Article title: Use of social media by academic librarians in Iraq

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Structured abstract:

Purpose: The research investigates the information gap in Iraq in the context of the country's recent history of political and social upheaval. The study seeks to identify the nature and extent of the 'information gap' in Iraq, and explore the potential for international academic library collaboration using social media to assist in reducing this gap.

Design/methodology/approach: The study uses qualitative data collected through interviews with academic librarians and researchers in both Australia and Iraq.

Findings: The findings demonstrate that currently academic librarians in Iraq and Australia use social media differently. The degradation of critical research infrastructure and reliable communication means that Iraqi librarians rely heavily on informal communication channels. The paper finds that use of social media could potentially enhance communication by Iraqi academic librarians and reduce the information gap.

Research implications: Employing social media in academic libraries helps academic libraries to construct relationships with their peers and develop cross cultural communication. In addition, the characteristics of social media applications such as Facebook and LinkedIn offer opportunities for cross cultural communication through technologies that support group discussion, professional networking and knowledge exchange.

Social implications: The Iraqi library professional faces various cultural, educational and linguistic challenges that can inhibit international communication.

Originality/value: This paper represents the first attempt to assess the potential for social media to address the information gap that exists in the wake of recent political and social upheaval.

Keywords:

academic libraries, social media, information gap, Iraq, scholarly communication, cultural cleansing.

Article Classification: Research paper.

1. Introduction

Iraq, originally call Mesopotamia, is one of the most important and strategically located countries in the Arab World, and has long boasted one of the most developed higher education sectors in the region. Since 1980 Iraq has experienced a series of wars, international sanctions and internal conflicts. The associated political upheaval and foreign intervention have seriously impacted the country's educational and cultural infrastructure, with damage to vital research facilities, destruction of universities and libraries, targeted assassinations of intellectuals, and isolation from normal international scholarship. One key outcome has been the development of a significant "information gap", as the nation's higher education sector has been unable to teach or research to international standards or engage in the expected forms of scholarly exchange.

The research reported here explores how the information gap is impacting a particular form of knowledge sharing, in the form of scholarly communication, and the challenge facing Iraq's researchers and academic librarians as they attempt to normalise their role within the scholarly communication process. The research outcomes suggest that one manifestation of the information gap is in fact a "communication gap", and it examines how social media can potentially be used by Iraqi researchers and librarians to improve communication across cultural, educational and language barriers. The research relies upon interviews to investigate the use of social media as a strategy to enhance international scholarly communications and thereby help address the broader information gap in Iraq.

2. The Information gap in Iraq

The term "information gap" can be defined and understood in various ways according to the professional or disciplinary background from which it is approached. For instance, politicians regard the digital divide as a problematic social issue to be addressed by national development; economists define it in terms of the marketing of information services and global economic imbalances; educators identify an imbalance in access to educational opportunity and attainment; sociologists understand it as an inequality expressed through demographic factors such as differentials of gender, age and income; and communications experts (and librarians) often understand it as a lack of access to communication technologies and infrastructure.

Such has been the advance and impact of digital technologies in many of these disciplinary-based understandings, that the terms "information gap" and "digital divide"

are now commonly used in conjunction, with lack of access to digital technologies and infrastructure impacting upon the various approaches to the problem. Globally, the digital divide broadly separates countries according to their developmental status, with those on the "wrong" side of the divide being disadvantaged by their political (Held and McGrew, 2003), economic (Thapisa, 2000), and/or cultural circumstances. Many developing countries suffer from a reduced access to digital capacity when compared to the developed world, and as a result they also experience reduced capability with regard to the sharing of knowledge and research. A number of countries of the Arab World experience an array of political, economic and technological circumstances as a result of which they face numerous challenges in optimising the uptake of digital technologies and enjoying the associated benefits for education, research and knowledge sharing (*Arab Knowledge Report*, 2009). These same Arab countries are also impacted adversely by what can be described as "soft" barriers that prevent the full use of digital technologies. These soft barriers are not as frequently identified as those associated with economic or technological disadvantage, but they nonetheless inhibit effective communication and information sharing, and may eventually prove more resistant to eradication than those "hard" barriers that can be addressed by national economic development. These soft barriers are associated with the socio-cultural aspects of Iraq's national life, and are discussed below as cultural, educational and linguistic barriers. It is argued that it is these barriers, in the context of scholarly communication, which might be addressed to some extent by the widespread adoption and deployment of social media by librarians and researchers

2.1 Cultural barriers

The twenty-first century has experienced the phenomenon of 'globalisation' that has occurred as a result of the rapid development in information and telecommunication technologies and the resulting transformation of international economic structures. While globalisation has facilitated international trade and social exchange, numerous claims have also been made (Wang, 1997) that a dark side of globalisation lies in the negative impacts on the information and knowledge base in developing countries, with the disparity in access to digital telecommunication technologies serving to exacerbate existing inequalities in access to educational opportunity and knowledge capital.

Damian and Zowghi (2003) note that cross-cultural boundaries such as cultural diversity; differences in communication norms; different knowledge management practices, and time

differences, can heavily influence the knowledge sharing between developed and developing countries. King et al. (2007) concluded that differences between cultural backgrounds impact upon knowledge interplay and vice versa. Lauring and Selmer (2012) conducted a study of 16 diverse academic departments in Denmark within three large universities, and reported that there are positive impacts on sharing knowledge as a result of cultural and linguistic similarity. In addition the results of their study indicated that there are negative impacts with regards to differences in personal characteristics such as age and gender. Michailova and Hutchings (2006) concluded that converging cultures, for instance between China and Russia, lead to increasingly common behaviour by individuals from the two countries, regardless of personal characteristics, which in turn helps to facilitate the exchange and sharing of knowledge. Moreover, De Long and Fahey (2000) identified four cultural barriers to effective knowledge management, including identifying who is responsible for sharing knowledge in different cultural circumstances; the manner in which new knowledge is created and adopted in its cultural context; the cultural mediation of different levels of knowledge; and the degree to which shared cultural norms create a context for social interaction.

The norms of knowledge interplay (or sharing) are also crucial for the development of academic library systems, which will be found to differ according to the cultural context in which they function. The information and knowledge needs of Arab World states are especially challenging, including the undeveloped state of the commercial aspects of scholarly communication. As Horton (2000) noted the information, research, and publication capacities of nations are interrelated, and they exist as integral parts of the ecosystem of scholarship and scholarly communication in which academic libraries function. In the interests of optimising the value generated by scholarly communication the flow of knowledge between developed and developing countries needs to be two-way. Exchange of knowledge and efficient communication should in turn encourage research and collaboration between developed and less developed Arab World countries, and between the Arab World and other nations. It is therefore important that the variety of cultural backgrounds, attitudes and views among nations are understood and considered if developing countries are to overcome the existing information and knowledge gaps and share the benefits of the highly digitised and globalised information economy.

2.2 Educational barriers

Bontis (2004) defines Human capital as "the knowledge, education, and competencies of individuals in realizing national tasks and goals. The human capital of a nation begins with the intellectual wealth of its citizens". In many Arab world states, inadequate budgets for educational development and low levels of educational achievement have resulted in standards that are below international norms and a widening of the information gap. Government institutions in the Arab world and most parts of Middle East struggle to exercise sufficient responsibility for supporting and developing literacy and education, and are poorly equipped to adequately support research.

In 2003 the literacy rate among adults in the Arab region (age 15 years and above) was reported by the *21st Century Arab Strategy Report* to be approximately 40%, however, by 2012 the literacy rate was recorded as being 77.5% (*Arab Knowledge Report 2014)*. Another recent study, *The Arab Knowledge Report: Youth and Localisation of Knowledge 2014* reported that despite progressing in illiteracy eradication, the number of people who are illiterate in the Arab region remains high. In 2012, it was estimated there were around 51.8 million illiterate people (age 15 years and above), of which 66% were females. According to the latest UNESCO estimates, the literacy rate among adults in the Arab region (aged 15 years and above) is around 77.5%, compared to 95% in East Asia and the Pacific and 98.7% in Central and Eastern Europe, and to a global average of 84.3%.

The issues that have been reported in terms of acquiring basic literacy include families that can't afford school expenses for their children; families depending on their children working; and unwillingness to send female children to schools (Source*, World Bank 2007,* as cited in *Arab Knowledge Report 2014)*. As a consequence the educational participation level in the Arab World suffers in comparison to many other regions. For instance, enrolment in secondary education in 2012 as reported by UNESCO to be 74.2%, which is less than the rates reported for East Asia and Pacific (84.5%); Central and Eastern Europe (93%); and Central Asia (98.6%), although close to the global rate of 72.9% (*Arab Knowledge Report 2014)*.

With regard to research and development infrastructure, the highest proportion of funding for most Arab research centres comes from the State. However, most research institutions in the Arab world are limited by a lack of appropriately qualified staff; weakness of administrative structures; and inadequate government support, policies and incentive. The *Arab Knowledge Report 2009* indicated that Egypt had the largest number of research

centres: 14 specialised government research centres; 219 research centres under the auspices of ministries, and 114 centres at universities; followed by Tunisia which had 33 research centres containing 139 laboratories and 643 branch research units (188).

2.3 Language barriers

Across the course of the twentieth century English became established as the preferred language of international scholarly communication. This dominance of English as the basis for knowledge-sharing was further entrenched late in the century by the advent of the Internet, which was again dominated by English. A national lack of familiarity with the English language has a detrimental impact on effective international communication and in turn reinforces the digital divide, with the ranks of developing countries being dominated by nations in which English is not the first language.

It could be argued that the fact that English is used internationally for research communication raises concerns for both non-English speaking and English speaking researchers alike. On one hand, those without English risk being unaware of mainstream international research unless they learn to read, write, and publish in English. On the other hand, for those who are native English speakers the issue becomes one of being unaware of what has been written and published in non-English languages, as it unlikely that this research will be represented in major international scholarly journals and databases (Garfield and Welljams-Dorof, 1990)

Garfield and Welljams-Dorof (1990) undertook an investigation of the languages of preference for scholarly publication and the association with nationality of authors and citation patterns. They calculated, by analysing citation patterns, the foremost languages used in international scholarly publishing, with results indicating that considerably more source items are published in English by both native and non-native speakers than any other languages. English was followed by German, French, Russian, Spanish, Japanese, and Italian. Arabic did not figure amongst the top fifteen languages. The number of English publications was 84.7% of all publications, and citations to English source material comprised 97.4 % of all citations; whereas, the second language of German accounted for a meagre 4.9% of publications and 1.0% of citations. The authors concluded that at the time "most nations are essentially unilingual in the sense that they almost exclusively cite source items written in English" (p. 19).

In addition, Internet World State reported on the top 10 languages in use on the Internet in 2013, and again English was ranked first with 800,625,314 million users followed by Chinese, Spanish, Arabic, and others (Statistics, 2013).

2.4 Cultural cleansing in Iraq

In understanding the state of higher education, research, and the knowledge society in Iraq, it is also important to appreciate the impact of the "cultural cleansing" that has occurred in recent years (Baker et. al., 2009, 49). Cultural cleansing, understood to be the deliberate erasure of cultural identity and knowledge, has been experienced in a number of forms in Iraq following the US-led intervention in 2003, resulting in a catastrophic impact on the state of the knowledge base and producing a form of national cognitive isolation.

The higher education system in Iraq was long regarded as the best of its kind in the Middle East and Gulf region, with many senior academics and scholars in the Gulf countries having studied and attained their higher degrees in Iraq (Hamilakis, 2009). However, it is apparent that the higher education sector in Iraq suffered a catastrophic deterioration due to two recent periods of devastation. Firstly, between 1990-2003 embargoes and UN sanctions resulted in degradation in higher educational participation and reinforced the information gap in Iraq through the lack of engagement with the international education and scientific communities; a lack of new information resources; a failure to acquire new technology; restrictions on social, political and intellectual freedom (Brunskell- Evans, 2012); lack of library and information services; poor access to scholarly publishing outlets, and a shortage of scholarships and academic training programmes.

Secondly, the years between 2003-2013, the period of the US-led invasion and military occupation, were marked by war and internal conflicts resulting in a further widening of the information gap as a result of the burning and looting of universities and libraries; devastation of existing infrastructure; and the assassination of academic experts, professionals and students. (Paanakker, 2009). According to UNESCO, during this period 61 Iraqi universities and college buildings were war damaged; and 101 college buildings were looted. In addition, Bentham (2006) concluded that some 175,000 books and manuscripts were looted from the College of Arts at Baghdad University. Jean-Marie Arnoult's report to UNESCO in 2003 stated that the Central Public Library in Basra lost 100 percent of its materials, while Al-Mosul University Library lost 900,000 volumes of books and serials (English, 2005).

The term "cultural cleansing" (Baker et al., 2010) was applied to Iraq after this most recent period of war and occupation. The forms of erasure of collective cultural memory that took place included the   deliberate destruction of national or regional identity and cultural heritage (Al-Tikriti, 2010; Stone, 2008), with the looting of museums, burning of libraries and the assassination of academics. Levy (2013) concluded that at least 116,903 Iraqi civilians were killed and more than 4800 US-led coalition military personnel died, and about 5 million persons were displaced over an eight year period of foreign intervention. In addition Hagopian et. al. (2013) drawing on the Iraqi Body Count Project, found that between 2002 and 2012 the total of civilian deaths from violence was in the range of 109,576-119,713. Furthermore, Jalili (2006) reports that the number of Iraqi academics has declined through not only assassinations, but also due to non-fatal incidents including assassination attempts; arrests; kidnapping; threats; house raids and assaults. As a result of this extensive destruction and many deaths of scholars and citizens, Iraq now suffers from a significant knowledge deficit that may take generations to recover.

The phenomenon of cultural cleansing within Iraq has in turn led to what has been referred to as a form of human capital flight (Baker et. al., 2010) or "brain drain". A brain drain occurs when scholars are forced by circumstances to study abroad and do not return to their home country on completing their education due to political conflicts, lack of opportunity, health hazards or other reasons. This form of brain drain is a global phenomenon but is currently particularly impacting on Iraq where thousands of academics, professionals and state employees have been discharged from their positions due to belonging to the Al-Baath party (the political party associated with the previous regime). The resulting loss of academic capacity has significantly depleted an educated generation and resulted in a critical shortage of scholars, experts and scientists, and reduced the nation's capacity to support higher education and research. With this in mind the need to enhance communication and possible collaboration between scholars and librarians in Iraq and their colleagues working in developed higher education and research systems is particularly high.

Figures 1-3, adopted from the work of Baker and Ismael (2010), indicate starkly the targeted murder of senior academics that occurred in Iraq during this period.

INSERT FIGURE 1

Figure 1: Qualifications of Murdered Iraqi Academics and Professions April 2003- 2006 (Source: Baker and Ismael. Cultural cleansing in Iraq, 2010)

INSERT FIGURE 2

Figure 2: Distribution of Murders by Type of Institution (Source: Baker and Ismael. Cultural cleansing in Iraq, 2010)

INSERT FIGURE 3

Figure 3: Murdered Iraqi Academics University Staff by Position (Source: Baker and Ismael. Cultural cleansing in Iraq, 2010)

3. Research methodology

This study took place at five academic libraries. These consisted of two libraries from Australia: Curtin University Library, Perth; and the University of Western Australia, Perth; and three from Iraq: Central Library of Baghdad University, Baghdad; Central Library of Al Mustansryia University, Baghdad; and Central Library of Al Basra University, Basra. Librarians and researchers from these institutions were the subjects of the study.

The methodology used is fundamentally qualitative, relying upon one of the traditional methods of grounded theory—constructivist design—in order to collect, analyse and explain data concerning a particular phenomenon. The qualitative method of conducting individual interviews with a sample of Australian and Iraqi librarians and researchers was undertaken in order to generate a theory for expansion and enrichment of the qualitative findings.

This study uses non- probability sampling, the most commonly utilised sampling method for grounded theory research. Collis and Hussey (2009) stated that non- probability sampling refers to "procedures in which researchers select their sample elements not based on predetermined probability, but based on research purpose, availability of subjects, subjective judgment or a variety of other non-statistical criteria".

Overall, 45 individual interviews were conducted with two groups of participants from Australia and Iraq. This consisted of 10 Australian librarians and 10 Australian researchers; and 10 Iraqi librarians and 15 Iraqi researchers. The interview sought to explore the participants' perceptions about scholarly communications, including the

importance of international scholarly communications; and the strategies and solutions required to overcome perceived obstacles. To maintain confidentiality, each interview was coded to indicate nationality (A for Australian or I for Iraqi); occupational subgroup (L for librarians and R for researchers), and a numerical code (1- 10/15).

4. Research Findings

4.1 Social media in academic libraries

Social media channels Facebook and Twitter are used pervasively in both Australia and Iraq, alongside other channels of social forms of digital communication including blogging, video sharing, You Tube, and others. Facebook has more than one billion global users, which equals some 15% of the world population; and Twitter exceeded the half billion user accounts in 2012 (LaRose et al., 2013). It is also now commonplace that communication tools such as e-mail, text messaging, and various social networking sites have also been adopted for informal scholarly communication. Informal scholarly communication has been defined as the "interactive communication that takes place at any time and in any format. This includes, but is not limited to, exchanging letters, reports, texts, multimedia, conversations and so forth for the purpose of acquiring information, maintaining relationships and working collaboratively" (Al-Aufi and Fulton, 2015). Although informal communication of this type has been an integral aspect of scholarship for centuries, it has been radically enabled by the global uptake of digital communication and social media.

Academic libraries and librarians have also been enthusiastic adopters of social media. In order to enhance the reach of academic library systems and foster information sharing and collaboration, libraries are attempting to develop connections and networks by leveraging the capacity, reach and ubiquity of social media. Kemrajh (2013) states that there are two main factors encouraging academic libraries to implement social networking: firstly, social networking tools are increasingly being used by university students; and secondly, students now use electronic and Internet resources and "space" in preference to physical places. Fiander (2012) provides a valuable explanation to academic librarians about the process of creating a Facebook or Twitter presence that would help them to engage with their faculty staff and users; promote library services; and develop the possibilities for global connections. Chu and Du (2013) offer further insight into how academic libraries can make informed decisions in applying social media tools. They found that among 38

libraries from Asia, North America, and Europe, 27 libraries (71.1%) were using social media; 5 libraries (13.1%) were potential users; and only 6 libraries (15.8%) had no current plans for social media use.

One of the many advantages offered by social media is its potential to bridge some of those established "gaps" and "divides" that have hindered access to scholarship and knowledge in countries with developing higher education and research sectors. As the result of a recent study quantitative study investigating social networking practices of an Arab World university (Sultan Qaboos University, Oman), Al-Aufi and Fulton (2015) concluded that social networking tools have had positive impacts on informal scholarly communication for scholars working in the University's humanities and social sciences disciplines. Furthermore, Al-Aufi and Fulton reported that their research supported previous findings regarding the "perceived advantages of the potential of social networking on both local and global research collaboration" (p. 238), while noting that nearly a third (28.9%) of the respondents reported they made no use of social media for scholarly purposes. Among those who did report using social media, the incidence of informal scholarly communication undertaken "globally", was slightly higher than that reported for communicating within the same institution, country or region (p. 441).

At the very basic level of a library's web presence the current research found that there are differences between practices in Australia and Iraq. Australian library websites are generally highly managed in the manner in which they structure information and guide users towards various communication channels including social media. In contrast, Iraqi academic librarians reported that there is an ambition to provide each library with a good web page and a presence on Facebook or Twitter or another social network. It will be possible through these webpages, if employed effectively, to incorporate information delivery, including scientific research on behalf of the library and to link libraries together in order to help keep abreast of the latest developments. In addition, Iraqi libraries encourage individual librarians to have their own webpage separate from, but linked to, the library's official webpage. Individual webpages should then be linked to the wider library community in order to facilitate professional communication. As a result the web presence of Iraqi academic libraries can be both more open-ended and less predictable than that of their Australian counterparts, with the latter carefully managing their websites as part of the formal apparatus of institutional communication and thereby reflecting the cultural practices associated with Australian universities and their libraries.

Unsurprisingly, both Iraqi and Australian interviewees reported that Facebook, Twitter and YouTube, are popular and widely used social media tools they have been adopted by researchers and academic libraries in their respective countries. The willingness to embrace digital communication in social media in Iraq is also apparent in the range of tools reported by interviewees, including the now standard communication tools such as blogs, wikis, email, data exchange services such as Dropbox, and increasingly teaching and learning applications such as BlackBoard.

Interviewees from both countries indicated similar motivation for using the various tools. An Iraqi interviewee noted that 'Iraqi students and academic have a desire to use Facebook so the library has to employ this channel for disseminating their services' (IL10), and similarly an Australian librarian noted social media situates the library in a student "space", allowing the library to promote services and communicate with users where they naturally cluster for mutual support and informal communication.

> About 80-90 % of Australian academic libraries have a Facebook page and it's widely used to get feedback from the users, and it's also promoting news and notifications. In addition, they think that social media are used among students themselves [for uses] such as peer to a peer learning. So a student might ask a question on there and another student might answer. It isn't necessary for the library to be involved in facilitating some of the communication. (AL, 10).

Iraqi interviewees were more likely to point to the international reach of social networking. As one librarian reported:

> Social networks can provide links with libraries in different countries for exchanging experiences and knowledge. Personally, I've benefited from these networks at an academic level, so I strongly recommend that librarians have to employ these networks in order to [support] scholarly communication. (IL11)

Another Iraqi librarian pointed directly to the benefit in being exposed to different cultures—a response that was not provided by Australian interviewees.

> It [social networking] helps in scholarly communication by exchanging experiences, exchanging cultures. We take an advantage from others in receiving different attitudes and ideas. (IL2)

Such awareness of the potential richness of intercultural exchange is not, however, common. It requires some confidence for researchers and librarians—either Iraqi or Australian—to expose themselves to social networking situations in which differences in culture, educational levels and/or language, may complicate the communication. While international informal communication might potentially have significant benefits for librarians in Iraq (and indeed in Australia), these various barriers remain a strong disincentive even after some of the technological issues have been resolved. For although Iraqi academic librarians are using social media, there was little evidence that its use has transferred into direct personal communication with their international peers and colleagues. They may post to discussion lists in the hope of receiving answers to problems or questions, but the entrenched cultural, educational and linguistic barriers ensure that the "communication gap" remains intact. For Australian librarians, on the other hand, there is little incentive to reach out to their colleagues in Iraq or other developing Arab nations. Despite their shared interest in supporting learning and research, the same barriers may seem to be insurmountable, and although they may be well aware of the information gap suffered in Iraq, exacerbated as it is by cultural cleansing, there was little evidence that social media has been used to initiate or provide support. Bruns and Messina (2013) concluded that social media is more about building relationships than it is about undertaking specific tasks. This correlates with the aspirations and needs of Iraqi librarians in their current circumstances, although there was a recognition by the Iraqi interviewees that this might only be possible after sufficient of their number had received international education—a strategy for reducing the cultural, educational and linguistic gaps. One Iraqi librarian (IL5) expressed the view that there was a need to "train at least 100 librarians in English", and argued for the need to then "send them to developed countries so they understand their library systems". A researcher (IR5), however, expressed his strong preference for certain developed countries, indicating that the educational attainments of those sent to "America, United Kingdom, Japan, Australia, Malaysia" are qualitatively superior to those who are sent by scholarship to Russia or former Soviet-bloc countries.

There were indications of specific differences between the way in which libraries in the two countries use digital communication and social media. For example it seems that librarians in Iraq have been adopting these services to perform traditional reference functions that have now been largely discarded by libraries in countries that are now better served by commercial surrogates. Iraqi interviewees, for example, noted use of social media to provide both "current awareness" and "selective dissemination of information" services. The prevalence of English language dominated scholarly databases with sophisticated means of harvesting user specific content has made these types of library services redundant in developed countries, but they may still have a purpose in other areas of the world where they can be facilitated by social media.

It also appears to be the case that Australian libraries have transitioned beyond a first generational use of social media as an instructional tool. For example one interviewee reports that YouTube was no longer used for communicating locally produced library instruction as there was now a wealth of such material available:

> I used YouTube a lot for instructional videos for work or to send to people… we used to create a lot of materials ourselves. We don't do that anymore because there's so much out there (AL3).

It is less likely that Iraqi librarians can rely generally upon the use of material sourced from YouTube (or other social media) as it will be dominated by English language items that will likely assume access to types of collections and services that are not available in Iraq. It is also the case that producing this sort of content locally in Iraq may be more difficult due to the lack of access to high quality recording equipment.

Where Iraq's academic libraries do become engaged with social media production is in assisting individual lecturers in preparing teaching material for distribution by channels such as Skype or similar forms of video-conferencing. Whereas distance education services in Australia are now normalised to the extent that many universities have teaching and learning centres to provide specialised support, in Iraq the role of supporting the comparatively smaller number of lecturers using such tools falls to the library.

It is also found that Iraqi users (including librarians) are more likely to use social media as an "end point" to their learning and information gathering. Whereas in developed

countries social media is supplemented by numerous other information sources, including content rich academic library collections, in Iraq users often have less opportunity to seek information from elsewhere. There is therefore a willingness to both use social media as an information source and, in the absence of alternatives, to "trust" the information that is located in this way. Several respondents stressed the lack of relevant, current information available in local library collections as the explanation for relying about social media sources.

> I finished my study in the 2000s and during that time I was trying to complete an exam, it was like a competition. The exam was for Masters entry. I went to Baghdad University library to borrow some books to read before attending the exam. There were only textbooks, and I had to use one that was about management and finance … from the 1990s. It was a very old reference. (IL10)

The libraries in the two countries provide not only different types of assistance to teaching staff, but also have a different sort of engagement with researchers. In Australia where international visibility is considered important to most research careers, libraries may take the lead in promoting the use of social media channels that have been specifically designed to foster informal communication between professional groups.

> On the researcher's side they [libraries] promote researchers to be involved in LinkedIn and setting up of researchers' profiles and IDs. They are ways in which they [researchers] are getting more visibility on a global scale". (AL, 10)

There is little incentive or need for scholars in Iraq to utilise social media channels such as LinkedIn or Research Gate—they generally have less research to profile; they may not be fluent in English which is the principle language for communicating and for distributing research; and they have less demand by government or their employing institutions to be research active or to have international visibility in a research community.

The research identified formal and informal communication methods, and the types of social media that are employed for each kind of communication. It seems, however, that informal scholarly communication is comparatively more important in Iraq than in Australia, due to an absence of established formal communication channels (for example

journals and conference proceedings). Formal communication in Australian and other developed countries is also regulated by legal requirements (intellectual property and copyright law); established academic practices (such as avoidance of plagiarism and correct citation); and traditions of editorial gatekeeping (including peer review), that determine what constitutes 'proper' scholarly communication. In many developing countries, including some within the Arab World, this lack of scholarly infrastructure means that for many researchers informal methods remain their only viable means of communicating with their peers.

Iraqi librarians and scholars are, however, using social media as an informal means of discussing or accessing formal communication; for example, exchanging information about how to write a thesis or a journal article (title; style of discussion; presentation of data etc); or approaching authors or librarians in an effort to obtain copies of published material which a local library cannot afford to buy or access. Iraqi librarians report using Facebook to communicate with researchers about the process of library-based research, and Iraqi academics rely heavily upon Facebook to communicate with each other. As a result, libraries use this channel for service provision, promotion and activities, and they employ mobile devices such as IPADs and IPhones to provide constant access to services. Furthermore, Internet-based chat forums are playing a significant role as informal communication channels: "I personally find that some people have discussions about an issue or problem. Anyone can post what he knows about that problem and start a dialogue" (IL5). A significant influencing factor noted by interviewees is that the use of these kinds of communication platforms does not require a substantial financial outlay by libraries or individuals.

5. Conclusion

This paper has reported on the preliminary findings of a study exploring the opportunities for using social media for collaboration between Australian and Iraqi researchers and academic librarians as a means of addressing the information gap in Iraq. This information gap has been made critically worse in recent years as the result of ongoing conflict and a cultural cleansing resulting in the country losing a critical mass of scholars and important research capacity, including the destruction of library collections of global importance. The research used qualitative methods consisting of individual interviews with librarians

and researchers in Iraq and Australia to explore attitudes towards social media as a scholarly communication tool; current uses of social media for this purpose; and potential uses of social media to foster communication and knowledge exchange and thereby address the information gap in Iraq. The study found that libraries in the two countries utilise social media in different ways, although respondents in both countries recognised the many possibilities presented by social media. The current situation in Iraq which has resulted in a lack of critical resources and reliable communication means that Iraqi librarians are more reliance on informal communication channels and on individual efforts as opposed to formal and structured communication, but that as yet they have not been effective in overcoming the cultural, educational and linguistic barriers that inhibit fluent communication with their peers in developed countries.

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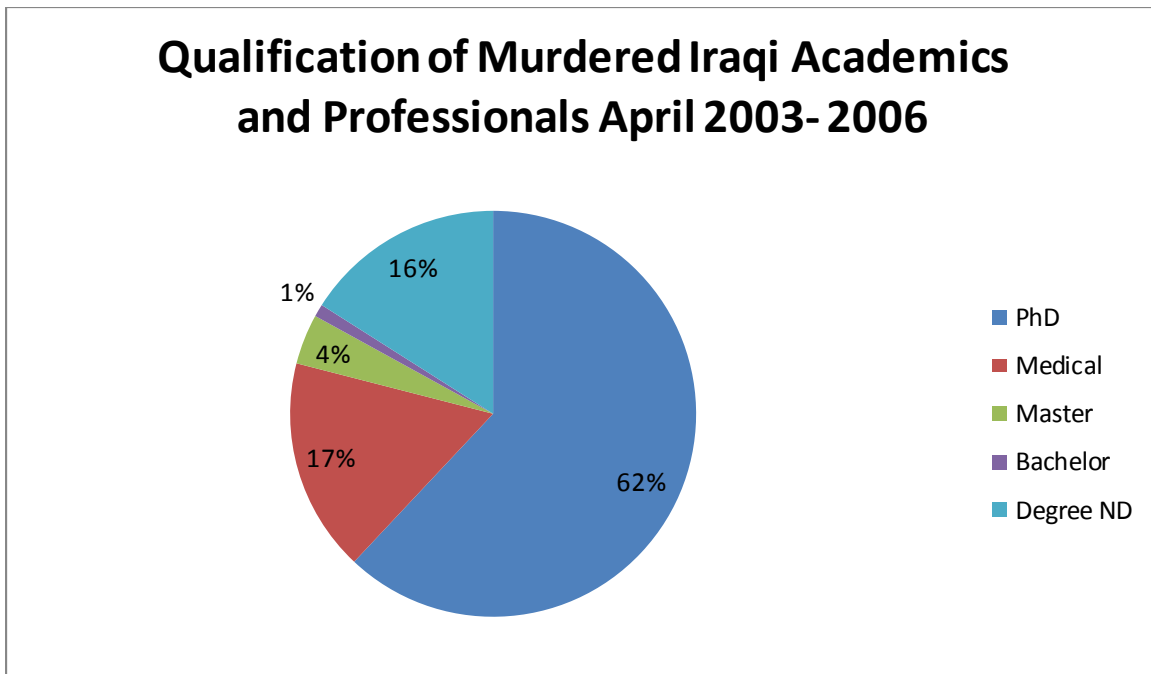
Figure 1: Qualifications of Murdered Iraqi Academics and Professions April 2003- 2006 (Source: Baker et. al., Cultural cleansing in Iraq, 2010)
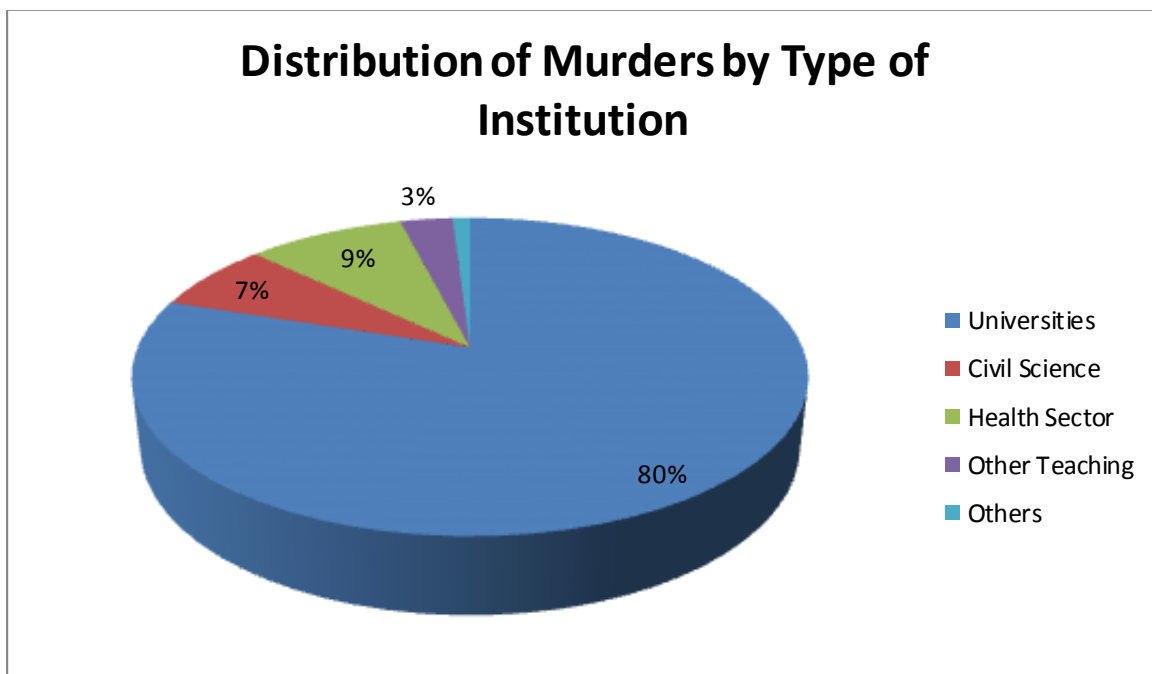

Figure 2: Distribution of Murders by Type of Institution (Source: Baker et. al., Cultural cleansing in Iraq, 2010)

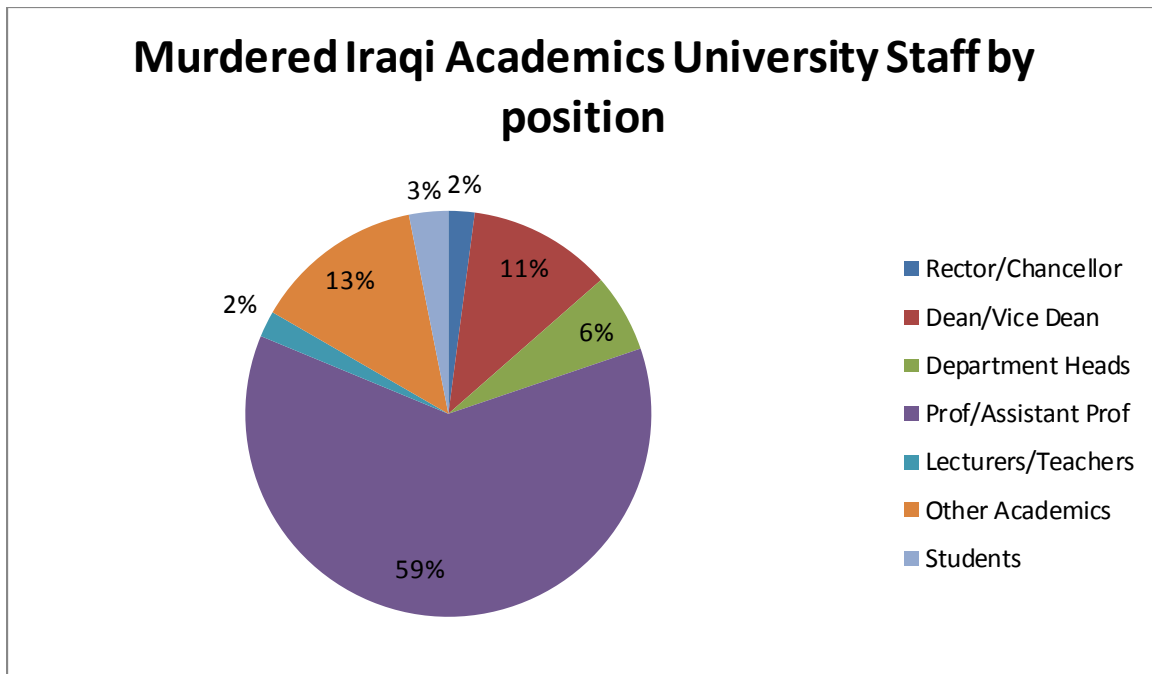## Murdered Iraqi Academics University Staff by position

Figure 3: Murdered Iraqi Academics University Staff by Position (Source: Baker et. al., Cultural cleansing in Iraq, 2010)