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Narrating the Digital Turn: data deluge, technomethodology, and other likely tales

Abstract

In this paper it is argued that digital technologies will have a transformative effect in the social sciences in general and in the fast developing field of narrative studies in particular. It is argued that the integrative and interdisciplinary nature of narrative approaches are further enhanced by the development of digital technologies and that the collection of digital data will also drive theoretical and methodological developments in narrative studies. Biographical Sociology will also need to take account of lives lived in, and transformed by, the digital domain. How these technologies may influence data collection methods, how they might influence thinking about what constitutes data, and what effects this might have on the remodeling of theoretical approaches are all pressing questions for the development of a Twenty First Century narratology. As Marshall McLuhan once put it "*First we shape our tools and then our tools shape us*".

Introduction

This paper deals with theoretical and methodological reflections arising from a number of pilot projects carried out over the last six years within the Narrativeworks project and presents a model that illustrates the development of a digital/narrative approach to teaching, research and service development in a U.K. university faculty largely concerned with professional training in the field of education, health and social care. Examples of these projects can be viewed at: www.Narrativeworks.com

The pilot projects grew out of the experience of developing and teaching two modules that explored issues of culture, community and identity through the use of Biographical Narrative Research (http://www.talkinglongterm.co.uk/courses.php).

One recurring theme in discussion of projects generated within these modules was the way in which the narrator's voice, itself a defining part of an individual's identity, was being systematically stripped away by the contemporary conventions of a transcript based approach to data analysis and presentation. Answering the question of what could be done about this opened up a complex "theory saturated space" (TSS) represented in the diagram below.
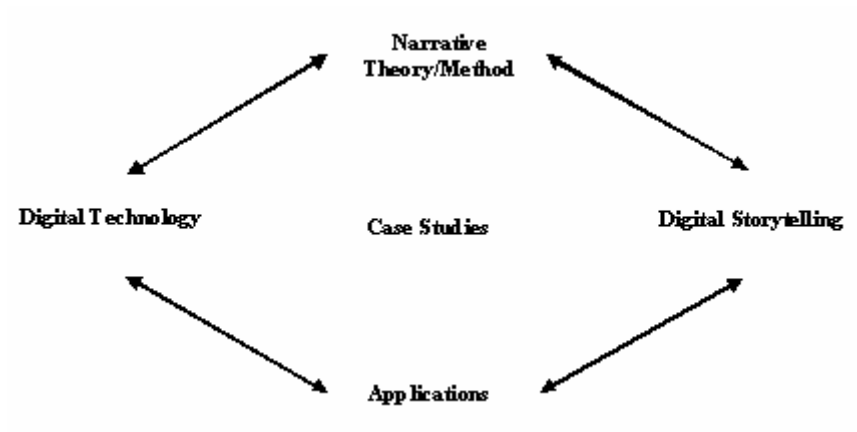

Figure 1.   The Digital Narrative Interface.

Each element of the diagram defines a major influence on how any life story can be located, interpreted and presented using digital technologies. Each of these elements should be considered as a portal to a wide range of resources that could be applied to any case study. A specific understanding of narrative theory and method, employing particular digital technology, in collaboration with unique interest groups, generating situated data for specified applications will define any case study.. The complex nature of any particular story, its performance, interpretation and presentation, will generate a unique "aesthetic trajectory" through this TSS. The following discussion loosely describes the trajectory of the Narrativeworks project through this space and will consider each of the elements mentioned above in turn. The links embedded throughout the text invite readers to navigate their own way through this space and the article is therefore best read on a broadband connection.

Narrative Theory and Method

The theoretical base for these particular speculations about the future direction of narrative studies was based on the idea of the "narrative construction of identity". Writers like Bamberg (2004) have described the theoretical tools that narratology has brought to the human and social sciences as passing through several different phases of development. The most recent of these he describes as a narratology primarily concerned with discourse and interaction central to which is a focus on describing how the situatedness and interactional embeddedness of the story teller/makers should be central to the interpretation and understanding of the structure and content of the story. In the context of thinking about the "digital turn" it is worth noting that narrative theory has also been deeply influential in the development

of discussion about computational intelligence, particularly in the deployment of concepts like situatedness/embeddedness in the work of writers like Cantwell-Smith (1998). Describing cognition as fundamentally social, embodied, concrete, located, engaged, and specific, he employs a vocabulary that overlaps strongly with other contemporary debates about complexity and narrative. Mitleton-Kelly (2004), for instance, writes about the overall way that complexity science investigates systems that adapt and evolve as they self organize through time. Danto (1985) in an overlapping discourse describes how story based explanations focus on a more or less extended chain of particular circumstances bound together by unique situations located in specific times. Interestingly writers like Gatrell (2003) claim that missing elements in "complexity theory" include the embodied human voice and the persistent importance of place as a key element of identity.

My approach here is based on an understanding of the narrative construction of identity as an emplaced, embodied, autopoietic process explored through the application of a biographical narrative interview methodology. This process is theoretically located in wider debates about the impact of globalization on "traditional" identities and the contemporary production of subjectivities. Bauman's (2000) idea of "liquid modernity" is adapted to integrate global with individual explanations through the idea of "flows". The local flows of power in which individual identities are constructed can be interpreted as locally situated but evolving in relation to the wider processes of globalization. These "flows" create local "centers of narrative gravity" in relation to which individual psychobiographies trace their unique trajectories. The range of "psychobiographical traces" that could be used as a basis for theorizing and potentially transforming these local centers of narrative gravity are transformed by the application of digital technologies. A reflexive postmodern interpretive approach would explore the dynamic relationships between these elements.

At the level of method the generally accepted standard approach to creating and analyzing biographical narrative data is based on the recording of a narrative interview from which a full text based transcript is produced. Even these traditions have strained at the limits of text, by seeking to reproduce elements of performed speech within the text, by the use of font types to highlight volume level, by the representation of non verbal elements of speech, or by the representation of silence, as measured in seconds which are inserted into the text in brackets. A moment's reflection on the emotional power of silence in live speech immediately highlights the way in which emotional content may be minimized, and the verbal content of speech acts emphasized in text based representations, due in part at least to the recording medium employed. When that medium is digital, and the recording audiovisual, the nature of the "text" and the question of appropriate analytic procedures are radically changed. More sophisticated procedures will have to be developed that can take account of body language, facial expressions, and other elements of narrative performance that can then be linked to the more traditional approaches of transcript based analysis. Software developments that allow the tagging of such performative aspects of narrative interviews, and their linkage to transcript based data, already exist and can be expected to undergo further rapid development. While I claim no particular expertise in such software an example that handles audio, video and text based data can be found at: http://www.atlasti.com/index.php

Indeed depending on the theme of the interview, its context and its setting, there may be other elements of "embedded narrative" that researchers could focus on, such as the potential significance of images or artifacts framing the narrative performance. Photographs and other familiar objects in particular settings will often

be saturated with narrative significance and offer a potential focus for data collection and analysis (Hirsch, 2002). For instance Elkin (1996) in his book *The Object Stares Back* raised the issue of what is seen and what is not seen, describing "visual repression" as a form of self censorship that involves the disappearance of images from both the visual field and the imagination. Similarly Van den Haven (2004) describes the development of a cueing device that employs digital technology for therapeutic use to evoke autobiographical memories in a domestic context.

Linking narrative analysis to other developing research traditions like those of visual sociology, performative arts, child observation studies, and narrative therapy could also enrich the potential analytical frames within which such data could be located and interpreted. The combination of such an approach with the creative possibilities of the digital medium opens up some intriguing and interesting possibilities. Kip Jones (2005: 7; see also Jones' article this issue) describes a kind of "performative methodology" that potentially "[…]creates a clearing in which meaningful dialogue with a wider audience is possible, feedback that is constructive and dialogical in its nature becomes feasible, and dissemination of social science data transforms into something, not only convivial, but also playful". A range of resources can be found on Jones' site (http://www.angelfire.com/zine/kipworld/cprp.index.html) one of which describes the challenge that this "*[...] emerging synthesis of the arts and social sciences present... to the methodological-philosophical foundations of knowledge*".

Presentation of such data will necessarily be driven away from text based representations toward more multimedia formats which will be able to handle audiovisual data in new and creative ways.

The prospect of large scale linked audiovisual digital data bases combined with software of the type mentioned above also raises a number of radical possibilities that further challenge conventional distinctions between qualitative and quantitative approaches to social research. Most narrative research is based on comparatively small samples of respondents or even on singular case studies. Such an approach is often defended from accusations of unrepresentativeness by reference to the alternative criteria of "thick description" and the power of an individual narrative to illustrate complex themes. Digital data offers possibilities for enriching the development of such themes while also offering the potential for new forms of combined analysis that could locate such case study material in wider data sets.

Digital Storytelling

The Digital Storytelling movement was based on the idea that the tools of digital technology could be used to empower people by building democratic movements based on the sharing of people's stories. This idea of story, transformative reflection, digital technology and social action characterized the original ideas of the movement. The link below for the Digital Storytelling Festival (DSF) site illustrates the wide range of interests that now characterize the movement. The festival acts as an annual gathering where professionals and enthusiasts who use technology to communicate and share stories gather to examine creative works and new concepts (http://www.dstory.com/dsf_05/).

The early, more politicized, "bringing radical technology to the people" stream of the movement evokes echoes of previous radical traditions of community activism but has been somewhat swamped by the later highly individualized web based

applications such as blogs and podcasts. That earlier tradition prioritized work with minority and excluded groups to use the process of recording and developing life stories as a tool for personal and community empowerment. The Centre for Digital Storytelling is an early example of this kind of work offering a range of services to a variety of community groups. http://www.storycenter.org/

The potential for a more network based phenomena is perhaps illustrated by a recent report (Prest, 2006) which claimed that Google searches for "podcasting" went from zero to 3 billion in six months. The patterns of virtual relationships and communities that evolve in this context are unpredictable and highly creative as well as being of increasing interest to commercial operations through the development of e-marketing/word of mouth approaches. The recent explosion of interest in Family History Research largely promoted by increased access to the internet provides an interesting example of how such developments can impact on the interpretation of particular family histories and other received narratives of identity.

"What if…" and "If only…" moments feature strongly in most life histories, as well as in many literary, artistic and therapeutic interpretations of them. Working collaboratively with individuals and groups to imaginatively interpret and re-interpret life stories using digital media suggests new ways in which narrative approaches could focus on issues of interest. The externalization of internalized narratives has long been recognized as a critical process in the interpretation and reinterpretation of the self, a key element in most approaches to Narrative Therapy (Freedman and Combs, 1996). Contemporary discussions of identity frequently centre on the shifting, impermanent, risky, and performative aspects of the self. Cultural phenomena like Rap music and DJaying can also be thought of as the externalization of often contradictory and fragmented narratives, a cultural form crucially mediated by technology and widely absorbed as a narrative medium. Digital media allows great creative freedom that fits well with (re)interpreting, manipulating and illustrating life story data based on such postmodern theories of identity.

Collaborative approaches could allow the development of linked databases from dispersed locations and at the same time create new forms of feedback and virtual communities. Working with community based groups in the development, use and interpretation of first hand narrative accounts also provides an arena within which strong collaborative relationships and new forms of practice can be developed. Combining a narrative approach with digital technologies opens up ways of working and thinking that transcend professional, disciplinary, and methodological boundaries. In relation to service users and interest groups in the field of health and social care, such approaches offer new possibilities for the development of a broader kind of evidence based practice, as well as overlapping with, and extending, a range of more traditional narrative and arts based approaches to therapy. The Rosetta Life project for instance employs a digital approach to develop the therapeutic and healing potential of life story and arts based work with terminally ill people, examples of their work can viewed at: http://www.rosettalife.org/.

Digital data can be continuously reorganized and re-interpreted depending on what one wishes to make of it, what one might see in it, or what might happen to it by accident. Exposure to new ideas, metaphors, images and technologies can also change the way we think about the world and our place in it. The characteristics of digital technology, its spontaneity, immediacy, interactivity, and its capacity to promote self evaluation provide a new type of data with all sorts of interpretive potential and community based applications.

Digital Technology

In our first explorations of the technology in the Narrativeworks project we quickly discovered that it was possible to convert analogue recordings to digital format, stream them over a narrative transcript, and store them on a web site. Getting it done with limited technical knowledge and support was then another, very time consuming, story. This initial interest soon broadened into a more general one about the potentially transformative possibilities offered by digital technology in the field of narrative studies. In those days, in the late nineties, lunchtime speculation sometimes centered on the idea of the "dream machine" that such a project would ideally deploy. This would allow audiovisual interview data to be easily stored in a fully searchable multimedia data base, would transform the audio to text, and plug into software which would allow a linked analysis of speech, facial expressions and body language. Not much to ask really!

The speed with which the technology has changed in the last seven years however is impressive, the ability to download audiovisual data directly to a computer cuts out the time consuming data conversion and transfer stages encountered in earlier days. While the "Digital Divide" remains a reality to be carefully considered, the use of digital devices like 3G mobile phones, camcorders, cameras and MP3 recorders have become widely generalized. The development of "off the shelf" editing software opens up the production and creation of narrative materials in a digital format to much wider groups of people. The rapid development of broadband infrastructure means that such material can be easily pooled, shared and accessed. Software programmes are beginning to accommodate the analysis of video as well as text based data. What other developments might the next five years bring?

In 1945 Vannevar Bush, the then US presidential technology advisor, envisaged his own "dream machine" in the development of the "Memex" concept, a device in which all personal data relating to an individual life could be stored, cross referenced and easily accessed. A contemporary version of such a device is reviewed in a webcast of the Digital Memories (Memex) research project which can be viewed at: http://research.microsoft.com/workshops/fs2005/webcasts/12534/lecture.htm

A range of related digital projects loosely grouped around the theme of life memories and rich with potential narrative applications can also be found at: http://www.memoriesforlife.org/jumppoints.php

Development engineers like Gordon Bell working on the MyLifeBits software project at Microsoft predict that within five years a 1000 gigabyte hard drive will cost less than $300, enough to store four hours of video everyday for a year. The MyLifeBits Project is designed to allow all personal data, from letters, video/audio clips, photos, phone calls, email traffic, etc. relating to an individuals life to be stored and linked together in a highly flexible database. Related projects like Sensecam promise to vastly expand the type of information that could be incorporated into such a database. The project has developed prototypes of a badge sized wearable camera that can be attached to the human body, which can function for twelve hours, which can store up to 2000 images and which can monitor a wide range of other, including GPS, data. Technologies of this sort represent a step change in the nature and depth of data which could be used to inform a range of academic disciplines. Such data of course could also enhance state-sponsored projects of surveillance to nightmarish proportions. While detailed discussion of such trends is beyond the bounds of this paper it is clear that "tagging technology" based on developments of this sort raise fundamental ethical issues about privacy and civil liberties.

Such developments point to the reality behind talk of the "Data Deluge" defined as the "[…]general perception that the growth in computing power and the dissemination of digital technologies will generate vast amounts of data that will soon dwarf all previously available technical and scientific data" (JISC, 2004:1). While use of the term technomethodology has been largely confined to debates centering on human-computer interactions it might be useful to consider what that term might also imply for research, teaching, and consultancy at the digital/narrative interface. Crabtree (2004), for instance, in his discussion of the developing relationship between ethnomethodology and the systems development community raises the question of whether the wholesale adoption of digital technologies in the social sciences will inevitably lead to the development of hybrid disciplines. The wider implications of these technical developments are currently being explored in a number of JISC sponsored scoping initiatives that attempt to assess the implications of the digital revolution for a developing e-social science, discussion of which can be found at: http://www.jisc.ac.uk/iindex.cfm?name=pub_datadeluge

Applications

While the pilot projects undertaken at Narrativeworks.com hardly approach the scale of issues described above they do illustrate some of the ethical and political issues raised by working in this way and will be used to illustrate some of the problems and possibilities of the "Digital turn" in Narrative Studies.
Applications include:

- An archive dealing with the experiences of Jewish refugees who escaped from Nazi Germany and settled on Tyneside.
- An archive dealing with the professional narratives of "cultural managers".
- A resource dealing with adoption narratives in association with the North East Post Adoption Service (Nepas).
- A proposed strategy for evaluating the experience of participants in a public arts project based on the idea of embodiment in identity construction.

All these sites are under development and as such are in various states of completion.

The Narrativeworks project developed an approach to teaching, research and consultancy based on ideas and applications developed at the digital/narrative interface. One such project mentioned above plans to embed the service user's voice at the center of health education, research and service provision. The idea is to explore the use of multimedia resources in collaboration with community based interest groups to explore issues of service development from a narrative perspective. The project is being developed within a wider Centre for Excellence in Teaching and Learning project (CETL4HealthNE) as part of a work stream concerned with the development of "[…] structures and tools that partners can utilize to effectively engage 'people with experience' in the planning delivery and assessment of curricula for health care professionals across the North East region".

The project discussed here is concerned with the creation and development of a network of local groups created by the participating CETL partners dealing with themes relating to long term care. Adopting a narrative methodology each participating group will collect the first hand accounts of service users and carers

whose lives are in some way affected by the experience of a long term condition. Incorporated in the first instance as part of an online teaching resource this data will be developed in collaboration with the CETL partners and their local groups for a wide range of purposes including:
- Training and development programmes for service user groups.
- Development of high quality online materials for educators.
- Service development.
- Staff training and development.
- Research.

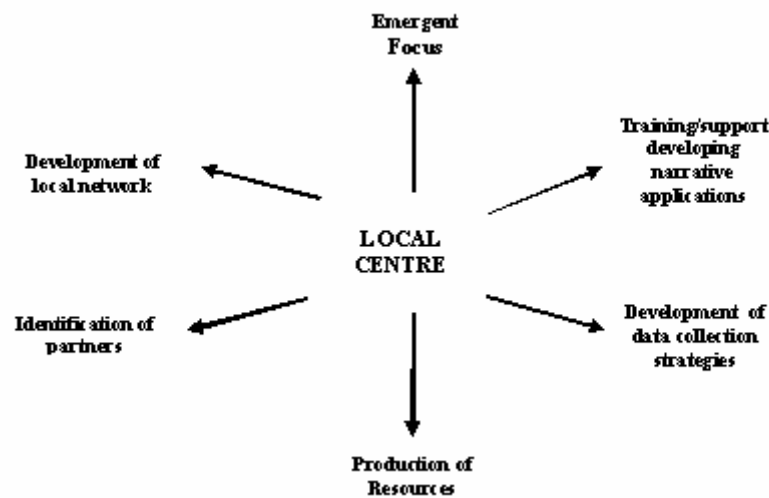Figure 2 illustrates how each node of the network will operate.

Figure 2.   Model for Narrative Nodes.

The developing site, which will also act as a portal to wide range of complementary resources, can be viewed at: www.talkinglongterm.co.uk

The power of reports and presentations that can combine quantative data with the ability for the subject's or citizen's stories to be clearly seen and heard also has considerable relevance in policy making circles where strong demands are currently being made that the "service users" voice be placed at the center of developments in an "evidence based practice".

Narrative approaches to issues of health and social care however can raise sharp issues of confidentiality and consent, especially in settings where these issues have generally been debated within the professional arenas of medicine and social work. Working from a base within a faculty providing professional training on a contractual basis with Health Trusts meant that narrative accounts were often viewed as either fundamentally violating established protocols of confidentiality or being essentially anecdotal in nature. The rapid development of a wider literature and interest in narrative approaches to medicine, health and social care (Hurwitz, Greenhalgh and Skultans, 2004) however is progressively opening up debate around

these potential problems. A valuable resource containing a series of lectures in an audiovisual format on the theme of Narrative Medicine can be found at: http://narrativemedicine.org/conference.html

Early in the Narrativeworks project it was decided that a useful strategy in this context was to primarily work with established consumer and interest groups within which the power and legitimacy of individual stories and experiences were widely validated and sanctioned as a founding principle. In effect some members of these groups had already semi professionalized the telling of their stories in relation to their roles as activists and advocates. As people already committed to the public telling of their stories the ethical and moral consequences of this stance had often been largely resolved through the processes of group membership. Debates therefore often focused on the degree of access to these stories ranging from full protocols of confidentiality to open access on the web. A range of nine levels of access has been described in relation to the TalkBank project which can be viewed below and which provides a useful guide for the ethical context of such negotiations (http://talkbank.org/share/ethics.html).

These protocols have their limitations and, as stories that have been published on the web can never be entirely recalled, the implications of this must clearly form part of the negotiation about levels of consent, as should the issue of copyright. If we see individuals' identities as an ongoing accomplishment, their relationship to stories they have told about their life must also be seen as a dynamic one. Consents should therefore reflect this potential dynamic and some strategy needs to be in place that allows the participants to withdraw or re-edit all or part of their story.

For instance, in a project dealing with people's experience of adoption, one participant gave consent for his recorded account to be used online - as one of several such stories that were embedded in an adoption advice agency's website. The audio/text data allowed visitors to the website to access stories of adoptees who had set out to trace their biological parents. This particular story described some very ambivalent feelings that the young man had toward his biological mother. While the narrator was very clear about wanting his story to be used by the agency he did subsequently request that the story be deleted from the site following the death of his mother some time later. In another case a woman who had suffered painfully from Parkinson's disease reflects on drawings she has made to illustrate her condition and discusses her desire to see euthanasia legalized: http://www.talkinglongterm.co.uk/narrative/narrative1/image_gallery/large_images/image3.php

As an active member of the Parkinson's Disease Society both Ruth and her husband expressed great satisfaction that her experiences might contribute to a better understanding of the human reality of Parkinson's in the training of health and welfare professionals. Figure 3 illustrates the model employed in the overall development of resources within the Narrativeworks project.
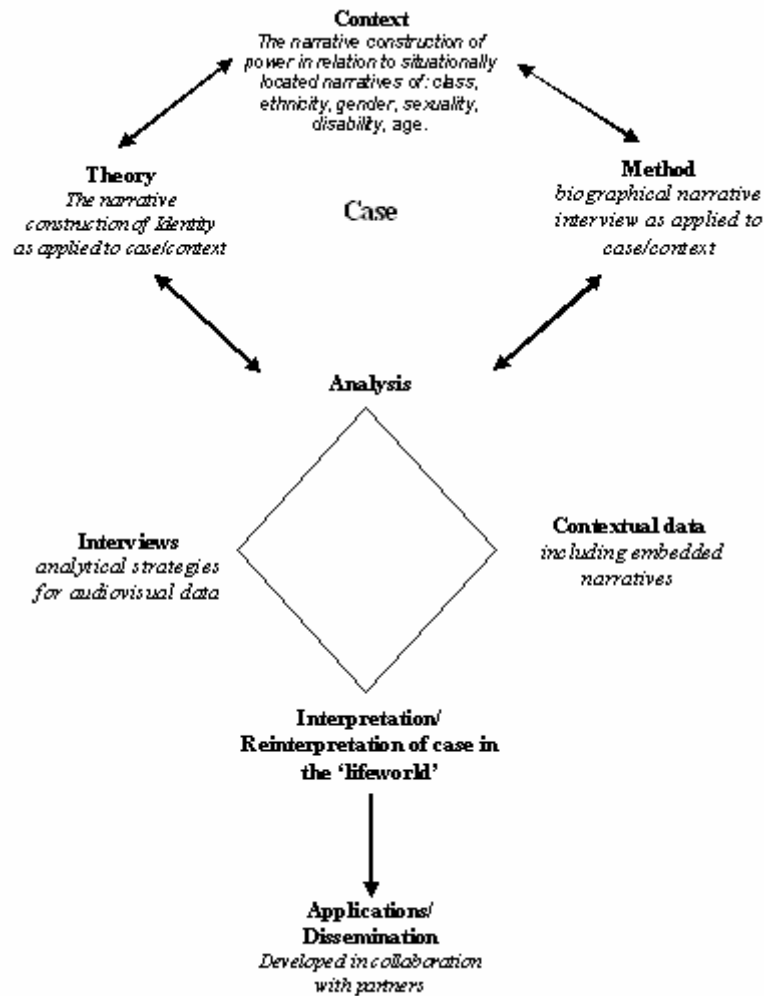
Context
The narrative construction of power in relation to situationally located narratives of: class, ethnicity, gender, sexuality, disability, age.

Case

Theory
The narrative construction of identity as applied to case/context

Method
biographical narrative interview as applied to case/context

Analysis

Interviews
analytical strategies for audiovisual data

Contextual data
including embedded narratives

Interpretation/ Reinterpretation of case in the 'lifeworld'

Applications/ Dissemination
Developed in collaboration with partners

Figure 3. Narrativeworks Project Framework.

The increasing emphasis on the "entrepreneurial mission" of Universities and the development of relationships with commercial interests raises a series of important questions about the commercial exploitation of knowledge and knowledge generating practices within the academy. Protocols of research governance are being increasingly viewed through the lens of corporate liability and within some universities are combining to provide a hostile climate for critical scholarship in general and some forms of qualitative research in particular. The link below illustrates these developments in the field of critical legal studies:
http://www.kent.ac.uk/slsa/download/Summer%202004-43%20editorial%20only.pdf
Research committees, often steeped in medical and scientific approaches, may view narrative studies as providing essentially unreliable and anecdotal data. The emergent traditions of the digital storytelling movement and the development of "service survivor" and service user groups however often work from the opposite perspective aspiring to create real or virtual communities based on the public sharing of stories. Such critical communities may well pose challenges to conventional ideas about partnerships in, and ownership of, such social research processes and data within the Academy.

Conclusion

Digital technology opens up radical new possibilities in the field of narrative studies that transcend existing professional and disciplinary boundaries. The rapidly developing field of narrative studies also feeds on the contemporary trend toward the biographical structuring of identity, often claimed to be a developing feature of globalised societies.

These developments open up all kinds of possibilities for new kinds of collaborative relationships between students of the narrative approach and almost any section of the communities of which they are part. Biographical Sociology will also be required to deal with the data deluge generated by the digital revolution as well as coming to terms with the phenomena of lives lived and identities created in cyberspace itself.

Stories of technological utopias should however always be treated with extreme suspicion. The collision of external technologies of surveillance with technologies turned inward is a "scary" prospect of a specifically Orwellian kind. Information is power and digital technologies transform access to information. People's intimate stories have transformative power, the question is how might this power be used?

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Citation

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