

Collectively Figuring It Out: Foreign-Trained Health Professionals and Labor Market Integration

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ABSTRACT

Background. Foreign-trained health professionals arrive in the United States and Canada to find a professional environment that is often unwelcoming and complex.

Objectives. We examine the nature of information in foreign-trained health professionals' lives as they attempt to integrate into the North American labor market. We focus on the role that online discussion forums play in channeling the discussions: what functions do these online spaces support (e.g., informational, emotional, instrumental and phatic) and how information is shared (e.g., sharing stories, linking to/reposting resources, contextualizing and critiquing).

Methods. Content analysis was carried out on a sample of postings directed at foreign-trained health professionals in five online forums: AllNurses and Trackitt in the United States; and Canadian Desi, LoonLounge and CanadaVisa in Canada.

Results. The interactions in these forums include requesting guidance and clarification about the North American system, sharing experiences and stories, expressing visceral or affective reactions, offering opinions, and negotiating the norms and etiquette of the forum. The content of the postings mostly revolve around issues relating to the immigration process, certification and employability. Other issues identified can be grouped into three categories: information preparedness, information as support and informational practices.

Conclusion. Foreign-trained health professionals are faced with a combination of unfamiliar healthcare system, terminology, information sources and information-seeking practices. Online communities supported by online discussion forums help these health professionals integrate into the local healthcare system.

BACKGROUND AND CONTEXT

In an era of global migration, recruiting and retaining highly qualified professionals is critical. Indeed, immigration plays a key role in the workforce and economic development of many countries, with some professions facing a higher demand than others. In countries such as the United States or Canada, the demand for health professionals, in particular, has significantly increased in the past decades. The Organization for Economic Co-operation and Development (OECD) has estimated that more than one-third of physicians in the United States and Canada (34 and 32%, respectively) are over the age of 55 years, and are expected to retire over the next 10 years (OECD, 2013). Despite the demands for health professionals (and the associated ethical issue of “brain drain” that it raises (Lofters, Slater, Fumakia & Thulien, 2014), there is increased evidence that foreign-trained health professionals are facing significant challenges as they attempt to integrate into the labor market in their new country.

Although information is increasingly available before one migrates to the new country (thanks to the Internet), finding career-related information, such as foreign credential recognition, recertification, bridging programs, and employability in the labor market remains a challenge. Buried under layers of challenges is the fact that even though highly educated, these individuals have to search for information in English (or French), which is often a second or foreign language for them. While high levels of domain knowledge have been shown to mitigate language-based difficulties in second- and foreign-language searching (Kralisch & Berendt, 2005), it remains an obstacle for many foreign-trained health professionals, along with a lack of familiarity with the information environment of the new country.

The purpose of this study is to examine how foreign-trained (also known as internationally-educated) health professionals seek, use, and share health- and career-related information as they attempt to migrate and prepare for integrating the labor market in their new country. Despite demonstrated credentials, a large knowledge base, and a command of foreign language(s), foreign-trained health professionals in the US and Canada face numerous challenges when trying to gain work as health professionals after immigrating. The certification process is usually long and costly, and more often than not, these individuals have to rely on survival jobs or find permanent work outside their main sector of activity (Adams, 2007; Reitz, 2001). Even with initiatives and policies by the Canadian and American governments to promote integration of these professionals into the labor market, their path to information about the North American healthcare systems, professional recognition and inclusion in the labor market remains largely understudied in Information Studies. Elsewhere, it has been documented that foreign-trained health professionals continue to struggle even after decades of living in their new countries. According to Girard (2010), “those who worked in health or education, two fields that have high proportions of regulated occupations, were less likely to find employment in their field than those who worked in sales and service, clerical work, manufacturing, and management, even 10 years after settlement (taking into account enrolment and completion of an educational program in a local institution)” (p.48).

Many formal and informal sources of information exist on the regulation of health-related professions in the US and Canada (e.g., government, settlement sector and health-related associations). However, we focused on the nature of information interactions that occur in publicly available online spaces that cater to foreign-trained health professionals. We examined postings to selected online forums that deal with immigration-related matters and employment/employability of health professionals. The authors set out to learn about the “work” that online forums accomplish. Among the questions that guided our research are:

- What functions do these online spaces seem to support?
- What can we observe from these five online forums about how information is shared and negotiated?
- What are the burning issues that drive foreign-trained health professionals to these forums?

We examine these questions below.

LITERATURE REVIEW

Studies of immigrant health information behavior tend to examine health professionals’ or patients’ behavior (e.g., Cortinois, 2008; Courtright, 2005; Wu, Penning & Schimmele, 2005) rather than the information needs and practices of immigrating health professionals. In this study, we seek to understand the nature of information in foreign-trained health professionals’ lives with an eye toward integration into the labor market (including the types of information needed, sources and methods used to find this information, and the challenges faced by immigrant health professionals in North America).

From the literature, we know that the information practices of migrant individuals (newcomers and longer established immigrants) are associated with specific needs and attitudes toward resources, institutions, or technologies, and their information behavior varies based on their immigrant class, their literacy skills and technology experience, and their settlement stage (Caidi, Allard & Quirke, 2010; Quirke, 2014; Lloyd, Kennan, Thompson & Qayyum, 2013). The importance of social networks in immigrants’ lives is discussed widely in the professional literature (Caidi & Allard, 2005; Cortinois, 2008; Fisher, Durrance & Bouch Hinton, 2004; Fisher, Marcoux, Miller, Sanchez & Ramirez, 2004; Shoham & Strauss, 2007). We approach the migration and settlement process as a context for examining information exchange through social networks, as information is a critical resource for migrants and their families. Like most people, immigrants are most likely to ask other individuals (i.e. relatives, friends, co-workers, co-ethnics, settlement workers, religious leaders, community leaders, etc.) for help as the first step when seeking information (Lloyd et al., 2013; Quirke, 2014; Salaff & Greve, 2004; Silvio, 2006; Wong, 2004). Information behavior is indeed embedded within social structures.

Moreover, local and transnational information sharing have become more common with the popularization of Internet, social media and forums that act as essential exchanges of information about settlement, health, family and professional matters. The rapid adoption of digital and mobile technologies, particularly new media in the forms of applications on mobile devices, and user-generated content on the Internet, has had a tremendous role in transforming both the process and experience of information sharing (Lampe, Vitak, Gray & Ellison, 2012; Ramaswami, Murugathasan, Narayanasamy & Khoo, 2014; Xu, Zhang, Wu & Yang, 2012). This is no different when it comes to migration. The adoption of such technologies provides effective and transformative means to maintain contact with home

cultures and diasporic networks, and can facilitate or hinder the development of nascent networks in the new environment (Komito, 2011; Quirke, 2014).

METHODOLOGY

While it is well established in the literature of library and information science (LIS) and communications that people rely on human sources and personal relationships for information needs, including migration and settlement, the question of how this happens as a social process (Fisher, Durrance & Bouch Hinton, 2004) remains largely open, and points to a paucity of immigration research regarding the relational dynamics of information networks.

To gain a rich understanding of the nature of information in foreign-trained health professionals' lives, we designed a mixed methods study combining content analysis of online forum postings along with semi-structured interviews with foreign-trained health professionals (Komlodi, Caidi & Abrao, 2014). These two methods complement one another by providing both an analysis of directly-observed user behavior in the form of discussion forum postings plus self-reports of information behavior and motivations from the subjects themselves. Results from the two phases will be combined to inform one another and create a more complete picture of foreign-trained health professionals' information behaviors (Komlodi, Caidi & Abrao, 2014).

In this article, we focus on our analysis of the messages posted to online discussion forums directed at foreign-trained professionals (with a focus on health professions) to explore the information practices observable on these platforms. Five online forums where discussions about health-related employment questions occurred were selected: AllNurses and Trackitt in the United States; and Canadian Desi, LoonLounge, and CanadaVisa in Canada. These spaces elicited rich and varied datasets. After a broad search on a variety of online forums, we selected these five because they were for the most part in English, had sufficient levels of activity and discussion that would make the analysis possible.

All Nurses (<http://www.allnurses.com>) is a social networking site for practising nurses and nursing student (founded by a nursing student in 1997, initially as a means to organize nursing-related resources). The site has over 4 million unique visitors and 13 million page views. The forum is described as an "ever-growing community of registered nurses" and as "the go-to place to communicate and discuss nursing, jobs, schools, NCLEX, careers, and so much more".¹ The forum is organized around "General Nursing" discussions (1,157,472 replies) along with more specific sections such as "World Nursing" (276,971 replies), "International Nursing" (873,127 Members/19,206 Topics) or "Nursing in Canada" (1,825 Topics; 32,123 Replies).

Trackitt (<http://www.trackitt.com/>) is a forum dedicated to discussing and tracking immigration applications. The idea is that users' experiences and information sharing provide greater visibility into the application process and thus contributes to "reduce the uncertainty involved in the process of application."² The target audience seems to be primarily skilled immigrants (over 1million users) who have submitted immigration applications for Canada, the United States, the United Kingdom and Australia. The forum is organized by types of visas as well as by country. The "Canada Federal Skilled Worker Visa" alone has over 475 pages with 25 threads on each page. The "U.S. Immigration Forums (Employment-Based)" is subdivided into 6 types of permits/visas. Each visa section has about 678 pages.

¹ <http://allnurses.com/aboutus-info.html>

² <http://www.trackitt.com/about-us>

Table 1. Summary of the data collected from the five forums for analysis

Forum	Word Count	Character Count
All Nurses	37788	173092
Canada Visa	26328	126398
Canadian Desi	5326	24808
Loon Lounge	3087	15318
Trackitt	4730	20884
Total	77259	360500

Canadian Desi (<http://canadiandesi.com/forum.php>) is a community website founded in 2001 for South Asians living in Canada, or those who would like to immigrate to Canada. The website includes classifieds, a business directory (yellow pages), an events calendar, Bollywood news, and an employment section. The “Community” tab takes one to the Forum, which has 72,540 members, 34,309 threads, and over 200,000 posts. We examined the “Immigration and Citizenship (USA and other countries)” and also searched the content of whole forum for relevant topics. We compiled a dataset from this forum, which consisted of 20 threads for a total of 17 pages.

Canada Visa.Com (<http://www.canadavisa.com/canada-immigration-discussion-board/index.php>) is a website founded in 1996 by a Canadian immigration lawyer (whose consultation services are extensively offered on the site). It is a busy website with resources and services provided to people interested in immigrating to Canada. The “Forum” tab is somewhat hard to find as it is buried under the Tools section. Four options are offered for the Canada Immigration Forum: Immigration, Temporary entry, Settlement, and Visa Office. There is also an archive of previous postings. The site has over 385,000 members, over 365,000 posts on over 207,000 topics. Canada Visa’s forum has extensive threads on the health professions. We selected 10 threads ranging from 2008 to 2014.

Loon Lounge (<http://www.loonlounge.com/>) is an online community dedicated to information sharing about immigration and settlement in Canada. It was also created by a Canadian immigration lawyer. The purpose is to provide information on and links to a wide array of topics and provide forums for members to interact. The forums are organized around sections (or “communities”): Home Country, Occupation, Location/Destination in Canada, and Visa Office. We focused on the Occupation Community and within it on the following forums: Dentistry (6 threads), Health (31 threads), Medicine (9 threads), and Nursing (27 threads).

We combed through these forums to get a sense of the nature and scope of the interactions. When necessary (which was in all but the All Nurses site), we selected threads that specifically dealt with health-related professionals’ concerns. We used health professions in a broad sense (MDs, nurses, dentists, physiotherapists, etc.). We were also very flexible about the timeframe of the postings, with some earlier posting dating back to 2003 and others as recent as a couple of months ago. Having a variety of time data points was deemed useful for our understanding of the information seeking process of foreign-trained health professionals, and those interacting with them. Table 1 summarizes the corpus of data analyzed.

We coded each thread separately, and produced a codebook that was assessed by all four coders and negotiated collectively to increase inter-coder reliability. The thematic analysis of the content was conducted through an iterative process. Our aim was to determine the nature of the interactions on these sites, including the types of questions asked, the nature of the exchanges, the themes discussed, the use of any other language(s) or cultural markers, and the types of information sources mentioned. Below, we report results from our analysis of the data.

FINDINGS

Our content analysis clearly establishes the wide range of interactions taking place on the selected online forums. Not surprisingly, most of the exchanges occurring in such spaces revolve around issues that matter most to foreign-trained health professionals: the immigration process, certification and other credential-related matters, and employability. However, we also noted findings along other dimensions, which we grouped together under three rubrics: Information Preparedness, Information as Support and Informational Practices. We discuss these below.

Information Preparedness

Across the five forums, we noted commonly shared migration stories revolving around the ordeals faced by would-be migrant individuals and their families, the survival jobs upon arrival, the streams of questions and the endless waiting; but also the hopes and dreams for a better future, the resilience, and the attention to details. Through it all, these forums seem to play a key function, which we call “information preparedness” or the ability to use information to assist in meaning-making and decision-making. As part of information preparedness, forum participants engaged in the following activities:

1. *Requesting and volunteering advice on a range of issues:* Many posters asked for advice on a wide range of topics, including: guidance and clarification about the North American regulatory system, procedures and timeframes, provincial/state versus federal differences, and individuals’ experiences of the system. Under Advice, we also included those posters that *offered* advice and guidance about various matters (see Table 2 for an extended list of codes/themes under this rubric).

Pls Help me. It is true that the Nclex exam for foreign Nurses are harder than Nurses who graduated in the USA. What tip can U give to me that would enable me to pass my NCLEX exam? tanks in advance. (AllNurses, November 2007)

Hi where in va are you located at? I'm from va too I finished my bsn in the philippines. trying to take nclex here I'm still in process of application my Cgfn took almost A year to be processed and now I still need to pass the toefl test I took it twice their total passing score requires 83 I just got 72 and for the speaking section I got 22 the required score is 26 so I'm losing hope how could I pass the toefl I'm trying to find a way where i could take nclex without the toefl. (AllNurses, January 2012)

While it is true that the GTA [Greater Toronto Area] in particular has a number of unemployed or under-employed immigrants, it is no reason to generalize. If you don't like GTA, or don't find opportunities there to your liking, go somewhere else, like I did. Remember, Canada is not just the GTA! (Canadian Desi, April 2005)

Table 2. Typology of advice—requested or volunteered

Nature of Advice Requested	Nature of Advice Volunteered
<ul style="list-style-type: none"> • Ability to work • Visa category • Type of certification examination to take • Procedures for obtaining license to practice • General employment experience • Types of education program available (incl. tuitions, employment prospects) • Alternate career options in the health field and in other sectors • Amount of effort/level of difficulty in getting certified to work/getting job • Geography: Where in Canada/USA to settle • Which category of immigrant visa application to choose • Looking for sources of information (blogs/forums) • Certification of documents • Acceptance/consideration of foreign professional experience in Canada 	<ul style="list-style-type: none"> • Ways of obtaining license to practice • Information about types of higher education programs and associated costs • Recommending specific higher educational programs • Job-hunting strategies • Amount of effort/level of difficulty in getting certified to work/getting job • Where to get health jobs globally • Importance of data about immigration and job prospects in making decisions to immigrate (before arriving in Canada/US) • Geography: Leaving Greater Toronto Area (GTA seems immigration hub) • Need for trained manual workers (plumbers, electricians, etc.) • Warning about difficulties (same as level of effort in Desi forum) • Difficulties in finding residencies in Canada for doctors • Geography: Areas/provinces with better opportunities • Health professional job definitions • Suggestion sources of information • Rules/procedures for certification • Rules/procedures for licensure

2. *Deciphering the regulatory practices in the health sector:* All five forums had threads dealing with detailed discussions of the state of North American professional regulation practices for the health sector. Postings included clarification about foreign credential recognition, the (re-)certification process, work permits, provincial/state versus federal regulations, cross-national comparisons, etc. In addition to question/answers, individuals' experiences, there were many instances of linking to various resources (e.g., government or organizations' information sources, media articles, references to other threads or even other online forums).

can someone guide me the best way to get settled as a family physician any where in canada . I have 21 yrs. Experience in family practice in bombay in india and have just arrived in here. How should i approach. E mail

[REPLY TO POST] You have to successfully immigrate first and then go through hoops to get requalified. Exams are easy to clear. Getting residency in a hospital is very difficult. You may have to wait approx. 2-3 years. (Canadian Desi, September 2003)

the best way to find the truth is go and visit the automobile manufacturing companies in Canada ... U will find cardiologist, doctors and highly skilled foreign physicians wasting there time... In Canada until and unless u have degree in medical field from Canada ... u have no worth... and to complete that u need to spend at least 5 to 7 years and also 50 to 70 k dollars ... (Canada Visa, July 2010)

It's an excellent post highlighting the present system for foreign-trained doctors. Would you have info about the state of affairs in dentistry for foreign trained dentists, is it slightly better or same as medical field. (Canada Visa, December 2011)

3. *Discussing employability:* Many posts provided information about employment outlook and working conditions of foreign-trained health professionals and their employability. These included understanding of health care roles, strategies for job seeking, and alternate career options. Posters often described negative experiences and difficulties in finding appropriate job openings and sought advice on strategies or professional paths for achieving employment. Alternate career options were discussed both in health-related and non-health-related sectors. It appears from the postings analyzed that once a foreign-trained health professional secured successful employment, they were not likely to return to the online boards, and thus these experiences were sorely lacking.

I have recently immigrated to Canada. I have a Diploma in Pharmacy and B.Sc (Micro) degree from India, but no work experience. Now I want to find a job in that field. What are my options? (Canadian Desi, June 2008)

Yes a lower skill job in Canada is preferable to a higher skilled job in the third world, Remember a Doctor in Cuba gets about \$100 a MONTH, So telling a Cuban Doctor that becoming a 2000\$ per month security guard is a bad choice is not exactly acceptable to the Doctor. He will become a Security guard in a Heartbeat. (Canada Visa, September 2009)

It is also not certain that if you move out of GTA [Greater Toronto Area] area then you can definitely get a good job. I know of people here in Calgary also who are engineers & not able to get jobs in their field. (Canadian Desi, April 2005)

Information as Support

Our analysis made clear that the interactions taking place on these forums went beyond simple information transfer or inquiry; rather the phatic or expressive functions were a recurring theme across the five forums. Posters used the forums to share stories, learn from others, and express a range of feelings and emotions. We grouped themes under Information as Support:

1. *Using and sharing personal stories and experiences:* Many participants described in great detail their personal experiences with the immigration/employment-seeking process. These stories were illustrative both of a poster's professional journey and her personal impressions. In addition to the accounts of obstacles and opportunities encountered along the way, the themes of vulnerability and resilience were recurrent. These tensions between empowering others through stories and raising legitimate concerns about difficulties were

negotiated differently in the forums examined. In the Canada Visa forum, for instance, there was an established expectation against overly negative views and testimonials, and a self-regulation that occurred every time some posts threatened the (perceived) balance.

From my own perspective I was given 2 weeks orientation and sent on my way as a foreign trained nurse I felt I was flying by the seat of my pants. Initially I was promised an eight week orientation but after 2 weeks I was on my own. Fortunately I received good reviews. I was a very experienced nurse and could competently carry out my duties, I learnt by my mistakes and I avidly learnt by other peoples mistakes, making a mental note not to do anything which somebody else was reprimanded for. My mistakes were confined to paperwork, Dr's orders and learning what not to say. (AllNurses, April 2009)

My first two weeks in the US, I slept on the floor. I had a couch for a bed for a whole year. But later things improved and I even bought a house, sadly I had to sell it when my work permit expired. (Canada Visa, November 2010)

2. *Expressing feelings and emotions*: Throughout the five forums examined, individuals used the space to express a range of emotions from gratefulness at advice provided to them, or the empowering stories of others; as well as anger, frustration and reservations about their current situation (or that of a relative). A frequent example was the dilemma around the “survival job” (necessary for one to meet needs and tend to one’s family) but the subject of much despair, outcry and shame for these foreign-trained professionals (as shown in the excerpt below).

Saying all this just to encourage myself and all the fellow doctors my friends, not to lose hope and look for opportunities whichever readily available. Best of luck to all. (Canada Visa, December 2011)

Mikku Ji...India mein Fortis, Escorts ya Apollo waregarh kuch join karo...kahan Canada ke chakkar mein pade ho. Since you asked...the watchman (security guard) in the building that I used to live in when I was in Canada was an MBBS from India and was preparing for his USMLE so that he could get out of lala land asap. Am sure like any other doctor, you would rather enjoy holding a stethoscope in your hand, instead of a flash light and a whistle. For information about how your valuable degree will be (d)evaluated, you can search this forum or the internet. (Canadian Desi, April 2009)

3. *Insights into migration*: As posters read and share stories, ask questions and provide advice, there are unavoidably themes that emerge and result in more debates. A few such themes include: defining “quality of life” (is life better back home or in the new country under the current situation?); adaptability (what are reasonable vs. unreasonable expectations?); resilience; having a long-term perspective (thinking about the future of one’s children rather than immediate situation); and discrimination (differing standards for domestic- versus foreign-trained health professionals). What these themes have in common is the tension between the official policies (which often state that receiving countries welcome highly skilled individuals) and the practice (devaluation of credentials and close to impossible ability for a foreign-trained professional to perform in one’s occupational sector).

I feel really sad for a lot of talented people and who come with dreams but end up miserable and struggling throughout their life. life is much better back home for these

people but they come here and destroy their lives and end up living a miserable life. There is no happiness in peoples lives or faces here. Only a miserable existence. Here there is no talent but sheer luck or destiny that would give you a life. Many people live here hopeful that their lives would become better someday but its a false hope.

(Canadian Desi, April 2005)

I again say that comments made on this forum are to empower immigrants to make right decisions at the right time and not to see rosey picture of prosperous Canada.

(Canada Visa, October 2009)

4. *Negotiating the social norms and etiquette of the online forum:* Posts were coded in this category when they dealt with the purpose of the forum itself or pertained to managerial functions of the online space. Meta-level comments include comments and reflections about the expectations and norms of behavior on the forum, the tone of the message posted, assumed intentions of the sender, or any other uses of the forum. For example, when there was a specific connection that existed between two users, they would sometimes take the opportunity to connect in private outside the forum. As such, the forums also enable networking between individuals sharing commonalities (e.g., two dentists relocating to Alberta; health professionals graduating from a similar school or having a similar city/region/country of provenance). The use of colloquialisms or interjecting other languages was noted.

I was duly told that I have no business being on this forum, maybe that's true, [POSTER] reply expects me to give a public retraction. I think you will have to wait. It's really great that everybody else read it differently, I guess I read it from a different standpoint, I stand by it , too, no amount of bashing me and telling me what I don't know as a nurse will sway me. (All Nurses, November 2014)

*It is safer to read official information about Canadian Immigration available at varioys official web sites. Please note that you may get cofused by spoon feeding, (...) Do not be impressed by *** alongside the nane of a participant on this forum. Participants are not necessarily law experts lawyers or immigration specialist.* (Canada Visa, October 2008)

Informational Practices

Looking for information is at the heart of forum discussions, as described above. In addition to asking for answers to specific questions, participants also sought and shared pointers to trusted sources of information, including educational programs.

I have researched regarding my particular field but then its all very confused as to where to start and how things will proceed. Could you just suggest any forum/blog where i can find my starting point. (Loon Lounge, April 2014)

I checked the community colleges, the fee is less but it takes at least 2 years to finish the programme, so I was thinking to join the private college -any good one- and get the diploma and gt the job, so that I start earning one year early. Even if I have to pay from my pocket, I do not mind as long as I am sure that I will get the job after spending money with the private colleges. How about the "Pharmacy technician" programme at the private colleges? (Canadian Desi, June 2008)

We identified several specific information behaviors on the discussion boards, which speak to the variety of strategies available to participants to meet their varied and changing needs:

1. *Proxy searching*: Some of the forum participants engaged in proxy searching whereby they sought information on behalf of others (a spouse, a relative, a friend). It is unclear whether some may have used a proxy request as a secretive strategy (such as to mask a request for oneself). Regardless, this behavior exemplifies the difficulties of finding and accessing information, and the heavy reliance on social networks by the population examined.
2. *Linking to external resources*: In answer to requests for information, or as a means to share interesting finds with members of the forums, some individuals post links to external resources either to illustrate a point, or to engage others in a discussion.
3. *Collective information interpretation*: The pointers to external information were often accompanied by evaluations of the information sources and interpretations of the information presented by those sources. In some instances, the trigger for the collective brainstorming is an individual's situation or an initial question posted by someone, and that becomes the fodder of much debate and negotiation.
4. *Gatekeepers*: Some of the forum participants served as gatekeepers for others. Some of these posters were professional practitioners (e.g., immigration lawyers), and others seem to have accumulated their experience and expertise through personal experience. In forums such as Canada Visa, there are different categories of membership and members get star ratings presumably based on the number of posts, and the individual's reputation and reliability as an informed member (VIP Member, Star Member, Newbie, etc.).
5. *Personal and emotional dimensions of information*: Many posts sought factual and objective information, yet individual experiences and feelings were always at the heart of the posting. People want information and also want to share their experiences and even vent frustrations at the process and the system.

As demonstrated, the forums serve various functions, not all of them related to seeking information per se. Below we discuss the implications of the findings.

DISCUSSION/ANALYSIS

Finding career-related information, such as information about the healthcare system, recertification, and integration into the labor markets is just as important for the professionals as for the host society. Taking advantage of the expertise and experience of these foreign-trained professionals can be a great resource for North America, however, appropriate services and resources are needed to support the process of migration and integration into the labor market.

Our content analysis of the five online forums show evidence of the interactions that occur in such spaces around issues that matter most to foreign-trained health professionals (e.g., certification, employability and other credential-related matters). We noted a variety of interactions taking place in these forums including: requesting guidance and clarification about the North American system, sharing experiences and stories, expressing visceral or affective reactions, offering opinions, and negotiating the norms and etiquette of the forum. As found in Chien's (2005) analysis of the Settlement.Org portal, the online forums seem to have both informing and involving functions. While some of the content focused on asking for and providing factual information, there was a strong affective aspect to many postings and threads. Often, the communication seemed aimed at soliciting reactions (sympathy,

empathy, shame, inspiration, fear or doubt). The exchanges allowed posters to collectively determine not only their individual situation, but also the state of the system with which they were interacting or seeking to decipher.

Further, the findings suggest that navigating a foreign information ecology in a new country creates many challenges for immigrants, even for highly educated professionals, like the study participants. Medical professionals may be trained and practiced in looking for health- and career-related information in their originating country, yet they are faced with an intimidating mix of unfamiliar healthcare system, terminology, information sources, and information-seeking practices. Buried under layers of challenges is the fact that these highly educated immigrants will now have to search for information in English, which is often a second or foreign language for them. While high levels of domain knowledge have been shown to mitigate language-based difficulties in second- and foreign-language searching (Kralisch & Berendt, 2005), this still remains a problem for foreign-trained health professionals.

In an era of global migration, recruiting and retaining highly qualified professionals is critical. Yet, when it comes to culturally-situated information literacy (e.g., searching in a different language or familiarizing oneself with a different healthcare system or information landscape and infrastructure), we still know relatively little. What we do know from this study (and corroborated by literature on gatekeepers and lay health information intermediaries (Dennis, 2003; Simoni, Franks, Lehavot & Yard, 2011) is that these internationally-educated health professionals play a key role when it comes to seeking and using health-related information for themselves and their families and friends. Their participation in online forums about health-related matters warrants further examination as it is representative of the blurring of boundaries between personal health information practices that occur as part of everyday life, and the formal health-related practices that usually occur in the context of one's work within the health sector.

Finally, and significantly, the postings also unraveled the psychological element at work, specifically the identity work that takes place as these successful professionals (in their home country) are met with suspicion, reserve or indifference. The blow to the self-esteem coupled with the necessity to provide for their families in the first months (or years) after arrival—and until certification—in what amounts to survival jobs triggers specific needs for information-as-support as a means to deal with their situation.

CONCLUSION

The integration of internationally-trained health professionals into North American healthcare systems is advantageous for both the individuals and the societies concerned. However, while medical professionals may be trained and practiced in looking for health- and career-related information in their originating country, they are faced with an intimidating mix of unfamiliar healthcare system, terminology, information sources, and information-seeking practices. It is not only important to create information services but also successful communities in which foreign-trained health professionals cannot be simply informed but also involved in the sharing of information and experiences. Online forums and other social media seem to contribute to the formation of these nascent social networks, and provide an often elusive link for the foreign-trained professional to her peer community of health professionals.

REFERENCES

- Adams, T. L. (2007). Professional regulation in Canada: Past and present. *Canadian Issues*, 2007 Spring, 14-16. Retrieved from <http://www.unitar.org/ny/sites/unitar.org.ny/files/foreign%20credentials.pdf>
- Caidi, N., & Allard, D. (2005). Social inclusion of newcomers to Canada: An information problem? *Library and Information Science Research*, 27(3), 302-324.
- Caidi, N., Allard, D., & Quirke, L. (2010). The information practices of immigrants. *Annual Review of Information Science and Technology (ARIST)*, 44, 493-531.
- Chien, E. (2005). *Informing and involving newcomers online: Users' perspectives of settlement.org*. Unpublished Master's thesis, University of Toronto, Canada.
- Cortinois, A. (2008). *Supporting recent immigrants in their effort to access information on health and health-related services: The case of 2-1-1 Toronto*. Unpublished doctoral dissertation, University of Toronto, Canada.
- Courtright, C. (2005). Health information seeking among Latino newcomers: An exploratory study. *Information Research*, 10(2), paper 224. Retrieved from <http://informationr.net/ir/10-2/paper224.html>
- Dennis, C.L. (2003). Peer support within a health care context: A concept analysis. *International Journal of Nursing Studies*, 40, 321-332. Retrieved from [http://dx.doi.org/10.1016/S0020-7489\(02\)00092-5](http://dx.doi.org/10.1016/S0020-7489(02)00092-5)
- Fisher, K., Durrance, J.C., & Bouch Hinton, M. (2004). Information grounds and the use of needs-based services by immigrants in Queens, New York: A context-based, outcome evaluation approach. *Journal of the American Society for Information Science and Technology*, 55(8), 754-766.
- Fisher, K., Marcoux, E., Miller, L.S., Sanchez, A., & Ramirez, E. (2004). Information behaviour of migrant Hispanic farm workers and their families in the Pacific Northwest. *Information Research*, 10(1), paper 199. Retrieved from <http://www.informationr.net/ir/10-1/paper199.html>
- Girard, M. (2010). *Economic integration of immigrants to Canada and foreign credential recognition*. Unpublished doctoral dissertation, McGill University, Canada.
- Komito, L. (2011). Social media and migration: Virtual community 2.0. *Journal of the American Society for Information Science and Technology*, 62(6), 1075-1086.
- Komlodi, A., Caidi, N., & Abrao, A.L. (2014). Health information without borders: Health professionals and labor market integration. Poster presented at the 77th ASIS&T Annual Meeting, October 31- November 4, 2014, Seattle, Washington, USA. Retrieved from <https://www.asis.org/asist2014/proceedings/submissions/posters/342poster.pdf>
- Kralisch, A., & Berendt, B. (2005). Language-sensitive search behaviour and the role of domain knowledge. *New Review of Hypermedia and Multimedia*, 11, 221-246.
- Lampe, C., Vitak, J., Gray, R., & Ellison, N. (2012). Perceptions of Facebook's value as an information source. In *CHI'12: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 3195-3204). New York: ACM.
- Lloyd, A., Kennan, M.A., Thompson, K.M., & Qayyum, A. (2013). Connecting with new information landscapes: Information literacy practices of refugees. *Journal of Documentation*, 69(1), 121-144. Retrieved from <http://dx.doi.org/10.1108/00220411311295351>
- Lofters, A., Slater, M., Fumakia, N., & Thulien, N. (2014) "Brain drain" and "brain waste": Experiences of international medical graduates in Ontario. *Risk Management and Healthcare Policy*, 7, 81-89. Retrieved from <http://dx.doi.org/10.2147/RMHP.S60708>

- OECD. (2013). *Health at a glance 2013: OECD Indicators*. Paris: OECD Publishing.
Retrieved from http://dx.doi.org/10.1787/health_glance-2013-en
- Quirke, L.C. (2014). *A study of the information practices of Afghan newcomer youth in the contexts of leisure and settlement*. Unpublished doctoral dissertation, University of Toronto, Canada.
- Ramaswami, C., Murugathasan, M., Narayanasamy, P., & Khoo, C.S.G. (2014). A survey of information sharing on Facebook. In *Proceedings of ISIC, the Information Behaviour Conference, Leeds, 2-5 September, 2014* (Part 1, paper isicsp8). Retrieved from <http://InformationR.net/ir/19-4/isic/isicsp8.html>
- Reitz, J. (2001). Immigrant skill utilization in the Canadian labour market: Implications of human capital research. *Journal of International Migration and Integration / Revue de l'integration et de la migration internationale*, 2(3), 347-378. Retrieved from <http://link.springer.com/article/10.1007%2Fs12134-001-1004-1>
- Salaff, J. W., & Greve, A. (2004). Can women's social networks really migrate? *Women's Studies International Forum*, 27(2), 149-162.
- Shoham, S., & Strauss, S. (2007). Information needs of North American immigrants to Israel. *Journal of Information, Communication & Ethics in Society*, 5(2/3), 185-205.
- Silvio, D. H. (2006). The information needs and information seeking behaviour of immigrant southern Sudanese youth in the city of London, Ontario: An exploratory study. *Library Review*, 55(4), 259-266.
- Simoni, J.M., Franks, J.C., Lehavot, K., & Yard, S.S. (2011). Peer interventions to promote health: Conceptual considerations. *American Journal of Orthopsychiatry*, 81(3), 351-359.
- Wong, L.L. (2004). Taiwanese immigrant entrepreneurs in Canada and transnational social spaces. *International Migration*, 42(2), 113-150.
- Wu, Z., Penning, M., & Schimmele, C. (2005). Immigrant status and unmet health care needs. *Canadian Journal of Public Health*, 96(5), 369-373.
- Xu, Z., Zhang, Y., Wu, Y., & Yang, Q. (2012). Modeling user posting behaviour on social media. In *Proceedings of the 35th International ACM SIGIR Conference on Research and Development in Information Retrieval* (pp. 545-554). New York: ACM.