

Moving Outside the Box: Researching e-Learning in Disruptive Times

Paula Charbonneau-Gowdy

Universidad Andres Bello, Santiago, Chile

paula.charbonneau@unab.cl

Abstract: The rise of technology's influence in a cross-section of fields within formal education, not to mention in the broader social world, has given rise to new forms in the way we view learning, i.e. what constitutes valid knowledge and how we arrive at that knowledge. Some scholars have claimed that technology is but a tool to support the meaning-making that lies at the root of knowledge production while others argue that technology is increasingly and inextricably intertwined not just with knowledge construction but with changes to knowledge makers themselves. Regardless which side one stands in this growing debate, it is difficult to deny that the processes we use to research learning supported by technology in order to understand these growing intricacies, have profound implications.

In this paper, my aim is to argue and defend a call in the research on ICT for a critical reflective approach to researching technology use. Using examples from qualitative research in e-learning I have conducted on three continents over 15 years, and in diverse educational contexts, I seek to unravel the means and justification for research approaches that can lead to closing the gap between research and practice. These studies combined with those from a cross-disciplinary array of fields support the promotion of a research paradigm that examines the socio-cultural contexts of learning with ICT, at a time that coincides with technology becoming a social networking facilitator. Beyond the examples and justification of the merits and power of qualitative research to uncover the stories *that matter* in these socially embodied e-learning contexts, I discuss the methodologically and ethically charged decisions using emerging affordances of technology for analyzing and representing results, including visual ethnography. The implications both for the consumers and producers of research of moving outside the box of established research practices are yet unfathomable but exciting.

Keywords: qualitative research, socio-cultural contexts, ethical issues, critical theory, visual ethnography

1. Introduction

These are disruptive times. In a recent nationwide discussion on the benefits of higher education, a panel of young students, aspiring professionals about to graduate from their respective university programs, were asked about the key take-away, in their views, of the years they had spent in the various well-respected institutions they attended. Their unanimous answer could be considered surprising. They concluded that the value of those years was not *what was learned*, indeed, many claimed they recalled nothing with respect to facts or information that constituted their courses. Instead, it was the strategy of *how to learn* that they saw as the most vital gain they made from those years of study. It seems in this fast-paced, technology-driven world in which we as educators live and work, our focus is often on the *what, when, why* and *where* of learning that takes precedence. Stopping to reflect about the *how to learn*, in other words the tools and strategies that influence us and the ways we learn seems to be a luxury for which most of us find little time. Researchers are no exception.

In this paper, an opportunity is provided to do just that. Pausing to consider *how* we as researchers learn and others who depend on our work, involves critically examining the research tools, methodologies and methods that we consider are able to lead us to new knowledge and insight. In pausing, we not only need to ask critical questions about where we have come from in terms of tools, methodologies and methods for conducting research. It is also imperative to examine where we are going, given the emerging use of ICT both in our research of e-learning spaces and the digital tools at our disposal for conducting these activities, particularly in the changing field of education. Underpinning an aim to take time to stop and question is, first of all, the growing call for grounded theory to inform technology-based learning design and development (Calic and Resnyansky, 2015; Hill et al., 2009). Secondly, it is the need to disrupt current orthodoxy and challenge fixed categories in *how* we conduct research and what constitutes legitimate in terms of research knowledge in order to effectively respond to that call. In others words, what are we missing in terms of our understanding of *how to learn* in e-learning spaces, by relying predominantly on numbers-driven research approaches? Or expressed in another way, what knowledge that is essential to our understanding of e-learning lies undiscovered by adopting a narrower view of what constitutes value in terms of data, research findings and approaches?

The paper is intended to be a critical reflection of the methodological challenges facing e-learning research during its brief history. I begin this reflective process by providing some background stories of researching e-learning spaces that I have conducted alone or with others over the last fifteen years. The decision to present these stories at the outset followed by the theory and historical references that can help to explain them rather than the reverse is meant to be reflective of the heuristic process that my own path in researching e-learning has taken. This decision is also based on the belief that by casting light on the normative in each of these research settings and unpacking the intricacies within, we are better placed to enable a critical perspective (Darvin & Norton, 2013) towards what was occurring in these situations. My aim in recounting these stories is to reveal concrete examples of how some of the quantitative/qualitative paradigm struggles that have arisen over the last twenty years have negatively influenced the development of e-learning practices. From my perspective, continuing in this trajectory will ultimately limit us from generating critical knowledge in the field. My goal is not only to build a case for greater respect for qualitative research methodologies in the evolving field of e-learning research, but also to provide a basis for further theoretical discussion on the need for change in the narrative in terms of researching e-learning spaces in the years to come.

2. The Development of E-learning Research – a personal experience

In 2001, when I first began researching the implications of technology in learning sites, I raised the point that the research that was being conducted at the time was failing to answer the questions that were arising in my own and fellow teachers' practices. For example, while we were attempting to understand why initial enthusiasm among learners to use technology tools for learning was waning after 5-6 weeks, scholars were focused on producing numbers-based results to support greater accessibility to the very same tools. Or in the same vein, while we were beginning to unravel the need for more social-learning based tools to give agency to learners in their learning process, many researchers in ICT were, and arguably still are, attending to the affordances of ever more powerful information-transfer-based technologies and those for repetitive practice (Chapelle, 2003). We witnessed all too clearly how these technologies inevitably placed learners at the periphery of the learning process and as receivers of information rather than agents and generators of knowledge production. Indeed post-structuralism theories are showing "real" learning takes place precisely in contexts where communication to construct knowledge among individuals is fostered. Our focus at the time was on the influence of emerging social networking technologies that enable learners to interact with others while engaging in and building community (Lave & Wenger, 1991). We were convinced that these communities could provide agency and support our learners' creative process of socially constructing knowledge. It is clear that our efforts were, albeit unconsciously perhaps, closely aligned to 21st century social cultural theories.

Looking back from our current vantage point to these contradictions and armed with a deeper theoretical understanding of what we were experiencing at that time, I realize that the tensions that I personally was sensing while researching within the field of e-learning were rooted in diametrically opposed epistemological and ontological beliefs. From Hofer (2002, p. 4) I understand one's epistemology as reflecting a belief about "the definition of knowledge, how knowledge is constructed, how knowledge is evaluated, where knowledge resides, and how knowing occurs". Ontology on the other hand, explains one's view of the nature of human beings and their relation to one another and to their tools. For example, in simple terms, a quantitative researcher's perspective of knowledge about human behaviour in an e-learning situation can be explained with statistical results from individual responses to a survey or their reaction to stimuli in a decontextualized experimental situation with a strong emphasis on discovering causality (Hammersley, 2013). On the other hand, a qualitative researcher might feel justified claiming to understand behaviour once armed with rich detailed data gained through a complex combination of extensive observation of and testimonies from human beings interacting in 'real' technology-embedded situations, as well as rich contextual information from those e-learning spaces. Heigham and Croker (2009) explain that for qualitative researchers "[the] research focus is on the participants – how participants experience and interact with a phenomenon...in a particular context..." (p. 7).

Thus, depending on one's stance with regard to philosophical beliefs about knowledge and human behaviour, one is necessarily drawn to different perspectives of technology, its pedagogical use and even the means, i.e. methodologies, employed to examine that use. The tensions that ensue from these various standpoints have traditionally been explained, as in all human interactive activity, by struggles of power (Bourdieu, 1991) and the conditions within such interactions that set up unequal access for being heard. An unpacking of the power

relations that seemed to be clearly at play in the sites in which my early studies in technology took place, I believe, can serve as examples of these power struggles. A common characteristic of these various contexts points to the hegemony shown to be exercised in these institutions of learning that influences not only e-learning practices but also how they are researched. By hegemony, I reference Hinkleman and Gruba (2012) and the way institutions privilege certain practices, concepts and tools that support their own, most often economic and sometimes ill-conceived, agendas.

In the next section, I weave together some further personal narratives of my research experiences and the critical theoretical lens through which I have chosen to frame them. I ask myself what insights they can offer to our discussion and exploration of research practices, as well as their acceptance and dissemination, especially in view of a burgeoning field of e-learning research and increased journal publications in this area. In posing this question, I acknowledge my position as a researcher who seeks with each project I conduct to promote human connection. It is within these connections that I see the greatest potential for learning. I also understand along with Bonk & Graham (2006) that education and technology are the main tools that we have in our globalized realities with which to confront and overcome the uncertainties and changes in the world that can rob us of control over our lives.

One of my earliest studies (Charbonneau-Gowdy, 2009) took place in the context of a NATO language immersion program, where military officers from former Soviet countries came to Canada to increase their skills in English. The program design included not only classroom teaching, but also exposure to a multi-million dollar Canadian government-funded and in-house developed, multimedia language learning courseware. There were many complaints from teachers and learners in the NATO program about the structured nature of these tools, the questionable value of their information-transfer pedagogical basis and the fact that they were not culturally aligned to the realities of former Soviet military. Yet, the power of IT selection policies on the part of the government to ignore these complaints was ever-present. The strong evidence generated and backed by substantial qualitative findings in the longitudinal Action Research study that I conducted indicated the lack of effectiveness of this multimedia software in terms of developing the language learning and self-directed learner identities of these military. Not surprisingly, these findings were ignored. It was made clear from reactions to the results of the report that a more numbers-driven, quantitative research approach was expected and any alternative was of marginalized interest.

A second example of power and hegemony infiltrating the practices of e-learning research can be found in a further study I conducted in Canada within a government department mandated to provide French and English second language training to federal public servants. The qualitative 6-month study (Charbonneau-Gowdy, 2009) consisted of researching an innovative distance-learning program that offered language learning-in-use to small groups of geographically dispersed public servants living outside urban areas and cut off from essential face-to-face SL practice. The sessions were supported technically by a robustly-powered videoconferencing technology considered as state-of-the-art at the time and developed for the sessions by a small independent start-up tech company. Through an international exchange agreement between Canada and the Czech Republic, the sessions were also provided to undergraduate military students in a university in the Czech Republic. A fellow researcher in the Czech Republic simultaneously conducted a quantitative study with the Czech participants (Cechova, 2010). Both studies' results uncovered significant evidence of the strong pedagogical value of the distant ESL program.

Meanwhile, within the Canadian context, the government was constructing an ILMS site that would support a costly in-house language learning' program that was being specifically designed to resemble commercial online Second Language (SL) programs, despite the lack of research supporting the effectiveness of these commercial programs at that time. The project was driven by government's aim to reduce the need for language teachers and yet justify that the department was meeting its SL training mandate. In the Canadian government ILMS-based program, an in-house department-led quantitative study was complimented by my 5-month qualitative study. Results of both studies were conflicting; the qualitative showing far less encouraging results. Ironically, the commercial programs consisting of stand-alone, information and practice-based software on which the ILMS were based have subsequently been shown to lead to such high rates of attrition that measures of learning advances were impossible to determine (Nielson, 2011).

While strong evidence from the rigorously conducted research of the distance learning video-conferencing sessions indicated their positive value in terms of learning and identity construction, the ILMS program with

conflicting results prevailed as the official government choice. The subsequent decision to terminate the distance videoconferencing sessions in Canada and for the Czech Republic after two years, despite its obvious sustainability, although disappointing on the part of many learners, was not surprising. Complex power structures embedded in that decision making were evidently intertwined with other priorities. Research is always political. Now years later, there is anecdotal evidence that the government has decided to return to traditional forms of classroom language teaching after years of poor results from their previous ICT choice.

Following is a third example to illustrate the current conflicting views of what constitutes valuable knowledge and also to highlight a further example of the power structures that influence research practice in the field of e-learning. This example is based on numerous studies I have conducted with others in the context of an EFL teacher education program in Chile. In this context, the various qualitative inquiries and projects I have led over the last five years have aimed at instilling an interest in, and initiating a dialogue about e-learning. To continue to push for qualitative research has constituted a significant challenge given the traditional research and pedagogical environment that exists in Chile (Sadler and Arancibia, 2015). This traditionalism is evident not only in the pedagogical practices of many educators but also in the propensity within the Chilean educational community for valuing quantitative over qualitative research practices, especially at the tertiary and national government level. After almost 5 years of working and researching in this context, it has become apparent that qualitative research remains under valued and e-learning at the rhetoric level, except in the efforts of a few maverick innovating educators, researchers and pre-service teachers (Charbonneau-Gowdy et al. 2015, Sadler and Arancibia, 2015). The challenges that stand in the way of a broader view of research in e-learning seem to lie in a pervasive perspective that equates learners to customers, i.e. statistics, that just need to be satisfied and retained. This perspective is also characterized by a view of technological infrastructure as an add-on tool, the purpose of which is to cater to the knowledge transmission practices of a majority of faculty.

All technological systems including the e-research approaches with their different modalities that seek to understand them, are embedded in “political webs of significance that tend to remain invisible”. (Hornborg, 2008, p.4; Feenberg, 2002). In each of the three narratives related above, it is clear that military, government and university decision-making officials, have chosen to ignore the robust qualitative evidence that supported their investment in the use of social learning technologies and the effective teaching/learning practices that were being promoted through their use. One could easily conclude from these not uncommon scenarios that senior policy makers’ decisions concerning e-learning reflect the complex ‘invisible’ agendas of large institutions to which most individuals, educational researchers included, are often not privy. Yet, scholarship in education based on critical theory reminds us of the important value of examining such educational scenarios and decision-making for our understanding of how to promote change despite the barriers that we confront. According to this scholarship, only through research processes that are preoccupied with contextualized data generating and that are human rather than object oriented (Hendry, 2007), as within the qualitative research paradigm, can we seek to disrupt such decision-making.

To understand this view requires a first brief look back at the history of qualitative research in education, followed by an explanation of the critical and ecological perspectives that exist within this field. Through the lens of history and these perspectives, I underline the significant contribution that qualitative research has made to our understanding of the emerging essential and complex role that technology is and could play in formal learning sites.

3. A Brief History of Qualitative Research in Education

A perusal of recent journals on education and technology and/or e-learning demonstrates the lack of qualitative research that exists in this emerging field. This paucity in representation reflects a similar one that occurred in broad educational research in the early 80’s. At that time, Paradigm Wars that were waged between positivists and post modernists centred on arguments that rested on notions of incompatibility of qualitative and quantitative methods and the fundamentally different worldviews that existed between qualitative and more traditional researchers (Donmoyer 2006, p. 23). But by the mid 1980’s, as a result of these wars, qualitative research managed to position itself as a respected form of inquiry. Emerging Vygotskian-based views of learning from a sociocultural perspective were also necessitating a research focus on the contexts of learning. Guba and Lincoln report (2005, p.191) there was an explosion of qualitative studies and the proliferation of qualitative inquiry led the way for a “distinct turn in social science research

toward more interpretive, postmodern and criticalist practices and theorizing". Indeed, qualitative research predominated as a basis for inquiry in the field of education for over twenty years. Then shortly after 2000, Denizen (2008) explains, subsequent to 9/11 and the rising fears in the Western world fueled by global political and economic instability, government and institutional accountability structures responded. Their response led to a resurgence of a preference for a new positivist scientific ideology and a re-opening of the questioning of qualitative research in education as a legitimate method of knowledge generating. The current marginalized status of qualitative research that exists in the field of e-learning today seems non-coincidental considering that e-learning journals began to emerge precisely at the time of the re-opening of this qualitative/quantitative debate. The institutional roadblocks that I confronted and explain above through my research stories, occurred around the same time and are arguably a further reflection of this period of controversy over the legitimacy of various knowledge sources.

In light of and in response to these ensuing debates, the choice qualitative researchers have been facing has been to join the call to reignite the Paradigm Wars (Hatch, 2006, for example) or from others (Guba and Lincoln, 2005) to participate in initiating a paradigm dialogue. In view of the conflicting tension, still other researchers have chosen a middle road and combined the two approaches under a mixed methods paradigm. Yet, given the relatively young field of e-learning wherein many qualitative researchers' passion to research and promote change lies, constructive discussion seems to be the ideal place in which to put one's efforts. Through such discussion (Lincoln & Denizen, 2003), there is a forum to document how qualitative research, combined with the various ethnographic tools available in this approach, has the potential to unpack constructions of social reality in digital spaces that are still undiscovered. These discoveries could permit us to enrich our understanding of the human condition in these unique spaces. Such discussions beg attention particularly in the context of learning where new emerging technologies are involved. Within these human activity sites, as illustrated above, the inherent presence of power can either limit or allow the freedom of others to learn and develop. Indeed, many qualitative researchers in Second Language Education (SLE), the research field within which the research stories above are located, frame their inquiries on critical theory (Darvin & Norton, 2015; Warschauer, 2011, Cutrim Schmid, 2006). In the next section, along with critical theory I explain how within qualitative research we find the tools, including new technology-based ones that are essential for uncovering these power structures. In this explanation, I draw from SLA literature to provide a further argument for working within this paradigm and the value of the exploratory processes it supports.

4. Tying Qualitative Research and Technology to Postmodernist Theoretical Issues

In my early years of researching emerging social networking technologies, I often expressed the hope that these new and increasingly powerful technologies could offer a "third space" or what human geographer Lefebvre (1991) calls 'espace veçu'. By third space, I was envisaging a virtual space lived through social practice where learners could resist dominant discourses that are present in more traditional formal learning spaces. I saw hope for technology-supported learning as a site for individuals to connect in order to learn and develop their potential through communication with others. These hopes represented at the time, and still today, a stance that reflects a postmodern perspective of technology. Postmodernists seek to question assumptions of knowledge and practice (Pennycook, 2006). Working from a postmodern perspective, Feenberg (2008) developed a critical theory of technology that has been useful for my own inquiries. The theory asserts that technologies are socially constructed practices-in-action and not objective entities as many researchers who research in technology and e-learning seem to assume. His theory is critical in the way that it confronts *deterministic* views that hold that technology can dominate and control human action as well as utilitarian or *instrumental* views that regard technology as simply a neutral tool that supports the learning process (Hinkleman & Gruba, 2012).

In the field of language education, for example, Warschauer (1998) has established that the majority of Computer Assisted Language Learning (CALL) researchers have assumed *instrumental* views (technology as a neutral aide). He argues that in so doing, researchers have overlooked the power of technology to change language education both by creating new literacies and de-emphasizing the orthodox ones. Underpinning the *instrumental* view of technology is a corresponding choice of research methods that is objective rather than human-centric and that skims the surface in determining how technologies are influencing learning, and importantly learners, in practice. According to Cutrim Schmid, (2006, p. 27), the downside of prioritizing experimental approaches to research in technology that reflect a *deterministic* (tool centric) or *instrumental* (tool minimized) approach to the study of technology is that these approaches decontextualize the technology

in order to study its essential characteristics. In other words, this kind of research promotes a view of the nature of technologies as fixed (an *essentialist* view) rather than adding to an understanding of the nature of technologies as being dependent on the action in which they are used (*relational* view). Importantly, she connects the lack of academic status of research in technology, particularly CALL research, to the apparent absence of strong theoretical frameworks in this area. She refers especially to frameworks that fail to stress the necessity of contextualizing technology and understanding its social embeddedness and the implications of its use as it is integrated into a context.

Conducting more research that asks questions about the use of technology in context presumes methodological tools that lead the researcher to focus on human beings and what happens as they appropriate technology into their learning. Tools within the qualitative paradigm are designed precisely to unravel the stories of such contexts. As Bruce (1997, p.12) points out “in order to understand what technology means, we must examine how it is designed, interpreted, employed, constructed, and reconstructed through value-laden daily practices”. To get at the multiple areas in “value-laden daily practices” involving new emerging technologies with their expanding capabilities, qualitative research offers multiple tools that simply are lacking in experiential research paradigms. Indeed, the growing importance being placed on teacher reflective practice and classroom-based research (Borg and Sanchez, 2015) are leading to an increasing number of teacher/researchers taking advantage of these tools. Following are two examples from the field of SLA research that exemplify the value of qualitative methods and classroom-based research to lead to new understandings of technology use in context. Through the iterative process of conducting such research I believe there is a beginning to see new sources of understanding, and importantly, openings for using ever more powerful technologies to support qualitative research practices.

The first example is a study conducted by Hinkleman and Gruba (2012). The qualitative longitudinal study conducted in tertiary education institutions in Japan used action research and ethnographic tools to examine the blended learning practices involving electronic technologies in these institutions. The inquiry benefited from an insider/outsider positionality account of the learning environment along with extensive data generated through interview transcripts, teaching journals and institutional documents. Through the voices of the teacher participants and using postmodern, critical, and ecological perspectives of technology, they explored the hegemony in facility planning (online vs. face-to-face), control of materials development (publisher-based vs. teacher-based authorship), and development of software designs (proprietary ownership vs. distributed teacher initiatives). Their findings emphasized how power was redistributed through the blended learning design, which allowed face-to-face teaching, teacher-authored materials, and locally-designed software to take on greater prominence. Important to our arguments for the power of qualitative research to uncover new knowledge, the Action Research led to important changes in the program design. The findings also revealed that the management structure of the teaching faculty involved in the study was of more significant influence on the design of blended environments than techno-centric, experimentally-driven CALL studies could have suggested.

A second qualitative study that supports the arguments I am raising here, was conducted by Cutrim Schmidt (2006) in Germany. In her study, she examined the use of interactive whiteboards (IWB) in teaching multi-disciplinary groups of international students enrolled in college ESL programs. As teacher/researcher in the study she was in a privileged insider position for collecting a large quantity of rich ethnographic data from a variety of data sources: classroom observations and feedback from critical colleagues, teacher’s field notes, video recording of classes, an online discussion forum, classroom discussions, semi-structured interviews with students, and pre- and post-course student questionnaires. In adopting critical theory in the analysis of the data, she reveals through the voices of her students how various individuals and groups appropriated and reconstructed the technology depending on the social dynamics and their learning processes. She argues that the new ways in which the affordances of the IWB were exploited and adapted in favour of a more learner-centred and discursive pedagogical approach, underline the *relational* view of technology. This view along with a comprehensive theoretical analysis of the social and pedagogical issues involved in the use of the IWB uncovered novel and innovative ways that the technology was transformed in practice. She concludes that her findings constitute important forms of knowledge that would have remained unavailable with an experimentally designed research study based on efficacy- and instrumental-oriented forms of analysis.

Both of these studies highlight the pragmatic use of qualitative research in unpacking the complex social cultural contexts of technology use and its implications for learning. The implications of social cultural theories

for knowledge generating in the field of e-learning have been well documented (Hill et al., 2009). According to Hill et al. (p. 88), the most important of these implications for web-based learning environments (WBLE) are the knowledge they provide to us in terms of: a) learners' individuals characteristics in WBLEs b) strategies for promoting social interaction within WBLEs, and c) informing design principles for effective practices in WBLE.

5. Projections for the Future – methodological and ethical

While joining with others (see Levy, 2015, for example) in making a strong case for increased recognition of and activity in qualitative research in the field of e-learning, I am cognizant that there are unique ethical and methodological challenges within digital spaces that need to be considered in responding to this call. Some growing concerns have been expressed about the limitations of traditional qualitative tools to explore socio-cultural based issues in complex learner interactive digital spaces (Thorne et al., 2015). The growth of distributive learning in higher education, especially massive open online learning courses (MOOC's) and the influence of large data sets offers an example of these challenges (Levy, 2015). Given the sheer numbers involved in such courses, the reality of uncovering rich data to attain a deep understanding of learners' perspectives that is typically sought in qualitative studies seems to render this aim unattainable. And yet without the salient features of these particular mediated environments available to us through a range of 'learners' eyes, how can we hope to improve their obvious ineffectiveness in terms of attrition?

Thorne et al. (2015, p.224) recognize these methodological challenges and especially in their research on identity, which post-structuralists consider key to understanding the process of learning. Their recommendations to meet these challenges include: incorporating self-reports into the research design, routinely conducting strategically-timed semi-structured interviews throughout the study rather than just at the end, adding open-ended questionnaires. By using an interpretive phenomenological analysis of the participants' experiential accounts, uncovered through interviews, they suggest that more extensive data about online experiences can be gained. Additionally, there is a potential to improve the interpretation of the learners' experiences, particularly in providing a deeper understanding of what they choose *not to do* online. This information is essential to capturing a sense of the identities learners are constructing in online sites. I would add that the sophisticated learning analytics tools used increasingly by higher education institutions to inform student retention issues, could also serve in these situations. By leveraging the affordances of these powerful tools, thematic areas in the various data sets could be drawn out and then addressed in online focus group interviews.

Gathering an understanding of the setting and its contextual details as a means to uncovering the nature of learners' experiences is key in the work that qualitative researchers do. Levy (2015, p.554) remarks that "It is in the unpacking of what students actually do moment-by-moment in ...tasks and activities that best illustrate the strengths of qualitative methods in enhancing our understanding of mediated learning and thereby driving productive research agendas." Levy cites O'Rourke's (2008) defence of data collection methods that involve capturing video files as an effective response to the many data sources that are being neglected in e-learning. Visual ethnography has been a key tool in qualitative research in the field of sociology for over a decade (Pink 2001). Recently, I have chosen to include visual ethnography as part of data collection in a study of a large-scale online language learning program offered to faculty and employees in private higher education institutions across Latin America (Charbonneau-Gowdy, 2016). In the analysis of the video data collected during the videoconferencing interviews with participants I uncovered salient themes with regard to identity and investment as the participants related their experiences in the distant courses. The paralinguistic and non-linguistic behaviours – gestures, spoken utterances, posture, data I collected as we mediated meaning in the oral interviews added to an understanding of the meaning making that took place in the distant courses. It was clear that this understanding would have been "impoverished" (O'Rourke, 2008, p. 236) had we relied solely on the numerical data from questionnaires or the audio transcripts of the interviews. As formal and informal learning moves increasingly online, our research needs to feed into those spaces and exploit them for the knowledge sources they can provide.

Of course, exploring new spaces and forms of data collection while studying e-learning spaces raises new ethical issues. Many of these issues are already being confronted by the commercial use of the Internet where copyright and privacy issues abound. It is a complex area of concern especially to qualitative researchers for whom the major driver in their work is protecting the rights of those who traditionally have been overlooked or denied a voice in experimental research approaches. Yet, at the same time as conserving strict ethical

consent procedures to protect participatory research practices, it is vital to consider scholarship that cautions that an over-preoccupation with these issues in a struggle for control and power can be the demise of qualitative research as a movement into e-learning spaces (see Denizen's, 2008, explanation of an earlier result of such over-emphasis). Instead, we see answers to these ethical concerns in viewing the challenges as opportunities for acknowledging the richness of human conditions as we sort out creative ways and practices to protect "Others" in the ever-shifting, complex contexts where technology advances human connections.

6. Conclusion

When we cross the line from believing that learning is a process of information transfer to an understanding of learning as a complex co-constructive dialogic process of persons and cultures in communication that leads to cognition (Vygotsky, 1978; Bakhtin, 1981), I believe we must also take a further step. That next step is for us to accept the fact that the 'objective' analysis of numerical data cannot hope to replace, although complimentary to, the subjective interpretation and understanding of interpersonal communication. In Geertz' words, (1973, p. 5), we must be prepared for the 'complex webs of significance that we ourselves have spun'. Indeed, in the virtual world in which increasingly human beings work, play, conduct commerce *and learn*, i.e. live out their realities, those 'webs' have become all the more numerous, shifting and complex. We must be prepared. In 2015, fifty percent of the world's population registered a connection to Internet, over one-third of these in the developing world. Experts say it will reach two thirds of the population in the near future. In light of this trajectory, I join Bettez (2015, p. 939) in raising the question: If qualitative research is a way to uncover and then represent various constructions of social reality as a means to enriching our understanding of those spaces, including e-learning spaces, then how we can best go about this and for what purpose? In this paper, I have attempted to answer those two questions, but in reverse.

First of all, I have examined the "for what purpose" or *why* we need to expand our efforts to conduct qualitative research in the field of e-learning. As a researcher, I have witnessed what Grgurovic et al. (2013) calls a "publication bias", i.e. a preference in technology journals for statistically significant findings. Space limitations that are imposed generally favour means and standard deviations reporting and not lengthier qualitative representations of research. I sense the frustrations of some of my teaching colleagues with the results from numbers-driven experiential approaches in responding to the complex questions and challenges they face as they attempt to incorporate the socially networked technologies into their practices. I harken their need for quality classroom-based research that is theoretically supported and that provides understandings that can be applied and tested in their own teaching.

To further support an argument for a greater acceptance of qualitative research in e-learning, I have documented the historical significance and prominence that this research paradigm has earned in a cross-disciplinary range of fields in education for over twenty years. I have located the theoretical basis for my arguments in postmodernism and critical theory. Based on this theory, I have justified support for a qualitative research approach as a unique means of addressing issues of power, identity and investment that are inherent in all social meaning making contexts, and including e-learning ones (Darvin and Norton, 2015). Increasingly scholars in education are agreeing on the critical importance of considering these constructs in understanding and adapting traditional learning contexts, and as learning moves online. Along with other researchers, I have argued that virtual learning spaces proliferating online, require an open-ended, reflective interpretive approach to data generating. This approach is unique in the possibilities it offers to provide pragmatic understandings to yet unimaginable affordances, issues, and reconstructed practices of technology tools that can be expected to evolve when learners and teachers mediate meaning in digital spaces. In these contexts, I see the vital need for qualitative research that can uncover systems of power such as those in the accounts of my research in military, governmental and higher education institutions, powerful systems that evidently continue today. Recognizing is the first step in changing.

Through the testimonies of students and maverick educators, I also hear a cry for grounded, reflective research that can interpret ways that technology can be employed in practice as a means of empowerment in their teaching and learning. I see a response to these cries in rich accounts of research situations that are described with relevant detail and told reflectively. From first hand experience and scholarship, I am convinced that these kinds of accounts are critical for fostering other practitioners to draw parallels in their own practice (Charbonneau-Gowdy, 2014; Pavlenko & Lantolf, 2000). In this way, I believe we can move effective e-learning from the periphery, i.e. at the discourse level, to the level of practice.

Secondly, in order to respond to the application or “*how to*” of qualitative research, I have highlighted the uniqueness of e-learning spaces. As James and Busher (2009) point out, there is now a rich body of literature in the social sciences illustrating how the Internet has become a site where the construction of practices, meanings and identities of individuals and communities can be researched in ways that may not be possible in the physical world. I have mentioned only a couple of examples of increasingly more powerful technology tools that can support the examination of the issues that preoccupy most of us in coming to terms with the challenges we face in e-learning teaching and research.

While admitting the disadvantaged position in which educators and researchers find themselves today in facing the many challenges in e-learning research, both methodological and ethical, I view this disadvantage also as a position of power. Borrowing from Norton’s (Darvin and Norton 2015, p.48) explanation of the concept of Bourdieu’s (1986) “*sens pratique*” that she uses to provide a guide for learners in their negotiation of the complexities and mobility of the digital age, I see parallels for those contemplating qualitative research for e-learning. A ‘practical sense’ when it comes to researching online from a qualitative perspective involves: 1) working at understanding and uncovering the rules, discourses and norms that are governing technology spaces; 2) shifting our practices and methods by making use of, for example, the code-based theory building software programs and learning analytics tools to organize and analyze large quantities of qualitative data that can be generated in digital spaces (Lee and Esterhuizen, 2000), of course with ethical caution; 3) exploring innovative ways for data generating and for representing and reporting on the multiple contextual issues that are involved in researching humans interacting in digital spaces for learning.

I have cited scholarship in visual ethnography as an example of the powerful new technology resources available, yet still for the most part unexploited in e-learning research. Perusing online journals in e-learning, not to mention this paper itself, one quickly realizes how representations of knowledge conform to traditional orthodoxy and continue to grip onto the authority of word-based text and numerical graphs in research accounts. This disconnect between the research world and a 21st century digitalized world where there is a complete reliance on the visual for making sense and understanding human realities (Kress, 2003), is another wake-up call for a reconsideration of how we practice and represent research about and with technology use. Qualitative research can offer an opening for such alternative ways of “seeing [and doing] in different ways.” (Fahey and Prosser, 2015).

Raising critical questions about the current *statue quo* always carries with it implications. In this paper, I have sought to challenge common current conceptions about how e-learning research is conducted and what is valued in terms of the knowledge that it propagates. Harkening this message involves publishers, institutions, educators and researchers. In all cases, a greater openness and less resistance to social-based research approaches, the same perspectives that we have faced and many of us have begun to adopt with regard to using social networking technology for learning, is in order. Of course, the limitation in the discussion here with its restrictions in length and breadth undoubtedly could leave some readers eager to pick up this challenge yet wanting more in the way of practical examples of the logistics of conducting qualitative research in “the third space”. Further well-grounded research in e-learning using a qualitative approach and supported by key stakeholders in this field is the obvious response to that need.

Yet in the end, the answer to challenges posed in this paper is quite simple. In returning to the interview of the Canadian university graduating students, I am reminded of a valuable lesson that can be drawn from it for those of us who are concerned, no passionate, about learning in e-spaces. Without exception, virtually all of the university students interviewed considered the myriad *conversations* that took place both inside and outside the academic classrooms as key sources for their most valuable learning. In situating their comments within the focus of this paper, I recall the observation of Denizen (2008, p. 45), himself a seasoned scholar and researcher, who has witnessed the tensions and evolutions in research approaches over many years. Denizen sees answers for current methodological debates not in returning to the ‘wars of the 80’s’ but rather in *conversation*, i.e. dialogue. His insight, like that of the graduating students, and his call for “a bigger tent” metaphorically but vividly underlines how dialogue will open the door to what can become an inclusive rather than an exclusive research context where we can learn from, support and evolve with one another.

References

- Bakhtin, M. M., 1981. *The dialogic imagination*. Austin, TX: University of Texas Press.
- Barber W. and King, S., 2016. Invisible pedagogy: Developing learners' self-responsibility in digital environments through problem-based learning. *Proceedings of the 11th International Conference on e-Learning*, Kuala Lumpur, Malaysia, pp. 26-31.
- Baxter, P. and Jack, S., 2008. Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), p. 544-599.
- Bettez, S. C., 2015. Navigating the complexity of qualitative research in postmodern contexts: assemblage, critical reflexivity, and communion as guides. *International Journal of Qualitative Studies in Education*, 28(8) pp. 932-954.
- Bonk, C.J. and Graham, C. R. eds., 2006. *Handbook of blended learning: Global perspectives, local designs*. San Francisco, CA: Jossey-Bass.
- Borg, S. and Sanchez, H. eds., (2015). *International perspectives on teacher research*, London: Palgrave MacMillan
- Bourdieu, P., 1991. *Language and symbolic power*. Cambridge, MA: Harvard University Press.
- Bruce, B. C., 1997. Literacy technologies: What stance should we take? *Reading Online*, 29(2), pp. 289 – 309.
- Calic, D. and Resnyansky, L., 2015. Twitter in crises 'data': A framework for critical reflection on the multidisciplinary field. *Proceedings of the 2nd European Conference on Social Media*, Porto, Portugal, pp. 52-58.
- Cechova, I., 2010. *The role of information and communication technologies in the language training of university students*. Unpublished doctoral dissertation, Masaryk University, Brno.
- Chapelle, C., 2003. *English language learning and technology*. Philadelphia, PA: John Benjamins.
- Charbonneau-Gowdy, P., 2016. Exploring the experiences of learners in a large-scale distance language learning program offered in countries across Latin America. *Proceedings of the 11th International Conference on e-Learning*, Kuala Lumpur, Malaysia, pp. 37-45.
- Charbonneau-Gowdy, P., 2015. It takes a community to develop a teacher: Testing a new teacher education model for promoting ICT in classroom teaching practices in Chile. *Electronic Journal of e-Learning*, 13(4) pp. 237-249.
- Charbonneau-Gowdy, P., 2014. Telling tales: Responding to challenges in literacy competencies using an e-reader-based program. *Proceedings of the 9th International Conference on e-Learning*, Technical University Frederico Santa Maria, Valparaíso, Chile, pp. 31-38.
- Charbonneau-Gowdy, P., 2009. *Speaking to learn: Accessing language, identity and power through web conferencing*, VDSaarbrücken, Germany: M Publishers.
- Charbonneau-Gowdy, P. and Cechova, I., 2009. Moving from analogue to high definition e-tools to support empowering social learning approaches. *Electronic Journal of e-Learning*, 7(3), pp. 225-238.
- Cutrim Schmid, E., 2006. Investigating the use of interactive whiteboard technology in the English language classroom through the lens of a critical theory of technology. *Computer Assisted Language Learning*, 19(1), pp. 47-62.
- Darvin, R. and Norton, B., 2015. Identity and the power of investment in applied linguistics. *Annual Review of Applied Linguistics*, 35, pp. 36-56.
- Denizen, H. K., 2008. The new paradigm dialogs and qualitative inquiry. *International Journal of Qualitative Studies in Education*, 21(4), July-August 2008, 315-325.
- Donmoyer, R., 2006. Take my paradigm ... please! The legacy of Kuhn's construct in educational Research. *International Journal of Qualitative Studies in Education*, 19(6), pp. 11-34.
- Fahey, J. and Prosser, H., 2015. Approaching methodology creatively: problematizing elite schools' 'best practice' through a film about perfection and imperfection", *International Journal of Qualitative Studies in Education*, 28(9) pp. 1033-1048.
- Feenberg, A., 2008. Critical theory of technology: An overview. In: Leckie, G. and Buschman, J., eds. *Information technology in librarianship: New critical approaches*. Westport, CT: Libraries Unlimited. pp. 31-46.
- Feenberg, A., 2002. *Transforming technology: A critical theory revisited*. New York: Oxford University Press.
- Geertz, C., 1973. *The interpretation of cultures*. New York: Basic Books.
- Grgurovic, M., Chapelle, C. A. and Shelley, M. C., 2013. A meta-analysis of effectiveness studies on computer technology supported language learning. *ReCALL*, 25(2), pp. 165-198.
- Guba, E. and Y.S. Lincoln, 2005. Paradigmatic controversies, and emerging confluences. In: N.K. Denzin and Y.S. Lincoln, eds. *Handbook of qualitative research 3rd ed*. Thousand Oaks, CA: Sage. pp. 191-216.
- Hammersley, M. 2013. *What is Qualitative Research?* London: Bloomsbury.
- Heigham, J. & Croker, R. A. (Eds), 2009. *Qualitative Research in Applied Linguistics*. New York: Palgrave Macmillan.
- Hinkleman, D. and Gruba, P., 2012. Power within blended language learning programs in Japan. *Language Learning & Technology*, 16(2), pp. 46-64.
- Hendry, P. M., 2007. The future of narrative. *Qualitative Inquiry*, 13, pp. 487-498.
- Hill, J. R., Song, L. and West, R. E., 2009. Social learning theory and web-Based learning environments: A review of research and discussion of implications. *American Journal of Distance Education*, 23(2), pp. 88-103.
- Hofer, B. K., 2002. Personal epistemology as a psychological and educational construct: An introduction. In: B. K. Hofer and P. R. Pintrich, eds. *Personal epistemology: The psychology of beliefs about knowledge and knowing*. Mahwah, NJ: Erlbaum, pp. 3-14.
- Hornborg, A., 2008. Machine fetishism and the consumer's burden. *Anthropology Today*, 24(5), pp. 4-5.
- Kress, G., 2003. *Literacy in the new media age*. New York, NY: Routledge.

- Lave, J. and Wenger, E., 1991. *Situated learning. Legitimated peripheral participation*. Cambridge, MA: Cambridge University Press.
- Lee, R. and Esterhuizen, L., 2000. Computer software and qualitative analysis: Trends, issues and resources. *International Journal of Social Research Methodology*, 3(3) pp. 231-243.
- Lefebvre, H., 1991. *The production of space*. Translated by D. Nicholson-Smith. Cambridge, England: Blackwell.
- Levy, M., 2015. The role of qualitative approaches to research in CALL contexts: Closing in on the learner's experience. *CALICO Journal*, (32)3, pp. 554-568.
- Lincoln, Y. S., and Denzin, N. K. eds., 2003. *Turning points in qualitative research: Tying knots in a handkerchief*. Walnut Creek, CA: AltaMira Press.
- Nielson, K., 2011. Self study with language learning software in the workplace: What happens? *Language Learning & Technology*, 15(3), pp. 110-129.
- O'Rourke, B., 2008. The other C in CMC: What alternative data sources can tell us about text-based synchronous computer-mediated communication and language learning. *Computer-Assisted Language Learning*, 21(3), pp. 227-251.
- Pavlenko, A., and Lantolf, J., 2000. Second language learning as participation and the (re)construction of selves. In: J. Lantolf, ed. *Sociocultural theory and second language learning*. New York: Oxford University Press. pp. 155-177.
- Pennycook, A., 2006. Postmodernism in language policy. In: T. Ricento, ed. *An introduction to language policy: theory and method*. London: Blackwell. pp. 60-76.
- Sadlier, S. S. and Arancibia, M. C., 2015. Toward a society where everyone is always studying: access at an elite Chilean research university. *International Journal of Qualitative Studies in Education*, 28(9), pp. 1049-1064.
- Thorne, S.L., Sauro, S. and Smith, B., 2015. Technologies, identities, and expressive activity, *Annual Review of Applied Linguistics*, 35, pp. 215-233.
- Vygotsky, L. S., 1978. *Mind in society: The development of higher psychological processes*. M. V. Cole, V. John-Steiner, V. S. Scribner and E. Souberman, eds. Cambridge, MA: Harvard University Press.
- Warschauer, M., 1998. Researching technology in TESOL: Determinist, instrumental, and critical approaches, *TESOL Quarterly*, 32(4), pp. 757-761.