Locating Four Pathways to Internet Scholarship

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Introduction

The study of the internet has come of age in the Academy, and ‘internet studies’ is a popular term for teaching and research in this field, that some call a meta-field of study (Silver 2004:55). Many authors have explored developments in internet research (Haythornwaite & Wellman 2002; Johns, et al., 2004) and its relationship to other academic programs (Jankowski et al. 2003). Researchers continue to unpack many of the methodological approaches to internet research (Howard & Jones 2003; Jones 1999) including recent discussions in the nascent fields of e-social science (Hine 2005; Van Selm & Jankowski 2009) and e-research (Borgman 2007; Nentwich 2003) while others consider the theory and practice of cybertulture (Bell, 2001, 2007; Silver 2000, Silver and Massanari 2006). Internet studies and its interdisciplinary perspective have caused some scholars to postulate that internet studies could be a proto-discipline (Baym 2005).

Today, most academics use the internet to teach, conduct research, and write publications, and it is clear that it has changed the way most scholars work (Turpin and Garrett-Jones 2000). But what types of academics become ‘internet scholars’? One approach is to ‘look under the lamp post’ and examine the members of the Association of Internet Researchers (http://aoir.org). This international organization welcomes scholars from all disciplinary perspectives who study, research, and teach about the internet and its implications for global human society. The variety of disciplines within its membership speaks to the challenge of linking internet researchers with a single set of disciplinary perspectives or practices (Rall 2005:107-22).

This discussion looks directly at the practitioners – internet scholars. Some authors take scholarly affiliation as evidence of a community of practice (Wenger 1998). Others have measured the metrics of academics and their interconnectivity – how groups of scholars interact with each other via the World Wide Web (Payne and Thelwall 2008; Thelwall 2003). The educational theorist Tony Becher speaks to the necessity of academics to negotiate between their ‘tribe’ of international colleagues while meeting the demands set by specific institutions (Becher & Trowler 2001).
These approaches can offer many insights into the behaviors of academics, once they have chosen the internet as their object/subject of study. This discussion considers the process of internet scholarship: how does it happen? Are there differences between internet scholars and other types of scholar? Are there any pre-requisites? Today, internet scholars emerge from various academic departments or global research institutes with ever-widening interests. To understand their academic career tracks and their intellectual grappling with the internet are vital to understand the field of internet studies.

**Description of the Study**

This study examined internet scholars, independent of their research topics. Rather than searching for the commonalities between practitioners in different content areas, this discussion focuses on scholars and their career paths as a process of scholarly engagement. A recent study presents internet scholarship as a series of pathways that are negotiated (or not) by those academics who currently study the internet (Rall 2007). In this study, the researcher conducted semi-structured interviews with 28 participants, all of whom were working or studying in a variety of universities and institutes based in Australia, the United States and England. A summary of these participants, based on the study's research questions, such as first use of the internet, critical approach taken to research, etc., is included in Table 1. While all participants were of European descent, half of the participants were men, half were women – although it is noted that more students were female, and more academics were male. From the original participants, four academics were chosen for further analysis.

**Table 1. Themes by groups, based on 28 participants.**

| 1) Date of Ph.D. | < 1989 | 1989-1999 | 2001-2003 | 2005-2006 | Other |
|-----------------|--------|-----------|-----------|-----------|-------|
| # in group      | 10     | 10        | 4         | 2         | *2    |

| 2) Theory area  | Comm | Crit | Emp | T&L | Other |
|-----------------|------|------|-----|-----|-------|
| # in group      | 3    | 11   | 7   | 5   | **2   |

| 3) First contact | BBS | Email | Study | usenet, unix | None |
|------------------|-----|-------|-------|--------------|------|
| # in group       | 4   | 8     | 6     | 10           | ***1 |

| 4) Age/rank      | Junior | Established | Senior/Ret. | Very young scholar |
|------------------|--------|-------------|-------------|--------------------|
| # in group       | 7      | 9           | 10          | 2                  |

*not known if finished; **Geography (1) Business (1); *** One senior scholar in Education did not use the internet (!) at the time of interview, but his staff prints out his emails which he responds to in MS Word. Explanation of Categories: 1) Year of Ph.D. or Master's (terminal) degree awarded 2) Theoretical approaches: Comm (communication & media theory); Crit (critical & cultural approaches, i.e., postmodernism); Emp (Empirical); T&L (Teaching and Learning); Other: Geography; one** Business, one**; 3) First contact with internet (BBS, Email, Study, usenet, unix) *** no contact; 4) Age/academic ranking: junior, established, senior, and very young scholar (rankings will differ from degree award dates).

The four were chosen not for their successful careers (one was a Masters student) but for how they managed to negotiate between their research training in established disciplinary perspectives, and their internet-based skills. Further, the selection chose four academics who best articulated what this process meant in terms of their career paths. The selection includes three men and one woman; of those, two were Americans, one Australian, and
one is a British citizen residing in Australia. Most important to understanding internet scholarship was to consider the different trajectories embedded in academic career tracks (Weiland 1994). Therefore, the selection includes one junior scholar (enrolled in a Master’s program), two established scholars (in full employment with substantial number of publications), and one senior scholar (long-term employment with many publications, several graduate students, and substantial funding from granting agencies). Finally, each profile concludes with how each pathway could shape further developments in the field of internet studies and research.

Each academic profile was then analyzed as an academic biographical narrative (Denzin 2002). This interpretation yields two types of materials:

1) the specific details of the purposive activities (life experiences, career requirements) of academics who pursue internet scholarship, and

2) how scholars from different academic backgrounds, when pursuing internet-based phenomena evolve a process of scholarly engagement – which provides a mechanism for developing scholarly interests when academics are surrounded by unfamiliar terrain (Gibson & McHoul 2000).

From these cases, four pathways to internet scholarship were located, with a fifth pathway, that of opportunistic employment, rejected as the findings were ambiguous (Rall, Thelwall et al. 2006). These four pathways are presented as possibilities for (rather than determinants of) building a pathway through these processes of scholarly engagement. A model for the process of scholarly engagement will be discussed after the four pathways are presented (see Figure 1). Each pathway is represented by one of the chosen academics, as follows:

I. Pathway One: Samuel, the professional internet scholar, Ph.D. in Communication Studies (Asian emphasis) awarded in 1989.
II. Pathway Two: Lee, the peripatetic internet scholar, Ph.D. in English, awarded in 1988.
III. Pathway Three: Olivia, the research internet scholar, Ph.D. in Social Anthropology, awarded in 1997.
IV. Pathway Four: Chris, the immersed internet scholar, Master’s student in English (Rhetoric), Bachelor’s degree in English awarded in 2001.
Pathway One: the professional internet scholar

Formal study and informing theoretical perspectives

At the time of the interview, Samuel (a pseudonym) is an associate professor in a media studies program in a mid-sized Australian university nearby a large capital city. Samuel is the most seasoned academic in this group, with his first postgraduate degree awarded in the 1970s.

Samuel reported that his theoretical perspective was formed some time ago by Harold Innis, a political economist who pioneered the ‘new’ area of communication science in the 1950s. Samuel contextualizes new media in history, but also takes a critical, social and cultural perspective, where events continually evolve, or diachronic rather than synchronic, or static. He articulates his theoretical standpoints and how they inform his scholarship, further, he quickly identifies any weaknesses as well. He remarks that he had no great background or interest in social science research methods, but he has co-authors that offer him assistance in that area.

As a mature scholar, Samuel’s teaching program is strongly connected to his theoretical base. He also has a number of graduate students that work on their own topics, while he continues to research the employment of new technologies, particularly in Asian regions.
First use of the internet

Samuel’s personal history with the internet began in the 1980s. He experienced the internet as a mechanism for communication between scholars in Australian universities. Also, Samuel’s inclination was to not form ‘relationships’ with people he communicated with online, nor does he perceive it as ‘a community’ – rather it forms a communication infrastructure that supported him and his colleagues in Australia, and around the world.

Samuel quickly offers that “technology was always important.” His academic employment began in educational television. As he says:

I knew how to make a television program, or I did know. And then, in the institution, I became much more interested in teaching about it, rather than doing it. . . then I moved on into, I suppose theory of media, sociology of media, history of media. Which I found much more interesting than making boring programs about how to spell or how to [whatever], which is heresy amongst my producer friends.

Technology was always important. So I became interested in technology, communication technology. Then in different forms of communication technology. So it’s a certain logical expansion that you have to start addressing the most recent forms of communication technology, otherwise you just become narrow and dusty, and god knows, what else? Boring, probably. (Samuel’s interview cited in Rall, 2007: 172).

Therefore, Samuel views the internet within the broad spectrum of communication technologies, rather than an entity apart, and he prefers to organize his research around the concept of digital culture. Further, his research projects focus on ‘new technology,’ such as digital interactive television, which is supported by a large research grant. This project analyzes the uptake and reception of interactive television, from perspectives including: cultural theory, cognitive psychology, business, and the impacts associated with broadcast journalism. Samuel’s success in attracting funds is another hallmark of a professional internet scholar or researcher.

Summary of professional internet scholarship

As a professional scholar, Samuel demonstrates the maturity, flexibility and capability that are the signature profile of many successful academics. While his career began with educational television, he migrated quickly towards teaching new media theory. His status as a ‘professional’ is confirmed as he teaches units in his specialty – rather than junior academics who might instruct in core units rather than in their areas of research interest. Further, Samuel knows his strengths and weaknesses – so he attracts colleagues and students that can supplement his work, and work as a team on co-authored publications and research projects. The moniker of ‘professional’ suggests that Samuel is an exemplar of a successful academic. First, in the sense that his academic interests have been rewarded and remunerated through an uninterrupted and stable career. His publications, teaching career, graduate students, and finally, evidence of teamwork on a substantial grant means...
he has successfully negotiated the academic requirements of working well with others, including students, colleagues and supervisors.

The professional internet scholar may or may not be specifically interested in internet studies as an academic discipline. But it is clear that Samuel, who is a member of the Association of Internet Researchers (http://aoir.org), has pondered the challenges of internet studies in relationship to his own research interests. From his background in broadcast media, Samuel is also well aware that the internet includes a complex intersection of players – including government and commerce – not just an academic game. He notes that government and media regulators have great power to change the internet, how it is accessed, distributed and ultimately taken up in the community. Samuel also mentions the role of commercial interests in the success or failure of technologies well outside the academic purview.

**Significance to internet studies and research**

The professional pathway is a goal for many scholars, with implications for the further development of internet studies and research as a field of study. Professional scholars can range from messianic to pessimistic about the internet – but their longevity and success in scholarship also offers a dispassionate view of the internet as an area of research. In other words, professionals could be interested in the internet as an emergent phenomenon, therefore including internet-based research as part of their established research portfolios. In the case of Samuel, his process included television, media theory and uptake in East Asia, and subsequently, research into interactive television via the internet. For professional scholars, internet-specific research topics may arrive via students, colleagues or even through changes in the curriculum. Generally, Samuel’s narrative suggests that professional internet scholars often have well-established academic careers outside internet-based topics, but for those interested in new media or new communicative technologies, the internet remains a vital subject/object of study. Finally, the internet research is more likely to attract students, research projects and even funding.

The strength of the professional scholar is in taking the long view. They can choose to add some particular aspect of internet scholarship to their instructional or research portfolios as well as continuing their work in other areas of interest. Samuel’s research profile resembles approaches taken by other scholars who reach into the past to explicate new media (Jenkins 2006).

**Pathway Two – the peripatetic internet scholar**

**Formal study and informing theoretical perspectives**

Lee (a pseudonym) is an assistant professor at the time of the interview, at a relatively recent but well-endowed and dynamic university in the southeastern United States. His process of formal study takes a long and winding road, encapsulated in many sustained interests besides those associated with his areas of academic specialty. Further, life necessities, such as living near his partner, following his partner to her academic position,
and lack of employment in his first academic specialty forced a series of moves around the country. The category of peripatetic internet scholar emphasizes how Lee’s academic career path was shaped by relocations – both physically and academically. Lee’s scholarly interests started early, when he was consumed by American poetry while in high school. He received his PhD in modernist American poetry, and simultaneously published a book on the topic. In the process, he became ‘an academic,’ choosing to pursue his avocational interests via a vocational path. For Lee, poetry was very important, but it was not possible to find work in this area. He continued his academic journey after following his partner across the United States, by earning a further graduate degree, this time in Library Science.

When his wife took a position elsewhere, Lee again followed her. Here, his study in information science started to pay off in terms of academic recognition. In this new university, Lee made himself ‘indispensable’ by working as the lab manager of the computer lab, developing the web pages for the online education program in Information Studies, and teaching for the School on a casual basis. Lee was then successful in negotiating a faculty position in the Information Science program.

His scholarship was definitely shaped by his journeys, but Lee’s theoretical perspectives stem from poetry, his first passion:

> And in my scholarship, I’ve been trying, some of the stuff I do is fairly standard information studies kind of things. But I also wanted to find a way to draw in my interests in the reading and interpretation of texts, with the information studies and the virtual communities part. So I’ve been trying to meld my various interests, and using hermeneutics to look at, think about virtual communities seemed like a natural direction to go. Especially, Paul Ricoeur (Lee’s interview, cited in Rall, 2007: 177-8).

When Lee moves outside of his new field of information science to consider the interpretation of online texts from a hermeneutic approach, and he also finds that poststructuralist critical theory is vital to his approach to internet studies. This negotiation has been successful: Lee has found colleagues as co-authors, and they have a few publications in this area. So far, Lee has had a lot of success with peer-reviewed conference presentations in areas of information science, hermeneutic interpretation, especially theories of narration, and virtual communities. Lee’s research interests are also integrated with his teaching, specifically the online units he designed for the School in areas of new media or internet studies.

**First use of the internet**

Far from the academic research environment, Lee’s personal history with the internet forms another fascinating journey. Lee accessed the internet at the computer laboratories on the Berkeley campus of the University of California. The Berkeley campus was a notorious hotbed of counter-cultural movements in the late 1960s and early 1970s. Activities on the campus and in the Bay area included the Homebrew group for the first personal computer hobbyists. Lee’s response to the atmosphere at UC-Berkeley prompted him to join the WELL (see Hafner, 1997). Lee insists:
my own experiences online inform everything I do. I would never claim to be an objective or unbiased observer of all this stuff. [this] also pushed me in the direction of wanting to explore what happens in virtual communities in a more thorough way than I was otherwise doing, just as a participant (Lee’s interview cited in Rall, 2007: 178).

Lee’s story is repeated by many of the participants in the study whose initial interaction with the internet was based on commitment to a virtual community (see Table 1). However, Lee arrives at internet studies through many influences: the peripatetic scholar does not simply travel, but also roams through a landscape of interests, which are reflected in his/her approach to internet scholarship. Later in this discussion, commitment to a virtual community is explored further in Pathway Four: the immersed internet scholar.

Research projects

Lee’s position at the university revolved around teaching, rather than research. And as he explains, the sense of virtual community has a real impact on his teaching, each virtual class reflecting elements of his first excitement at being part of an online community.

Summary of peripatetic internet scholarship

As a roaming, or peripatetic scholar, most of Lee’s life experiences and career twists will continue to inform his scholarship. He takes his earliest queries in modernist and postmodernist poetry and applies them to analyze life online. Lee insists that it’s not just about technology; networks are ultimately networks of people which shows the strong ties between Lee’s internet use and his notions of virtual community. Lee’s scholarship shows his influences: his attachment to the WELL, his travels, and his continual engagement with university study while moving across the United States.

His commitment has been rewarded with outstanding success in his teaching, and Lee has been promoted frequently. Another mark of academic success is that he coordinates a number of popular units in the school and supervises graduate students as well. To reach other scholarly ‘goal posts’, in the past Lee has lacked suitable colleagues to produce a great volume of scholarly publications, although this has changed. Also, he has not secured funding to conduct large-scale research in his areas of interest. However, this is not unusual for academics in the social sciences.

Significance to internet studies and research

Peripatetic internet scholars are defined by their multiple and changing interests. They are extremely flexible scholars who have persevered in their academic careers. It is due to perseverance that they will achieve some of the rewards of academic success. Lee is the outstanding example of a peripatetic scholar who has developed and followed his own interests, as well as continuing with further study in order to assure his academic employment. Peripatetic internet scholars are committed to their personal and family
interests before academic ambitions, and their work on the internet may be strongly tied to personal involvement with the internet. These scholars may work well with students and peers while teaching, but they may lack sufficient collegial relationships – or depth in their new disciplines – to generate large numbers of publications or success in building a research team. This is understandable, as numerous relocations and their active set of interests may leave them outside of core departmental projects.

The peripatetic internet scholar is motivated by taking on new challenges, whether theoretical or applied. Membership in a number of different professional organizations may support those interests without resulting in further publication outside of conference papers and proceedings. As noted above, particular disciplines may reject peripatetic scholars and their less well-established, more idiosyncratic views of the internet. As a result, Lee rejects some of the literature cited by communication scholars. Clearly, internet scholarship needs committed scholars with ‘outsider’ status to locate novel and advanced theoretical perspectives, such as Lee’s use of Paul Ricoeur’s interpretive hermeneutics (1974).

Peripatetic scholars may not be able to secure full-time employment in their second or third careers. Their wide variety of interests may dictate ‘lesser’ employment options: as librarians, website developers or online course managers. On the other hand, internet studies and research provides a good niche for peripatetic academics who find the internet fascinating. The strength of peripatetic internet scholars is their ability to consider working in risky areas without a clear academic cohort. The philosopher Michael Heim’s work on virtual realism (1998) offers one fruitful approach to link notions of digital representation to a more established academic discipline.

Pathway Three – the research-based internet scholar

Formal study and informing theoretical perspectives

Olivia (a pseudonym) is a postdoctoral research fellow within a dynamic research center within a technologically-driven university located near a capital city on the eastern seaboard of Australia. Olivia was born in England, and her education took place in a number of British polytechnical institutes and universities. For Olivia, study was “just something to do” rather than building an academic career. Olivia’s personal life was difficult, as she left secondary school quite early, and early motherhood was soon followed by taking sole responsibility for her two children.

After participating in a university program designed for disenfranchised students, Olivia then pursued advanced study at a polytechnic (now a university) in a northern industrial town in England. She found this experience was quite positive, and any hardships in combining school and her role as a sole parent were not mentioned. Here, she had a crucial engagement with the field of anthropology, especially social anthropology, that greatly informed her later research. In particular, the field of visual anthropology, where she learned a bit about radio and radio production. She was then successful in completing an Honor’s thesis, generally about emotive meanings of sound. Olivia later published
papers from this research on topics including gender, fantasy and nostalgia, and radio in domestic spaces.

After involvement with a number of ongoing research projects, including issues concerning women and health, the uptake of information and communication technologies, and community radio, she completed a PhD thesis that considered several of these issues. She was fortunate that her research was supported by scholars, with funding, who related Olivia’s background in anthropology, domestic spaces, and even women’s health to their on-going projects in information and communication technologies, especially as they interact with targeted populations (women, young people) within disadvantaged communities.

Olivia clearly associates networked technologies not with the privileged societies of the developed world, but as tools that can assist those in disadvantaged communities:

... [in the end] it’s really about exploring and experimenting with technology because it’s blatantly obvious that if you go to a poor community in India, or anywhere – and set up a community computer center, with internet access and just expect people to use it – and for their health to improve, and their incomes to increase, that’s kind of ridiculous (Olivia’s interview, cited in Rall, 2007: 185).

Olivia’s theoretical perspectives on the internet therefore become part of the conversation on capacity-building within communities, particularly among disadvantaged populations. Therefore, her research projects center on the roles and responsibilities for high technologies to improve people’s lives, particularly, as noted here, those populations who are disadvantaged and/or poor.

First use of the internet

Olivia’s first contact with the internet was less important to her than how she subsequently used the internet. While she was enrolled in study and working as a women’s health researcher, she and a fellow consultant put together a community-based radio proposal, which ultimately failed, but through her contacts with the pirate radio community, she learned of internet-based radio. So the internet became a means to an end – to serve sound via streaming technology over the internet, which circumvents any governmental requirements for licensing (at that time). Also, the purpose of the proposal was to offer capacity-building for communities in the north of England that were devastated by years of under-employment following the shutdown of various industries. Olivia felt that internet radio could be a ‘subversive’ way to build community by reconnecting people with a medium of expression that they could control themselves.

Research projects

Clearly, Olivia’s pathway to success as an internet researcher, comprises a series of successfully funded research projects, reports on activities, and a series of related publications. Her research projects have also allowed her to continue working with advanced technologies like the internet, including blogging, digital storytelling and other applications, as well as older technologies like radio.
Her first internet radio project in industrial England was focused on training unemployed or under-employed young people in sound production, music production, which could assist them in seeking work. From there, her work has taken her to some of the most disadvantaged communities in the developing world, including India, Bangladesh, Sri Lanka, Bhutan and Nepal with potential projects in Ghana and the Philippines. Olivia's recent projects also includes internet-based radio projects with disadvantaged Australian youth, especially those outside the urban fringe, where technology has facilitated their interactions with others even though they are physically quite isolated from other young people.

**Summary:** The internet scholar/researcher and significance to the field of internet studies and research

The research internet scholar views the internet and other advanced technologies as a means to open opportunities within particular environments. Internet scholars have worked on AIDs-related projects, in community access to legal services, to reduce isolation in aging populations, and in many other arenas. Internet research provides a good way to assess, and even build better basic services or employment opportunities within disadvantaged communities (see Keeble & Loader 2001). Here, scholarly efforts are tied to the grant application process and the performance of research activities in the field. Taking an applied approach to ICT in developing communities is very much a problem in theory as well as practice. Without established methodological frameworks in which to carry out their research, Olivia's team grounded their work by modifying ethnographical research methods with an action research methodology.

Olivia provides an outstanding example of a research-based scholar. She is successful in attracting funds for a number of research projects in the developing world and also with youth in the UK and Australia. Further, she is concerned about how to measure the efficacy of these projects and she has improved methods to evaluate the success or failure of high technology projects in a wide range of developing, or emerging communities.

Note that internet researchers may 're-configure' technology to suit a community-based situation, such as when Olivia was able to circumvent a problem in a community radio project, by using a streamed radio format that could be delivered via the internet, which at that time, required no license. Further, it is important to note that Olivia and her team were successful in re-working research methods to suit the novel requirements of their research projects. In one project, they developed new evaluation techniques to measure internet or advanced technologies and their impact for projects that were designed to assist community development in the developing world. Here, success in internet studies and research depends on internet researchers and their ability to evolve the novel research designs and evaluative methods that will work within the increasingly complex arrangements of virtuality and human society.

Clearly, the internet continues to shape the world around us, and internet researchers, with their special expertise will be in demand, particularly those who are skilled in adapting their research methods to particular problems in sustainable development. Also, new scholarly emphasis on internationalization is noted by scholars who have
documented how the internet plays out in international contexts (see Goggin and McLelland 2009; Brüggers 2010; Liao and Petzold 2010).

**Pathway Four – the immersed internet scholar**

**Formal study and informing theoretical perspectives**

Chris (a pseudonym) is in the second year of his Master’s degree in Communication (minor in English), at a large midwestern university in the United States. He came to the department only 13 days after finishing his Bachelors (English) at a large university in a nearby state, noting that he has studied continuously since he began primary school. Chris chose a Masters over a PhD, in order to spend time improving his computer literacy, particularly in the code base of specific internet applications, such as weblogs, or blogs. He feels that these code-level differences determine some of the communicative capacity of what happens in various internet ‘spaces’ – blogs, chat groups, and the various sites for social networking.

Chris’s theoretical perspectives are shaped by his area of study, which is English (Rhetoric). His specific work employs a pedagogical analysis of how people become effective readers, i.e., those processes that occur between the reader and the text via computer. Previously, he worked with a Humanities-based computer network designed to help scholars connect with the relevant literature, meetings and conferences, and included discussion forums about what the Humanities mean. As one example, Chris refers to the digital pre-prints that are posted on particular websites by mathematicians. This phenomenon has been noted by information scientists who analyze scientists’ use of the internet (Beaulieu et al. 2007). Chris’s thinks that the internet, as a set of communication technologies combined with standard ways of presenting information – its rhetorical power – can change the structure of an academic discipline.

Chris later contrasts the mathematicians’ use of the internet with the formal and informal policing that is associated with the internet newsgroup called cypherpunks. The cypherpunks is an example that focuses on a community of users, and how they may/may not be able to govern themselves in cyberspace. As Chris and others have noted, the whole issue of establishing rights for users was much easier when newsgroups were accessed through usenet, a unix-based system (see Hauben 2002). Now that these newsgroups have migrated to the World Wide Web, it becomes more difficult to keep outsiders from joining a published newsgroup. So, Chris suggests that these policing activities now become part of the insiders’ code – a set of rhetorical codes – that help to ‘discipline’ their group.

**First use of the internet**

In contrast to the other internet scholars, Chris has used computers since he was a young child. Chris’s computer use puts him in a particular category of scholars, those who function within the environment, *the digital natives*, rather than as ‘outsiders looking in’ (see Palfrey and Gasser, 2008). Digital natives are not necessarily immersed internet
scholars, but in an increasing internet-based world, the opportunity for immersion happens in developed societies more or less from birth.

Chris comments on his use of computers in primary and secondary school:

> You know when you first get a computer, it’s like ever since I was 11... I was amazed at the fact that – I remember the first time that I logged onto Berkeley's public ftp server, and just like – the text files that were on there. We found so much stuff to read about, we were reading H.P. Lovecraft stories, horror stories... like we were 12. We looked at chemistry stuff, bomb making, and that kind of thing. [laughs] We were those kids! (Chris’s interview, cited in Rall, 2007: 189).

Also, he notes that it was a pretty local thing, and all the kids around him were doing it, so he called them and interacted with other ‘geeks’ every day – what Chris calls a ‘real’ or ‘authentic’ internet experience. His conceptions of what networks mean and how they act came from his cohort, where he interacted virtually with neighborhood friends. As his ‘geek’ status continued in tertiary study, it seemed only appropriate to study the internet as well as continue his work-study employment in assisting the department with their computer networks.

**Research directions**

Chris does not yet have research projects, but he has a large scholarly background in rhetoric, or as he indicates, the pedagogy of literacy. While many topics are interesting for Chris, most of them were subsumed by his desire to know “what’s really going on,” and for Chris, that happens at the level of where and how the computer code generates the shape of the interaction that appears on the screen. This is the immersion pathway.

**Summary: The immersed internet scholar and significance to the field of internet studies and research**

There is much research on the digital natives, those children or young adults who have grown up using computers and the internet, and how these users differ from older internet users (Gurak 2001; Palfrey & Gasser 2008). Besides different cognitive approaches to highly networked technologies, digital natives also have new internet practices. They often connect to the internet through highly mobile appliances, including personal digital assistants (PDAs) and mobile or cell telephones. It has become a cliché that digital natives take technology for granted, although they may not be as technologically adept as some researchers have assumed (Purdy & Walker, 2007).

While Chris is clearly a digital native, his perspective comes from a deeper place. As a self-identified ‘true geek’ he refuses to have a cellular phone because he finds it a ‘superficial’ type of technology. Further, he has tensions with internet scholars that clearly come from outside of the ‘geek’ community(ies):

> Calling something a ‘virtual community’ – or calling it a community and then trying to map non-computer mediated concepts and metrics of those things onto what's taking place there... Not that I don’t like AoIR (the Association of Internet
Researchers), a lot of people at the conference were doing things that I thought were pretty cool. But the virtual community stuff always kind of leaves me flat, and I go, ‘so what?’ They always strike me as people who are – illegitimate users – because I’m a geek from way back (Chris’s interview, cited in Rall, 2007:194).

Many internet scholars research people’s lives to locate how and why they would take up particular technologies, particularly internet technologies, and integrate those in their everyday lives. However, Chris emphasizes that his approach is based on how technologies inform and enable, and limit, literate behavior and literacy practices. Chris’s approach, from the perspective of strong vs. weak technological impacts, is a strong approach (Bernard and Pelto, 1972). While looking at the infrastructure, it is the application layer, or as Chris puts it, ‘the code base’ of where internet applications (such as web pages and weblogs) exist. David Jay Bolter, in his classic, Writing Space (1991, 2000) opened the door to code-based rhetorical practices. Currently, those who study the internet in this way have initiated projects in critical code studies (Marino, 2006) or critical software studies (Fuller, 2008). Of course, the internet offers other types of immersion, such as those who may spend as much time online in role-playing games or virtual communities as they do “IRL” (in real life). This research direction continues with ongoing work on social networks which will provide further elaboration of immersed scholarly approaches.

Finally, most academics in the social sciences view the internet from their computer screens, as they track connections between users (Hine 2005; Markham and Baym 2009). In contrast, immersed scholars see the internet as a set of technologies that take place behind or beyond the computer screen via vast networks of transferable code (see Columbria 2009). The immersed scholar may not care about the outside trappings of an academic career: collegiality, publication, teaching, research projects, and in particular, promotion and tenure. But in order to stay ‘in the network’, immersed scholars need a benign atmosphere in which to pursue their studies. Therefore, the Academy is the appropriate place for immersed scholars, who often take on positions in computer laboratory management or pursue advanced academic study at universities as a means to stay immersed in computer networks.

**Summary of the four pathways**

These four pathways to internet scholarship cover a great deal of terrain – in the variety of academic disciplines, lived experiences and career choices. Clearly, these pathways are not mutually exclusive – there is the possibility, or even the likelihood, that many internet scholars will traverse one or more of these four pathways due to changing life circumstances or career opportunities. Future internet scholars may travel very different types of pathways as the terrain of both the internet and the Academy changes its topology. However, these pathways are of sufficient variety to demonstrate the aims of the study: to detail the process of scholarly engagement when the intellectual terrain is challenging – as both the technological and theoretical infrastructures change.
The process of scholarly engagement

Each profile was analyzed through an interpretive process of narrative (Denzin, 1989). The power of narrative, or in this case, academic biographical narrative is two-fold. First, these four autobiographers tell their stories in retrospect, a perspective that highlights the sequential nature of career choices made. As life decisions are reviewed retrospectively, the process of sense-making takes place. As William H. Gass, the literary critic states, ‘narrative forms have always enjoyed a privileged position, as if they were the best mirrors of reality’ (2002: 27). Taking the perspective of best in the sense of truest, narrative information provides insight into the processes (choices, life decisions, relocations, etc.) that have led to internet scholarship. The previous sections have detailed the purposive activities of four internet scholars. Now, the second part follows:

how scholars from different academic backgrounds, when pursuing internet-based phenomena evolve a process of scholarly engagement – which provides a mechanism for developing scholarly interests when academics are surrounded by unfamiliar terrain (Gibson & McHoul 2000).

The unfamiliar terrain of Gibson and McHoul translates here to the study of the internet. When scholars research the internet, their studies take place in an ever-changing environment. Further, they must shape their studies to previous research guidelines that are sanctioned by the Academy. Here, Gibson & McHoul have provided a mechanism to integrate the unknown or untamed knowledge with the formal requirements of study. They defined this process as a new literacy, previously introduced by William Hoggart’s The uses of literacy (1957). One segment in Hoggart’s book details the life of a ‘scholarship boy’. This segment describes in detail what happens when sponsored students who entered public (private) schools in England from working class families. They were unfamiliar with the norms, values, and attitudes necessary to achieving the educational goals implicit in such settings. Hoggart suggests that these students fall prey to a debilitating self-consciousness as they struggle to educate themselves without peers, at a ‘friction point between two cultures’ (1957:292).

There is much to quarrel with in Hoggart’s scenario (see Goodson and Sikes, 2001 77-86), but it is the process of literacy that remains key to this discussion. Forming a new literacy exposes the dilemma of scholarly negotiation: how to meet the Academy on scholarly terms while taking knowledge from a life lived online. In this way, the study of the internet leads scholars into previously un-defined areas, a space that Dikovitskaya calls ‘an ontologically dangerous place’ (Dikovitskaya, 2005:3). Therefore the key requirement is to negotiate between meaningful academic strictures (publication, coursework, collegial, departmental, research ethics, and funding agency requirements) and this wild or untamed knowledge area called ‘internet studies.’ Finally, literacy is an enduring model as it remains foundational to academic knowledge production, particularly in new fields of study. Consequently, internet scholar must make sense of their current interests in new media and technology and the formal academic disciplines that define their places of work. This process is defined as a pathway to internet scholarship as represented in Figure 1.
Concluding remarks

There are a variety of mechanisms whereby internet scholars negotiate between their traditional academic frameworks and their work in a new field of study. The profiles presented here demonstrate how a selected set of internet scholars continue to rely heavily on their traditional areas of study. The formal disciplines offer many strengths: analytical tools, research methods (even if they must be adapted) and the critical perspectives offered from sociologists and postmodern theorists. Early academic influences remain very important, as they offer a way to discuss and analyze new concerns. While Samuel took his framework from early media theory offered in Canada, Lee centered his concerns around a critical approach from hermeneutics which he found valuable as he subsequently embraced information science. Olivia took her methodological approach from social anthropology, and Chris read the internet through his rhetorical framework. It is significant that none of these scholars abandoned their previous interests, even if those research areas were outside of the usual studies found in internet research. Further, Lee suggested that his work reflected the French concept of briocolage – the requirement to ‘use what is at hand.’

Several decades ago, Hugh Petrie remarks that because intellectual terrain is always in flux, good scholars require ‘a taste for adventure into the unknown and unfamiliar . . . a really good disciplinarian is, ipso facto, adventurous’ (1976:33). Others have suggested that scholars, who persistent in their study, can often progress even through unlikely life circumstances. For example, Clifford Geertz, having completed his degree in Philosophy, finds himself looking elsewhere for employment:

The question was: where, elsewhere? With nothing substantial in the way of a job . . . I thought it expedient to take shelter in graduate school, and my wife . . . thought she might do so as well. But, once again . . . we were without resources. So . . . I asked another unstandard academic, a charismatic philosophy professor . . . who had been John Dewey’s last student, what I should do. He said [approximately] Don’t go into philosophy; it has fallen into the hands of Thomists and technicians. You should try anthropology (2000:7).

Geertz continues that funding was available to go to Indonesia, and therefore the couple became anthropologists, and further, specialists in Indonesian culture, ‘the working out of happenstance fate’ (2000:9, emphasis added). In this way, Hildred and Clifford Geertz became peripatetic scholars.

Finally, some academics will find this process of scholarly engagement quite challenging. From the original 28 participants, one academic reports that her examiners disliked her thesis because it was on the edge of too many disciplines. Others expressed frustration with career opportunities available to internet scholars, such as, ‘there’s no tenure-track for internet researchers’ and, ‘if you want a job [in this field] you have to re-invent yourself every two years’ (Paula’s interview, cited in Rall, 2007: 212). These fractures between traditional scholarship and the study of the internet are well evident within the four profiles, and the following remain as areas of difficulty:

- how to develop coursework for internet studies,
• how to add internet studies to an established academic department or school,
• how internet scholars can secure their academic standing, including promotion and tenure while their work necessarily includes ephemeral phenomena, and
• how to negotiate with university ethics committees to accomplish the goals of internet research.

In conclusion, there are many challenges for internet scholars. Recent concerns exist with copyrights in a digital world, intellectual property rights, and how research ethics apply to new digital platforms. The act of collecting data from internet sites and participants has been greatly complicated by university ethics committees who may demand signed agreements from online participants – some of whom may want to protect their onscreen identities. As information arrives and leaves daily from the internet, this calls internet researchers' methods into question as well as their results – as comprehensively discussed in the recent *International Handbook of Internet Research* (Hunsinger, Klastrup & Allen 2010).

In order to advance, internet studies and research must make progress in a number of contested areas: to locate a proper scholarly home within universities, to allow its scholars (without anxiousness for their careers) to mature through processes of scholarly engagement that require both personal and professional development. Further, internet-based research methods must be legitimized as part of ethical research practices, and empirical projects must garner more support from granting agencies.

In conclusion, the pathways discussed here demonstrate several successful routes through which four internet scholars have negotiated between an ontologically dangerous object of study (the internet) through the lens of their prior academic study. While there may be other pathways in the future, these four profiles are helpful, because they offer *didactic models* to assist future scholars in negotiating the gap between their internet-based activities and their roots in the established academic disciplines. With institutional support, further refinement of research methods and encouragement from their peers within venues such as the Association of Internet Researchers – internet scholars will thrive as exemplars of academic achievement in the third millennium.

**Notes:**
1. The researcher declares that she followed a peripatetic pathway. It is likely that her multiple academic interests, as well as moving with her partner from country to country allowed her to quickly identify the peripatetic pathway and its potential significance to internet scholars.
2. It is noted that scholarships were given exclusively to boys in this period of post-WWII education in the UK.

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