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Introduction

Students are caught between work and play. They are not working in the classical sense of exchanging effort for payment, but nevertheless expected to approach their studies with a discipline similar to that of people at work. And they are not playing in the hedonic sense of pursuing an activity merely for its own sake but nevertheless expected to be interested and self-motivated while learning skills they often cannot see a practical use for. We focus on international students – the students who travel abroad for part of their higher education. Compared to domestic students, the international students face the additional work of getting to know a new country and educational culture. Their information needs and information-seeking behavior will reflect that they are newcomers but, at the same time, they are often resourceful, for example in relation to their use of information and communication technologies.

We present the first results and reflections from an exploratory case study carried out in 2015 with a convenience sample of five international master students. The study is a pilot study conducted in preparation for a full-size interview-based study. We argue that international students constitute an interesting group with special needs that can benefit from ICT support at different levels to cope with the cultural, educational, and social adjustments involved in being abroad. Previous studies of international students’ information-seeking behavior have mainly focused on host institutions in countries with English as the native language. Our study attends to the experiences and information needs of international students who are enrolled at a Nordic university. We focus on how social and cultural adjustment may trigger information needs and how (by which means and actions) the international students satisfy these private and academic information needs to cope with life abroad.

Besides contributing with new insights for the benefit of future research and theory building, we hope that host institutions and developers of ICT can benefit from the insights into the characteristics of international students’ information needs and (social) information behavior.

Background

Over the past few years an increased focus on internationalization of higher education has led to changes in the conditions for teaching and learning at many higher education (HE) institutions and universities. Changes in the student composition of the international classroom and challenges associated with teaching a culturally heterogeneous group of students have required new skills and pedagogic approaches by the professors. The international student is often struggling with a number of challenges related to both private and academic life abroad. These challenges have been reflected in recent studies of international students’ information seeking behavior (e.g., Catalano, 2013; Hamid & Bukhari, 2015; Sin, 2015; Sin & Kim, 2013; Sin et al., 2011; Song, 2005). According to Sin and Kim (2013), international students struggle with cross-cultural adjustment such as getting by in a non-native language, learning the social and cultural norms of the host country, establishing new relations, and finding a residence. In addition to everyday-life adjustment, international students also have to cope with the norms of the host institution including curriculum, teaching styles, rules and procedures. Language can also be a critical barrier to academic adjustment and learning. Moreover, international students often face a double-language barrier in that they have to cope with both the native language
and English. Sin and Kim (2013) call for host institutions to take a ‘holistic’ approach to international students to acknowledge the existence of both private and academic information needs.

**Methodology**

The pilot study was carried out between May and July 2015. The case study method framed the study in that it included an analysis of a specific group (international students) in an exploratory manner involving both quantitative and qualitative methods within a limited period of time (a snapshot). The case was informed by local knowledge.

**Participants**

The participants were five international master students (a convenience sample) in information science (aged 18–34; 4 female, 1 male). All participants were Europeans. When we recruited the participants, we invited only full-degree students who were staying abroad for a two-year full master program. In the larger study we will also invite exchange students staying for a single semester to look for behavior related to the duration of stay. No Danish students were invited for comparison. The focus was on the international student and his/her experiences and perceptions in the role of being abroad as opposed to being at home. Thus, any comparison was made only from the perspective of the international student him or herself.

**Procedure**

The study was based on a qualitative and exploratory approach employing a questionnaire in combination with an individual interview. The questionnaire was administered close to the time of the interview and addressed: demographic, importance of private and academic information needs abroad, use and importance of information sources and channels as well as perceptions and experiences. Importance of information needs and sources was indicated with a number from 1 (least important) to 5 (most important). To collect data on perceptions and experiences respondents should state their agreement to eleven statements with a number from 1(strongly disagree) to 5 (strongly agree). The statements concerned issues related to cultural adjustment, information seeking and communication and were informed by findings from prior studies of international students. Three of the respondents participated in a semi-structured interview. Each interview lasted 1.5 hours and was recorded and transcribed for analysis. Before each interview the informant signed an informed-consent form including a question about whether the data could be used for publication. The survey data were analyzed in preparation for the interviews. Incident descriptions related to information needs and uses as well as experiences were analyzed with the aim of identifying themes for further examination.

**Results and outcome**

The pilot study merely gives a snapshot of the information use and behavior of a small number of international students in relation to their private and academic needs. ‘Informants’ refer to the interview data, whereas ‘participants’ refer to the pilot study in general.

Housing, finance, and transportation were the most important private information needs (out of a list of 10) by most of the respondents. With respect to academic information needs information related to assignments, the master program, course work, and study regulations and procedures were most important (out of 7 information needs). Academic information needs tended to score higher on importance than private needs, a finding probably related to the point in time (near the end of the semester). Conversely, academic needs tended to be experienced as less burdensome and stressful.

Participants' preferences for information sources and channels were consistent with other studies (e.g., Sin & Kim, 2013; Sin et. al., 2011). The Internet was, for example, used most frequently to get access to information and for communication. Perceptions and experiences of information seeking differed across the group. Due to the low number of participants it is difficult to state whether this difference reflect a general tendency across international students.
Based on the questionnaire data and informants’ descriptions of incidents and experiences related to private and academic needs abroad five themes have been identified for further examination. All themes may play a role when designing for or otherwise supporting this group by means of ICT. Themes 1 and 2 focus on the characteristics of international students, whereas themes 3, 4, and 5 relate to the impact of these characteristics on their use of ICT.

**Five themes for future research**

1. **The international student identity**
   Even though the Danish culture and welfare system appeared to be a ‘trigger’ for choosing to study in Denmark, the academic identity of being an international student was essential to the informants. As soon as the informants had settled it became critical for them to adapt to the academic culture and norms of the host institution and to establish a social network. Integration with their native (Danish) classmates – an often mentioned success criterion in discussions of the international classroom – was of little interest. The informants identified themselves more with other international students. In spite of the different perceptions and experiences of information seeking across the participants it appeared important to them to understand the characteristics of being an international student.

2. **The influence of individual characteristics and experiences**
   All but one participant had prior experience with studying abroad and exchange programs. For two informants this experience had influenced their choice of country, program, and university besides recommendations from friends and professors. Moreover, prior experience, background situation, and social network appeared to influence their expectations and approach to academic and private life in Denmark. To one informant, for example, finances and how to make a living were critical and strongly affected her life abroad, including the seeking of information about cheap places to shop and get health treatment. Another informant’s social network included friends who had been exchange students in Denmark and they helped her cope with private information needs and problematic situations. The informants’ background and cultural norms from their home university also influenced their preferences for academic sources.

3. **Private and academic information behavior over time**
   The perceived importance of information sources did not only differ depending on individual situation, experiences and integration (social network), but also depending on the point in time. At the beginning of their stay in Denmark, seeking information and advice about finding a place to live was the most critical and stressful need. This need could be re-activated later on if they had to find or move to another place. Hence, the importance and nature of private information needs evolved over time. In addition, private and academic information needs interacted and merged. In future, the interactions between private and academic needs should be further investigated to reach a better understanding of the temporal evolution of holistic adjustment and the implications of this evolution for information seeking behavior.

4. **Language barriers across private and academic life**
   Language appeared to be a challenge in both private and academic situations involving reading, writing, information seeking, and learning. When seeking information from a Danish official website the English version often did not contain the exact same information or some pages were simply in Danish only. In these cases, the informants managed by using Google Translate or by asking friends for help. Language barriers could also occur when officials were unable to serve informants sufficiently in English in relation to financial, legal, housing or health problems. Hence, part of the language barriers was related to skill limitations in the host country rather than among the international students. This “reciprocal” language challenge brings new meaning to the concept of the double language barrier.
5. Social networks and support for cultural adjustment
The social dimension of international students’ behavior, including contact to family and friends, was very important to the participants. Their experience of increased use of social media abroad for private needs such as establishing a network, seeking social support, and entertainment are in line with prior findings of international students (e.g., Forbush & Foucault-Welles, 2016; Hamid & Bukhari, 2015; Kim, Sohn & Choi, 2011; Sin & Kim, 2013) According to Forbush and Foucault-Welles (2016) social networks and support tend to reduce acculturative stressors and, hence, lead to better adjustment.

Conclusion
This pilot study has explored the characteristics of international students’ private and academic information needs and information behavior abroad. Building on the results from this study we will conduct a larger and longitudinal study on international students’ information (seeking) behavior, including their use of ICT. We contend that more research is needed on international students’ information seeking behavior in context but also that host institutions need to pay more attention to international students to understand the implications of their ‘holistic adjustment’.

References


