Digital Arts & Humanities: Scholarly Reflections

A collection of scholarly reflections from doctoral candidates working within the digital humanities
This electronic edition is comprised of a selection of scholarly reflections from doctoral candidates on the Digital Arts & Humanities Ph.D. programme, which is part of the Digital Academy at University College Cork, Ireland.

The DAH is a structured doctoral research-training programme designed to enable candidates to carry out research in the arts and humanities at the highest level using new media and computer technologies.

It is a structured inter-institutional inter-disciplinary programme, co-ordinated between the Digital Academy at University College Cork, and NUI Galway, Trinity College Dublin, NUI Maynooth, Queen's University Belfast and the University of Ulster, with support from the Royal Irish Academy.

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Editorial

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Her research focuses on autobiographical narratives and the potential of digital media to enrich the experiences of and explore the relationship between memory and identity. This research hopes to open up the design space in relation to digital support for personhood in dementia based on artefact-mediated reminiscence. Mary Galvin’s personal website can be found at marygalvin.org.

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Gareth is an accredited English instructor and has taught students from all over the world. He has visited China as an English exchange student, and has also spent time in South Korea.

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History / Digital Arts & Humanities at UCC under the supervision of Dr Andy Bielenberg. Her main research interests are oral history, Irish migration, identity, and cultural history. Her other passion is playing Irish traditional music on flute and fiddle.

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James O’Sullivan (twitter @jamescosullivan) is a graduate of both University College Cork and Cork Institute of Technology, where he has studied English literature, information technology and social computing. His doctoral research is concerned with textual remediation and its associated forms, electronic textual analysis and critical theory in the Digital Age.

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Sara Wentworth is a multimedia artist interested in the use of technology as artistic practice: as a way to generate ideas, and as a medium with which to create. Using the integration of audio, video, lighting, and performer and audience action through audio analysis and synthesis, video analysis and synthesis, and physical computing, she creates mediated narratives and immersive environments.

Sara has worked collaboratively with theatre groups and individually as an installation artist in New York and Ireland. She is currently pursuing a Ph.D. in Digital Arts and Humanities at University College Cork, researching correlations between computer memory and our own, human, methods of storage and recollection, and how these define and represent us individually and as a society.

Luke Kirwan, School of History

Luke Kirwan is undertaking his Ph.D. in Digital Arts & Humanities in the School of History at University College Cork. He is interested in the economic development of Cork during the nineteenth century and representing the disaggregated economic data for the period in a relational database. Before starting this Ph.D. he completed a B.A. in History and Greek and Roman Civilisation and an M.A. in Historical Research, both at UCC. In 2008 he worked in the National Library of Ireland as the Archival Studentship Holder and then went on to University College Dublin to do an M.A. in Archives and Records Management.

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Giorgio Guzzetta, after graduating in Rome in Literary Studies, got a Ph.D. in England in Italian Studies. After a period of research and teaching in South Africa, were he was Senior Lecturer in Italian Studies, started digital humanities research at
University College Cork, where he is currently based as a Ph.D. student. His research interests are Italian and comparative literature, narratology, hypertext and new media, cultural studies, globalization and post-colonialism. He is also collaborating with an Italian NGOs, Voci Globali, on issues of digital culture, citizen journalism and digital divide.
Foreword

By Professor Andrew Prescott,
King’s College London

Andrew Prescott is Professor of Digital Humanities at King's College London. He was from 1979 - 2000 a Curator in the Department of Manuscripts at the British Library, where he acted as British Library co-ordinator for a number of digital projects, including most notably Electronic Beowulf, edited by Kevin S Kiernan of the University of Kentucky. From 2000 - 2007 he was Director of the Centre for Research into Freemasonry in the Humanities Research Institute at the University of Sheffield. He has also worked at the University of Wales Lampeter and University of Glasgow. He has served on the advisory boards of many digital humanities projects in Britain and America. Andrew has published many articles on historical and literary subjects ranging from the Peasants' Revolt of 1381 to early films of street processions.
The annual convention of the Modern Languages Association is one of the major events for scholars of languages and literature in America. With about 12,000 delegates and over 750 sessions, it is a vast and rather repellent intellectual hypermarket, its shelves stuffed with the latest must-buy intellectual offers. During the past few years, there has been immense excitement at the growth of interest in the digital humanities at the MLA convention. For MLA in 2012, Mark Sample at George Mason University counted 58 sessions loosely connected with the digital humanities, more than double the number in 2010. The apparent growth in digital humanities sessions caused immense, possibly disproportionate, excitement in the goldfish bowl of American scholarship. An article for Inside Higher Education observed that ‘the cachet of the “digital humanities” has permeated the academic mainstream so conspicuously that one hesitates to put the words in quotation marks’. An article in The New York Times declared that some young scholars saw data as a way of escaping from the bewildering world of critical theory: ‘The next big idea in language, history and the arts? Data’.

While this hype is undoubtedly overdone – the digital humanities sessions at the 2012 MLA convention were after all less than 10% of the whole – it nevertheless prompted a major debate, of which the most portentous and weighty contribution comprised three blog entries for The New York Times by the...
Eminent critic Stanley Fish. Fish mocked the claims of digital humanities enthusiasts that they are creating a more interdisciplinary, open and participative form of humanities scholarship. Fish is suspicious of what he sees as an insurgent humanities, ‘a left agenda (although the digital has no inherent political valence) that self-identifies with civil liberties, the elimination of boundaries, a strong First Amendment, the weakening or end of copyright and the Facebook/YouTube revolutions that have swept across the Arab World’. Fish regards the suggestion that digital media will promote forms of scholarship which are more provisional, tentative and open-ended as inimical to the whole critical enterprise. He sought to demonstrate how the digital humanities promotes vacuous statistical approaches to the study of literature by providing his own specious and misleading statistical analysis of a poem by Milton.

Attention of this kind from such a major intellectual figure as Stanley Fish is certainly evidence that the digital humanities has carved out for itself a position for itself in the academic landscape. But it is perhaps disappointing that there was no extended or convincing reaction to Fish’s criticisms from practitioners of the digital humanities. Is there an intellectual framework to the Digital Humanities which goes beyond motherhood-and-apple pie statements about interdisciplinarity, the need for greater openness in scholarship and the importance of cultivating new audiences? Does working in a digital environment give us genuinely new insights into our cultural heritage? One might look for answers to these questions in the recent publication edited by Matthew Gold, *Debates in the Digital Humanities*, which was apparently to a large extent prompted by the discussions around the appearance of digital humanities sessions at MLA. The resulting volume, however, is sadly one of the worst examples of the sort of American academic parochialism which the politics of an institution such as MLA can generate. Its American contributors are completely preoccupied with the place of the digital humanities in American academic career structures, and appear to have little real interest in the study of the humanities or in wider scholarship.

Fish observes that, in discussions of the digital humanities, the significance of the humanities side of the equation is little discussed. Nobody can deny that the use of digital tools has transformed the way in which humanities scholarship is done, but will these tools change the intellectual character of the humanities – change the way we think about literature, history or the world? That is the question at the heart of the digital humanities. Attempts to theorise the use of computing in the humanities, such as the fundamental discussion by my colleague at King’s College London, Willard McCarty, have focussed on the significance of tools, and have argued that at the heart of the development of such digital tools is an elaborate modeling and integration of the intellectual methods
used by scholars. However, the digital world is promoting changes to scholarship in many other ways. Much scholarship in the humanities depends on engagement with libraries, museums and archives. Historians rely on records ranging from financial accounts to oral history. Literary scholars investigate textual manifestations from Anglo-Saxon manuscripts to the heavily annotated proofs of *Ulysses*. All humanities scholars from philosophers and theologians to musicologists and art historians depend on that access to different elements of our cultural heritage which is facilitated by museums, libraries, archives, art galleries, historic buildings and a host of other what are nowadays often called ‘memory institutions’. The activities of all these institutions have been profoundly transformed by the availability of new digital and networking technologies. Information about the holdings of these institutions can be accessed in new and different ways. The objects conserved by them are now stored and managed in new ways. New imaging and other techniques allow new methods of investigating the content of these institutions. In discussing this material, scholars can make use of new means of referring to it. The technological possibilities are exciting enough; when these new possibilities are combined with the new critical approaches developed by humanities scholars in areas such as gender, identity and ethnicity, the intellectual potential becomes intoxicating.

Digital technologies mean that humanities scholars are now engaging with the stuff which constitutes the subject matter of the humanities – the words, images, sounds, objects, performances, buildings, and so on – in completely new ways, and this is bound to alter the way in which we think about the subjects which constitute the humanities. It is within the triangulation formed by curation, science (particularly but not exclusively computer science) and cultural theory that the study of the digital humanities lies. The question ‘What are the Digital Humanities’ tends to dominate the discipline, but I wonder whether we really need to define any more tightly than saying that it is a form of scholarship arising from the ways in which the use of new technologies is transforming the arts and humanities. Most scholars working in the digital humanities share the ambition of trying in some way to establish it as a distinctive scholarly discipline. This is of course an ambition which is widely shared by scholars working in many different fields. I have worked on the history of Freemasonry, and the small band of scholarly enthusiasts working in that subject were also determined to mark it out as a new academic discipline.

It is rarely remarked how relatively recent our modern structure of academic disciplines is. The study of English literature in its present form dates only from the 1920s and 1930s. Modern methods of studying history were developed by pioneers such as Thomas Tout at Manchester in the first quarter of the twentieth century. We have very good models for the
development of influential new academic disciplines in the pioneering development of media studies and cultural studies at Birmingham, Cambridge and elsewhere in the 1950s and 1960s. These all suggest that the aspiration to create a distinctive discipline of digital humanities is not an absurd one. They also suggest that a tight definition is not a precursor of the successful creation of a new academic discipline. Indeed, although the growth of media and cultural studies is one of the great success stories of recent years in British humanities, it is notorious that there is no settled or agreed definition and common methodological approach. Nevertheless, student numbers in this field have boomed, new courses mushroom and publications in the field have proliferated. Media and culture studies have succeeded because they have something interesting to say about issues of wide current interest; the digital humanities can, and should, be the same.

Part of the reason for the success of media and cultural studies has been because of the production of great works of scholarship by figures of international renown such as Raymond Williams, Richard Hoggart and Stuart Hall. We need scholarly works of similar stature in the digital humanities, and this is one reason why doctoral programmes such as that in the Digital Arts and Humanities at University College Cork are so important. We need to provide younger scholars with the skills and craft to produce work in the digital humanities which will stand comparison with the pioneering work of scholars like Williams or Hoggart. This is what the doctoral students represented here are learning to do. They are already through their work defining the field. One of the reasons why Thomas Tout’s work at Manchester in developing modern approaches to the study of history was so successful was because of his stress on the development of a graduate programme of study. It is that graduate programme which is a vital key to building a discipline.

The work by doctoral students at University College Cork is defining and building the digital humanities. These students are showing what the digital humanities can be and mapping out its intellectual agenda. That is more important than aridly debating what the digital humanities are, and in understanding the digital humanities, there is no better starting place than looking at the quality, range and diversity of work produced by a group of students such as these.
“Digital technologies mean that humanities scholars are now engaging with the stuff which constitutes the subject matter of the humanities – the words, images, sounds, objects, performances, buildings, and so on – in completely new ways, and this is bound to alter the way in which we think about the subjects which constitute the humanities.” - Andrew Prescott
Introduction
By Professor Brendan Dooley

What is digital? The name suggests fingers, numbers, more recently, an emerging condition of personal engagement, physical and psychical, with electronic devices for processing our information. The experience of the researchers in the evolving digital environment of research is the central theme of this e-book. First impressions as well as considered judgments by participants in the Digital Arts and Humanities Ph.D. programme at University College Cork form the basis of a wide-ranging survey of ongoing research on and about digital techniques.

Sara Goek looks at the potentialities of digital sound recording for the discipline of oral history, itself a fast-developing area of historical studies.

Mary Galvin reflects about the possible roles of digital objects in the practical psychology of ageing: i.e., the way digital objects may trigger or form memories as the building blocks of personality, an especially acute concern in the study of memory loss.

Luke Kirwan illustrates the role of the digital in enhancing library outreach in local communities by forming digital archives, digital exhibitions and presentations. While keeping in mind the particularities inherent in the objects exhibited or shown—the parchment, the book—a digital presentation may allow viewing aspects otherwise invisible or inaccessible because of lighting issues, size, condition, placement, etc.

For Gareth Young, digital sound exists in an instrumental space between past, present and future, where past sounds (‘the analog world’) condition our receptiveness to the sounds of the present (‘we are still pining for the old’), while the possibilities of future sound production are being explored.

Sara Wentworth, an artist working on media installations, reports on ‘cyborg theater,’ i.e., live performance involving human-technology interaction, an expanding area of theater practice and theorizing.

Some of the wider repercussions of the digital are left to the reader to contemplate, such as, what are we to conclude about the emancipatory potential of the digital, in the context of the intense media discussion about freedom of the internet and the ramifications of intellectual property legislation? Pushing the issue a bit further (pardon the pun), rather than trading one set of limitations for another set of limitations, we may imagine a negotiation between state, society and economy played out at the level of the intersecting institutions which more or less embody each, variously focused on the goal of human flourishing.
Digital History: Some Tools and Techniques

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‘The historian of tomorrow will have to be a programmer in order to survive’ suggested Emmanuel Le Roy Ladurie in his 1968 paper “The Historian and the Computer”. At this time, there was an increased focus on economic and demographic history, as well as the building of econometric models, all of which required computational analysis. The use of computers in these fields continued, with the Association for History and Computing being founded in 1987. The advent of the web in 1993, saw the publication of one of the first websites, Ed Ayers’ Valley of the Shadow project. However, it was not until circa 1997 that the term ‘digital history’ was first used, when Ayers and his colleague William G. Thomas founded the Virginia Center for Digital History (‘The Promise of Digital History’. Interchange.). There is not one definitive definition for ‘digital history’ but it could be said to involve particular ways of working (such as openness and collaboration), and the development of projects using digital tools (such as text encoding, historical Geographical Information Systems, visualisation techniques and databases).

Database management systems hold and organise information enabling it to be queried and retrieved, with the results often being displayed as a mixture of data and digitised images of the primary source. They allow for deep analysis of historical sources so that new patterns may emerge from the data. The Census of Ireland 1901/1911 project, a collaboration between
the National Archives of Ireland and Library and Archives Canada, involved digitised and transcribed data from microfilms of census returns (1,209 reels for 1901 and 3,281 reels for 1911), being entered into a database. The database structure allows relatively complex searches to be undertaken in a matter of seconds and not just on people and places, but on other parameters such as religion, occupation, language spoken, literacy and number of children. Thus it is possible to search the census to see how many Jews born in Russia were living in Ireland in 1911, which counties they lived in, and to compare this with 1901 data. Such an undertaking would previously have taken many years of research. PASE (Prosopography of Anglo-Saxon England) is a research tool that holds information on all English individuals recorded from 597 to ca. 1100; it is a complex relational database but essentially tracks three key areas of information: individual’s name, any ‘factoids’ about them, and the source in which the information was found. It contains information on almost 20,000 individuals extracted from 2,784 sources. (“Statistics”. Prosopography.)

Historical Geographical Information Systems (GIS) link two types of data: attribute data (the kind of data that is included in a standard database) and spatial data (where it is located). This data can be manipulated, analysed and displayed, thus enabling more sophisticated querying than a database alone can achieve. For instance, by extracting data from the Southampton brokerage books (1430-1540) into a database which is linked to a GIS mapping system, The University of Winchester’s Overland Trade Project has identified Southampton’s medieval trading networks and patterns, both at an aggregate level and in relation to specific locations and commodities. NUI Maynooth hosts two atlases at its Online Atlas Portal: The Population Change Atlas 1841-2002 and The Atlas of Irish Famine Data 1841-1851. Both atlases map census data to the 3,452 Electoral Districts of Ireland, making very local analysis possible. While Famine studies generally focus on the West of Ireland, the atlases reveal that Carlow and south Wicklow also suffered higher than average population loss. They enable historians to answer specific questions such as whether there is a correlation between agricultural practices and ability to sustain local population, or between landlords and emigration. (“Ireland’s Population Story”. NUI Maynooth).

Encoding schemes involve the marking-up of both structural and descriptive features within a text, thereby making it machine-readable. Structural elements might include paragraphs or verses for instance, while descriptive elements refer to items such as people, places and dates. Encoding schemes are most frequently used in literature and language projects, but they can also assist historians in answering complex research questions. Assuming that several projects were encoded in the same way, it would be possible to make comparisons between them. The Text Encoding Initiative (TEI) attempts to create an encoding standard and is probably the
most widely used scheme. However, encoding does take time, as Cohen and Rosenzweig have noted[1], and many historians still rely on html and Google search. The University of Victoria's Colonial Despatches project demonstrates how TEI can enable detailed analysis of historical documents. Correspondence between British colonial authorities and governors of Vancouver Island and British Columbia has been marked up in TEI 5, with items in the four groups (people, places, First Nations groups, and vessels) being annotated. Each item is given a brief description, accessible whenever it occurs in any of the documents. Encoding has also made it possible to list every instance of an item within the collection and to create automated indexes for each group.

As well as analysing the data using new technology, digital historians must also be able to interpret patterns within the dataset as a whole and communicate them to the audience in a way that is easily understood. This is often achieved using visualisation techniques. For instance, Early Modern Letters Online has summary pages for each person that wrote a letter and on these is a graph showing how many letters were written each year – this gives an instant indication of how prolific a writer the person was and when. Network visualisations created using software such as Gephi highlight connections as in Stanford University’s Mapping the Republic of Letters visualisation of connections between cities. Melissa Terras’ Quantifying Digital Humanities infographic provides a visual representation of some key digital humanities statistics.

Digital history is not just about using technology to analyse, synthesise and present data, however. Most projects require a broad range of expertise (e.g. historical, technical, creative) to design and implement that is not often present in one individual, so collaboration is extremely important. The 1641 Depositions Project created a TEI-compliant fully searchable edition of 8,000 manuscript witness statements relating to the 1641 Irish rebellion. Twenty-seven individuals from Trinity College, Dublin, the University of Aberdeen and the University of Cambridge, IBM LanguageWare and Eneclann are credited for this project.

While the academics involved in the 1641 Depositions were historians, increasingly historians are collaborating with academics from other disciplines, particularly in the creation of thematic research collections. For instance, The Salem Witch Trials project is a collection of primary sources relating to the 1692 trials, and a new transcription of the court records. Also included are maps, literary works and biographies of people mentioned. The documentary archive was created by Professor Benjamin C. Ray, a religious studies expert, with Professor of English, Bernard Rosenthal, supervising the transcription project. Likewise, The Chymistry of Isaac Newton project combines expertise in history, science and chemistry. Across all these projects are team-members with expertise in computing
and library science. Digital tools make much of this collaboration possible; applications such as Skype and Google Docs negate the requirement for team members to be co-located and tools such as forums can promote problem-solving and discussion. RSS feeds and Twitter enable news to be disseminated and redistributed quickly, while social media sites such as LinkedIn and Academia encourage networking. However, an issue that leads on from these large projects is who should be included in citations, and this is currently being considered by Faircite.

Collaboration is not just limited to academia, however. Historians are engaging more with techniques such as ‘crowdsourcing’ (engaging with the public to help with projects), an approach that the genealogy community has already used for a while (400,000 volunteers at FamilySearch Indexing have helped provide access to more than 500 million genealogical records since 2006). Transcribe Bentham is perhaps the best-known example of crowdsourcing being used in an academic context. University College London’s collection of philosopher Jeremy Bentham’s papers amounts to 60,000 documents. Recalling The Guardian’s successful crowdsourcing in their 2009 Investigation of Your MP’s Expenses (170,000 documents were reviewed in 80 hours), Melissa Terras and team decided to apply this approach to the Bentham Papers. As of 12 January 2012, three thousand documents have been transcribed and marked up (“3000 Up”. Transcribe Bentham Blog). The University of Iowa’s Civil War Diaries & Letters Transcription Project takes a similar approach to Transcribe Bentham, while the British public contributed 6,500 First World War-related items to Oxford University’s The Great War Archive between March and June 2008.

Another key characteristic of digital history is a desire for openness – open access to scholarly research via free online journals (such as Digital Medievalist), open access to data, and the use of open source code. Open access to data ensures that it is always possible to understand how results have been arrived at, and that information can be used to develop new lines of enquiry, often by combining it with other datasets. Open Domesday’s datasets on people and places that were originally extracted from the Domesday Book are freely available and have been used by Andrew Bevan at University College London to make a population heatmap (Powell-Smith. “Opening Up Domesday Book”). The code behind Tim Sherrat’s The Real Face of White Australia is open source, so can be freely used and modified by other historians.

Finally, digital history encompasses the changing landscape of history pedagogy. Courses are frequently offered online, examples including Oxford University’s Advanced Diploma in Local History, and the University of Limerick’s MA in History of Family. Learning management systems such as Moodle are frequently used by lecturers to create online courses. In terms
of teaching techniques, narrative technology (the synergy of storytelling and computing) is a powerful pedagogical tool for active learning, with websites such as the Playing History repository and Digital History hosting educational computer simulations or computer “serious games”). The Governor’s Letters is based on the content of the Colonial Despatches Collection and provides material and sample exercises to assist teachers, while Great Unsolved Mysteries in Canadian History presents the mysteries in multimedia format, encouraging students to engage interactively with historical documents, to think independently and develop the important critical analysis skills required of any historian.

Traditional analytical skills remain at the core of what all historians do, whether digital or otherwise. However, as demonstrated, digital history provides the historian with the ability to use (or, in some cases, create) innovative tools and technologies, that allow for a deeper and richer analysis of data and the presentation of findings in novel, yet accessible ways. The projects described above have all adopted new approaches to work: sharing data, code and articles openly and collaborating with colleagues. Because the methodologies are new, ‘digital history’ is still considered an emerging field, but over time as these new techniques become more consistent and widely adopted it is likely that they will become standard practice – the ‘digital’ will become implicit in ‘history’.

Notes


Works Cited


The roots of Human-Computer Interaction (HCI) can be found in laboratory subjects such as psychology and computer science, as of late however, it has been strongly influenced by the concern for experience (McCarthy and Wright 183). We now live in a digital culture, where digital objects are ubiquitous. It is no longer appropriate to assume the digital objects we live with are primarily functional. Rather it has become necessary to understand these objects and the roles they play in terms of our particular experiences of them. Turkle claims that as we instant message, email, text, and Twitter, ‘technology redraws the boundaries between intimacy and solitude...we recreate ourselves as online personae and give ourselves new bodies, homes, jobs, and romances...’ (11). Research on user experience now has to be conducted in the ‘natural’ habitat of digital artefacts and their user; the context of this interaction is paramount. Interest in use and experience of technology already benefits greatly from input from psychology and it can also benefit from an understanding of psychological processes that will lead to the design of technologies to support people's practices with their digital artefacts.

Throughout this essay examples will be offered to illustrate that psychology is becoming more pertinent to technology, as is technology to the field of psychology. The zeitgeist of this is digital and there is no reason to suppose that psychology will not evolve with this digital culture as other disciplines have.

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Her research focuses on autobiographical narratives and the potential of digital media to enrich the experiences of and explore the relationship between memory and identity. This research hopes to open up the design space in relation to digital support for personhood in dementia based on artefact-mediated reminiscence. Mary Galvin’s personal website can be found at marygalvin.org.
done. The very origin of psychology is the study of human experience and this experience is now being facilitated, supported and enabled through digital means. It is necessary now to accept that human experience does not only consist of human interaction but also digital interaction.

But what is an interaction, what does it mean to socially or culturally relate to somebody or indeed something? Donald believes that language and our objects (digital and non-digital) are all symbolic tools. Tools created by man to allow us to interact and evolve into the social creature that we are today.

He states that symbols can be internal or external to the brain and illustrates this by giving an example of language. The words of spoken language are internally stored in the brains of speakers and listeners, but when these words are typed on to a page they become external symbols, stored outside the brain; these external symbols consisting of anything from our Google Calendar to our personal blog postings. ‘Symbolic technology is the enterprise of manufacturing and crafting external symbolic artefacts and devices’ and all symbolic technologies share a common goal, to ‘liberate consciousness from the limitations of the brain’s biological memory systems’ (Donald 305). Donald also labels these external symbols as the external memory field and argues that this field creates a mirror world for consciousness. It reflects the architecture of biological memory back into the symbolic environment, and this mirror image is then reflected back in to the brain - ‘The conscious mind is thus sandwiched between two systems of representation, one stored inside the head and the other outside’ (Donald 310). He believes that what our minds are now able to achieve is due to the evolving change in memory media themselves. It is through the use of our symbolic tools that we connect with each other. They allow us to form our identities and relate to others and our environments that are occupied with our cultural artefacts.

But how does this relate back to the topic? It does so as when we refer to symbolic tools and cultural artefacts in today’s digital culture, we are speaking about digital tools however the materiality of these digital tools should not be ignored. Too often materiality is separated from digital when in fact, in relation to psychological research, the two are almost inseparable in our experience. A new iPad for example is not sought after simply because of its digital functionality, we admire its design and are attracted to how it looks and feels and as a result HCI and digital interaction labs are now paying closer attention to materiality. During the 1940s the television set was regarded as a major advancement in technology. Indeed Botler & Gromala point out that first the computer was a new form of book, then graphic design, now also a kind of TV and Film (89). As a symbolic tool evolves the context of how its user experiences it also changes and here is where the focus of research should be.
Immense research exists on the role that objects and our material environment play in exploring the categories of memory, identity, and autobiography. Our material environment can empower, support and maintain our identity. ‘Tales of I’ is an example of the use of digital designs to re-invigorate the relational sense of personhood in the area of dementia. It is an interactive art piece that was commissioned for a hospital in the UK that specialised in the care of older adults with severe dementia. This art piece served as a window on dementia and the hospital itself, leading to a number of opportunities for design. It also however, managed to enable a ‘connection’ between staff and patients and in turn a patient maintaining a greater sense of self (Wallace et al. 9). This being a significant result as the decay of memory in dementia implies a challenge to sense of self and identity (Surr). The digital objects in this work are supporting the psychological functioning of the patients which in turn are contributing to the state of general hospital care. The success of the patients and staff was facilitated by rich digital design.

Designing digital objects to research, support and understand personhood, mental wellbeing, memory and other psychological functions is becoming more common in the area of psychology. Existing research on memory and digital media overlooks the aesthetic experience of artifactual forms of 'memory', and the potential of digital forms to play a role similar to, or distinctly different from, corporeal objects. Research now aims to understand the aesthetic experience of participants in memory ritual, particularly digitally-mediated memory rituals. Functional aspects of digitally-mediated memory can readily be seen, for example, in how one uses a calendar on their mobile phone to set a reminder, however, although not excluding the functional as an important aspect of the aesthetic the particular focus is now on interpreting aesthetic experience of categories such as memory, identity and autobiography.

During the 1960s technology was mostly under the guise of large computers, general problem solvers that worked very much in a global sense, giving rise to the mind as computer metaphor that compares the workings of the human mind to a computer, in such that a computer receives huge amounts of information that is then processed. This metaphor makes behaviour and information central whilst marginalising experiences, feeling and values, a metaphor that still has huge influence in cognitive psychology. However, advancements in technology are now calling a revisit to this metaphor. The word ‘digital’ now evokes a different image, it is no longer the large-scale information processors of the past, and it has become much more local, pervasive and specific; working in a more local than global way. As a result information and behaviour are now being marginalised whilst experience, feelings and values are coming to the forefront. Perhaps echoing what Donald refers to above regarding memory media changing, the role
digital plays in psychology has now gone from computational symbolic modeling to material external technology.

Research collection is also being transformed by technological advances. It could be said that traditional qualitative research in psychology has been dominated by the interview method and subsequent analysis of the text. However, more tools are being offered digitally which are allowing researchers to evoke participants’ narratives of experience in more novel ways and in turn encouraging a more pluralistic approach to analysis. An example of this would be digital storytelling. In perhaps a situation where a traditional interview would not evoke rich narrative, digital media can be used by participants to document their experience, emotions and thoughts.

So not only is psychology required to study our digital culture, this digital culture along with interdisciplinary dialogue, is also required to afford the discipline of psychology better tools to ensure its relevance, expertise and indeed conception as a discipline in today’s society.

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“Any good music must be an innovation.”
- Les Baxter

As we travel through the twenty-first century, we curiously adapt the technology around us to suit our needs. As musicians in the twenty-first century are no different from you and I, they do the same.

In the twentieth century we saw a rapid spurt of technological advances in applied sciences. It was at the dawn of this era that we first saw Count Ferdinand Von Zeppelin take to the sky and in a science lab somewhere in the world, the first radio was receiving messages through the aether. Over a period of only one hundred years we now fly through the air at thousands of kilometres per hour and almost every home on the planet has an old analogue radio receiver. So how has twenty-first century technology developed over the last decade and what does that mean for composers of modern contemporary music?

As technological advances have progressed, so have the manners in which we produce sound and music. Throughout the twentieth century we leaped through rapid accelerations in science, creating new musical instruments from this technology. The birth of electronic music took place, and electronic musical instruments took form from the output of engineering science labs. Engineering experts became composers and composers became sound scientists. Another interesting change that
occurred as technology became musical was that “noise” became art and electro-acoustics became entwined with the musical genre of old. It has been convincingly argued in literature how music technology has managed to shift human mental and physical orientations, encouraging the evolution of the industrious culture we live in today.

For many, sound is taken for granted. We are constantly bombarded with “noise” from the moment we are born. Be it the steady beat of a heart monitor or the smack of a doctors hand, in our first moments of existence in this world, we are submerged in sound. Even before birth scientists believe that a developing child in the womb can recognise voices and music and that these combined can effect a child’s development from within. So as sound is all around us from the start it’s no wonder that we strive to control its production with the modern tools we are given as we grow. Think back to when you were a child, were you given a pseudo-musical instrument early on?

What about the toys of today? Have you seen the electronic devices that are gifted upon the younger generation? It is no wonder that today’s musicians are using every means available to expose the inner workings of electronic sound generation to a public who just take these sounds as given, as something that comes from devices so simple a child can use them.

Comparing basic sound generating devices over generations highlights the technological advances of music technology in the twenty-first century. If we look at the images on our televisions, in our magazines, or on billboards, we can see that musicians are no longer wielding cumbersome guitars or holding drumsticks; they now have the power to generate music from within tiny boxes with less obvious means of sound production. This is the computer music generation and they are here to replace the old analogue electronic technology with digital sounds. Sounds which have no natural sound generating device that can be seen or held.

Digital technology can no longer be considered as a ‘new’ concept, as it’s been around now for a few decades. However, with digital technology we are presented with an almost limitless world of sonic and musical possibilities, which was initially only available for the large academic institutions that could afford massive computers and synthesis devices. This digital computing may have been around for a while, but it was never more affordable than it is today. Affordability of digital devices, such as laptop computers, means that the masses now have the means of manipulating the digital realm from their home or studio. Sound synthesis is only a quick click and download away and once you have the means, the possibilities are endless. These possibilities are restricted only by the end user’s ability or imagination.

The composition of music through computers is slowly replacing the more traditional paper and pencil methods of old.
This contemporary means of composition is also finding its way into traditional musical genre. It is not unnatural for jazz musicians to have digital improvisations accompanying them on a CD or on-stage. Computer music can no longer be confined to just the electronic music taxon; it is now a tool to be wielded by all who possess a computer. Current processor speeds can quite easily handle real-time sound synthesis and the software is designed to be graphically pleasing and intuitive to operate.

In the early stages of the twenty-first century we are embracing the digital as an old friend and are incorporating it into everything we can. As computers become faster, the means through which we express our musicality has become more extravagant.

Our input device is no longer a long string of complicated coding to produce a colourful tone, but a simple hand gesture that can be recognised as a control parameter that will change anything the musician desires. You see, sensor technology is also a major influence on the computer music generation. The means by which a musician interacts with his digital creations is also mutating, controlled only by the direction of technological advancements in this field.

Not only are infra-red and motion sensors readily available from electronic stores and internet distributors, but motion tracking devices are being introduced into the home via games consoles. The Wii controller release in 2006 revolutionised home computer entertainment and it wasn't long after that this controller was reverse engineered and applied to musical applications. Recent releases include the Sony PlayStation Move controller, with the ability to track movement and location through the use of technology similar to that of the Wii and the use of a camera. Also, Microsoft have launched the Xbox 360 Kinect system, which relies only on observation of motion to control game movements. How long before these are incorporated into twenty-first century music technology? The answer is almost instantly. Examples of the use of these devices without a games console are available online to view today. Hacking this technology is not readily accepted by the distributor, but it is impossible to stop the curious minds of creative individuals.

The concepts, ideas and even the technology of the newly released to the public controllers is by no means ‘new’ either. Academic research has been carried out for decades on capturing gestures for musical manipulation, but this was limited to the elite institutes specialising in these fields and was not available for the average amateur to reconstruct and manipulate for their own means.

And yet, as time creeps forwards in this century, there are those among us who yearn and even cry out for a revival of the old technology. The clinical sound of a perfectly constructed waveform is almost painful to the ears of some fans of the
analogue world. The need for society to relive the old, for a
trend to come around again and again requires the same
technology to be reproduced and revisited. So we reach a
peculiar point in time. One which sees us being given more
freedom of expression than any other generation before us and
yet we are still pining for the ‘old’ sounds that coevals of the last
century were limited to.

The ‘cut and paste’ computer generation is now faced with a
hunger to go out and gather their own means of sound
generation and the construction of analogue devices to
reproduce the ‘warmth’ in music that is somewhat missing in
today’s home produced music. Musicians are rummaging
through the attics, storage rooms and secondhand stores trying
to reclaim that which was disposed of in order to make room for
the new.

So what we see today, after living through the first decade, is
an amalgamation of old and new ideas being brought to the
public and laid on their lap. The general populous are being
given the creative freedom to manipulate old technologies, the
freedom to develop new and interesting sounds digitally, and
they are being offered the opportunity to do so at a fraction of
what it used to cost. How lucky we are to be given such
freedom, how lucky we are to live in the twenty-first century.

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Oral History in the Digital Age: Issues and Possibilities
Sara Goek

Sara Goek completed a B.A. in Irish Studies and History at Boston College in 2010 and an M.A. in History at University College Cork in 2011 titled ‘Music & Memories: Irish Emigrant Experiences, 1945-1970’. She is currently pursuing a Ph.D. in History / Digital Arts & Humanities at UCC under the supervision of Dr Andy Bielenberg.

Her main research interests are oral history, Irish migration, identity, and cultural history. Her other passion is playing Irish traditional music on flute and fiddle.

Oral history emerged after World War II primarily as a means of bringing the voices and experiences of ordinary people and marginalized groups into the study of history, yet for many years those stories remained closeted in scholarly texts and archives. While interviews involve some mediation by the researcher asking the questions, they also preserve the original words and voice of the speaker, which is especially significant for people who might not otherwise leave a written record of their experiences. This democratising intent lends oral history a unique position with regards to online archives, because the proliferation of internet access and the digitisation of archival collections means now anyone can gain access to some of that history, their history, with a few clicks of a mouse. Alastair Thomson calls the ongoing ‘digital revolution’ one of the four main paradigm shifts in oral history since it emerged as a serious historical practice over sixty years ago. However, the full outcome and implications of this transformation as yet remain unclear and many possibilities, as well as questions, present themselves. Many archives have embraced the digital age, devoting resources to digitizing analog sources and making them freely available online, but doing this for oral history recordings raises many issues. These include ethical and legal concerns including copyright and permissions required to make recordings freely available[1]. While those questions hold a great deal of weight, the focus of this essay is how best to present the content to a wide audience while also
preserving its integrity: what is the unique nature of oral history and how do new technologies have the potential to reassert and present it?

Oral history can be viewed as both a methodology and area of study within the broader historical discipline. The first category applies to collecting and archiving sources, but the second remains equally important because of the need to utilize, study, and interpret those sources. Oral history is often defined in relation to two other areas, documentary history and oral tradition, though differing from both. It relates to the former because it involves capturing or recording the experiences of individuals as fixed ‘documents’ and to the latter because of its inherent orality (Moss 9-10). Within the historical discipline many scholars view oral history in terms oppositional to conventional ‘written history’, associating it with popular history, local history, or micro-narratives. Unfortunately, even some who pursue oral history seem to adhere to this dichotomy, including Kevin Kearns, author of numerous books on Dublin life and people. He sees oral history as a corrective to ‘the standard written record’ because it documents ‘the participation of ordinary people in historical circumstances or events’ (4). In doing so, it can ‘humanise’ the sometimes ‘detached’ work of historians (6). In some respects he makes a valid point, but what Kearns and many others fail to fully acknowledge is that oral and written history are not mutually exclusive and need not have such a definitive contrast in practice. In fact, juxtaposing the two methods can effectively highlight the benefits and limitations of each. In broad terms then, oral history includes the collection and study of oral accounts of historical experiences and it can serve to both supplement and expand our understanding of eras and events.

Though many practitioners claim that once all history was oral (based on firsthand accounts), in its modern form, oral history only emerged after the Second World War and garnered attention from 1965 onwards. Its development varied in different locations: in the United States scholars used it in conjunction with political history as another source of information on the lives of society’s elites, though arguably one of the first oral history projects was the depression-era Federal Writers’ Project collection of narratives from former slaves[2]. In Britain, oral history rose to prominence in connection with social and Marxist history, both of which sought to include the lives of ‘ordinary’ people in historical study. These developments took place alongside the proliferation of more affordable and transportable audio recording technology, allowing the capturing of voices on tape as well as in writing. Many more recent projects include video as well. Today, oral history has become ubiquitous, found everywhere from primary schools to community groups to academia, but within the latter it is primarily associated with recording the experiences of historically silenced or previously undocumented groups, particularly women, workers, and migrants.
Thus, its main potential is the democratization of both the historical record and the discipline of history, which until the mid-twentieth century concerned mainly the study of white, male, political elites. Paul Thompson addresses this issue in his landmark book first published in 1978, *The Voice of the Past*:

Oral history certainly can be a means for transforming both the content and the purpose of history. It can be used to change the focus of history itself, and open up new areas of inquiry; it can break down barriers between teachers and students, between generations, between educational institutions and the world outside; and in the writing of history – whether in books, or museums, or radio and film – it can give back to the people who made and experienced history, through their own words, a central place. (3)

Here, Thompson sets out two main steps necessary for oral history to fully transform history as a discipline: a change in the content through the chosen subjects of study, and a change in purpose by breaking down barriers between academics and everyone else. Oral history and social history combined seem to have achieved the former: within the academic field they have gained acceptance and become widespread. Arguably, the full potential remains beyond reach with regards to the second point because many sources, once created, remain locked away in personal or institutional archives and accessible only by researchers or through edited and published excerpts of transcripts. Thus, the academy’s mediation and control of sources for historical study persists (in connection with the commercial interests of publishers) and the public does not have full access to its own history. The promise of digital history may have a significant role to play in giving ‘back to the people’ through open-access digital archives[3].

Much of the work in digital history, and the digital humanities in general, focuses on putting archival material online and access has long been agreed to be a main (if not the main) potential of the internet for historians. The digital revolution has resulted in a changing focus of archives and archivists from storage to access, requiring a complete alteration of thinking (Menne-Haritz). However, access involves more than simply depositing materials on a website and digitization alone does not really justify a whole field of academic study. The true potential of the technology in the humanities is the ability to find relationships among sources in a way that explodes the linear limitations of print material, though many digital resources fail to do this adequately. As Randy Bass said for the American Studies Crossroads Project in 1996, ‘the real power of these materials will not come from sheer access to primary resources, but the connections that can be made across them and the visibility of the process of the work being done on them’ (De Ruyver & Evans 943). Though many have taken steps in this direction,
the promise and potential of the digital medium for the humanities still evolves[4].

A central issue to address when considering the potential for oral history in the digital age is the dominance of the transcript. Despite the obvious limitations of translating the spoken word into written language, much academic literature focuses on debates over best practices and standards for transcribing interviews, rather than questioning the reliance on that very practice. Raphael Samuel warned in his article ‘Perils of the Transcript’, which appeared in the second issue of the journal *Oral History* in 1972, that a ‘serious distortion occurs when the spoken word is boxed into the categories of written prose… People do not usually speak in paragraphs, and what they have to say does not usually follow an ordered sequence of comma, semi-colon, and full stop; yet very often this is the way in which their speech is reproduced’ (19). By transcribing all interviews and then referring only to the transcripts, we forget that the original source is in fact the spoken word. As Alessandro Portelli asserts in his essay ‘What makes oral history different?’ a significant part of that difference is its *orality*, which reliance on transcripts obviates (63). No one suggests only the words themselves contain meaning, when in fact meaning can also exist in tone of voice, facial expression, or gestures. However, ‘to the extent we are restricted to text and transcription, we will never locate such moments and meaning, much less have the chance to study, reflect on, learn from, and share them’ (Frisch, “Oral History and the Digital Revolution”). Those present for an interview may always remember the context, inflections of the voice, or look in the eyes that gives the words added meaning, certainly whenever I read over a transcript of an interview I did myself the speaker’s voice comes into my mind, but it is impossible to write that things into a printed transcript[5].

Part of the reliance on transcription over the last several decades stemmed from the perceived difficulties of working with analog audio or video. On a tape, audio must be listened to in a linear fashion and skipping from one part of an interview to another can prove nearly impossible. Text, on the other hand, is easily accessible in print or digital form whether reading, skimming quickly, searching, or distributing it. Nonetheless, the continued reliance of oral historians on text remains somewhat contradictory. New technologies offer the potential to reassert the *orality* of oral history because they can make audio recordings more user-friendly with the ability to skip around within a sound file and clip out or tag selections. Theoretically then, audio or visual material can be just as accessible as text. However, Michael Frisch identifies a paradox in the intersection of oral history and the digital in that technology has often reinforced text-based conventions (“Three Dimensions and More”). Search-engines look for text and online oral history archives provide transcripts rather than focusing on new, dynamic and interactive means for presenting audio or visual material.
The social nature of oral history is another unique feature that affects its use and meaning. Memories are created in a social context and shaped over time as the teller’s life changes and he or she tells and retells the stories. The interview itself is also a social interaction: Thompson states that ‘remembering in an interview is a mutual process, which requires understanding on both sides’ (157). Each side must to some extent try to understand the perspective of the other and this social positioning can influence the nature and content of the interview. For example, Levin describes young students interviewing an elderly Holocaust survivor who gave his story additional resonance for them by recalling that his sister had died in Auschwitz at age 16, the same age as the students (20-21). This no doubt emotionally affected both interviewee and interviewers and shows the social nature of oral history because had the interviewee been speaking to a different type of audience, no doubt the story would have sounded slightly different. No personal recollection is ever the same twice and yet, as Yans-McLaughlin argues, historians tend to treat oral narratives as they would documents, without fully acknowledging them to be the product of collaborations (256). Therefore, one of the main difficulties facing oral history rests in a failure to come to terms with how the methodology (interviewing) distinguishes the type of sources created and therefore should distinguish how they are used. This has relevance for a digital oral history archive because one would hope that those who use and access the sources would understand and respect their provenance and unique nature.

Oral history then has several distinctive characteristics that affect its practice and use: it is both a methodology and field; it is both personal, relating to the experiences of individuals, and social, shaped by a process of interactions; it has become an accepted part of academic historical study, which has long privileged the study of written records, and yet is inherently oral rather than textual. New technologies have the potential to change the way we record, preserve, catalogue, interpret, share, and present oral histories, while maintaining their essential qualities (Thomson 68). Instead of reinforcing the dominance of the static, transcription-based use of oral histories, the digital can reassert their orality and fluid nature. This is possible because of the ability to access digital information nearly instantaneously and because on the internet, all information, textual, visual, and aural can reside in the same medium, organized and integrated to promote a dynamic understanding among users (Frisch, “Oral History and the Digital Revolution”).

Even more importantly, the digital can reassert one of the original intents of oral history: the inclusion of the voices and experiences of ordinary people and marginalized in the study of history, thus democratizing the historical record. Samuel made quite prescient comments in 1972, worth quoting in full, when
he said that the oral historian, ‘the collector of the spoken word,’ had a unique role:

His role, properly conceived, is that of archivist, as well as historian, retrieving and storing priceless information which would otherwise be lost... His greatest contribution may well be in the collecting and safe preservation of his material rather than in the use he can immediately find for it, or the way he writes it up. However intelligent and well thought out his work, it is inconceivable that his will be the only selection of text that could be made... Historians in the future will bring fresh interests to bear upon the materials we collect; they will be asking different questions and seeking different answers. And the more successful we are in executing our own research tasks, the more likely it is that their work will diverge from our own. Unless recordings can be preserved in their original integrity, and made freely available for other researchers to consult, they will remain locked forever in the preoccupations of the collector, immune to criticism, and incapable of serving as a base for a continuing enquiry. (22)

He makes an important point regarding the importance of the spoken word: once the speakers have passed on, their voices, memories, and store of information are forever lost unless someone has taken the time to record them. The original impetus for the recording may serve the purposes of a particular inquiry, but if the record remains accessible it could have innumerable uses to historians of the future. Long before the concept of a digital archive accessible via an internet connection anywhere in the world, Samuel recognized the importance of access as well as preservation in his message. While this is true of most historical sources, personal experiences and memories offer a unique insight on the past. Oral history cannot democratize the historical record by including the voices of the people if those voices remain muted in boxes on dark library shelves. Though it may be a complicated process fraught with ethical or technical questions, only through the opening up of oral history sources to the public, in a way that preserves their nature and integrity, can they truly have the potential to alter the ‘content and purpose of history’, as Thompson called for, by promoting further inquiry (3).

Notes


[2] Writers employed by the Works Progress Administration collected and wrote the stories of former slaves (physically, rather than recorded on audio) between 1936 and 1938. They are now held at the Library of Congress and available online.

[3] When full interviews are placed in an online archive, there is limited editing, selection, or interpretation by the researcher, especially compared to publishing transcripts in a book. Of course, to a certain degree the historian or researcher will always control the discourse through selecting the contributors and asking the questions, but a life story approach to interviews can minimize this intervention.


[5] While there is much to be said for capturing facial expressions and gestures on video, in practice I personally prefer to use only an audio recording device when carrying out interviews. I find it easier to help the interviewee relax (and for me to relax) when there is only a small digital audio recorder sitting on the table, rather than a video camera pointed in the subject’s face. This does limit the meaning preserved within the recording to the ‘oral’, but it still preserves much more than a written transcript.

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Offering a short reflection on a topic that you are studying in
great depth is a challenging task. Without a tangible research
question, and the promise of an answer to that question – both
of which act as something of a compass – you find yourself in
what can only be described as a wilderness. Emerging from
that wilderness isn’t the purpose of such a process, perhaps,
but rather, the purpose is to document what went on during
your travels.

The original draft of this essay sought to reflect on textual
analysis, and from here, address its (oddly) estranged
electronic cousin. This particular approach was abandoned
when it became clear that the intended task was sufficiently
difficult on its own without establishing an equally complex
foundation. Instead, let’s just take a readymade definition, one
that is widely accepted and has been offered by a respected
scholar, as our pathway into this wilderness. There are many
such definitions of course, but in this instance, I’m going to
select one that I feel is sufficiently forthright in its construction:
‘When we perform textual analysis on a text, we make an
educated guess at some of the most likely interpretations that
might be made of that text’ (McKee 1). This is precisely what
electronic textual analysis offers us, the potential to make an
‘educated guess’ as to what the ‘most likely interpretation’ of a
text might be – via electronic means, of course.

Electronic Textual Analysis: What and Why?
James O’Sullivan (twitter @jamescosullivan)

James O’Sullivan is a graduate of both University
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technology and social computing. His doctoral
research is concerned with textual remediation and
its associated forms, electronic textual analysis and
critical theory in the Digital Age.

Further information on James and his interests can
be found at josullivan.org.
Socrates was once dismissed as nothing more than an immoral corrupter of youth, a description that might not be so readily applied today. Ideas that are perceived as radical can cause cultural upheavals that will draw both positive and negative reactions. The printing press was one such upheaval, as was the computer. In relation to the current topic, the latter is perhaps more interesting than the former, as it would appear that we have failed to, as McGann so aptly puts it in his 2004 essay on the state of the digital humanities, ‘emulate the humanists of the fifteenth century who were confronted with a similar upheaval of their materials, means, and modes of knowledge production’ (411). The dominance of print – culturally, socially, economically and academically – is evidence enough of how effectively our predecessors responded to previous cultural shifts in relation to how the text is perceived. Having reached the next juncture in the ‘long lineage of first contact narratives in media history’ (Liu), we again find ‘radical’ ideas being received with mixed emotions. In spite of how his teachings were first received, Socrates is now held in high esteem, and in his place, as the corruptor of youth – or so it would seem – stands the digital humanist.

The processes used in textual interpretation have not remained as static as some would suggest. First there was the printing press, and now there is the electronic edition. This is not the history of textual studies. Both the printing press and the electronic edition are modes of production – production, and analysis of the cultural artefact produced, are very different matters. Textual analysis is about the application of a methodology to a text, and extracting from that text, as already noted, a meaning that can be sufficiently justified. Approaches to interpretation are numerous and, more importantly, remarkably protean. Where one scholar might apply a feminist reading to Frankenstein, another might dismiss such an approach. We are faced with such a multitude of ‘-isms’ that the task of literary interpretation has become a methodological minefield. But the purpose of traversing this minefield remains fruitful, and so when an additional approach does present itself, it is strange to see that some would step back in revulsion. Fish wrote in his (Web-based) column with The New York Times that the approach of the digital humanist is the ‘reverse’ of that which is practiced by the traditional critic: ‘first you run the numbers, and then you see if they prompt an interpretive hypothesis,’ he claims. He goes on to state that this ‘method, if it can be called that, is dictated by the capability of the tool’, and once a pattern does emerge from the chosen tool, you do not know how to ‘proceed’ as you don’t actually know ‘what you’re looking for’. I disagree with this argument on two points. Firstly, if we all knew what we were looking for before we sat down to interpret a text then it wouldn’t take years of close reading for so many a finding to emerge. Oftentimes, the particulars and deeper meaning in a literary text do not emerge as and when expected. Secondly, to say that electronic textual analysis relies
on the extraction of data first, and the application of some ad-hoc interpretation second, is incorrect. There are countless examples of electronic textual scholarship where critics have approached a corpus with an idea of what it is that they were seeking to identify, and have simply used this new approach as a method for confirming their beliefs.

Electronic textual analysis, like any critical method, has its drawbacks, but one of these is not that it is in fact a method (I will shed further clarity on this point as we progress). Digital humanities is only a method. This is a common argument, and one that I refute. Digital humanities is an emerging discipline, not simply a methodology within existing academic fields (an argument that is beyond the scope of this particular discourse I'm afraid), but it does have within it, the same as any discipline, a series of methods that are utilised throughout the research process. Dismissing electronic textual analysis, therefore, as simply a methodology, would be akin to criticising someone for using any strand of critical theory. Still, however, we have not yet reflected upon electronic textual analysis, but rather, examined its surprisingly controversial position within the academic world. Putting this aside, the question still remains: why conduct textual analysis electronically? And there you have it, the question that may point the way out of the wilderness.

Electronic textual analysis does not provide interpretation; it provides trends upon which the 'most likely' interpretations may be justified. I was fortunate enough to recently attend a workshop on R scripting with Stanford’s Dr Matt Jockers, from which an example of the benefits of such analysis can be drawn. Dr Jockers presented to us an electronic edition of Moby-Dick, and proceeded to inform us that his aim was to prove to us that there was a distinct pattern in the chronology and frequency of appearances made by both the whale and Captain Ahab throughout the narrative. It is beyond the scope of this reflection to delve into that pattern – nor is it mine to delve into – but rather, what is important is that to confirm this pattern, we had two choices. We could each have taken up our writing materials and scanned through the text line by line, keeping some record of both characters’ mention, after which we could have correlated our findings in some inexact way to present what would appear as an interpretation based on a highly subjective reading. Or alternatively, we could use R scripting to construct a frequency diagram from which Dr Jockers’ suggestion could be confirmed (and further expanded upon in the event of any other unforeseen trends). This is the potential of electronic textual analysis. It is not an approach designed to replace traditional literary criticism, but rather, supplement it.

The trouble with electronic textual analysis – like all interpretive practices it is not without its flaws – is that it requires specialist expertise. In addition, it requires reliable sources from which literary and textual critics can extract data – data that can be
used to form meaning; shape and justify interpretations. Many digital humanists are of the belief that digital humanities will one day be ‘just humanities’, but this will never come to pass unless both groups of scholars and practitioners agree to give something up (which they shouldn’t). One cannot expect all humanists to understand logic and programming, and by the same token, digital humanists should not be expected to halt their exploration of technology’s new avenues in an effort to re-think how we approach and answer age-old questions. The disciplines will remain separate because the people and processes of discovery will remain separate. That is not to say that the disciplines are not related, but they are not, nor will they ever be, the same. There will be those few who possess considerable expertise in both fields, but this will be the exception. Herein lies the first issue with electronic textual analysis: generally, those who are interested in the study of literature are not familiar with the construction of scripts suited to textual analysis. There will always be ‘out-of-the-box’ solutions, but these are limited in that they cannot be adapted to meet a specific purpose without a familiarity with the language through which they have been developed. The flip side of this is that those who are familiar with programming languages are often too analytic for interpretative assessments, or rather, are more concerned with more objective pursuits. Mastering one discipline is difficult enough – mastering two is for many unachievable, if not undesirable.

The first issue can be overcome through collaboration. However, the second issue – the provision of reliable sources – is perhaps more pressing in terms of literary analysis, and it is a weakness that is, for some reason, often touted as something of a strength. Many scholars who have dipped their toes in the field of electronic textual analysis will tell you that it is liberating, liberating in the sense that it frees you from many of the typical restrictions presented in any traditional scholarly pursuit. Accessibility, they say, is one such liberating factor – studying the great texts is no longer reserved for those with access to the libraries in which they are housed, for digitisation and internetworking has made the study of text geographically independent. The reality is anything but, and it was in fact easier for me to acquire a physical copy of Ulysses – the first edition facsimile being offered by Martino Publishing – than it was for me to prepare a digital edition of the text suited to electronic textual analysis. Accessibility, it would seem, has ironically remained with the print edition, and will remain so until some group with appropriate funding and expertise decides to provide a scholarly (perhaps TEI-compliant) Project Gutenberg. It is unlikely that any such project will emerge.

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As an artist trained in interactive and media installation art, I find myself heavily attracted to the use of media in plays. Interactive technologies such as live video analysis and real time audio manipulation have immense creative potential when matched with talented actors, dancer, movers, and thinkers. In installation settings, media art initially stands separate from the audience, as an object to be analyzed, or as an interactive environment to be learned. Upon crossing the boundary from installation to performance, media no longer faces an audience alone, as an estranged and curious object of scrutiny: it instead gains a human component, serving as a collaborator working with and for the narrative, or as an instrument that can be practiced and perfected. Jenifer Parker-Starbuck describes this human-technological performance collaboration as “Cyborg Theater,” which entails “the re-imagination of performance that relies on both live bodies and varying forms of technology” (218). Upon entering the theater realm, I had hoped that in the context of performance, these media technologies could be fine tuned, manipulated, practiced, and perfected beyond what could be achieved in a gallery or installation setting.

After having worked as a video designer for several plays, I felt this ideal synergy of actor and media was sometimes hindered by the creative process through which the play was developed. Within each play, despite the level of premeditation put into the

The Wooster Group and Cyborg Theater
Sara Wentworth

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Sara has worked collaboratively with theatre groups and individually as an installation artist in New York and Ireland. She is currently pursuing a Ph.D. in Digital Arts and Humanities at University College Cork, researching correlations between computer memory and our own, human, methods of storage and recollection, and how these define and represent us individually and as a society.
use of media within the piece, each element of the play would be developed on their own accord. The actors would practice their lines, the set would be built, the video would be programmed, and shortly before opening night (and in some cases, on opening night), all ingredients would finally be thrown together, for better or for worse. This process of creating multimedia theater seemed counterproductive to maximizing the potential of human-media performance. The machine was present; so was the human: but the cyborg was missing.

Upon researching the use of multimedia in theater, and the process and practices thereof, through reputation and word of mouth I discovered the Wooster Group. The Wooster Group has been together since 1975, developed by director Elizabeth LeCompte with Spalding Gray, Ron Vawter, Libby Howes, Willem Dafoe, Jim Clayburgh, Peyton Smith, and Kate Valk, out of The Performance Group established by Richard Schechner in 1967 (Quick 9). Upon the disbanding of the Performance Group in 1980, The Wooster group gained ownership of the previously shared Performing Garage on Wooster Street in SoHo, where they have been creating work ever since (Quick 10). Today, they are well known for their stubbornly avant-garde work (Savran 12), deconstructive approach of source texts (Challens 189), and heavy use of video and aural manipulation (Parker-Starbuck 217).

What interested me most was their complicated, well-rehearsed choreography between actor and video, and the relational inter-texts therein. As described beautifully by Bonnie Marranca, within a piece, the group would “pull a quote from here, take that paragraph, take out the whole section, cut the play apart, redo it, retranslate, show it on video, record it, perform it live, do it all at once. Collage is the aesthetic strategy at play” (110). This ‘collage’ aesthetic leads beautifully to the well practiced, well choreographed, complete integration of technology with performance, the ‘cyborg,’ which I was seeking. Words, video, movement, pace, and space are inextricably intertwined within the work of the Wooster Group.

Upon an interview with Andrew Schneider, the Wooster Group’s current video designer, I began to see the concept of collage as a fairly accurate description of the group’s approach to the creation of new work. According to Andrew, the creation of a new work is incredibly organic. Sources are brought in by anyone, every element informs all others, and no element takes precedence over others: “Everything develops around everything else… there’s the text... that’s a central thing...but you can’t even say it like that... the text falls by the wayside sometimes as well... it can become musical, everything is holding everything else up and everything changes when every element is brought in.”
In response to inquiry about what he believes works and doesn’t work in the context of video in performance, he said:

Liz has an ability to make anything work... It’s not about the technology, it’s not about the video; video is old hat. The successful integration of the video lies in the eyes and ears of Liz and in the way she takes everything and she composes it as imagery, as sound, as music... She won’t fall into the gimmick, and even if it is a gimmick, it knows it’s a gimmick, and it’s ok. There are no rules. It’s all about the details: It’s all about the detail work. We’ve been working on this piece (Vieux Carré) for two years. It’s all... about... the details. That’s what... in the end... makes it successful.

Given this idea of composition as collage or music and this extreme attention to detail, I would like to explore the unique ways in which the Wooster Group uses video, as derived by this process. These uses include the use of video to define and describe space, as a source material, and as choreography.

One of the first and most common uses of video in theater is as a spatial element (Dixon 336). Some, exemplified by George Coates Performance Works, utilize video to create artificial scenography and spatial environments, “to create an illusion of live actors inhabiting immersive three dimensional settings with an acute sense of realistic, vanishing perspective” (Dixon 338).

The Wooster group discards this attempt at illusion in favor of a more Brechtian use of media, highlighting the technical functionality of mounted, moveable screens. Rather than utilizing the spatial and perspective capabilities of video as a medium in and of itself, the group makes use of the space in between the screen images and live performers, and the spatial relationship of the monitors with the structure of the architecture, treating the set as an installation within which the actors perform (Dixon 337).

In To You, The Birdie, space, and the movement within space, is treated very methodically. The set is extremely symmetrical; the focus being a badminton court, placed on a slightly elevated court platform, with steps on each end, and swimming-pool handrails and benches behind the platform. Two flat, vertically mobile plasma screens reside center stage on opposing sides of the platform. Within this architecture, each character maintains a clear association with certain sections of the stage (Jakovljevic 94). This emphasis on space is further played upon in the physical and theatrical relationship of actor and monitor. At points throughout the piece, the monitors cover the characters. What is revealed on the screen at some times seems to be a live feed of what is being concealed by the monitor, other times it becomes apparent, through idiosyncrasies of speed and jumpiness of footage, or through magically appearing objects, such as Phaedra’s shoes, that what is being shown is pre-recorded. Thus, video becomes
both an extension of the body as well as a method of immersing the body into the set. This illustrates what Branislav Jakovljevic defines as “the theatrical use of video... its full integration in the theatrical game of revealing and concealing.” The attention to space is set up by the detail of symmetry of set structure and character blocking, and reinforced through the interplay of the space ‘behind’ the monitors as depicted through video.

In The Wooster Group’s production of *Hamlet*, the video is not only a construct of the architecture: it dictates architectural movement and change. In their program note from The Public Theater, the group explains:

Richard Burton’s *Hamlet*, a 1964 Broadway production, was recorded in live performance from 17 camera angles and edited into a film that was shown for only two days in 2000 movie houses across the United States. The idea of bringing live theater experience to thousands of simultaneous viewers in different cities was trumpeted as a new form called “Theatrofilm,” made possible through “the miracle of Electronovision.” Our Hamlet attempts to reverse the process, reconstructing a hypothetical theater piece from the fragmentary evidence of the edited film, like an archeologist inferring a temple from a collection of ruins. (Wooster Group)

The entire set was a mobile reproduction of Burton’s 1964 production, able to move at the whim of a camera zoom or a film cut, repositioning itself, actors and all, to the new perspective. When the camera froze, jumped, or glitched, so did every actor on stage, in sync with the footage. Rather than using video to extend the performance space, in *Hamlet*, The Wooster Group uses the performance space to extend the video.

Within the Wooster Group’s creative process, as well as setting the stage and describing space, video also is utilized as source material in development of new pieces. According to Andrew Schneider, one of the group’s starting points is to simply sit down and watch a movie together:

It usually starts with a text and a movie or just a movie or just a text, and slowly, different sources will come in, and we’ll roll those together. All the technical elements are there from the beginning. They’re not complete, but they’re there. In my experience, there has been no original, central concept. *Hamlet* may have had a central concept, but... for... *Vieux Carré*, there was no central concept... it was, “lets do *Vieux Carré*, let’s watch some movies... and instead of taking the blocking, instead of taking the actual words from the movie... lets take the blocking, the language, the feel from
these other three Morrissey films, and then for the first few weeks, we just played with these in the space.

Like *Vieux Carré* and *Hamlet*, several other Wooster group productions were at least partially inspired by film. According to the Wooster Group Website, in *La Didone*, Francesco Cavalli’s opera (1641) and Mario Bava’s cult movie *Terrore nello spazio* (1965) “collide in a war-like symbiosis, dropping Aeneas’ ships onto a forbidding planetary landscape and forming a synergy between early baroque opera and pre-moonlanding sci-fi.” (website). *House Lights* intertwines Gertrude Stein’s play *Doctor Faustus Lights the Lights* with Joseph Mawra’s B-movie classic, *Olga’s House of Shame*. The Wooster group treats video as a score as much as one would use a text score or a music score; as a way to instruct movement, script, tone, mood, or anything the group wishes to extract from the original to add to their collage.

A common thread among Wooster Group performances is the ‘channeling’ of characters from selected source films. Monitors are placed on and around the stage, not for the audience, but for the actors to use as a source for choreography and mood. In an interview, Willem Dafoe explains to Philip Auslander that to the performers, media is a tool to problem-solve:

> They’re just tools, and sometimes we use them to actually take us away from ourselves, to take control away from us. We have to cooperate with them. In this piece (*To You, The Birdie*), there are video screens that the audience does not see and there’s a video that we use as subtext basically, physical subtext. They aren’t things that we necessarily copy but they inform how we’re doing something. It’s like if I’m talking to you, I’m talking to you but I may be looking at a Bugs Bunny cartoon. That’s going to affect how I’m talking to you and particularly if we play around with some imitations, some dialogue, with that unseen technology. If I’m watching, you know, a porno film, it’s going to change how I talk to you. (Auslander 102)

As with the restaging of *Hamlet*, as well as in *House Lights* and in *To You, The Birdie*, through the intermixing of source video and live footage, lines are blurred within the screens as to what is happening in real time, what has been pre-recorded by the group, and what is source material. According to Dafoe, this is further worked into the choreography of the piece:

> We do a lot of mix of live and prerecorded stuff and that really is interesting because you have to figure out the mix all the time. You’re a little off-balance. You’re always a little fluid. You can’t hunker down and absolutely control the performance because you’ve always got to reconsider the mix. Because
even though you’re working maybe with the same tracks, how it gets mixed each night by the technicians, who are basically performers – unseen performers – and how you feel that according to your feelings and how it comes to you. (Auslander 102)

In the end, the actors are using film as choreographer and mood setter. The actors are then filmed and mixed in real time with prerecorded video, which further effects the way they act.

If the ideal of using video in theater is to find the perfect balance between the media and the human; to create Cyborg Theater, which relies on both live bodies and technology; then beginning with media, or at least introducing it to the actors at the beginning of the process, is key to an integrated actor-technology relationship. Collage is absolutely the aesthetic at play: collage as an approach to performance lends to an ideal marriage of art and technology, in which technology is no longer simply a prosthetic, but an integrated, integral part of a piece. Every element introduced informs all other elements, and the combined elements further inform future developments. This interrelation creates cohesion within the piece apparent even through the chaos of the fragmented, reassembled regurgitation of source material. The monitors and their motions are placed strategically in accord with the architecture of the performance space; and performance space is sculpted, manipulated, and defined by the media content. Media is used as a starting point for developing the content of a play, introducing it to the piece physically and conceptually from the earliest stages of the creative process. Actors use media as a tool for acting, as a springboard for ideas and to set the mood. This media-influenced performance is further integrated with media through live mixing of the real and pre-recorded, blurring the lines between the two.

Through this approach, it becomes impossible for elements of a piece to develop independently of others, eradicating the awkward last-minute union of set, narrative, live body, and media. The actors are comfortable working with the media from the beginning, and have an active role in deciding on how these technologies could be explored in context of interrelation with space and body. Space, architecture, movement, bodies, and video unify into one large, mediated collage. Through the Wooster Group, Cyborg Theater is fully realized.

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WHAT'S PAST IS PROLOGUE. This quote from Shakespeare’s *The Tempest* adorns the façade of the National Archives in Washington and sets out what the overarching concern is for many (if not all) cultural institutions. Our existence, our very identities, is intrinsically linked to the actions of countless other people that walked on this earth before us. How can we possibly understand who we are and what our lives mean without understanding our shared cultural heritage? I would go further and assert that to truly understand what the meaning of life is (that damnable philosophical conundrum that plagues us all) we should not turn to science, but rather history. I do not mean history in the sense of wars and monarchs, in this context it is a far more colourful history that includes art, literature, music and the lives intertwined in the production of our varied cultural legacy. The past decade has seen an explosion in the use of digital technology by cultural institutions to promote their collections and to provide unprecedented access to their inner workings to the general public. Using digital technology for advocacy has the effect of giving a sense of ownership of cultural institutions back to the general public.

One of the most profound effects the digital era has had on cultural institutions, as with every other business and industry worldwide, is through the increased use of information communications technology. Most archives, museums, heritage sites and libraries maintain social networking accounts and

How the Digital Age can Open Cultural Institutions

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blogs. Through these platforms they provide insights into what they do and how they work. Many of these institutions also regularly upload digitised material that they feel may be of interest to the public. In some cases they are actively seeking the public’s assistance identifying with material that they are having difficulty identifying. The National Library of Ireland uses flickr to enlist help in identifying photographs in their collections (Miller). Cultural institutions are built upon preserving the collective output of society, and it stands to reason that they have a finite knowledge themselves. In instances where they reach out for public assistance they are opening a dialogue with their community of users that implicitly acknowledges that we all have a stake to play in maintaining our cultural legacy. This is why when one consults the online census records there is a link to report any errors. Collectively we can achieve more than we ever could in small groups. Collective problem solving is in our nature, but digital communications allow us to achieve this on an unbelievable scale. This is why many cultural institutions worldwide now look to crowd-sourcing to help accomplish large tasks in a very short space of time. This two way dialogue between the public and the cultural institutions that serve them is beneficial in a myriad of ways. It allows institutions that are generally underfunded and understaffed to more effectively deploy their resources and it gives society at large a greater sense of ownership and participation in organisations that at one time may have appeared rather aloof and separate from the communities they serve. Of course communication is only a very small part of what digital technology can do to assist cultural advocacy.

The centralised nature of these institutions does present some rather difficult challenges in engaging a broad spectrum of the society they are meant to represent. Although the National Museum and National Library hold a wide variety of collections from around the country it can be quite a challenge to engage with residents of North-West Connemara or other isolated locations who may not feel any particular affinity with institutions based in Dublin. Travelling exhibitions are regularly used to try and serve different parts of the country, but the unique nature of many of the materials that would be put on display in Dublin means that they more often than not cannot be sent around the country for insurance reasons. The rapid development of digital imaging and relative ease of online exhibition software goes a long way towards being able to engage people from around the country at very little expense and in a far more interactive manner. As an advocacy tool online exhibitions are one of the most effective and efficient means of engaging a wide audience. They put no pressure on space which is at a premium in organisations that have been full to capacity for several years. They can maintain several dynamic exhibitions simultaneously. They are accessible by anyone worldwide who has access to the internet, allowing them to reach out to an international audience. They can also
be used to showcase objects which are rarely, if ever, made accessible to the public due to preservation concerns or the value of the item.

Virtual tours provide a level of accessibility and contextualisation that would have previously been quite difficult to provide to the vast majority of users. An ongoing European funded project, CHESS (Cultural Heritage through Socio-personal interactions and Storytelling), is looking at the creation of adaptive, interactive cultural ‘stories’ for the visitors of cultural sites (CHESS). One of their initial projects involved creating an interactive virtual tour of the Acropolis in Athens using digital imaging (Acropolis). An immediate benefit that may derive from developing this virtual tour would be that it would allow the virtual site to reincorporate the Elgin marbles and other artefacts that are being held in foreign cultural institutions. Immediately this would reintegrate geographically disparate material into its original cultural context and provide the user with a more complete and rounded sense of their purpose than a visitor to either the acropolis in Athens or the British Museum in London could ever achieve from physically visiting these institutions. Trajan’s Column in Rome has a similar experience. At 125 feet tall it is next to impossible to read the story of the Dacian wars that spirals around it. In the nineteenth century plaster casts were taken of the column to allow visitors to ‘read’ the story. Now the entire column is available to view online through an interactive web browser hosted by the University of Cologne (Arachne).

Of course unifying geographically disparate collections in an effective manner requires digitisation. In the example given of the Acropolis the project would require quite sophisticated (and expensive) equipment. A project such as CHESS will require in excess of £4 million in funding over its three year life span. However, digitisation can be done at a far more affordable level. For manuscript collections a reasonably decent quality digital camera would be enough if the aim is simply to make a select number of images available online. Depending on other institutions copyright policies this would allow institutions to provide access to material held by other organisations (though negotiating such access has the potential to open up a can of worms regarding copyright of the objects themselves as well as copyright of the images). It is my opinion that the benefits of digitising select documents and images goes beyond providing external access to material. This has been done for decades through microfilm and microfiche. One of the greatest pleasures in working with original source material derives from the tactile sense of the object. We will never be able to recreate the sensory inputs that come from a manuscript, the differences in holding a vellum parchment compared with a glass plate photographic negative. However, the increasing use of tablet computers can help bring you as close to it as a digital surrogate will allow. You are not interacting with the object
through a keyboard and mouse, but almost directly. The British Libraries Turning the Pages system is designed for such an interactive feel. Initially used on freestanding touch-screen computers they now also make a wide variety of their Turning the Pages capable digitised material available online. The material made available has been digitised to a high standard and certain copies, such as Mozart’s personal notebook, have embedded extra detail to give a greater sense of the material. The digitised notebook has audio excerpts embedded in the pages containing notation (British Library). Some of this material would not be accessible within the library for general readers, and probably has not been widely accessible for many years, but now digital tools have made it available to all, for free, anywhere in the world and instantaneously.

Of course this form of digital capture is best suited for two dimensional objects, texts, paintings etc. Three dimensional objects are slightly more complex to capture. The traditional method for creating a three dimensional model of an object relies on quite expensive equipment to actively map the item (the mapping is carried out predominantly using a laser). This technology is beyond the means of most cultural institutions. However, for lower quality modelling digital photography can be used in conjunction with software to make a three dimensional recreation of the object. A large number of high resolution images are fed into the software which can then make a three dimensional reproduction of the object. The Arc 3D web service is an example of online software into which the images can be fed to generate a 3D model (KU Leuven). This software is provided by the Katholieke Universiteit Leuven in Belgium. Now it must be said that such reproductions would be of a lower quality than the images generated from the laser capture scanners, but since the only hardware required of the user is a good digital camera and the internet the costs are extremely low. The models created in these systems can be used to create more interactive, more visually appealing websites, and the fact that there are many freely available online software platforms means that constructing these models simply requires a digital camera, the internet, and a large number of images of the item. This means that creating a more engaging website for a cultural institution is far easier and allows the user to engage with 3d objects online in a manner that they would be unable to do in the holding institution. In fact the Smithsonian Institute has gone a step further and has been experimenting with using 3d printing to create copies of items so that they can go on tour or be handled by visitors (Fuhrig, Aron), though such technology is out of the reach of all but the most well funded organisations, for the moment.

Our cultural items are the thread that holds our identity as individuals to our sense of place in the world; it is an essential part of the narrative of our own lives. Experimentation and studies in the digital humanities are looking at methods and technologies that can be applied to our cultural institutes so that
they can give us greater access to the material they hold for our society. As the costs associated with digital technology fall the ability for cultural institutions to provide us with unprecedented access rises. This gives our communities a greater sense of proprietorship over our cultural legacy. It also allows smaller, community run initiatives and sites to have an online presence that holds up to larger organisations at very little cost. Changing economic circumstances have curtailed much of the financing and staffing levels of Irish cultural institutions. One method to obviate against the commensurate drop in service is to move deeper into the provision of services online. For example many archives services allow readers to pre-order collections online and have them waiting on arrival. This is not just convenient for the reader but also invaluable to the archive in their ability to effectively manage dwindling personnel levels. Opening up a two way dialogue with the users through a more engaging online presence and increasing public awareness of, and engagement with, these organisations goes some way to helping them justify their budgetary requirements to central government. ‘Save our Libraries Day’ on February 5th 2011 was a series of protests in the United Kingdom against the proposed closure of 400 libraries. The action was reasonably successful and the result was far fewer services closed down. The success of these protests was a direct result of the libraries actively engaging with the community to the extent that communities recognised the cultural deficit in their locality if such core cultural, and educational, institutions were to be closed. In the twentieth century the Carnegie grants system helped communities open their first public libraries so that people could acquire the knowledge to improve themselves. The expanded networking and advocacy opportunities provided by the digital age will help all cultural institutions in the twenty first century broaden the community that they were established to help.

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A few weeks ago, Adam Freeman, Executive Director - Commercial at Guardian News & Media, announced at a Conference in Oxford a move towards an ‘open vision for journalism’, saying that the newspaper, a leading one in UK, will shut down its print edition and start an entirely digital newspaper in which ‘laypeople’ will become ‘key to the media group future’ (Rushton 2012) and will play a role in news gathering and writing. Tim Worstall, a contributor on business and technology at Forbes, is not particularly surprised by this move, which in his opinion is inevitable (the question is not if, but how and when, newspapers will become entirely digital). Worstall is more interested in the idea of openness proposed by Freeman. He said that the newspaper will be made in collaboration ‘between journalists within the building and experts out of the building … who are experts because they care about the subject matter as much as we do. They don't have to be called professor’ (Worstall 2012). But who are these experts? Is this approach different from what happened in the past? Not really, says Worstall, ‘for all newspapers have always been a mixture of material produced in house and that sourced from experts outside. Those outside experts might now be called 'laypeople' where before they were called freelancers but the idea and practice is exactly the same’ (Worstall 2012). Is there a difference in what The Guardian is announcing and the past? Perhaps, continues Worstall, ‘they really do mean to be different? Perhaps laypeople are simply freelancers who don’t
get paid? That might do something about the losses..." (Worstall 2012).

It might be that this move is only a way to enlist voluntary and unpaid workers, but nonetheless, the blog *Periodismo Ciudadano*, a Spanish site that collect news and fosters debate on citizen journalism, happily reported the same fact, emphasising also that *The Guardian* is not new to this kind of involvement. In October 2011, for instance, they announced that they were about to grant public acces to some part of their daily news-list (the list of stories on which reporters are working on and/or of the requests and wishes of editors). In this way the public will not only be able to read published news, but also to intervene in the very selection and preparation of what will appear in the paper, and ‘the process of working out what to investigate actually becomes part of the news itself’. Another very successful example of citizen journalism was the crowdsourcing tool *Investigate your MP’s expenses* that was launched in June 2009. Having to deal with a raw database of 450000 expense records for British MPs, *The Guardian* asked its readers to browse, read, annotate and comment on them. The result of the work of this crowd of committed citizens and readers was ‘an incredibly detailed spreadsheet itemizing the actual spending totals, breaking down the average amounts by party membership and type of expenditure (kitchen, garden, TV, carpet, etc)” (Sifry 2011a: 80).

The story of *The Guardian* is indeed symptomatic of a more general problem that the whole news industry (media, newspaper etc) is facing. During most of the twentieth century:

[...] a handful of firms and institutions dominated the media and information industries [...] An industrial-style system of mass production and distribution delivered all kinds of cultural materials - books, newspapers, cinema, music, television and radio program – to mass audiences, and helped generate a 'mainstream' media culture in which people were viewed mainly as collective 'publics', markets or audiences. (Lievrouw 2011: 1)

The situation has changed dramatically in the last three decades:

[...] the proliferation and convergence of networked media and information technologies [...] have redefined people's engagement with media. [...] This changing landscape has created unprecedented opportunities for expression and interaction [...] Websites, mobile telephones, digital photography, video, and audio, blogs, wikis, file-sharing systems, social media, and open-source software will permit social groups with diverse interests to build and sustain communities, gain visibility and voice, present alternatives or marginal views, produce and
share their own do-it-yourself (DIY) information sources, and resist, talk back, or otherwise confront dominant media culture, politics, and power. (Lievrouw 2011: 1)

The audience and the public, in the traditional sense, do not exist anymore, as Jay Rosen said (2006), because the number of tools and devices that can be used to share content and to create interest-based networks of people has increased exponentially in the last ten years, from blogs and mailing lists to Twitter and Facebook. The advent of a new media landscape provoked two main effects: the shift from scarcity to abundance and the fact that, once a document is made digital, it is almost impossible to control its social sharing. The traditional (physical and economical) limitations became now barriers artificially created mainly for political reasons. There is of course a strong connection between news and politics, and speaking of an open vision for journalism inevitably leads to a vision of transparency of political and public institutions. Micah Sifry reminds us that what is emerging is:

[...] a greatly expanded notion of the role of citizen not just as a passive consumer of political information and occasional voter, but as an active player, monitoring what government and politicians were doing, demanding a seat at the table and a view of the proceedings, sharing self-generated news of what was important, and participating in problem solving. (Sifry 2011a: 48)

One of the paramount examples of this alternative media landscape is obviously Julian Assange's Wikileaks. There has been a huge debate about the implications of Wikileaks on journalism and politics, (ZDNet 2011) and here I will only be able to scratch the surface of it. Assange, in fact, has been criticised because he made himself and Wikileaks the media story, distracting people from the real content he uncovered and published (Brooke 2011). This is an important issue, especially in a situation of information overload in which the ability to focus on the news that are really relevant and interesting (the ‘economy of attention’) is problematic at best (Goldhaber 1997). Instead of describing the story of Wikileaks, which is quite well-known and documented, what I am interested in here, following Micah Sifry's suggestion, is to give the context in which the story took place, in order to avoid the risk of ‘missing the bigger story of what WikiLeaks really represents’ (Sifry 2011a: 13).

If we look back at The Guardian's crowdsourcing tool, we can see how it is more innovative, in a sense, in its approach to readers, if compared with Assange's decision to distribute cables to reporters in some mainstream newspaper (The Guardian, The New York Times, Der Spiegel initially, then El Pais and Le Monde as well). Assange's strategy did not used tools that involved reader's directly, but there were reports
published by the newspaper he was collaborating with. Eventually, the impact was indeed significant, but not as much as it might have been. Not all the cables have been published and no one was able to analyse them properly. The logic, as Sifry noticed, was still linked to traditional, corporative media:

My second observation is how little people are thinking about the full meaning of the cables, the full archives of which both the Times and the Guardian actually have, we're now finally being told. We're hearing a lot right now about how the Times and the Guardian managed their often rocky relations with Assange, and in the case of the Times also how they've navigated their relations with the US Government too. [...] despite their best "news judgment" they didn't realize the importance of the cables on Tunisia or Egypt.

'Was Tunisia in [our] initial coverage?' Sanger asked of himself, rhetorically. 'Not a word. I wasn't smart enough to look for it.' Keller, after hearing Alan Rusbridger of the Guardian describe that paper's invitation to its readers to suggest topics to search in the cable archives, said, 'I wonder if somebody would have teased out the cables on Tunisia.' Said Sanger, 'We focused on subjects that were most in the news. Clearly we didn't spend enough time on the material on Egypt,' he added.

Indeed, what is yet again becoming painfully clear is that the Times' editors all too often think like the powerful people they cover. To them, the close relationship between Washington and the authoritarian regimes of Tunisia and Egypt wasn't really 'news.' The fact that a US Ambassador might write a candid description of Tunisian government corruption and that the US would continue sending fresh infusions of foreign aid there just isn't news, somehow. (Sifry 2011b)

To fully abandon this corporative attitude, what is needed is a way to organise the opportunities and possibilities of citizen-based news-production, overcoming at the same time, if possible, the digital divide that is still huge, especially in non-Western countries. This is why some people criticize the term 'citizen journalism', saying that the term citizen links it to Western nation-state. Therefore it would be better to talk of 'grassroots media' or "participatory media'.

As we all know, online activities are changing very quickly, and mapping initiatives and projects is extremely difficult. Among the numerous initiatives available online, I will only mention two that might be helpful to give an idea of what's going on. The first one is the **Independent Media Center**, also known as
Indymedia, started during the 1999 protests anti-WTO in Seattle. The other one the more recent international community of bloggers and translators called Global Voices, that ‘seeks to aggregate, curate, and amplify the global conversation online’, reporting from blog and citizen media everywhere, ‘with emphasis on voices that are not ordinarily heard in international mainstream media’. It was founded in 2005 and is sponsored by the Berkman Center for Internet and Society at Harvard University. Global Voices developed a network of initiatives, such as Lingua, a project aiming to translate news-post from English to local languages, and also the Technology for Transparency Network, a project mapping the current state of online technology projects that increase transparency and accountability in non-western countries.

Works Cited


