, accompanying, and encouraging contributions on the platform. Comparing reading and contribution activity of the platform overall and the project events agenda, it seems that the digital platform activity was correlated with the AIME workshops and events agenda.

Looking, then, at project reading metrics in more detail, it can be seen that the "contributions column" was proportionally more and more consulted as workshops were deployed. These correlations show that the co-inquirers subscribed rather well to the proposed sequence of activities. Accordingly, when looking at the questionnaire sent to platform subscribers, it can be seen that people participating to workshops were more likely to write contributions and to get published. Furthermore,

Figure 11.
Alluvial diagram,
based on AIME web
platform database of
users, depicting the
correlation between
contribution activity
and bookmarking ac-
tivity among the sub-
set of co-inquirers
that have used both
of these functional-
ities. An important
correlation between
high bookmarking
profiles and prolific
contributors can
be highlighted.

**USERS WITH AT LEAST 1 CONTRIBUTION AND 1 BOOKMARK**

**BOOKMARKS**                                    **CONTRIBUTIONS**

1 TO 5

5 TO 10

10 TO 20

20 TO 50                                    1 TO 5

50 TO 100                                   5 TO 10

+100                                        10 TO 20

                                            20 TO 50

more deeply into the platform database of co-inquirer activity,[22] it can be noticed that the diverse, demanding practices were deployed by a rather small part of the community composed of participants who used most of the platform's functionalities together: people who had discovered/used one of the website features were more likely to enter the complete scenario of use that was proposed to them.

Digital literacy (Gilster, 1998) proved as well to be an important factor for subscribing to the methodological affordances of the project interface. An insightful clue to the digital literacy required by the project is the observation that almost none of the few questionnaire respondents declaring to have a low or very low level in this skill wrote a contribution. It seems that the overall project set-up was well-fitted for a very specific category of users, those who presented both content and research-re-lated skills and familiarity with digital environments[23]. Having a look at the qualitative feedback from the person in charge of managing contributors,[24] some explanations can be found. In addition to the difficulty of finding, understanding, and using such features,[25] a strong intellectual compliance to the contribution format (an abstract followed by a series of commented documents) was required: it has been as much a practical as an intellectual obstacle to some of the people willing to participate to the project.

Another explanation may lie in the ways of presenting the project features to the reader. While the website was designed to focus attention and to help navigate inside a dense network of neatly packed content, it produced at the same time a certain intimidation for the potential contributors; such a feeling has been recurrently reported to the team. The design of *rhetorical expression* (Buchanan, 1985) developed in the AIME platform granted access to a huge amount of very sophisticated content, and simultaneously asked for contributing to and expanding that content.

While multimodal inquiry and composition seem to be one of the most discussed and experimented topics of DH field (Eyman & Ball 2015), we have experienced how such an endeavor needed to take into account various DH public literacies, and how it sometimes collided with them: encouraging a specific mindset through very specific interfaces requires a long learning curve and inevitably excludes some users. However, mixing digital activities with other types of undertaking helps to strengthen on-screen practices, commitment, and the valorization of online contributions.

most of those who declared having actually read the report happened to own or use a hardcopy of the inquiry and also to have read the documentation of the project (voc and doc columns). These findings are a good indication of some success in the AIME multimodal plan of action. However, they also reveal that this multimodal awareness was the main condition for having people successfully engaged in the project methodology, whereas "single-medium" participants were left behind.

The unusual blend of practices required by the project online contribution scenario asked the participants to pass through a series of particular steps designed to make their work become an empirical contribution fitting into the AIME methodology. To do so, following the suggestion to react to specific parts of the text rather than addressing general remarks, they were first supposed to select an anchor point, being a report or vocabulary word or paragraph, and then attach to it a "contribution".[21] It is clear that a first condition for being able to contribute was to know how to navigate and get acquainted with the contents available on the web. Users declaring to have the highest digital literacy level were also the ones who declared to have profited from the writing and bookmarking functionalities. But if we look

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21    In order to emphasize the role of empiricism, the "contribution" was a composite and constrained format composed of a short abstract and a series of slides presenting commented documents.

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22    Collecting personal anonymized information declared at sign-up, and information related to bookmarking and annotation/contribution activity.
23    We are also aware that some scholars presenting a low or very low level of digital literacy were enabled to contribute thanks to team's help.
24    Pierre-Laurent Boulanger, acting as "meta-mediator," was in charge of coordinating the activities of reviewing the contributions submitted to the web platform and helping contributors to get acquainted with the process and rules of contributions.
25    It has to be said that the UI/UX elements for performing these actions are pretty similar to the ones present in the vast majority of reading/annotation software and annotations.

## Anomaly family #3: the shock of collaboration's ethoses

| Methods | Clues | Anomalies | Understanding - explanation |
|---|---|---|---|
| *People expected the web platform to present a transparent and open process of participation* | | | |
| *People did not know what recognition to ask/expect by giving of their time to such a project* | | | |
| Team's interview analysis<br><br>Web pages reviews | People protested about the principle of contribution, both in its goal (helping Latour's work) and modalities (a closed process) | ETHICAL DISJUNCTION<br><br>AMBIVALENT STATUS IDENTIFICATION<br><br>MIDDLE-STATE PUBLISHING<br><br>PERSONALITY AND STATUS REFRACTION | The specificity of DH inquiries inside the Academia collided with the notions of academic contribution and authorship.<br><br>There are various distances and dissonances between the requirements of scholarly collaborative undertakings and web culture openness ethos. |

During a French Digital Humanities event,[26] the collective and collaborative nature of the AIME project was challenged as presenting a certain non-reciprocity between the main author and contributors: co-inquirers were asked to dedicate a huge amount of time while not being acknowledged clearly enough as genuine contributors to the inquiry. During the latter meeting, the very principle of contribution was under discussion as a matter of intellectual work reward.

If we compare the project idea of a contribution to that of the *analogical* academic publishing habitus, the AIME contribution activity is indeed somehow perturbing: it could be framed, on the one hand, as an open reviewing process where co-inquirers propose modifications and improvements, and, on the other hand, as a journal call for contributions through which accepted submitters get to the status of author. This hybrid, peculiar finality of the contribution activity, that fit with none of the established ways of recognizing and acknowledging scholarly work, has caused various aural and written protestations that we could frame as the sign of an AMBIVALENT STATUS IDENTIFICATION anomaly. Besides the very format of the contributions, a sort of MIDDLE-STATE PUBLISHING[27] between traditional academic contribution and academic blog argumentation[28] may have fed and complicated this latter anomaly.

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26    THATCamp Saint-Malo. Held in Saint-Malo (France) from 17th to 20th October 2013. See books.openedition.org/editionsmsh/2203
27    This expression is borrowed from "The New Everyday" experiment in academic publishing. See mediacommons.futureofthebook.org/tne/about
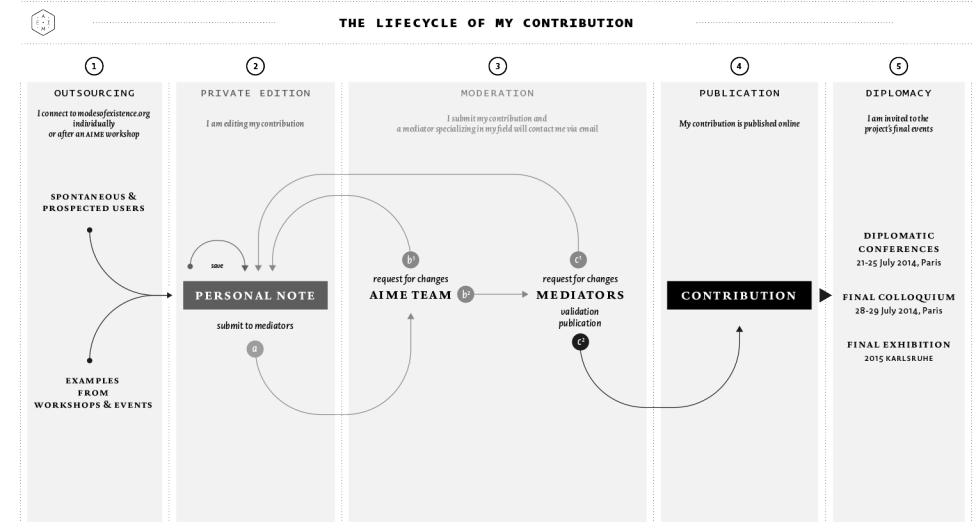28    See, for instance, the scientific blogging platform hypotheses.org

Figure 12. The life cycle of a contribution showing the mediation and review process. From a private edition, progressively and with the help of the AIME team, the submitted contribution reaches the "status" of being public and part of the AIME official documents.

It has to be said that the PI considered contributors to have specific and autonomous interests in the project and a shared, though limited, status of author. Even if limited, this acknowledgement of the co-inquirers' authorship has been emphasized by featuring them on platform credits. The contribution validation process itself has been under discussion as well. The contributions followed a definite process of mediation and review as a result of their compliance with a specific research methodology, strategy, and empirical protocol. They were evaluated and followed by a small collective of scholars acquainted with certain intellectual regions of the inquiry: these particular reviewers were labeled as *mediators*. This distribution provoked some concern. Some co-inquirers criticized the lack of transparency of the process[29] and questioned the "testability" of AIME methodology as a closed process. Here we face an intellectual critique highlighting an ETHICAL DISJUNCTION between design project choices and an intellectual debate about philosophical inquiry.

Another similar ETHICAL DISJUNCTION can be detected regarding the very discourse supporting the DH dimension of AIME, thanks to the reactions responding to some public presentations of the project to DH audiences that repeatedly framed *closeness* as one of the core values of the project. Closeness was presented as *distance*: a close arguments analysis also required a *close reading* activity rather than a *distant* one (Moretti, 2013). This first claim provoked reactions[30] about the relevance

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29    The AIME team published 2 'AIME leaks' to inform users about the revision process. For instance, see modesofexistence.org/answer-to-a-reader-reponse-a-un-lecteur/ the disclosure of a non-published contribution and its justification, and at modesofexistence.org/contribution-recognizing-the-risk-how-to-navigate-between-att-and-hab a successful contribution of email exchanges.
30    In his book Berry (2015) states, "The use of the 'digital' in such a desiccated form points to the limitations of Latour's ability to engage with the research program of investigating the digi-

of such an undertaking in the context of "post-digital" research, implicitly assuming that because the set-up of AIME was making use of digital instances, it should have specifically addressed the question of digitality in its very contents and intellectual scope, and thus used distant reading activities, most appropriate methodology for activities such as "unpacking and 'reading' computational media and software structures" (Berry, 2015)[31].

Closeness was also presented as *focus:* producing philosophical argument required a non-distracting environment.[32] This declaration provoked strong reactions inside DH communities since openness[33] is one of the key values allowing humanities to address contemporary issues and reframe their role inside society (Spiro, 2012). Although this gap between web ethos of collaboration and closeness claims could be minimized by the fact that the whole inquiry content is freely available to anyone, and that its generated contents (not being formerly copyrighted) are published under Creative Commons license,[34] the question of controlling the process of collaboration remains under question. While the team members interviewed unanimously valued the opening of access as mandatory, others also argued for the need of a protection to maintain homogeneity and coherence within inquiry. Underneath the value statements discussion lay, also, a practical tension between the need for methodological quality and the broader political expectations about the formation of scholarly community in the digital age.

From an ethical point of view, we have seen that the complex process of constituting a collective body of inquiry provoked important reactions among its publics, responses motivated by several cultural references and agendas (advocates of an alternative academy, of open access, of open software...). We see through this anomaly how DH projects may gather under the same roof a broad variety of ethical guidelines and value systems. While openness is a shared value of digital humanists, it seems to us that the expression of such a notion would need somehow to be precisely cast regarding the several underlying meanings it is given (Tkacz, 2015) and modeled according to the specific needs and methodological goals of one's project.

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tal, but also the way in which a theologically derived close-reading method derived from bookish practice may not be entirely appropriate for unpacking and 'reading' computational media and software structures."

31    The amalgamation of the PI's discourse about AIME projects peculiar choices, and its broader positions about the philosophy of digital and software in general, while legitimate, could also be the sign of a PERSONALITY AND STATUS REFRACTION. See Berry (2015).

32    This concern has been expressed through design choices such as not pointing to external websites inside the digital instances of the project while allowing the embedding inside this protected workplace of a variety of media and contents coming from external sources.

33    "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." The Digital Humanities Manifesto 2.0, manifesto.humanities.ucla.edu/2009/05/29/the-digital-humanities-manifesto-20/

34    The websites were nevertheless password protected because of legal reasons concerning quoted documents such as texts and videos, and the source code of digital interfaces was not published at first because it was not reusable as is. At the moment of this writing, interfaces are in the process of being open sourced.

## Qualifying anomalies for a better (understanding of) Digital Humanities projects

By collecting clues and spotting anomalies, our AIME critical review helped us to get a better understanding of the feedback coming from different communities of users. In this last part, we will focus on operationalizing these anomalies to debrief and assess the AIME project itself, hopefully transforming the anomalies into recommendations, warnings, or observational remarks, and then reframing our approach within the broader Digital Humanities field.

To perform this anomaly-detection activity, we draw our methodological framework from an ancient dispute about the nature and evolution of language (Douay and Pinto, 1991). This opposed, during the 2nd century B.C., the stoics of Pergamon (the anomalist school) and the philologists of Alexandria (the analogist school). While *analogists* were looking for proportional repetitions to be instituted into grammatical rules, *anomalists* were looking for exceptions that would bring these rules into question. The situation ended up with a very fruitful debate where the description of language was as much at stake as the ethical rules for its further development. In other words, the question was whether to assess language in terms of conventional rules or relevance inside a specific context. Here, some anomalies we detected could be seen as *future analogies* and *future conventions,* becoming a base for *future norms* if they reached a certain level of dissemination.[35] Anomalies like MISSED CONNECTIONS could be attenuated by the proliferation of multimodal and distributed projects, and the BUILT-IN EXPECTATIONS that the project faced could be eluded and eventually replaced by its own medial peculiarities after a longer period of use.

It is inevitable to consider some AIME anomalies as mistakes or evitable transgressions of justified emerging conventions. These are not able (and for our case, not wished) to come back into any normative status. Such anomalies as AMBIVALENT STATUS IDENTIFICATIONS could have been handled in a clearer way.[36] The understanding of their genesis will inform other projects that would want to follow similar paths.

Some other anomalies could be qualified as specific, undecidable features. These cannot be cast into the former categories or linked to any guidelines or recommendations, either because they are caused by the encounter of irreconcilable viewpoints or are completely idiosyncratic to the project. For example, the ETHICAL DISJUNCTIONS provoked by the project remain still to be discussed, as the UNUSUAL BLEND OF PRACTICES issue remains attached to a peculiar methodological wager of the project. These are therefore anomalies of epistemological interest, informing "the ways" Digital Humanities publics expect and preconceive the artifacts they are dealing with.

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35    We would here follow Canguilhem's (1991) definition of anomaly regarding biologic life, as a successful mutation that "spreads into space rather than time" and is sometimes eventually recast as a normativity producer.

36    We could have for instance tried to feature inquiry's contents through a wider range of points of view, acknowledging the work of particular contributors. We could as well have put a priority on providing co-inquirers with a way to reference their work and embed it on other places on the web.

Our reflective study helped to provide some feedbacks for a certain approach to Digital Humanities focusing more on the methodological renewal of Humanities through experimentation and design practices, than on the new intellectual and methodological challenges arising from the encounter between the digital and humanities topics and methods. In the introduction of his book David M. Berry (2012) framed DH latest developments as anomaly-producing agents that allow us to question and challenge the traditional values, expectations and methodologies of the humanities[37]. Although this assertion is probably crucial for framing DH inside the broader humanities, we could also admit that DH are themselves in a process of normalization or "conventionalization," following necessarily the installation of shared standards and infrastructures, but also values and practices grounded in the feedbacks given from the first experiments in the field.

In that sense, DH could be addressed as an anomaly themselves, as the temporary and preliminary sign of an imminent shift within the humanities. However, we argue that this conception is a perilous move, because it would wipe out the privileged capacity of DH to continuously interrogate, through an experimentation dealing with technical, social, and experiential *means*, the very *ends* toward which research is conducted. As Lunenfeld & al. (2012) stated:

"When new norms establish themselves, when new procedures and techniques become naturalized, assumptions can become invisible. [...] the new routines that structure this world of practice have the potential to become just as sedimented and automatic as those of the print era, and when they do, they sound the death knell for Digital Humanities as a practice that is both critical and experimental."

The anomaly-tracking endeavor performed in this paper seems to be a good way to prevent this risk. Anomalous dimensions of DH experiments are essential features for their critical approach to the contemporary condition of humanistic knowledge. We advocate that they should not be left out of the future developments of the field, but rather deliberately produced and then observed for their reflective qualities. The interest of DH lies less in essential regulating principles than in a corpus of irregularities, tropes, or spontaneous moves that give its reflective and transgressive value to Digital Humanities practice.

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37 "Indeed, we could say that third-wave digital humanities points the way in which digital technology highlights the anomalies generated in a humanities research project and that leads to a questioning of the assumptions implicit in such research, e.g. close reading, canon formation, periodization, liberal humanism, etc". (Berry, 2012).

## About the Authors

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**Christophe Leclercq** is an art historian, teacher, and project manager working at Sciences Po and The Ecole du Louvre, Paris. His research is based on the relationship between art and technology, and on digital archives in art history (the E.A.T. Datascape). He has collaborated with many engineers, artists and designers toward the development of experimental projects in art, and the promotion and diffusion of their research via exhibitions, workshops, lectures, and conferences. He has acted as project manager of the 'médialab' and AIME Project ('An Inquiry into Modes of Existence'), led by Bruno Latour.

**Bruno Latour** is Professor at Sciences Po Paris and head of its médialab, specializing in digital methods and digital humanities, and has recently published *An inquiry Into Modes of Existence* (Harvard UP 2013) whose content is replicated in a digital platform accessible on modesofexistence.org. All the references to his work and most of his papers are accessible on bruno-latour.fr

## References

Berry, David M. (2012). *Understanding Digital Humanities*. Palgrave Macmillan.

Berry, David M. (2014). "On Latour's notion of the digital." Retrieved July 24, 2015. (stunlaw.blogspot.fr/2014/08/on-latours-notion-of-digital.html).

Buchanan, Richard. 1985. Declaration by design: Rhetoric, argument, and demonstration in design practice."*Design Issues* 2(1).

Canguilhem, Georges, and Michel Foucault. (1991). *The Normal and the Pathological*. New York: Zone Books.

Douay, Françoise, and Jean-Jacques Pinto. (1991). Analogie/anomalie. Reflet de nos querelles dans un miroir antique. *Communications* 53(1).

Drucker, Johanna. (2013). *What Is? Nine Epistemological Essays*. Victoria: Cuneiform Press.

Eyman, D., & Ball, C. (2015). Digital humanities scholarship and electronic publication. *Rhetoric and the Digital Humanities*, 65.

Gibbs, Fred, and Trevor Owens. (2012). Building Better Digital Humanities Tools: Toward Broader Audiences and User-Centered Designs. 6(2).

Gilster, Paul. 1998. *Digital Literacy*. New Ed. New York, ny: John Wiley & Sons.

Kemman, Max, and Martjin Kleppe. (2014.) Too many varied user requirements for digital humanities projects. Presentation at *The 3rd CLARIN ERIC Annual Conference*, 24&25 October 2014, Soesterberg, the Netherlands.

Latour, Bruno. (2013). Biography of an inquiry: On a book about modes of existence. *Social Studies of Science* 43(2).

Ludovico, Alessandro. (2012). *Post-Digital Print The Mutation of Publishing since 1894*. Onomatopee.

Lukens, Jonathan, and Carl DiSalvo. (2011). "Speculative Design and Technological Fluency." *International Journal of Learning and Media* 3(4).

Lunenfeld, Peter, Anne Burdick, Johanna Drucker, Todd Presner, and Jeffrey Schnapp. (2012). *Digital Humanities*. Cambridge Mass.: MIT Press.

Manzini, Ezio. (2015). *Design, When Everybody Designs - An Introduction to Design for Social Innovation*. Cambridge, Massachusetts: MIT Press.

Marres, Noortje, and Esther Weltevrede. (2013). Scraping the social? *Journal of Cultural Economy* 6(3).

McPherson, Tara. (2008). "Introduction: Media studies and the digital humanities." *Cinema Journal* 48(2).

Moretti, Franco. (2013). *Distant Reading*. Verso Books.

Nyrup, Thomas, and Joachim Thomsen (2015). *AIME - perceptions and experiences*. IT University of Copenhagen.

Presner, Todd, Jeffrey Schnapp, and Peter Lunenfeld. (2009). *The Digital Humanities Manifesto 2.0*. (humanitiesblast.com/manifesto/Manifesto_V2. pdf).

Ramsay, Stephen. (2011). On building. (stephenramsay.us/text/2011/01/11/on-building/).

Ramsay, Stephen, and Geoffrey Rockwell. (2012). Developing things: Notes toward an epistemology of building in the digital humanities. *Debates in the Digital Humanities*. Minneapolis: University of Minnesota Press.

Renear, Allen H. (2008). Text encoding. in *A companion to digital humanities*, *Blackwell Companions to Literature and Culture*, 218–39. Wiley-Blackwell.

Ricci, Donato. (2013). Documenti di scena. *Progetto Grafico* (23).

Ricci, Donato, and Robin De Mourat. (2015). An account of digital humanities from the AIME Project. échappées (2).

Ricci, Donato, Robin De Mourat, and Pierre-Laurent Boulanger. (2014). AIME: Opening the context of a humanities inquiry. in *Digital Intelligence Conference Proceedings*. Nantes.

Rogers, Richard. (2009). The Googlization question, and the inculpable engine. in *Deep Search: The Politics of Search Engines Beyond Google*, edited by Konrad Becker and Felix Stalder. Innsbruck: Studien Verlag.

Rogers, Richard. (2013). *Digital Methods*. MIT Press.

Spiro, Lisa. (2012). "'This Is why we fight': Defining the values of the digital humanities. *Debates in the Digital Humanities* 16.

Svensson, Patrik. (2010). The landscape of digital humanities. *Digital Humanities Quarterly* 4(1).

Tkacz, Nathaniel. (2015). *Wikipedia and the Politics of Openness*. The University of Chicago Press.

## Additional Sources

Adema, Janneke. (2012) On Open Books and Fluid Humanities. *Scholarly and Research Communication* (3)3.

Andersen, Christian Ulrik, and Soren Bro Pold, eds. (2011) *Interface Criticism: Aesthetics Beyond the Buttons*. Aarhus Denmark: Aarhus University Press.

Fallen, Camille. (2012) *L'anomalie créatrice*. Paris: Kimé.