Article

Bilingual workplaces: integrating cultural approaches to information literacy into foreign language educational practices

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Abstract

This paper explores how a foreign language librarian investigated workplace information environments of bilingual (Spanish/English) professionals in the United States in order to design more relevant information literacy (IL) instruction. Drawing from interviews and participant observations of professionals whose careers correspond with Spanish language student graduate opportunities, the primary goal of the paper is to provide an initial understanding of the information environments of professionals in bilingual workplaces. The paper will then describe how this data will be used to design appropriate learning opportunities for Spanish undergraduates. Through reflecting on these multilingual information experiences, the paper also considers the role of workplace IL within higher education as well as contributing more broadly to studies on cultural approaches to IL. Accordingly, this paper will be of interest to foreign language librarians, as well as librarians who work with global studies, international relations or bilingual and international populations.

1. Introduction

Information cannot be separated from the shared understandings, practices and languages of a community (Tuominen et al. 2005). In this way, information literacy (IL) can be defined as 'a way of knowing about an information environment' (Lloyd 2007). In the United States (US), as in many countries, professional communities of practice are gradually broadening to include multilingual experiences. High levels of immigration as well as increasing globalisation in the workplace means that Spanish, for example, is growing more important for a varied range of traditional information seeking positions, including the medical, legal and communication professions (ALTEC n.d.). In this decidedly interconnected world, it is important that librarians integrate these new cultural and social contexts of IL into teaching and learning opportunities. Yet this cannot just be limited to translating major terms or concepts. Language and information incorporates the 'established knowledge of [a] native community and society', and being able to understand these deeper practices of meaning making is vital for multilingual IL (Kramsch 1993, p. 43).

At the same time, the growth of information seeking professions highlights the need to focus on workplace IL within higher education. IL helps people achieve occupational goals as well as personal, social and educational ones. Yet most IL research has been centred on academic rather than workplace aims (Weiner 2011). This means that there may be little understanding of information needs in the workplace, and that librarians may assume that IL for educational contexts can be mapped onto workplace situations (Lloyd 2009, p. 398). However, as networked societies reveal the importance of lifelong learning, it is important that IL instruction moves beyond a purely academic focus to 'embrace a multifaceted approach to teaching information literacy' that draws from the librarian's deep integration into disciplinary environments and practices (Head et al. 2013, p. 96).

The primary purpose of this study is to examine the information environments as well as the activities, arrangements and values of common bilingual (Spanish/English) professions in the US state of Colorado. By exploring the information practices of a bilingual immigration lawyer, interpreter, journalist and teacher and comparing them with published literature about English language practices, the author will build a snapshot of how information is experienced in these contexts. Findings from this research will then be used to design more meaningful instruction opportunities for Spanish language undergraduates within a foreign language IL framework. Accordingly, major research questions focus on understanding how bilingual information environments are constituted in US workplace settings. What does the bilingual information environment look like? How does the use of Spanish affect information seeking and using behaviour, both in practice and professional settings? What linguistic and cultural challenges do professionals face and how have they adapted their information practices while they are working in a mainstream English language information society? Most importantly, how is IL constituted in these bilingual environments? In this way, the author will build on her previous study of IL and foreign language academic learning goals to argue that librarians need to understand the information practices of both their academic and their practitioner communities in order to create meaningful and relevant IL opportunities (Hicks 2013).

A secondary aim of this study is to explore the concept of multicultural information practices. While the concept of multiculturalism is often contested in the US, it can be defined as encompassing the coexistence of cultural, ethnic or linguistic groups in a society (Greenberg and Bar Ilan 2013). Changing educational landscapes mean that these concepts are more important than ever (Pawley 2006). However, while LIS researchers have written about how IL frameworks must engage with questions about 'the social construction and cultural authority of knowledge', few studies have examined the complexities of diversity in meaning and worldview within information practices (Luke and Kaptizke 1999, p. 483). By examining bilingual workplace information environments, the author will add to studies that explore 'cultural ways of knowing and using information', thereby contributing to a broader recognition of multicultural practices in increasingly international information societies (Morrison 2010). In this way, the paper will also be of interest to librarians who work with global studies or bilingual and international populations.

Lastly, the author will use research findings to reflect on the position of workplace IL in an educational context. The limited nature of this study means that it can only offer a snapshot of workplace and multicultural practices. However, recognising the importance of lifelong and transferable skills, the paper illustrates how one librarian is integrating real-world information environments and workplace IL into educational practice. Furthermore, it provides an example in foreign language education, a field that has no clear career path, unlike previous workplace studies of health or social workers, for example. In this way, the author aims to contribute to research on the transferability of IL across educational, workplace and personal contexts.

The paper will start with a summary of the broader context of foreign language IL goals, as well as concepts of cultural approaches to IL and workplace IL. It will continue with a brief review of relevant research, including Spanish, multicultural and workplace information studies. The author will then use the second half of the paper to examine data gathered from semi-structured interviews to explore the information practices of four US based bilingual professionals: a lawyer, a journalist, an interpreter and a teacher. Lastly, the paper will summarise key points that will inform the design of a Spanish IL program, as well as future avenues for research.

For the purpose of this study, the bilingual workplace is constituted as a place where individuals use Spanish and English in their occupational (everyday) or professional practices. Descriptions of information environments rely on Head et al.'s definition of competencies as the skills and knowledge needed to solve an information problem; strategies as deliberate plans to achieve an objective; and information practices as the information-related activities interviewees engage with in the workplace or in professional practice (2013, p. 83).

2. Background

This study draws upon foreign language learning practices and studies of cultural approaches to IL as well as workplace IL. A brief overview of each area will situate the paper.

In 2007, the Modern Language Association released a report that proposed a radical shake up of core foreign language learning goals. Recognising the importance of languages in an increasingly globalised world, the report recommends that instructors move beyond purely attempting to develop a student's communicative linguistic competencies. Instead, the report acknowledges that language is 'an essential element of a human being's thought processes, perceptions, and self-expressions' (MLA 2007, p. 2). In other words, language reflects the 'established knowledge of [a] native community and society' and an understanding of these frames of reference, which also underlie information and knowledge, is essential to function as a capable foreign language speaker (Kramsch 1993, p. 43). Accordingly, the driving goals of foreign language learning, and, by implication, foreign language IL, move from acquiring native proficiency towards transcultural competence, or being able to reflect on differences between languages, cultures and communities.

Information, too, reflects broader dimensions of social and cultural practices. As Cutler points out, culture or cultural assumptions include 'basic "truths" about human identity and purpose, space, time, social organization, ways of thinking and communicating that, for the most part, groups and their members are wholly unaware of' (Cutler 2005, vol. 1, p. 76). Culture influences 'how information is created in families and communities and handed down (aural, written tradition), who has created it (government, grandfather), and the context in which information is created and used' as well as how people relate to or make meaning from this information (Montiel-Overall 2007, p. 55). In turn, this produces not only attitudes, assumptions, cultural objects and ceremonies, but also knowledge systems with their 'own concepts of epistemology, philosophy, and scientific and logical validity' as well as corresponding representations of pedagogy and practices (Daes 1994, cited in Nakata, M. et al. 2005, p. 20). Thus, by reflecting on the cultural diversities inherent in information practices, information becomes one of the narratives through which foreign language students can explore differences between languages. IL also becomes an essential part of the student's understanding and knowing of the foreign language, thereby directly contributing to transcultural learning goals.

Cultural approaches to IL can therefore be defined as encompassing 'the influence of culture on how individuals think about and make meaning from information, and how they comprehend and use information' (Montiel-Overall 2007, p. 43) In this way, any instruction approach must see 'community knowledge as a starting point for thinking about information, analyzing problems, and engaging with conflicting information' (Montiel-Overall 2007, p. 62). Yet, despite Hepworth and Walton's exhortation to study target group information needs, few studies have focused on exploring these community knowledge or information practices in cross-cultural settings (2009, p. 109). This includes understanding contextual information activities such as 'what information is being used, what is valued, and what activities related to information access are relevant to learning about practice?' (Lloyd 2005, p. 234). However, more importantly, if IL is understood to be a sociocultural practice, understanding these information activities will also help us to engage with what constitutes IL within this environment (Lloyd 2010). It is only then that we can begin to scaffold student knowing of an information environment.

Drawing on the US National Standards for Foreign Language Learning (1999), which promote the use of language beyond educational settings, the author decided to start to study cultural approaches to IL through an examination of bilingual workplace information practices. The study of workplace information practices has always lagged behind that of educational information practices, perhaps because it has been seen as focusing on generic skills: employability rather than intellectual agility (Coonan 2011, p. 9). However, as the networked information environment starts to influence conceptions of IL, workplace information research is gradually becoming better known. This may be further enhanced by the tendency for workplace information studies to focus on a more holistic conception of IL than their educational counterparts. For example, Lloyd's work highlights how information environments consist of social, procedural and physical information as well as textual sources (2007). This demonstrates a much broader understanding of practice than is seen in educational IL, which tends to focus on codified knowledge. Similarly, IL is seen as 'a nexus of activities that form the sociocultural activities of information within practice' in workplace studies (Lloyd 2010, p. 255). This provides a far more nuanced and perceptive conception of practices than educational IL, which still often sees IL as a set of skills. In this way, workplace information studies seem to place much higher value on understanding the situated nature of IL, thereby forming an appropriate model for this preliminary examination into multicultural information practices. It would also provide an interesting opportunity to explore the role of workplace information practices in higher education.

3. Literature review

The paper will now turn to examine three strands of related research: Spanish, multicultural and workplace information practices.

3.1 Spanish language information practices

Several studies have considered the role of the Spanish language on information practices. Notwithstanding, research is dominated by academic studies from Spain, Mexico and Argentina, which are not central to this paper (Calva González 2004). Interestingly, none of these studies specifically mentions the effect of English on Spanish language information practices despite the documented bias towards the use of English within scholarly environments (Alonso Gamboa and Russell 2012). Large national and regional reports that highlight trends about information-related practices provide an interesting counterpart to these more specific studies. In the 2010 Iberoamerican Horizon report, collaboration tools are marked out as being particularly likely to be integrated into practices because of the 'idiosyncrasy of Iberoamerican conversational and participatory culture' as well as the expectation that companies and employees are expected to

work as part of regional and international networks (García et al., p. 12). Similarly, the mapping reports from the Open Society Foundations provide further contextual detail about digital media and communication preferences in several Latin American countries, such as Argentina, Chile, Mexico, Colombia and Peru. While these reports do not specifically look at information practices, they provide useful overviews of broader Spanish digital landscapes, as well as providing insight into factors that may affect their development such as access to technology and media preferences (Open Society Foundations).

3.2 Multicultural information practices

Another strand of relevant literature for this study focuses on information practices in multicultural settings. These studies are useful to start to explore problems and strategies faced by minority groups operating in cultures defined by the social majority. Research covers three distinct groupings: immigrants, refugees and international students. In all these examples, language or being able to communicate is seen as one of the primary barriers to successful information seeking. However as communicative competence is less problematic for foreign language IL, this section will focus more on other diversities seen within information practices. Immigrant information practices form a first area of study. A large proportion of research into immigrant information practices focuses on first and second generation Latino migrants to the US and, as a consequence, a Spanish language context. Key findings tend to highlight how Latino migrant information practices rely on strong tie networks of family and close friends as well as weak tie networks of organisations (Courtright 2005; Fisher et al. 2004; Torres et al. 2006; Morrison 2010). This is primarily seen through a reliance on trusted personal contacts and interpersonal sources that direct learning. However, although some studies note that these networks of people and organisations can assist migrants in their navigation of new information societies, others demonstrate that these networks are not always empowering. Fisher et al. (2004) found that people outside of trust networks were viewed with suspicion, while Courtright (2005) highlights that venturing outside of dense networks can often be discouraged as it goes against standards of acceptable behaviour. While this is not limited to Latino immigrant behaviour, it can mean that information transmitted through the social network is uneven, which isolates the group further. As such, while Latino immigrants to the US are meeting their information needs through a variety of methods, language issues, a sense of being outside the community and collision with cultural values – for example, not acting upon information in deference to cultural practices – are factors that often affect the quality of their experiences.

These experiences largely fit in with the literature on broader immigrant information practices. Caidi et al. found that structural barriers such as language or learning how systems work affect immigrant information practices (2008). This is compounded by social barriers, including social isolation or differences in cultural values, for example when information is presented 'to immigrant groups in a way that can be significantly different from how these individuals envision the world and how they relate to such matters' (Caidi et al. 2008, p. 518). Sources are also found to be specific to cultural groups, in particular 'satellite TV, local minority language newspapers and radio, and international websites' (Caidi et al. 2008, p. 512). These studies provide insight into how immigrant knowledge practices collide with the nuanced or tacit information practices of mainstream communities.

Research into refugees further explores the impact of newcomer information practices in non-societal majority contexts. Lloyd et al.'s study found that a significant barrier to resettlement was refugees' need to construct new information landscapes in their settler communities because 'their previous information practices may no longer be adequate or appropriate in their new settings' (2013, p. 122). This was achieved through a reassessment of established information

production, reproduction, circulation and access in order to 'reflect knowledge and ways of knowing within a [new] setting' (Lloyd et al. 2013, p. 122). While this is similar to immigrant practices, Lloyd et al. claim that refugees' experience may be further complicated by their situation; for example, the concept of trust may be different due to the nature of the refugee's departure from the country of origin (2013, p. 123). In this way, these studies suggest that the disconnect between minority and mainstream information practices can affect settlement issues.

International students, as people who temporarily operate in different cultural contexts, provide a final interesting addition to studies of multicultural information practices. No study focuses on Spanish speaking students and the academic nature of the studies means that the literature is not central to this paper. However, several studies examine how the international experience affects information practices. He et al., for example, found that Chinese and US students have very different conceptions of the importance of research resources because traditional Chinese academic resources are less varied than US ones (2012). Han's study of international graduate students showed that students experienced problems understanding the separation between peer and non-peer reviewed journals because this was not considered important in the home country (2012, p. 12). Other studies, however, found few differences between international and domestic students. Ishimura and Bartlett did not uncover visible diversity in information practices, although they did find that Japanese student information behaviour changed after interactions with Canadian peers, for example, in the use of sources and search strategies (2013). Hughes and Bruce, too, found few differences between students of varying backgrounds, leading them to suggest that differences in information practices 'may relate more to the degree of difficulty than by the nature of the difficulty itself' (2006, p. 38).

Research has started to explore multicultural information experiences. However, interestingly, much of this research has been focused around theories of information poverty (Thompson 2007). Referring to the lack of 'necessary resources such as adequate social networks and information-finding skills that enable everyday life information seeking,' information poverty often characterises studies of immigrants and refugees due to their perceived inability to manage new information environments. International students too, are often considered deficient or disadvantaged (Conteh Morgan 2003). As such, this study will be one of the first to look at the practices of elective (as opposed to circumstantial) bilinguals who are engaged in professional workplace practices.

3.3 Workplace information practices

A final strand of research that will situate this study refers to its broader goals, or the consideration of the role of workplace information environments within educational IL. The largest of these studies is Head et al.'s research, which interviewed employers and graduates and provided a unique glimpse into how student educational IL competencies fare in the workplace (2013). Unsurprisingly, Head found several gaps between employer expectations and employee competencies, and urged librarians to broaden engagement with information sources and to engage students in finding patterns across information landscapes. Lloyd, through her series of workplace studies, agrees that educational IL should be designed to enable collaborative experiences. She further argues that educational IL must focus on enabling students to create their own disciplinary information environments rather than being taught a set of prescribed sources in a one-off session (2005, p. 235). These studies build upon Bruce's 1999 research that emphasised the need for librarians to engage with the social nature of IL as well as the importance of reflection to facilitate skill transferability.

Research in workplace IL has also focused around information practices within the specific communities studied in this research: journalists, lawyers, translators and teachers. Simon Attfield and John Dowell carried out one of the most recent studies of journalist information seeking in English language contexts with their 2003 study of a British newspaper. Interview data demonstrates that journalists go through several major information processes in their daily work, including negotiating originality, newsworthiness and truth in order to establish an assignment, and focusing on developing personal understanding and discovering content to write the article. Managing multiple information sources is also a major part of their process. The authors found that resources used in the process focus on sources that are external to the journalist, such as archives, personal contacts and software as well as personal sources such as working memory and individual knowledge of a subject.

More studies cover information behaviour in the legal field, though none looks specifically at immigration lawyers. According to Mayer, legal information needs centre around drafting, or the preparation of documents; advocacy, or persuading a tribunal of what the law should be; negotiating; and counselling, or working with clients (1967). Information sources are equally varied. Wilkinson, in her 2001 study of Canadian lawyers, found that more lawyers preferred internal information sources such as colleagues and firm procedure to external ones such as relatives, banks or judges. She also discovered that a majority of lawyers in her study preferred to use informal sources such as colleagues or partners, as opposed to formal sources such as legislation and Law Society seminars. For Leckie et al., this complex system of information variables has arisen because of the fact that 'corporate culture, individual habits, availability of information systems and sources, commitment to professional development' have different effects on information practices (1996, p. 179).

There are no published studies on interpreters' information practices. However, White et al. have studied translators, who draw upon 'the languages themselves; information about languages; domain knowledge; cultural knowledge; and translation knowledge, including knowledge of relevant information sources and strategies' in their work (2008, p. 585). Similar to lawyer habits, they found that the most valued information comes from the translator's personal knowledge bases, although resources such as almanacs and newspapers, as well as trusted colleagues, are also considered useful. White et al. also studied the translator's source evaluation methods, finding that this depends on 'the quality of the resource, the language of the source material, their comfort level or ability in that language, the translation task they are performing, and the availability of a source' (2008, p. 587).

There have been not been any published studies of the information practices of language teachers. English language studies of teachers in general tend to focus more on curriculum materials or faculty in tertiary education, neither of which is central to this study. Several studies highlight information practices of specific groups. Perrault's 2007 study found that biology teacher information practices centre on instructional planning, which could cover curriculum content, presentation materials and personal knowledge. However, while schools necessarily form rich information ecologies, she found that teachers relied more on search engines and specific websites rather than digital libraries and online databases. A later study also demonstrated that teachers build considerable online and in person professional networks in order to share information (2007b). In an extensive literature review, Wright agrees with Perrault's findings, characterising K-12 information practices as informal due to the fact that formal academic research is seen as removed from the practitioner landscape (2010).

4. Methodology

In February–May 2013, the author interviewed four Colorado-based professionals who work in bilingual environments about their information practices. Recruited through personal contacts, participants included an immigration lawyer (whose clients are 90% Spanish speaking), a Spanish newspaper journalist/editor, a Spanish/English interpreter, and a Spanish language instructor (non-faculty) in higher education. Colorado was chosen because it has experienced a 40% growth in number of Latino residents since 2000. Home to over a million Latino residents, this is the eighth largest Latino population in the US (US Census Bureau 2011). Accordingly, career opportunities for Coloradan Spanish speakers are becoming far more varied, and interviewees were chosen because they correspond to potential jobs that Spanish language undergraduates may enter upon graduation. Notwithstanding, although there are over 500,000 Spanish speakers in Colorado, finding participants who work in professional bilingual environments was harder than it would be in US states with more developed bilingual information communities such as California or Texas (Modern Language Association 2013). However, in line with the goals of this study and qualitative research methods, participant sampling was designed to obtain a wide range of data rather than statistical representation. Using a semi-structured in-person interview technique, the author audio-recorded participant accounts and demonstrations of their workplace information habits, both in their daily practices and in their professional lives. Questions drew upon Head et al.'s 2013 study and Lloyd's studies of firefighters to query and uncover participant experiences, processes, tasks and information sources [see Appendix]. Participants also reflected on their own career progression as well as their interaction with novices in their field in order to conceptualise information practices further. Additionally, the author observed participants as they engaged in a typical information task. Interviews and observations lasted between 35 and 70 minutes and were conducted in English, although two respondents occasionally engaged in code switching, or using Spanish and English interchangeably. The author, who is fluent in Spanish, transcribed and, where relevant, translated audio recordings into English. Transcripts were then coded thematically and analysed in conjunction with field notes and participant observations. Findings were then compared with published work in English language workplace information practices.

5. Results

Two of the four participants are native Spanish speakers, while the other two are native English speakers (see Table 1). All four are bilingual, using both English and Spanish in their practices. Both native Spanish speakers have spent considerable time in the US working and studying. While the native English speakers have both spent time in Spanish speaking countries, their experience in multilingual environments is not as extensive as the Spanish speakers'.

Table 1: Participants

	1st language	2nd Language	Years in Profession
Immigration lawyer	Native English speaker (US)	Lived and studied in Spanish countries	3 years
Spanish journalist/editor	Native Spanish speaker (Venezuela)	Lived and worked in US for over 10 years	14 years
Spanish/English	Native Spanish	Lived and worked in	15 years

| interpreter | speaker (Mexico) | US for over 20 years | |
| Spanish teacher (higher education) | Native English speaker (US) | Lived and studied in Spanish countries | 8 years |

5.1 Common aspects of information practices

Firstly, interviewee responses showed that similarly to English language studies, information plays a vital role in US bilingual workplaces. Common information practices that participants mentioned involved looking for leads about new stories, searching for exact translations of high register legal English, interviewing clients and preparing activities for the classroom. While all interviewees believed information had always been important to their profession, technological changes meant that they also considered that the use of information was growing more important. As Head et al. show, information work is a foundational element of more and more jobs, and professionals undertake a wide variety of research tasks (2013).

Secondly, interviewees demonstrated that many information competencies, or skills needed to carry out workplace information tasks, were similar to those in English language studies. One of the major workplace competencies involved being able to find information from a variety of formats, such as people, websites, legal documents, social media, organisations and reference sources, among others. For example, the journalist mentioned that Facebook helped him find contacts and sources, though he also used paper guides for small businesses. The interpreter relied infrequently on people in a face-to-face setting, but was fairly dependent on listservs and professional associations. For the lawyer, social media was too overwhelming but office colleagues and legal databases were invaluable. For the teacher, colleagues and conferences were core, as well as paper sources such as museum maps that she picked up while travelling abroad. In this way, and like Head et al. (2013), Lloyd (2009) and Bruce's (1999) research demonstrates, it is clear that while professionals rely extensively on digital and textual sources, information seeking also includes organisational (procedural) and human (social) sources.

Another common competency that each interviewee mentioned was using their professional knowledge base to evaluate and assess the reliability of these varied sources. Some sources were seen as unquestionably authoritative – for example, the interpreter's reliance on Mexico's Criminal Codes or the lawyer's use of Kurzban's *Immigration Law Sourcebook*. However, evaluation also involved getting to know who to trust – *'there are people who have done their homework…and there's others'* (Interpreter) – as well as learning to evaluate on the fly by assessing leads and contacts: *'even before I talk to her, I want to find out who she is, then I go to Google and put her name, and that will help me get her…bio'* (Journalist). It also involves staying ahead of changes in order to be able to judge relevance: *'If it's really talking about technologies…that I've heard of but haven't used yet, then I'm more interested'* (Teacher). In these instances, as Lloyd found, interviewees demonstrate how they combine personal knowledge and experience in order to develop embodied knowledge of their information environments, rather than solely relying on checklists of evaluative criteria (2011).

Being able to synthesise and present large volumes of information from a variety of formats was another important part of interviewee workplace competencies: *[We had to] research what rules and procedures and law, we interviewed our client…we talked with the opposing party as well, and presented our case to the county court'* (Lawyer). Research also had a specific purpose, for example designing content for search engine optimisation or in order to assess gaps in the research: *'I put 'Bill Vidal Denver', and that's going to be many different stories about him, so it*

helps me find leads or even to write stuff that hasn't been written, to find what has been written so I wrote something new' (Journalist). Like Head (2013) and Hoyer (2011) found, interviewees stated that they needed to be able to analyse and make connections between sources for a variety of purposes in the workplace.

Interviewees also demonstrated many similarities with English language practices when asked to consider professional rather than practice based workplace competencies. All agreed that being able to keep up in the field is core: *'I feel that I must and it will be irresponsible for me not to…I don't want to already be obsolete'* (Interpreter). Like other aspects of information practices, it can be formal: *'There are so many opportunities out there for attending conferences and workshops, and that's the best place to learn'* (Teacher), or informal: *'Networking with other lawyers and talking with them about how they structure their practice, their plans for the future, what lessons they've learned'* (Lawyer). However, as Hepworth and Smith found, interviewees noted that this is sometimes a source of stress, due to the time involved, the pace of change or the fear of missing out on key information (2008).

Lastly, like English language studies have demonstrated, interviewees frequently referred to how their information practices have changed with experience. For the interpreter, this involved becoming more confident in knowing when to stop researching, recognising that a word has not yet been translated. As Lloyd points out, being able to 'engage with information to enhance and deepen practice' rather than using information to learn about practices can be seen as an expert information habit (2006, p. 576). For the lawyer, this process involved a huge shift from the textually based academic habits that she learned in law school to finding more 'creative answers' or developing the tacit knowledge that is needed for practice. For the teacher it involved recognising the importance of sources: *'I didn't know how important that stuff was so there was kind of a block with what I was receiving versus what I felt like was worth my time.'* In these cases the professional community was essential in this transformation, helping guide the 'newbie' into accepted practices. In this way, interviewees' conception of expert information practices can be summed up as knowing the information landscape, including modalities, sources of information and situated practices (Lloyd 2006).

5.2 Diverging aspects of information practices

While interviewees demonstrate that English and bilingual workplace information practices share many common aspects, it is clear that the specific nature of the Spanish information environment also challenges information practices and forces interviewees to establish specific adaptive strategies.

Finding Spanish information in a dominant English language world poses one of the major challenges. For the journalist, web searching is particularly problematic: *'Searching Spanish online is harder because…the dominant language is English, so English ranks better on Google.'* The teacher found similar problems: *'[On] Google hits, it just gets pushed down because it's not in English.'* For the interpreter, the characteristics of textual sources cause issues. The specialised nature of Spanish resources means that many sources have not been digitised, and are only available in hard to find print volumes. In addition, many have not been updated for contemporary or regional usage and still reflect biases in publication traditions: *'The RAE* [Spanish dictionary] *does not reflect Mexican usage, it does not reflect Latin American usage, they come up with their own stupid things.'*

Interviewees adopt several strategies in response to these challenges. One strategy centres on using advanced search capabilities. This includes choosing keywords carefully and using

advanced search techniques such as putting phrases in quotation marks. Search strategies also involve keeping up with the changing meanings of Spanish as it comes into contact with English: *'In Mexican Spanish…they have it [conspiracy] codified "delincuencia organizada", "asociación delictuosa" but now if you go to newspapers and see what they are using and even, I interpret for high level prosecutors and judges...and they are now using "conspiración"'* (Interpreter)*.* This juggling of language can also be seen when regional Spanish variations come into contact with evolving US standards or when English terms have no direct equivalent in Spanish: *'In Mexico...at the time, they didn't even have foster care, much less a name for it...it didn't exist'* (Interpreter)*.* Another strategy involves being very aware of the provenance of textual material; a legal dictionary is chosen because *'he's the first who is using Mexican codes, Mexican Penal codes because before then almost all of them were Argentinean, which is lovely except Argentina has 30 million people and Mexico is 120 and all of Central America goes up to Mexico not Argentina'* (Interpreter).

Keeping up with workplace and professional practices is also considered challenging to interviewees. The relatively isolated nature of bilingual professional practices in Colorado means that local professional organisations are very small, or do not exist. These barriers are compounded by the lack of broader educational opportunities to learn about bilingual information practices. The journalist fell into his job because he followed Latin American soccer news and no one could read any Spanish on the newspaper. For the lawyer, her qualifying exam did not include any immigration law, meaning she had to start from scratch. The interpreter noted that while Colorado has many heritage speakers (defined in the US as someone with a cultural connection to a language other than English – for example, growing up in a non-English language home) with excellent language skills, their lack of a BA degree means they cannot enrol in a translation or interpreting degree, which is only available as a Master's.

Interviewees have adopted several strategies to overcome these limitations. Participants noted that they rely heavily on national groups and associations such as the Spanish Speaking Lawyer's Committee, or more generic local associations such as the Colorado Translators' Association or the Colorado Congress of Foreign Language Teachers in order to remain connected. This is seen in practical terms; by using a national listserv *'the odds that someone is sitting in front of the computer is much greater than just here in Colorado'* (Interpreter). At the same time, national engagement is often complemented by the reliance on tight yet small network of supportive local, bilingual contacts: *'Most…are people who have studied with me or worked with me…so many of them post information that for me is useful'* (Journalist).

6. Discussion

6.1 Bilingual workplace information practices

The primary aim for this research is to provide an initial exploration of bilingual workplace information practices that could be used as the basis for Spanish IL instruction. While interviewee responses only provide a snapshot of workplace activity, it is clear that bilingual professionals engage in a wide range of information tasks that require a variety of specific competencies and strategies. On the one hand, these competencies can be seen as very similar to those that are needed for English language research. English studies and these bilingual interviewees both show a need, for example, to retrieve and critically evaluate information from varied sources. However, on the other hand, it is clear that the Spanish and the bilingual contexts affect information practices in certain ways.

The limited availability of traditional published sources, for example, is one of the predominant features of the Spanish language information environment. Interviewees note that traditional publishing is marked by underlying barriers that give more visibility to certain variations of Spanish, for example the dominance of the Argentine legal system in reference works or the use of Puerto Rican Spanish in official documents. Other publications are not updated for contemporary or online usage, whether this is because of a perceived lack of marketability or for other reasons. Accordingly, participants have had to develop a range of specific adaptive strategies in order to overcome these restrictions. This includes developing a deep understanding of the information environment, for example understanding these constraints and being able to critically evaluate scarce resources.

At the same time, it is clear that the bilingual nature of the information environment is another defining feature of participant information experiences. This can be seen through the challenges of working in a minority language in an English world. Interviewees note that search engines like Google are thought to be biased towards English language queries and sources, thereby obscuring Spanish material. It can also be seen as regional variations of Spanish collide. The interpreter complained, for example, that bilingual legal documents in the US tended to use Puerto Rican Spanish, which is considerably different from her native Mexican Spanish. In these cases, participants have had to develop technical strategies to work around these limitations, such as becoming more aware of the need to use a variety of search terms particularly as regional varieties of Spanish continue to grow in importance. Colorado's specific situation is another distinctive attribute of these interviewees' information environments. The fact that Colorado Hispanic professional organisations are limited to chapters of national Nurse, Real Estate and MBA associations means that professionals have had to develop a range of social strategies in order to stay up to date (Gale Research, 2013). This includes developing a national network, or learning from peripherally related local professional associations.

In sum, it is clear that adaptive technical and social strategies have developed from the professional's deep engagement with their environment. Accordingly, design for IL instruction must engage not only with multicultural information landscapes but also with multicultural information competencies in order to prepare students for these information realities.

6.2 Multicultural information practices

A secondary aim for this research is to examine the concept of multicultural information practices. While this study is exploratory and limited in scope, these bilingual professionals demonstrate that like immigrants and refugees, they encounter significant structural and social barriers that affect their information practices. This is linked to the perceived limitations of Spanish information environments, as well as the bilingual nature of the information environment, or working in Spanish in mainstream English or US surroundings. However, at the same time, this research demonstrates that multicultural information practices are not homogenous. While some interviewee strategies seem to share commonalities with immigrant or refugee practices, such as turning to local contacts or networks, the nature of these interactions in the professional bilingual context seems to be less uneven or restrictive. This could be because strategies are not used in isolation; a professional reliance on local networks, for example, is supplemented by other tried and tested actions such as adapting search techniques. It could also be due to the fact that all four respondents are elective rather than circumstantial bilinguals who have lived in the US for considerable periods of time. What is clear is that this research demonstrates that multicultural information practices are highly complex, and will likely become even more so as the workplace grows more diverse.

6.3 Workplace IL in an academic setting

This research also aims to explore the position of workplace IL within academic settings. Using the foreign languages as an example, and recognising the limitations of the study, this research shows that workplace information environments provide a worthwhile and necessary area of focus for IL instruction, even in a field which has no clear career path. This can be seen by both the importance that participants place on IL, as well as the continuing need that they show for IL opportunities. Descriptions of the sophisticated information strategies and competencies that participants develop in order to be successful in their work demonstrate the importance of IL within these fields studied. At the same time, participant struggles with information overload, for example, demonstrate that even significant experience in the workplace is not always sufficient to overcome information related problems, thereby demonstrating the need for IL and instruction in the field too.

In turn, this research raises more questions about the design of academic IL. The underlying motivation for the study was a recognition of the need to think more holistically about IL and its role in disciplinary contexts. Is this broader conception of IL that draws from workplace studies directly relevant to educational practices? If so, should workplace IL be taught as a separate module in an academic context? Or, recognising that the holistic focus that characterises workplace information research enables the design of more transferable and lifelong student practices, should we draw from workplace studies to design for academic IL? The paper cannot answer these broader questions, but as information landscapes continue to change around us, these are certainly questions that we should be starting to address.

7. Implications for educational practices

This research provides an interesting snapshot of bilingual information practices in workplace information environments in its own right. However, in line with the broader goals of this paper, the research was started in order to design more appropriate IL instruction for Spanish undergraduates. Accordingly, these findings will affect the author's instructional practices in two ways. Firstly, while her existing instructional approaches already engage students with Spanish information environments, this research demonstrates the importance of helping students develop specific relevant strategies to scaffold participation in the bilingual workplace. Secondly, students must also develop strategies that will scaffold more general workplace competencies, such as presenting information for communicative purposes. Accordingly, interviews from the study will form the basis of learning objects for advanced Spanish language students. Edited interviews will be accompanied by a series of reflective prompts that are designed to enable student reflection on workplace realities, their own information habits and bilingual practices. Students will also compare their information environment with an interviewee's, including tools, technologies and sources used for research.

By asking students to conceptualise and compare novice and expert research environments, including social sources, technologies and tools, students will engage with the rich diversity of research sources in bilingual workplaces. While information resources differ in every profession, it is clear that students often rely on the same small set of tried and tested tools (Head and Eisenberg 2009, p. 3). In addition, the trend for the personalisation of Google results, for example, may prevent access to the everyday tools or sources that are used by speakers of a language (Vaidhyanathan 2011). Secondly, by helping students to reflect on search or evaluation processes in bilingual information environments, students will engage with deeper, more critical questions about how information works, such as the visibility of different cultures and societies in English language knowledge systems or political economies of knowledge

ownership and control. This approach scaffolds disciplinary knowledge and identity, while also helping students to 'understand what they are becoming' (Elmborg 2003, p. 71).

Lastly, by reflecting on information use through the lens of another language, students start to understand the cultural boundaries and frames of reference that underpin language. In addition, by demystifying real world information environments, the student can start to engage in the community as a participant rather than an onlooker. In this way, students see themselves not only as a member of a community but also as part of a society that is foreign to others, key aspects of transcultural competence (MLA, 2007). Accordingly, the IL classroom functions as the 'safe house' in the contact zone, a 'social space where cultures meet, clash, and grapple with each other' that also helps develop the student's capacities for addressing these issues (Pratt 1991, p. 34).

8. Limitations and future research

This study is not without its limitations. Firstly, the small participant sample size, the broad range of professions interviewed and the nature of the qualitative study means that generalisations cannot be made. Secondly, research was carried out in Colorado, which does not have such an overt Spanish speaking culture as other US states. This means that information practices may be very different to those in more prominently Spanish speaking states such as Texas or California. Lastly, comparisons with English language practices were made in conjunction with published studies (none of which was carried out in Colorado) rather than actual data. This means that any comparisons must be very broadly interpreted. However, the study sprang from growing recognition of the importance of Spanish in the workplace. In this way, the goal of the study was to make observations about how specific professionals, whose careers correspond with Spanish graduate opportunities, deal with and regard US bilingual workplace information environments. Accordingly, acknowledging these limitations, the research serves as a very preliminary investigation of bilingual information realities.

The study also raises questions about the study of culture and information practices. As Atwood and Dervin note, it is often the context of information practices rather than race or ethnicity that is a far greater predictor of information behaviour (1982). Moreover, as Beghtol (2002) points out, people can belong to a variety of national, ethnic or smaller socio-cultural units, as well as diverging personally from aspects of these cultural identities. Cultures are not self-enclosed, and to conceive of rigid divisions between cultures, or cultural practices, is 'to overlook the porosity of cultural boundaries and the creative potential of the individuals they encompass' (UNESCO 2010, p. 9). In this way, the author does not use this study to make broad cultural assumptions that demarcate Spanish or bilingual speakers, nor to create simplistic checklists of differences or 'other' behaviour. Instead, she recognises that

> 'attitudes and assumptions about information will operate at whatever national, social and/or geographic plane a culture has been formed within society or within an individual and will therefore inform decisions to whatever extent the individual identifies with some cultural group, participates in its deliberations, seeks to perpetuate it and fears and responds to threats to its continuation' (Beghtol 2002, p. 510).

Accordingly, the goal of the study is simply to foster transcultural dialogue, helping students to become aware of multicultural practices in order to move the 'focus away from 'differences' towards our shared ability to evolve through interaction' (UNESCO 2010, p. 9).

It is clear, however, that cross-cultural learning is growing more important both in the workplace as well as in higher education. As such, this study demonstrates the need for further investigation of multilingual and multicultural information practices. One approach could be to broaden the scope of the study. Many professions incorporate foreign languages into their workplace information environments, for example medicine, social work, media, advertising and business. Future research could engage more deeply with the practices, values and assumptions of workers in other relevant areas. Another angle for future research could focus on linguistic issues. This study did not differentiate between native English and native Spanish speakers nor between Spanish spoken by different ethnic or national groups. Research could also go beyond bilingual information realities to look at Spanish information practices in Latin America or Spain, especially as more graduates seek employment abroad.

9. Conclusion

This research set out to explore how professional, bilingual information environments are constituted in the US. As participant interviews and observations have shown, these environments are complex and multi-faceted. On the one hand, interviewees demonstrate that many of their bilingual information practices are similar to their English-language counterparts, having to rely on a variety of textual, social and physical sources. On the other hand, the bilingual context affects these experiences in certain unique ways, for instance while using search engines, or keeping up in the field. In this way, professionals have to develop specific adaptive strategies in order to be successful, such as maintaining an awareness of the changing uses of language or relying on national organisations. These findings serve as a preliminary investigation into the nature and experience of these multicultural information environments. At the same time, they highlight the need for a much broader conception of IL within foreign language education as a broad range of professional communities confront the realities of global information societies.

Cultural approaches to IL are vital within these contexts. However, it is clear that this cannot be limited to being able to translate search words, or use a multilingual search engine. As this research has shown, better access to foreign language information sources and knowledge systems, for example, is only one aspect of multilingual and multicultural information practices. Instead, the complexity of these environments means that librarian engagement as an educator and cultural broker is particularly important in the development of relevant information competencies. Notwithstanding, librarians often develop IL structures that are influenced by their own cultural and intellectual assumptions (Wang 2007). In addition, existing standards and frameworks may not accommodate IL within these cross-cultural settings (Hicks 2013). Nonetheless, as these interviewees demonstrate, it is clear that IL needs to be approached 'within the context of people's cultural values, societal groupings and personal information needs' (Garner 2005, p. 30). It is only then that students can start to engage with habits of lifelong, transcultural learning.

This research also raises significant questions about the nature of workplace IL within educational settings. Developing IL around concepts of workplace IL may seem like a very functional view of education; IL that is designed for a specific task or skill set. However, the author contends that seeing IL as solely or predominantly focused around educational practices is equally limiting. If mastery of a discipline or a field involves 'learning to be' as well as 'learning about', the realities of today's networked knowledge societies mean that this must also include learning how to step out and act in complex real world information environments (Adler and Seely Brown 2008, p. 19; Swanson 2005, p. 74). In this way, it is essential that librarians engage with practitioners as well as the academic community in order to prepare students for

lifelong learning. IL research has traditionally focused on identifying commonalities and patterns rather than differences in order to design one size fits all instruction practices (Cheuk 2000, p. 184). Notwithstanding, this research demonstrates the importance of acknowledging and designing for differences as well.

References

Alonso-Gamboa, J. and Russell, J. 2012. Latin American scholarly journal databases: a look back to the way forward. *Aslib Proceedings* 64(1), pp. 32-45. Available at: http://dx.doi.org/10.1108/00012531211196693.

ALTEC (Anderson Language and Technology Center) n.d. *Career Resources*. Boulder, Colorado: Anderson Language and Technology Center. Available at: http://altec.colorado.edu/employment-resources.shtml [Accessed: 19 October 2013].

Atwood, R. and Dervin B. 1982. Challenges to sociocultural predictors of information seeking: a test of race vs situation movement state. *Communication Yearbook* 5, pp. 549-569.

Attfield, S. and Dowell, J. 2003. Information seeking and use by newspaper journalists. *Journal of Documentation* 59(2), pp. 187-204. Available at: http://dx.doi.org/10.1108/00220410310463860.

Beghtol, C. 2002. A proposed ethical warrant for global knowledge representation and organization systems. *Journal of Documentation* 58(5), pp. 507-532. Available at: http://dx.doi.org/10.1108/00220410210441.

Brown, J.S. and Adler, R. 2008. Minds on fire: open education, the long tail, and learning 2.0. *Educause Review* 43(1), pp. 17-32.

Bruce, C. 1999. Workplace experiences of information literacy. *International Journal of Information Management* 19(1), pp. 33-47. Available at: http://dx.doi.org/10.1016/S0268-4012(98)00045-0.

Caidi, N, et al. 2010. Information practices of immigrants. *Annual Review of Information Science and Technology* 44(1), pp. 491-531. Available at: http://dx.doi.org/10.1002/aris.2010.1440440118.

Calva González, J.J. 2004. La investigación sobre las necesidades de información en comunidades de usuarios. *Investigación Bibliotecológica* 18(37), pp. 23-55.

Cheuk, B. 2000. Exploring information literacy in the workplace: a process approach. In: Bruce, C. et al. (eds.) 2000. *Information literacy around the world: advances in programs and research*. Wagga Wagga, N.S.W.: Centre for Information Studies, Charles Sturt University. pp. 177-192.

Conteh-Morgan, M. 2003. Journey with new maps: adjusting mental models and rethinking instruction to language minority students. In: *Proceedings of the Eleventh National Conference of the Association of College and Research Libraries,* pp. 257-66.

Coonan, E. 2011. *A new curriculum for information literacy. Teaching learning: perceptions of information literacy* [online]. Available at: http://ccfil.pbworks.com/f/emma_report_final.pdf [Accessed: 19 October 2013].

Courtright, C. 2005. Health information-seeking among Latino newcomers: an exploratory study. *Information Research* 10(2), pp. 1-13.

Cutler, J. 2005. *The cross-cultural communication trainer's manual*. Aldershot: Gower Publishing.

Elmborg, J. 2003. Information literacy and writing across the curriculum: sharing the vision. *Reference Services Review*, 31(1), pp. 68-80. Available at: http://dx.doi.org/10.1108/00907320310460933.

Fisher, K. et al. 2004. Information behaviour of migrant Hispanic farm workers and their families in the Pacific Northwest. *Information Research* 10(1), pp. 1-12.

Gale Research Inc. 2013. *Associations Unlimited*. Detroit, MI: Gale Research.

García, I. et al. 2010. *Horizon report: 2010 Iberoamerican edition*. Austin, Texas: The New Media Consortium and the Universitat Oberta de Catalunya.

Garner, S. 2006. *High-level colloquium on information literacy and lifelong learning*. United Nations Education, Scientific, and Cultural Organisation (UNESCO), pp. 1-87.

Greenberg, R and Bar Ilan, J. 2013. Information needs of students in Israel - a case study of a multicultural society. *Journal of Academic Librarianship* (in press).

Han, J. 2012. Information literacy challenges for Chinese PhD students in Australia: a biographical study. *Journal of Information Literacy* 6(1), pp. 3-17. Available at: http://dx.doi.org/10.11645/6.1.1603.

He, D. et al. 2012. Undergraduate students' interaction with online information resources in their academic tasks: a comparative study. *Aslib Proceedings: New Information Perspectives* 64(6), pp. 615-640. Available at: http://dx.doi.org/10.1108/00012531211281715.

Head, A. et al. 2013. What information competencies matter in today's workplace? *Library and Information Research* 37(114), pp. 74-104.

Head, A. and Eisenberg, M. 2009. *Lessons learned: how college students seek information in the digital age*. Available at: http://projectinfolit.org/pdfs/PIL_Fall2009_finalv_YR1_12_2009v2.pdf [Accessed: 19 October 2013].

Hepworth, M. and Smith, M. 2008. Workplace information literacy for administrative staff in higher education. *Australian Library Journal* 57(3), pp. 212-237. Available at: http://dx.doi.org/10.1080/00049670.2008.10722477.

Hepworth, M. and Walton, G. 2009. *Teaching information literacy for inquiry-based learning*. Oxford: Chandos Publishing. Available at: http://dx.doi.org/10.1533/9781780630175.

Hicks, A. 2013. Cultural shifts: putting critical information literacy into practice. *Communications in Information Literacy* 7(1), pp. 50-65.

Hoyer, J. 2011. Information is social: information literacy in context. *Reference Services Review* 39(1), pp. 10-23. Available at: http://dx.doi.org/10.1108/00907321111108088.

Hughes, H. and Bruce, C. 2006. Cultural diversity and educational inclusivity: international students' use of online information. *International Journal of Learning* 12(9), pp. 33-40.

Ishimura, Y. and Bartlett J. 2013. Uncovering the research process of international students in North America: are they different from domestic students? *Information Research* 18(1), pp. 1-17.

Kramsch, C. 1993. *Context and culture in language teaching*. Oxford: Oxford University Press.

Leckie, G. et al. 1996. Modeling the information seeking of professionals: a general model derived from research on engineers, health care professionals, and lawyers. *The Library Quarterly* 66(2), pp. 161-193. Available at: http://dx.doi.org/10.1086/602864.

Lloyd, A. et al. 2013. Connecting with new information landscapes: information literacy practices of refugees. *Journal of Documentation* 69(1), pp. 121-144. Available at: http://dx.doi.org/10.1108/00220411311295351.

Lloyd, A. 2010. Framing information literacy as information practice: site ontology and practice theory. *Journal of Documentation* 66(2), pp. 245-258. Available at: http://dx.doi.org/10.1108/00220411011023643.

Lloyd, A. 2009. Informing practice: information experiences of ambulance officers in training and on-road practice. *Journal of Documentation* 65(3), pp. 396-419. Available at: http://dx.doi.org/10.1108/00220410910952401.

Lloyd, A. 2007. Recasting information literacy as sociocultural practice: implications for library and information science researchers. *Information Research* 12(4), pp. 1-13.

Lloyd, A. 2006. Information literacy landscapes: an emerging picture. *Journal of Documentation* 62(5), pp. 570-583. Available at: http://dx.doi.org/10.1108/00220410610688723.

Lloyd, A. 2005. No man (or woman) is an island: information literacy, affordances and communities of practice. *Australian Library Journal* 54(3), pp. 230-237. Available at: http://dx.doi.org/10.1080/00049670.2005.10721760.

Luke, A. and Kapitzke, C. 1999. Literacies and libraries: archives and cybraries. *Curriculum Studies* 7(3), pp. 467-491.

Mayer, M. 1967. *The Lawyers*. New York: Harper & Row.

Modern Language Association. 2013. *Language map*. Available at: http://arcgis.mla.org/mla/default.aspx [Accessed: 19 October 2013].

Modern Language Association. 2007. *Foreign languages and higher education: new structures for a changed world*. Modern Language Association.

Montiel-Overall, P. 2007. Information literacy: toward a cultural model. *Canadian Journal of Information and Library Science* 31(1), pp. 43-68.

Morrison, R., 2010. Culturally relevant information literacy. In: Gandy, P. et al. (eds.), *Adult education, the next 50 years: our future continues through an investment In research. Joint conference proceedings of AERC and WRRCEA*. Sacramento: Adult Education Research Conference (AERC) and Western Region Research Conference on the Education of Adults (WRRCEA), pp. 331-336.

Nakata, M. et al. 2005. Libraries, indigenous Australians and a developing protocols strategy for the library and information sector. *Australian Academic & Research Libraries* 36(2), pp. 195-210.

National Standards in Foreign Language Education Project. 1999. *Standards for foreign language learning in the 21st century*. Yonkers, NY.

Open Society Foundations. n.d. *Mapping digital media*. Available at: http://www.opensocietyfoundations.org/projects/mapping-digital-media [Accessed: 19 October 2013].

Pawley, C. 2006. Unequal legacies: race and multiculturalism in the LIS curriculum. *The Library Quarterly* 76(2), pp. 149-168. Available at: http://dx.doi.org/10.1086/506955.

Perrault, A.M. 2007. An exploratory study of biology teachers' online information seeking practices. *School Library Media Research* 10, pp. 1-15.

Perrault, A.M. 2007b. The school as an information ecology: a framework for studying changes in information use. *School Libraries Worldwide* 13(2), pp. 49-62.

Pratt, M.L. 1991. Arts of the contact zone. *Profession* 91, pp. 33-40.

Swanson, T. 2005. Applying a critical pedagogical perspective to information literacy standards. *Community & Junior College Libraries* 12(4), pp. 65-77. Available at: http://dx.doi.org/10.1300/J107v12n04_08.

Thompson, K. 2007. Furthering understanding of information literacy through the social study of information poverty. *Canadian Journal of Information and Library Science* 31(1), pp. 87-115.

Torres, V. et al. 2006. A model of first-generation Latino/a college students' approach to seeking academic information. *NACADA Journal* 26(2), pp. 65-70. Available at: http://dx.doi.org/10.12930/0271-9517-26.2.65.

Tuominen, K. et al. 2005. Information literacy as a sociotechnical practice. *The Library Quarterly* 75(3), pp. 329-345. Available at: http://dx.doi.org/10.1086/497311.

Weiner, S. 2011. Information literacy and the workforce: a review. *Education Libraries* 34(2), pp. 7-14.

UNESCO (United Nations Education, Scientific, and Cultural Organisation). 2010. *Investing in cultural diversity and intercultural dialogue*. UNESCO.

US Census Bureau. 2011. *State characteristics: population by race and Hispanic origin.* Available at: http://factfinder2.census.gov [Accessed: 19 October 2013].

Vaidhyanathan, S. 2011. *The googlization of everything: (and why we should worry).* Berkeley: University of California Press.

Wang, L. 2007. Sociocultural learning theories and information literacy teaching activities in higher education. *Reference & User Services Quarterly* 47(2), pp. 149-158. Available at: http://dx.doi.org/10.5860/rusq.47n2.149.

White, M. et al. 2008. Beyond dictionaries: understanding information behavior of professional translators. *Journal of Documentation* 64(4), pp. 576-601. Available at: http://dx.doi.org/10.1108/00220410810884084.

Wilkinson, M.A., 2001. Information sources used by lawyers in problem-solving: an empirical exploration. *Library & Information Science Research* 23(3), pp. 257-276. Available at: http://dx.doi.org/10.1016/S0740-8188(01)00082-2.

Wright, C. 2010. Information-seeking behaviors of education literature user populations. *The Teachers College Record* 112(10), pp. 2537–2564.

Appendix I

Semi-structured interview questions

What is your job title/industry?
How long have you worked in this position? In the field?
What is your highest educational qualification?
What training did you get: education, in the field, on the job?

Can you tell me about a typical occasion when you may have to look for information?
Do you research in English, Spanish, both, other languages?

Information environments – job/profession
- What sources of information do you use/feel are important in your job? Profession?
  - Prompt: Physical, textual, social, online, colleagues/peers/supervisor
  - Prompt: Has this changed since you started?
- What technologies do you use in your research, e.g. Evernote?
- How do you know what is 'good' information? Reliable? How do you evaluate this?
- How do you know where to search/know if information exists?
- Where (and when) do you ask for help?
- Is there anything you still want to know/learn (related to research process)?
- How is your process different in English and Spanish?
- Do you differentiate between English and Spanish research?

Learning about information environments
- How do you learn/seek information about your job?
- How do you learn/seek information about your profession?
- How do you keep up in your job/profession?
- How has this changed since you started?
- What information/research competencies do you expect from graduates?
- Do you think new graduates are prepared for this? Why?
- How is your process different in English and Spanish?
- Do you differentiate between English and Spanish research?

Transition in information environments
- What research challenges did you face when you moved from college to the workplace?
- Do you think you developed any research competencies in college? How did you use or adapt these in the workplace? Why/why not?
- What did you do to develop the research skills you needed?
  - Prompt: training, mentoring, supervisor, social media, online community, co-worker relationships, formal v. informal
- What personal characteristics do you think are necessary to be able to succeed in your job or profession?
- Was/Would any of this be different in a Spanish speaking country?