RESEARCH ARTICLE

Radio Nouspace: Sound, Radio, Digital Humanities

John F. Barber
Washington State University Vancouver, US
jfbarber@eaze.net

Background: The author describes curating sound(s) in a radio context and how this practice prompts creative Digital Humanities research, scholarship, and presentation. The author describes his Radio Nouspace project as a site, focus, and methodology. A particular endeavor is curation by re-creation of vintage radio dramas before live audiences in order to prompt listeners to consider the ability of sounds to convey appreciation, emotion, experience, information, and meaning(s).

Analysis: Curating sound in a radio context provides a unique and rewarding opportunity to consider sound as an important component of Digital Humanities. Despite their ephemerality, both sound and radio are immersive and inclusive, and prompt engagement from listeners through their imaginations.

Conclusion and Implications: Provides an introduction to sound and radio in the realm of Digital Humanities research and practice. Making sound tangible with curatorial information demonstrates interesting and rewarding opportunities for Digital Humanities research and creative practice.

Keywords: Digital Humanities; Radio; Radio drama; Radio art; Audio drama; Sound; Sound art; Curation; Action research; Creative practice; Narrative; Sound-based narrative; Storytelling; Listening

Contexte: L’auteur décrit la conservation des sons dans le contexte radiophonique et comment cette pratique invite la recherche créative en humanités numériques, en érudition et en présentation. L’auteur décrit son projet Radio Nouspace comme un site, un objectif et une méthodologie. L’une des initiatives en particulier consiste à conserver les sons en reconstituant d’anciens feuilletons radiophoniques devant un public, afin d’inviter les auditeurs à considérer la capacité des sons à transmettre l’appréciation, les émotions, l’expérience, l’information et la signification.

Analyse: La conservation du son dans un contexte radiophonique fournit une occasion unique et enrichissante de considérer le son comme un élément important des humanités numériques. Malgré leur caractère éphémère, le son et la radio sont tous deux immersifs et inclusifs, et invitent les auditeurs à s’engager par l’entremise de leur imagination.
Conclusion et implications: Fournit une introduction au son et à la radio dans le domaine de la recherche et de la pratique en humanités numériques. Le fait de rendre le son tangible au moyen de renseignements de conservation permet de démontrer des possibilités intéressantes et enrichissantes pour la recherche et la pratique créative en humanités numériques.

Mots-clés: Humanités numériques; Radio; Feuilleton radiophonique; Création radiophonique; Feuilleton audio; Son; Art sonore; Conservation; Recherche-action; Pratique créative; Narration; Narration sonore; Art de conter; Écoute

Introduction

With this essay, I examine curating sound in a radio context as rewarding Digital Humanities action research and creative practice. Curating, as we will see, is a fundamental activity for Digital Humanities (DH). Sound is also fundamental. As a primary sensory input and communication channel for human culture, sound conveys deep, rich information and provides immersive, interactive contexts for listeners by engaging their imaginations. In this regard, sound might be considered the central component of narrative, the driver of storytelling, the basis of literature.

Radio uses sound(s) as its primary content. Radio’s sounds are immediate, in the moment, yet their presence is ethereal, arriving, as if by magic, from unseen sources. However, unless this content is preserved, the experience of radio, as a technology, a creative practice, a cultural endeavor, is lost. With thoughtful curation, the ephemerality of both radio and sound can return and promote communication and collaboration.

Given this background, I believe curating sound within a radio context prompts a wide range of activities and approaches for creative DH research, scholarship, and presentation. I am inspired in this belief by action research advocated by Stefano Vannotti (2008). Action research is calculated to develop and test new knowledge through doing or making.

I will elaborate on this idea by describing my curatorial practice with Radio Nouspace, a virtual listening gallery and museum, modeled on traditional, analogue
Barber: Radio Nouspace

These curatorial efforts evolve from practical application with the intent to create communicable knowledge, as inspired by Burdick et al. (2012) and Vannotti (2008).

A specific project within Radio Nouspace is curation by re-creation of radio dramas before live audiences. Augmented with curatorial information activities, these re-created radio dramas prompt listeners to consider the ability of sounds to convey appreciation, emotion, experience, information, and meaning(s). A brief overview of a conceptual framework for using sound as the basis for this research and creative practice rounds out the discussion.

In conclusion, I hope to demonstrate how we may use sound(s) to produce, consume, and critique the (Digital) Humanities.

Background

Digital Humanities (DH) refers to the use of computer/information technologies (digital media, data mining, software design, modeling, for example) to visualize, analyze, compare, and/or critique issues in the humanities, especially those that might be difficult, if not impossible, to effectively investigate otherwise. In this regard, DH has become interdisciplinary, intertwining research approaches from different fields like literature, linguistics, culture, and history. It is not hyperbolic to predict that DH will quickly become a transdisciplinary approach incorporating features and affordances of multiple research disciplines, involving multiple digital technologies, and integrating multiple data types and analytical techniques. The desired upshot is to develop new research topics and methodologies that will motivate research and practice paradigms in the humanities.

For example, consider curation. Anne Burdick, Johanna Drucker, Peter Lunenfeld, and Todd Presner say curation is fundamental to DH. In their book, Digital_ Humanities, which addresses the dual challenge of both promoting DH by describing ways it might be undertaken as well as assessed for scholarly impact, Burdick, et al. position curation as a “fundamental activity[ly] at the core of Digital Humanities”

---

1 This essay evolved from a presentation at the Digital Humanities Summer Institute 2015 Colloquium, held at the University of Victoria in British Columbia, Canada, June 9–13, 2015.
(Burdick et al. 2012, 17). Their list of curatorial activities that can be assessed for scholarly impact include “creating . . . recording and displaying relevant debate trails generated by objects, [and] creating a public forum in which these debates are edited or represented for study” (Burdick et al. 2012, 67).

I also point to the idea of action research, advocated by Stefano Vannotti. Action research, says Vannotti, combines design and creative practice with critical academic research. More specifically, action research involves a “systematic enquiry conducted though the medium of practical action, calculated to devise or test new, or newly imported, information, ideas, forms, or procedures and to generate communicable knowledge” and essentially “undertake[s] research through practice” (Vannotti 2008, 55).

Radio Nouspace

Drawing from Burdick et al. (2012) and Vannotti (2008), I combine curation, action research, and creative practice in a project I call Radio Nouspace. The name and practice of Radio Nouspace is derived from “radio,” an ecology of related but different phenomena (Dubber 2013) and “nouspace,” wordplay between nous (French for “we,” referring to collaboration and sharing as key attributes), new (from English, as in a fresh concept), and noos (from Greek, pointing to mind and essence) (Grigar 2012).

Radio Nouspace (www.radionouspace.net) is a virtual listening gallery and museum for sound, featuring curated historical and experimental radio and audio drama, radio and sound art, and sound poetry. Sound and listening are explored as literacy, creative practice, and research endeavor. Curated sounds are available for on demand listening.

A desired result is to experience Radio Nouspace as a point of convergence; a place, virtual in nature, but made believable by its resource offerings, where one can access simultaneously a body of work and a cultural context for its historical creation and contemporary consumption.

Specifically, as a curatorial site, Radio Nouspace presents aural narratives in a context focusing on their primary feature: sound. As a practice-based research site, Radio Nouspace rethinks and reimagines listening as important to narrative experience.
The Work of Radio Nouspace: Curation

As noted earlier, Burdick et al. consider curation a “fundamental activ[ity] at the core of Digital Humanities” (Burdick et al. 2012, 17, 67).

At first thought, using radio as a context for curating sound may seem odd. But consider that radio, throughout its history, is a culture and a medium based on sound(s), especially the sound(s) of the human voice, consciously collected (curated) and broadcast as related knowledge modalities (programs) for the purpose of interpreting and distributing information to a broad public. Radio amplifies and extends oral communication, prompting connections between people(s) separated by time and distance (McLuhan 1977, 1975; Mcluhan and McLuhan 1988). Radio retrieves some of the prominence of myth, ritual, and participatory drama from pre-literate (pre-writing and reading) times (Campbell 1949). In doing so, radio acts as what Marshall McLuhan calls “a subliminal echo chamber” to evoke memories and associations long forgotten or ignored (McLuhan 1964, 264). Furthermore, as a “fast hot medium,” McLuhan says radio provides accelerated information throughput (McLuhan 1964, 265). Combining these attributes and features, radio provides context for curating sound not available in more traditional venues.

Curatorial Focus

Radio Nouspace curatorial efforts focus on providing exemplary examples of radio and audio drama, radio and sound art, and sound poetry for on demand listening. I discuss each, briefly, below.

Drama

Joseph Campbell (1949) documented the reenactment of myths in the form of ritualistic participatory drama, often involving narrative, music, and other sound sources, by cultures around the world. Connecting to this notion of drama as an essential endeavor of humanity, playwright David Mamet argues drama is the nature of human perception since “it is a human need to construct, or have constructed for us, narratives” about our lives that “order the universe into a comprehensible form” (Mamet 2002, 66, 8). Our sense of survival, says Mamet, orders the world toward a cause-and-effect conclusion. We construct such dramas to understand ourselves...
(Mamet 2002, 40), to exercise our own will, and to create our own character (Mamet 2002, 43).

**Radio Drama**

During the so-called Golden Age of Radio, from the early 1920s to the early 1950s, until it was replaced by television as the primary home entertainment medium, radio provided outstanding programming in several genres (music, comedy, soap opera, and adaptations of comic strips, stage plays, movies, and dramas) to audiences from many cultural, social, political, and economic backgrounds. The common ground through this broad spectrum of radio listeners was a love for good stories and effectively delivered drama.

The Damon Runyon Theater, The Mercury Theatre on the Air (retilted The Campbell Playhouse in 1938), The Columbia Workshop, Escape, Quiet, Please!,

---

2 Mamet continues, as an “ur-dramatist” (Mamet 2002, 4), we are often compelled to promote “arts” which “inform us that everything—understanding, world domination, happiness—is within us, and within our grasp” (Mamet 2002, 48). Believing in our own superiority even while convinced of our own worthlessness, we seek to repress perceived external villains. This compulsion to repress is, according to Mamet, reenacted but unsatisfied in romance films, action painting, performance art, and electronic media, all of which he classifies as “pseudodrama” versus “true drama” (Mamet 2002, 48), feeding on “information,” and putting us all in “a new dark age” (Mamet 2002, 59).

Only the “nonrational synthesis” (Mamet 2002, 50) of true art (true drama) can help us structure our lives and the world into three-act dramas: “thesis, antithesis, and synthesis” (Mamet 2002, 66). Yet the knife does not necessarily serve to facilitate this tri-part narrative structure, signifying for Mamet, ever the dramatist, a violent and sexist metaphor with which to counter the violence and totalitarianism of pseudodrama and pseudo-superiority. Mamet draws from a poetic description of the use(s) of a knife by legendary bluesman Hudey Ledbetter (“Leadbelly”): “You take a knife, you use it to cut bread, so you can have strength to work; you use it to shave so you’ll look nice for your lover; on discovering her with another, you use it to cut out her lying heart” (Mamet 2002, 66). Even more disturbing, Mamet cites the gun as a “very effective tool” for social change (Mamet 2002, 25), more so than a play.

Yet, backing away from this abyss, in a “second act problem,” where the hero is called upon to exercise will and create in front of the audience his or her own character, Mamet sanctions theatrical performance as a communal outlet of rage against our self-perceived worthlessness. The theater, along with religion and magic, “inspire cleansing awe” (Mamet 2002, 69).

So, in the end, Mamet is focused on drama, the theater, as the only acceptable context with which and within which to construct our personal dramas, confront the dual-demons of superiority and worthlessness, and provide a cause-and-effect meaning for our lives. Less understandable is his rejection of electronic media, which has certainly promoted the creation and consumption of far more drama than any single playwright, and allowed individuals to focus on external villains using a number of proactive and productive methodologies.
Suspense, and You Are There provided the finest examples of radio drama ever produced. Dramatic series like Gunsmoke, The Shadow (especially the years starring Orson Welles), and Yours Truly, Johnny Dollar are also highly regarded.

For all these radio dramas, scripted speech (the sound of human voice) provided the basis for audience engagement, following the long, long tradition of storytellers using their voices to inform, educate, persuade, and entertain. In addition to voice, sound effects, music, and silence all contributed to a sense of immersion and presence in radio drama.

Exemplary works of radio drama are curated by Radio Nouspace, including “The Fall of the City,” “R.U.R. (Rossum’s Universal Robots),” “Sorry, Wrong Number,” “The Thing on the Fourble Board,” and “The War of the Worlds.” Curatorial information, sounds files, and links to additional resources and information are provided. The point of this effort is to emphasize how radio drama continues and extends the ability of speech and other sound(s) to create and share immersive aural narrative spaces and experiences that convey the power of myth and ritual, both central components of literature.

**Audio Drama**

Where radio drama is generally regarded as scripted, dialogic exchanges between actors, combined with sound effects, music, and silence, I differentiate audio drama as substituting ambient sounds, environmental and mechanical sounds, animal vocalizations, sonifications, soundscapes, sound collages, and edited sound compositions for human voice. Audio drama might manifest in websites, sound walks, locative narrative, site-specific soundscapes and installations, sound diaries, sound travel, found sound, audio documentaries, audio biographies, sonic portraits, and talking signs, among others. The opportunities are rich for narrative, drama, and storytelling to be reconceptualized and reconceived under the umbrella of audio drama. As Rick Moody says, "It’s the right moment for avid listeners, people thinking with their ears" (Moody 2010, xi–xii).

Exemplary works of audio drama are curated by Radio Nouspace, including “The City Wears A Slouch Hat,” “The Revenge,” and “Symphony of Sirens.” As with radio
drama, curatorial information, sound files, and links to additional resources and information are provided. The reason for this effort is that audio drama, like radio drama, continues and extends the ability of sound(s) to convey the power of myth and ritual.

**Radio Art**

As one of the most significant (perhaps the most significant) technologies of the 20th century, radio has long been considered either an art form in its own right, or a medium with which one can create art. The radio artist uses sound to make art. Radio art includes found sounds, phonography, and field recordings, all meant to provide listening experiences that promote opportunities for sounds from various sources and cultures to create and sustain new narrative strategies and subvert historical media conventions.³

³ According to Joseph-Hunter, Duff, and Papadomanolaki (2011), radio art falls under the larger umbrella of transmission arts, which encompasses performance, video art, theater, sound art, radio art, media installation, networked art, and acoustic ecology in a multiplicity of practices that engage aural and video broadcast media in an intermedia framework where the relationship(s) between artist and audience, transmitter and receiver, can be redefined, along with the telecommunications airwaves as the site for this practice.

In their anthology of transmission artists and their work(s), Joseph-Hunter, Duff, and Papadomanolaki note transmission arts offers a great deal of latitude and creative license to artists and content providers, and future radio assures a medium for its transmission. But, there are questions about radio art:

- What has comprised radio art historically?
- How was this work created, transmitted, and received?
- What might be done with sounds (other than the human voice) not possible before digital technology to create and share compelling radio and transmission arts that is both global in scope and local in focus?
- Could radio and transmission arts provide a venue for narrative?
- What stories might be told using radio and transmission arts?
- How might these stories be told?
- How could these narratives and stories benefit from opportunities for interactivity, collaboration, and social networking among the listeners and between the participants (née listeners) and the program itself?
- How could these efforts help to recenter sound as the primary form of sensory input, even while it is part of a mix of multimedia?
- What might be undertaken in conjunction with such a project (promotional and educational materials, website, social media, etc.) to increase its effectiveness and opportunities for social engagement?
**Sound Poetry**

Sound poetry is an artistic form bridging literary and musical composition where phonetic (sounds and acoustic properties) aspects of human speech are foregrounded rather than semantic (meaning) and syntactic (process of constructing sentences) values. The word “sound” acknowledges the initial presence of text, but the result is voice without words, intended primarily for performance.

The roots of sound poetry can be found in the Futurist and Dadaist movements and their interest in exploring new and creative ways of highlighting vocalization, by abstracting language into sounds rather than meanings. Radio Nouspace curates example works by Italian Futurists Filippo Tommaso Marinetti and Luigi Russolo and Russian Futurists Velemir Khlebnikov and Aleksej Kruchenykh. Dadaist influences are well represented by Hugo Ball, Tristan Tzara, Kurt Schwitters, and Antonin Artaud.

The availability of magnetic tape recording encouraged practitioners of sound poetry to explore new forms for their work, especially the use of audio collage with multiple, overlain, and often manipulated voices in order to extend the notion of a “reading.” The desired result was poetry that could only exist as sound. Radio Nouspace curates exemplary works by François DuFrêne, Henri Chopin, Brion Gysin, and William S. Burroughs. Listening opportunities are provided.

Works by exemplary contemporary European and North American sound poets like Bernard Heidsieck, Ferdinand Kriwet, Ashby McGowan, Steve Reich, Charles Amirkhanian, Jim Rosenberg, John Giorno, Alvin Lucier, The Four Horsemen, and bpNichol are also curated. Additional resources and listening opportunities are provided.

Each of these artists have challenged linearity imposed by time on sound works with non-linear structure. For example, Jim Rosenberg said, “It’s a serious conundrum. I face this every time I do a ‘reading.’ I tend to think of an oral recitation of my non-linear work as something like pictures in a catalog—it isn’t the real stuff, but gives an idea of what’s there” (Rosenberg 2014, n.p.).

**Curation: Example Methodologies**

Mark Tribe, artist and founder of Rhizome.org, an online space fostering critical dialogue about new media art, says the curator’s role is to make curated objects communicable, mediative, and manageable, to help the intended audience become
more knowledgable of the layers of meaning associated with the object(s) under curation (Tribe 2002, 148).

I read these remarks to suggest that curated sound works will benefit from context, an understanding of the historical, social, and cultural considerations of the time and place for the production of the original sound(s), and their process(es) of production, distribution, and reception. In this regard, opportunities for the curation of sound art, as well as for educating listeners, may lie in the re-creation of the original sound source, augmented with curatorial information activities that position the ephemeral aural experience in relation to changing interpretations fostered by the passage of time. For example, curating the sound(s) of a radio drama by re-creating them prompts listeners to consider the continued ability of sounds to convey information, explication, experience, appreciation, and meaning(s), years beyond the time and place of their original production.

In this regard, I have, under the umbrella of Radio Nouspace, pursued a partnership, called Re-Imagined Radio, with a group of radio drama enthusiasts and a local, historic theatre to provide live performances of vintage radio dramas. I combine this curation by re-creation with gallery showings of student work created in my digital storytelling course. The result is multi-modal, collaborative, immersive, and informative. To date we have re-imagined and re-created “A Christmas Carol,” “Around the World in Eighty Days,” “The Island of Dr. Moreau,” “The Fall of the City,” “R.U.R. (Rossum’s Universal Robots),” “The War of the Worlds” (the most famous radio drama ever broadcast), “Sorry, Wrong Number” and “The Hitchhiker” (two well known radio dramas by Lucille Fletcher), a combination of episodes from “Gunsmoke” and “The Shadow” (an adult western and a crime-detective series), and, most recently, “Dracula.”

Rather than performing for the live audience, the voice actors and sound effects artists perform for their microphones, striving to convey their narratives through the powerful combination of sound and listeners’ imaginations. Ethnographic and anecdotal information collected from audience members suggest broad pleasure in discovering how an original radio drama production might have occurred, and
amazement that sound-based worlds and ways to inhabit them are promoted through such unusual means.

**Conceptual Framework**

The focus of each Re-Imagined Radio performance is sound: spoken voice, music, and sound effects. Sound, says Marshall McLuhan, is the primary sensory input, in use since our earliest history when humankind was awash in sound, with only abstract thought to explain their situation and agency. Speech and orality tamed the acoustic wilderness by translating abstract thought into communicable ideas. Storytellers wove explanations for sounds into narratives which were incorporated into drama and, when written, into literature.

For McLuhan, this process illustrates the idea that “the ‘content’ of any medium is always another medium. The content of writing is speech, just as the written word is the content of print, and print is the content of the telegraph. If it is asked, ‘What is the content of speech?’, it is necessary to say, ‘It is an actual process of thought, which is in itself nonverbal’” (McLuhan 1964, 23–24).

Thus, speech, with its origins in abstract thought and presentation, is, according to Paul Levinson, the oldest medium and the most prevalent form of human communication. It claims a presence in most all media that follow (Levinson 1999, 5–6).

This pervasive presence of sound is important. Bruce R. Smith says “most of us live immersed in a world of sound,” and that sound is the basis for human collaboration and communication. But, he continues, sound as an object of study, has been neglected. Most academic disciplines are vision-based in the materials they study and the theoretical models they deploy to interpret those materials. Sound, as an object of study, is important, for “knowing the world through sound is fundamentally different from knowing the world through vision” (Smith 2003, 129).

---

4 This information is abstracted from a larger conceptual framework for sound I use to underpin Radio Nouspace and its associated projects, like Re-Imagined Radio and my course regarding Sounds and Digital Humanities offered annually at the Digital Humanities Summer Institute, University of Victoria in British Columbia, Canada. Discussion, resources, and additional links are available at Radio Nouspace (2016).
American anthropologist Steven Feld concurs, noting “the primacy of sound as a modality of knowing and being in the world” (Feld 2003, 226). To get at this primacy, Michael Bull and Les Back advocate “deep listening” or “agile listening,” both of which involve “attuning our ears to listen again to the multiple layers of meaning potentially embedded in the same sound.” Deep listening, they say, also involves “practices of dialogue and procedures for investigation, transposition and interpretation” (Bull and Back 2003, 3–4). In the end, Bull and Back say sound makes us re-think our relational experiences, how we relate to others, ourselves and the spaces and places we inhabit, by engaging listener’s deep imaginations.

Returning to McLuhan, he says radio resonates as a tribal drum, its magic weaving a web of kinship and prompting depth of involvement for everyone (McLuhan 1964, 259–260). Radio’s content (sounds) promotes orality as a connection between people separated by time and distance using invisible, disembodied sound (voices, music, other) offering a “world of unspoken communication between writer-speaker and the listener” (McLuhan 1964, 261). Radio affords a tremendous power as “a subliminal echo chamber” for memories and associations long forgotten or ignored (McLuhan 1964, 264). As a “fast hot medium” radio provides accelerated information throughput, contracting the world to village size. In a global village, we live once again in an oral context where issues and people are no longer separate, or unrelated, but rather shared, and simultaneous (McLuhan 1964, 20).

**Conclusion**

In this essay, I have outlined my action research and curatorial practice with Radio Nouspace, a DH project focused on sound, narrative, and storytelling. As a curated listening gallery and virtual museum, Radio Nouspace presents sound-based narratives. As a practice-based research site, Radio Nouspace rethinks and reimagines listening as important to narrative experience.

My conceptual framework for combining radio and sound is intentionally designed to promote DH action research and creative practice. Specifically, both radio and sound are interconnected. Sound is the content of radio. Sound is broadcast by radio. Both radio and sound are engaging, heard by listeners unseen to each other but nonetheless committed to a common, imagined, immersive space showcasing
language and listening as primary forms of communication. Both are fleeting, ephemeral, their content disappearing soon after production. With thoughtful curation, however, both radio and sound can return to promote communication and collaboration.

To demonstrate, I described my efforts with curation by re-creation of vintage radio dramas. Augmented with curatorial information and activities, these re-created radio dramas prompt listeners to consider the ability of sound to convey information, emotion, experience, appreciation, and meaning(s).

These efforts are worthy for several reasons. First, by curating and commenting upon sound objects, I am engaged in a core DH activity worthy of assessment for scholarly impact (Burdick et al. 2012, 17, 67).

Second, through curation by re-creation, I am providing a public forum for the representation of the sound objects under investigation, as well as their impact(s) on listening audiences.

Third, through these endeavors I am engaged in action research, a combination of design and creative practice with critical academic research well suited for DH. By conducting enquiry through practical action, I seek to devise and test “new, or newly imported information, ideas, forms, or procedures and to generate communicable knowledge” and essentially “undertake research through practice” (Vannotti 2008, 55).

Fourth, these efforts are underpinned by a conceptual framework that acknowledges the primary and pervasive presence of sound in our lives and cultures, histories and endeavors, as well as the stories we tell about ourselves, which become the subject of humanities enquiries.

To conclude, sound and radio promote interesting and rewarding opportunities for DH research and creative practice where one’s ears are used to make and discover new knowledge. By making sound tangible through such practice-based research as Radio Nouspace and my Re-Imagined Radio project, I hope to demonstrate how we may use sound(s) to produce, consume, and critique the (digital) humanities.

**Competing Interests**
The author has no competing interests to declare.
References


Rosenberg, Jim. 2014. E-mail message to author. February 14.


How to cite this article: Barber, John F. 2017. “Radio Nouspace: Sound, Radio, Digital Humanities.” Digital Studies/Le champ numérique 7(1):1, 1–15, DOI: https://doi.org/10.16995/dscn.275

Submitted: 10 October 2015   Accepted: 31 October 2016   Published: 13 October 2017

Copyright: © 2017 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See http://creativecommons.org/licenses/by/4.0/.

Digital Studies/Le champ numérique is a peer-reviewed open access journal published by Open Library of Humanities.