

## Supporting Knowledge Sharing through the Usage of Web 2.0 Technologies in Kuwaiti Governmental High School Libraries

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**Keywords:** Web 2.0- Blogs- SNS- Kuwait- Libraries - High School.

**Abstract:** The present research aims at exploring the use of web 2.0 tools: such as Blogs and Social Network Sites (SNS), by Librarians working at governmental high school libraries in the State of Kuwait for supporting sharing information and knowledge with students and teachers. Therefore, the researchers designed a questionnaire divided into three main sections. The first section includes general information. The second section deals with the uses of two Web 2.0 tools. The third section revolves around the challenges that constrain the use of Web 2.0 tools which includes awareness, managerial and personal issues. The findings show that most participants used SNS rather than Blogs. Furthermore, four major issues were identified as factors that hindered the use of Web 2.0. These were: a lack of awareness and support on the part of authorities, a lack of ICT training, and inadequate competency in the English language. Therefore, It is strongly recommended that awareness of the importance of Web 2.0 tools and new technologies in school libraries is promoted, that continuous professional development training is provided, and that English language courses are developed for librarians.

## دعم تشارك المعرفة من خلال استخدام تقنيات الويب ٢, ٠ في مكتبات المدارس الثانوية الحكومية بدولة الكويت

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**الكلمات المفتاحية:** الويب ٢, ٠، المدونات، شبكات التواصل الاجتماعي، الكويت، المكتبات، المدارس الثانوية.

**ملخص البحث:** يهدف البحث الحالي إلى التعرف على مدى استخدام أمناء المكتبات العاملين في مكتبات المدارس الثانوية الحكومية بدولة الكويت لأدوات الويب ٢, ٠، مثل المدونات، وشبكات التواصل الاجتماعي لدعم تشارك المعلومات والمعرفة مع الطلاب والمعلمين، لذا فقد قام الباحثان بتصميم استبانة تنقسم إلى ثلاثة أجزاء رئيسية: يشتمل الجزء الأول على معلومات عامة. ويتناول الجزء الثاني استخدامات أدوات من أدوات الويب ٢, ٠. ويتناول الجزء الثالث التحديات التي تعيق استخدام أدوات الويب ٢, ٠، وتشمل قضايا الوعي والقضايا الإدارية والشخصية، وتشير النتائج إلى أن معظم المشاركين في الدراسة يستخدمون مواقع التواصل الاجتماعي أكثر من المدونات، -وعلاوة على ذلك- تم تحديد أربع مشكلات رئيسية تعيق استخدام الويب ٢, ٠، وهي: نقص الوعي والدعم من جانب المسؤولين، ونقص التدريب على استخدام تقنية المعلومات، ونقص القدرة والكفاءة في اللغة الإنجليزية. وعليه فقد أوصى الباحثان بتنمية وعي المستخدمين بأهمية أدوات الويب ٢, ٠ والتقنيات المستحدثة في المكتبات المدرسية، وإقامة دورات خاصة باللغة الإنجليزية لأمناء المكتبات.

### **Introduction:**

Educational institutions around the world exist in the era of the knowledge society where technology plays a significant role in facilitating the sharing and transfer of knowledge. The comprehensive library has become a prerequisite for all educational institutions, from kindergarten to higher education. As a result, the role and function of a librarian has changed to that of an information specialist as librarians have various abilities and skills in the field of information systems and educational technology. Therefore, it is argued that Web 2.0 technologies can increase the development of content by facilitating communication and knowledge sharing in organizations since these technologies are much more dynamic and offer internet and computing platforms where people in an organization can connect their ideas (Levy, 2007).

Furthermore, it is also argued that Web 2.0 technologies and tools are changing the role of school libraries as libraries can now access a huge number of resources in different formats and can build collections and services which can meet different learning needs (Dukic, 2007; Gorospe, 2013). Moreover, Roncaglia (2009) stresses the importance of Web 2.0 tools for school and university libraries since they can fulfil the educational tasks of supporting information literacy and promoting reading and learning activities. Such libraries that belong to educational institutions should be active in the world of social networks, not only by collecting, but also by dynamically gathering and sharing useful content and information.

Additionally, Nelson (2008) discusses the capabilities of Web 2.0 tools, particularly with regard to what degree they can add to knowledge management practices, showing that they can provide collaborative tools that improve knowledge exchange and productivity, bringing people together to share and develop ideas. Blogs, as with Web 2.0 tools, can be an effective option for information and knowledge transfer (Karami and Oloumi, 2006) and these were also identified as a powerful knowledge management tool by practitioners since they are easy to set up, maintain and contribute to (Ahn et. al., 2007).

Blogs, SNSs and many others, such as Wikis and RSSs, and podcasts are terms that belong to the second generation of developed Web 2.0

technologies. Web 2.0 tools were developed to facilitate the sharing and dissemination of information among friends or other professional groups (Tripathi and Kumar, 2010; Patra, 2019). Therefore, many researchers in recent years have discussed the features, abilities and usage of Web 2.0 applications such as Blogs and SNSs in different types of library (Lim, 2020; Kingsley, 2018; Sudhier and Devi Priya, 2017; Chen, Chu and Xu, 2013; Jheng and Lai, 2007; Bejune, 2007; Dukic, 2007). Thus, the researchers decided to explore the use of two major Web 2.0 tools (Blogs and SNSs) that support knowledge-sharing practices in governmental high schools in the State of Kuwait.

### **Significance of the Study:**

The purpose of this research has evolved from the increasing interest of the use of Web 2.0 technologies and tools in different types of library (Al-Daihani, 2009; Balaji and Kumar, 2011; Chen, Chu and Xu, 2013; Singh, 2015; Sudhier and Devi Priya, 2017; Kingsley, 2018; Liu, Zhang and Ye, 2018). However, no research studies have been conducted in school libraries in the state of Kuwait. Therefore, the researchers were encouraged to explore more deeply the usage of Blogs and SNSs as they were the most frequently used in different types of library to support and enhance services, as well as to support information and knowledge sharing in an educational setting (Patra, 2019; Sudhier and Devi Priya, 2017; Chen, Chu and Xu, 2013; Jheng and Lai, 2007).

### **Purpose of the Study:**

The aim of this research is to explore the use of Web 2.0 tools by librarians in governmental high school libraries in the State of Kuwait.

### **Objectives:**

- 1) To identify the current use of Blogs and SNSs by librarians in Kuwaiti governmental high schools.
- 2) To identify the factors that hinder or facilitate the use of Web 2.0 tools in high school libraries.
- 3) To provide recommendations for school libraries to develop services and facilitate knowledge sharing by using Web 2.0 tools in schools.

**Study Terms:****Web 2.0 technologies:**

In 2004, the term Web 2.0 was coined to illustrate the characteristics of web sites. However, the definition of Web 2.0 remains unclear with Lewis (2009) revealing that Web 2.0 is essentially a social phenomenon; he mentioned that the definition of Web 2.0 is determined through a combination of a social and technological analysis of Blogs, Wikis and SNSs. Furthermore, Wilson et al. (2011, p.368) argued that previous researchers, on defining Web 2.0, commonly most tended to touch on the technologies that characterize Web 2.0 without specifically defining the term. Roncaglia (2009, p. 2) also argued that Web 2.0 has no specific meaning but summarized the main features that reflect the core of Web 2.0 tools as eight key concepts: 1- User Generated Content (UGC), 2- Semantics, 3- Collaborative filtering, 4-RSS Feeds, 5-Embedding, syndication, reuse and mash-up, 6-Social networks, 7- WebApp, page interaction, Asynchronous JavaScript And XML, 8-Web design.

Lewis (2009, p.1), however, attempted to define Web 2.0, stating that “Web 2.0 technology is any technology that aids and encourages simple intuitive user interaction through an architecture of participation” while Naik and Shivalingalah (2009) mentioned that tools such as Blogs, social software, social bookmarking, Wikis, podcasts, RSS feeds, web APIs and online web services are all terms that belong to Web 2.0 technologies.

**Blogs:**

Weblogs or Blogs are the same but are generally known as Blogs. Karami and Oloumi (2006, p.1) defined Blogs as “a cross between a diary, and an online community, built using specially designed software that makes creating and updating a web site quick and easy; the content is provided in an ongoing series of dated entries.” Libraries can benefit from Blogs to inform their users of new Web and information technology resources and to distribute information. Karami and Oloumi (2006) also claimed that Blogs in libraries can work better in conditions where information needs are being requested. Bansode and Pujar (2008, p.449) suggested that Blogs can be helpful for library outreach services, disseminating information, for library administration, community building, library

resources, and for fast communication and marketing for the library.

**Social Network Sites (SNSs):**

Boyd and Ellison (2008, p. 211) described SNSs as “web-based services that allow individuals to construct a public or semi-public profile within a bounded system, articulate a list of other users with whom they share a connection, and view and traverse their list of connections and those made by others within the system.” The previous definition indicates that SNSs consist of a spot and people, where individuals link with each other and share explicit or tacit knowledge in a common field or interest. There are many examples of SNSs, such as Facebook, Twitter, Instagram, Snapchat, IM, and many more applications that are being created every year.

**Literature Review:**

Many researchers have stressed the importance of library professionals using Web 2.0 tools to promote reading and writing, noting they can also influence the activities of academic communities by collaborating, and by sharing information and knowledge (Bansode and Pujar, 2008; Roncaglia, 2009; Tripathi and Kumar, 2010; Gorospe, 2013). As a result, many research studies have been conducted as shown below:

Using a checklist of statements and questions, Rogers (2015), by surveying library web sites, conducted a study aiming to measure to what extent Mississippi public and academic libraries met the current service standards. The researcher found that it was clear that Mississippi libraries were adopting Web 2.0 applications since this did not require a great deal of training or cost as these were free applications. The other main finding showed that the adoption of Web 2.0 technologies was not uniform among libraries of each type or among those of the same type. Another study in Australia, which also used a checklist of questions, showed that two-thirds of Australian university libraries used one or more Web 2.0 technologies (Linh, 2008).

LeSueur (2010) performed a study to examine high school library websites for evidence of the use of Web 2.0 tools. A content analysis was conducted on 100 school library websites. The results suggested that media specialists in high school libraries needed to pay more attention to the

implementation of Web 2.0 tools on their websites to enhance school library programs. The results also showed there was a lack of existing training and course materials for media specialists to explore the benefits of Web 2.0 tools.

Two research studies were conducted in Pakistan. One, conducted by Rehman and Shafique (2011), aimed at examining the use of Web 2.0 applications by information professionals. The researchers used triangulation for a total of 115 participants. The results indicated that there was an increasing use of Web 2.0 applications among information specialists as all were aware of the usage of those applications and felt that they would lead to better library services. However, the information specialists did not demonstrate clear usage of instant messaging (IM). The results also emphasised the role of library schools in training library professionals in the use of Web 2.0 applications.

The other research conducted in Pakistan was by Iqbal (2018) who selected only one tool of Web 2.0 applications for investigation. The researcher explored the use of major SNSs in Pakistani higher education institution libraries. An online survey was administered to 54 higher education commissions and 15 interviews were conducted in 15 libraries having a presence on SNSs. The results showed that Facebook was the most well-known site while RSS and YouTube were the least used. Furthermore, the results revealed a lack of LIS professional training and awareness regarding the potential usability of SNSs.

Singha and Sarmah (2015) conducted a study aiming to determine the awareness of LIS professionals of Web 2.0 tools and their uses in two university libraries in Assam (India). A survey method was adopted with 22 LIS professionals. The results indicated that both universities needed training on the use of Web 2.0 to increase the services in their libraries.

Furthermore, Hamza and Said Ali (2017) designed a research study to determine the effect of the orientation of the use of social networks in university libraries on the quality of library services in the State of Kuwait. A quantitative survey instrument was developed and analysed from 151 workers in academic libraries. The main findings of this research showed there was a positively significant statistical effect of social networks on

administrative services in their libraries. The researchers recommended that academic libraries in Kuwait need to pay more attention to SNSs to promote the exchange of information and knowledge among students in their fields.

Chen, Chu and Xu (2013) examined four types of interaction on libraries SNSs: knowledge sharing, information dissemination, communication and knowledge gathering, among libraries and users in terms of Facebook, Twitter and Weibo. The researchers used mixed methods and the sample included 40 academic and public libraries in Canada, the United Kingdom, the United States and Greater China. The results indicated that knowledge sharing, which was one of the four types of interaction, attracted the highest number of user responses regarding libraries' SNSs. This study offers concrete evidence that SNSs could be a major tool in knowledge-sharing practices in libraries.

A similar study, with similar aims and objectives to the research of Chen, Chu and Xu (2013), was carried out in India by Singh (2015). However, the sample was different since Singh (2015) chose 40 government and private school libraries in India. The results confirmed the findings of Chen, Chu and Xu (2013): that knowledge sharing, from among the four types of interaction, was carried out by the largest number of users according to their responses regarding libraries and social media. The two research studies above confirm the importance of SNSs in supporting knowledge-sharing processes and practices.

A research study conducted by Boateng and Liu (2014) explored the usage of Web 2.0 technologies and trends in 100 top academic libraries in the US. The researchers used content analysis; this showed that those libraries had high social media presences on both Facebook and Twitter while Wiki was the least popular tool. However, in India, a study by Patra (2019) aimed to map Twitter activity in 18 different types of library using 'R' software and sentiment analysis. The results indicated that Indian libraries are not very active on Twitter, and that most of library Tweets were positive in nature. The researcher recommended that Indian libraries and information centres should use Twitter to publicise their collections and services.

In Oman, Al Karousi, Al Harrasi and Jabur (2019) used soft system methodology approach to improve the use of SNSs in seven Omani academic

libraries. Fifty-three participants were chosen for interviews. The results showed a problem with the use of social networks in Omani academic libraries, with only two of the seven libraries using Facebook and one using Twitter. The results also revealed some factors that delayed the adoption of SNSs such as: lack of awareness and training, lack of communication between academic libraries and IT staff, and library staff, lack of regulations and policy, low speed of internet.

Jheng and Lai (2007) explored high school library Blogs in Taiwan in terms of their construction, purposes, contents and influences on reader services. The researchers used interviews with the librarians and found that more than half of the librarians succeeded in applying Blogs to broadcast information about the libraries and provide library services. The research concluded that the construction of Blogs is helpful in enhancing library reader services. However, it is important to have support from the school authorities in applying a successful Blog application in high school libraries.

Alsuraihi and Alshehri (2014) conducted a study that deals with the services provided by SNSs that could contribute to the development and activation of learning resource centers in Saudi schools and what can be provided to develop the services of these centers, the study also aimed to identify social networks and their importance to the workers of the centers of learning sources. The researchers used questionnaires for all specialists working in the learning resource centers at boy's schools in Jeddah. The results showed that SNSs had an important role in supporting the work of these centers. Moreover, they found a high acceptance to use web 2.0 applications to interact with the target audience and to create an environment that allows the support of the curriculum and the development of students' abilities and communication between all individuals within the system. Therefore, the researchers strongly recommended that the Saudi Ministry of Education should adopt a clearly defined written strategy to activate the use of SNSs through learning resource centers

Sudhier and Devi Priya (2017) studied the use by students of Blogs and SNSs in school libraries in Kerala. A questionnaire was administered to 110 students. The results indicated that most of the students were aware of their library Blog and that

students learned to use Blogs largely by a trial-and-error method. Moreover, the results showed that school library Blogs have an influence on academic and student community activities.

Kingsley (2018) examined the use of social media applications in public, school and academic libraries in Alaska. Eighty-three (83) librarians were surveyed and the results indicated that public libraries were heavily engaged in social media, some school libraries used social media, and academic libraries frequently use social media. The study also revealed reasons for using social media such as promoting library news and events, certain resources and specific library services. In this study, not having sufficient time, not finding social media important, and poor connectivity in countryside communities, were shown as the reasons for not using social media.

In Spain, by applying content analysis, Faba-Perez and Infante-Fernandez (2019) went further in analysing the type of content disseminated by school libraries through social media platforms and examined what are the most common topics used. The results showed a total of four categories and 14 subcategories related to promoting reading and writing and support function for classrooms. The researchers also showed there was a shortage of content related to bullying or equality.

Lim (2020) conducted a study that aimed to propose ways to promote the marketing of SNSs in school library sites in Korea. In depth interviews were conducted with 10 teacher librarians who used SNSs in library operations. The results showed that most teacher librarians were using SNSs such as Facebook, Instagram and Kakao Plus Friends to improve the accessibility and utilisation of library resources. Recommendations were discussed relating to the need for marketing consultative bodies, the expansion of SNS targets and enhancement of expertise in SNSs to promote school library sites.

### **Comments on the Review of the Related Literature**

It is clearly shown in the literature above that many investigations have been conducted in the field of Web 2.0 tools and technologies in different types of library. Some researchers analysed only one tool of Web 2.0, such as Jheng and Lai (2007), Patra (2019), Iqbal (2018) and Lim (2020) while other researchers examined two to three Web 2.0 tools:

Chen, Chu and Xu (2013), Sudhier and Devi Priya (2017), Kingsley (2018) and Faba-Perez and Infante-Fernandez (2019).

Furthermore, the previous research studies showed challenges in using Web 2.0 tools, especially in how to use Web 2.0 tools to get the greatest benefits that will help to improve library services, since most research studies revealed the need for library authorities' support to motivate and train library professionals in using these tools efficiently.

On the other hand, previous studies have focused on the benefits, awareness and importance of using SNSs and Blogs in marketing libraries by broadcasting information about their libraries, publicising collections, resources and services, and knowledge sharing.

### Methodology:

Since this study is exploratory and descriptive in nature, a questionnaire was adopted to answer the following research question: What Web 2.0 tools are used by library professionals?

Kuwait (see Figure 1).

**Table 1: Participants' profiles**

Educational Districts in the State of Kuwait		Number of Librarians		
		Male	Female	Total
<b>Al-Jahra</b>	Count	26	18	44
	% of Total	44.8%	55.2%	100%
<b>Hawally</b>	Count	14	16	30
	% of Total	46.5%	53.5%	100%
<b>The Capital (Al-Asemah)</b>	Count	20	21	41
	% of Total	46.5%	53.5%	100%
<b>Al-Farwaniya</b>	Count	19	37	56
	% of Total	46.5%	53.5%	100%
<b>Al-Ahmadi</b>	Count	25	66	91
	% of Total	46.5%	53.5%	100%
<b>Mubarak Al-Kabeer</b>	Count	15	18	33
	% of Total	46.5%	53.5%	100%
<b>TOTAL</b>	Count	119	176	295
	% of Total	45.6%	54.4%	100%

In this research, a questionnaire survey was used to obtain a descriptive overview of the respondents' perceptions from a large population since this research included all governmental high school libraries in the six provinces in Kuwait. The statements in the survey were established from the literature concerning Web 2.0 tool and libraries. The questionnaire was divided into three main sections. The first section included seven questions to elicit demographic information and overall information about the extent of the level of usage to two Web 2.0

To answer the above question, the following sub-questions were derived:

1- What is the level of usage of Web 2.0 tools, such as Blogs and SNSs in the work of such library professionals?

2- What are the challenges facing the usage of Web 2.0 tools by librarians in the State of Kuwait?

These challenges could be as follows:

2.1. Awareness of the importance of using Web 2.0 technology by librarians in the State of Kuwait.

2.2. Administrative policies and support for Web 2.0 technology on the part of librarians in the State of Kuwait.

2.3. Personal factors which limit the use of Web 2.0 technology by librarians in the State of Kuwait.

A descriptive analysis was used to elicit an overview of the usage of Blogs and SNSs in governmental school libraries. The study was carried out during the spring of 2021. An online questionnaire was sent to all school librarians in the government sector in six provinces in the State of

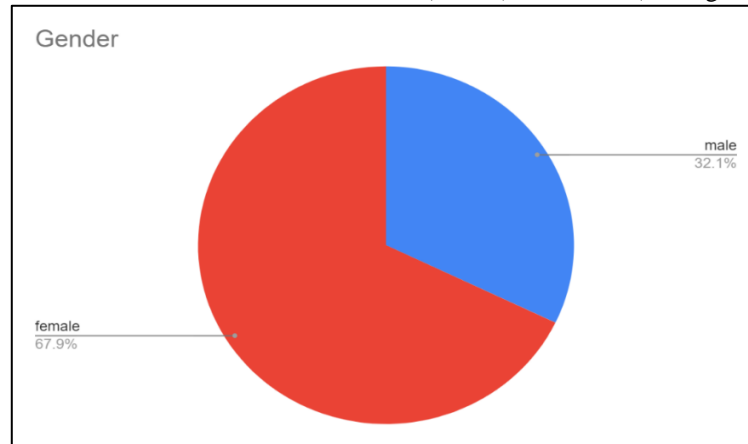
tools using a 4-point rating scale with one open-ended question. The second section, which deals with the usage of Web 2.0 tools (Blogs and SNSs) included 10 items: 5 statements for each Web tool using a 5-point rating scale to answer the statements. Finally, the third section concerned the challenges to using Web 2.0 tools (Blogs and SNSs). This was divided into three axes: awareness, administrative issues and personal matters with total of 23 statements using a 3-point Likert scale (Agree-Don't know- Don't agree); one final open-ended

question was added for comments and suggestions about the challenges that faces librarians in using Web 2.0 tool and technologies. Out of 295 questionnaires, 193 were returned with a 65.4% return rate.

### Results and Discussion:

#### SECTION I: Demographic profile

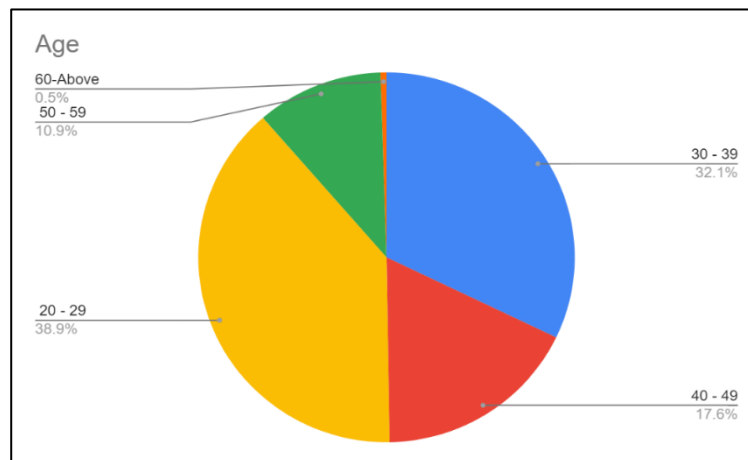
This part of the questionnaire sought to identify the participants' profiles to give a clear image of the percentages of this profile before presenting the other results. The findings show that out of 193 participants, 131 (67.9%) were female while 62 (32.1%) were male (see Figure 1).



**Figure 1: The gender of participants**

Regarding the participants' age, out of 193, 75 (38.9%) were between 20 to 29 years old, while 62 (32.1%) were 30 to 39, and 34 (17.6%) were 40 to

49. At a lower rate, 21 (10.4%) of the participants were between 50 and 59 and only one (0.5%) was above 60 years old (see Figure 2).

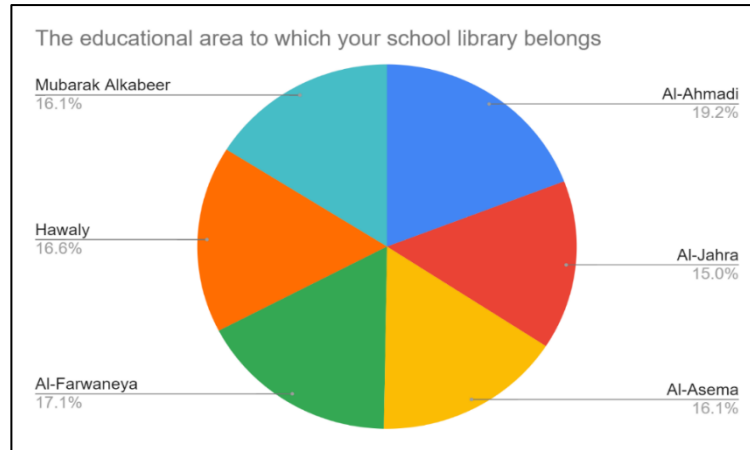


**Figure 2: the age of participants**

Figure 3 illustrates the number of respondents distributed over the educational districts. The percentages were close: 37 (19.2%) were from Al-Ahmadi province, 33 (17.1%) were from Al-

Farwaneya and 32 (16.6%) from Hawaly. Mubarak Al-Kabeer and Al-Asema were at the same percentage 31 (16.1%) while 15 (15%) were from Al-Jahra province.

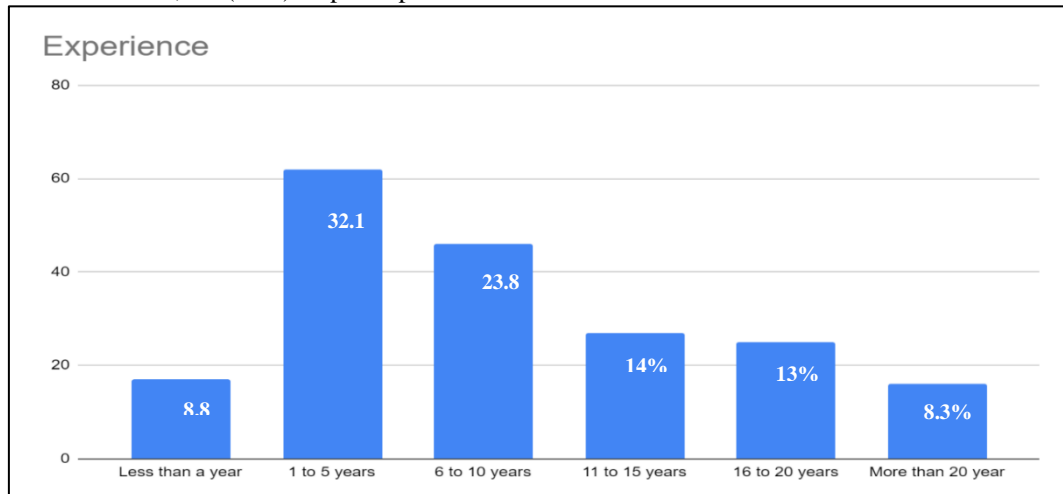




**Figure 3: Number of respondents distributed over educational**

Regarding the participants' experience working in their libraries, out of 193, 17 (8.8%) had less than one year's experience while 62 (32.1%) had experience of 1 to 5 years and 40 (23.8%) had 6 to 10 years. Furthermore, 27 (14%) of participants had

experience of 11 to 15 years, 26 (13%) had 16 to 20 years, and 16 (8.3%) had been working for more than 20 years (see Figure 4).



**Figure 4: The experience of participants**

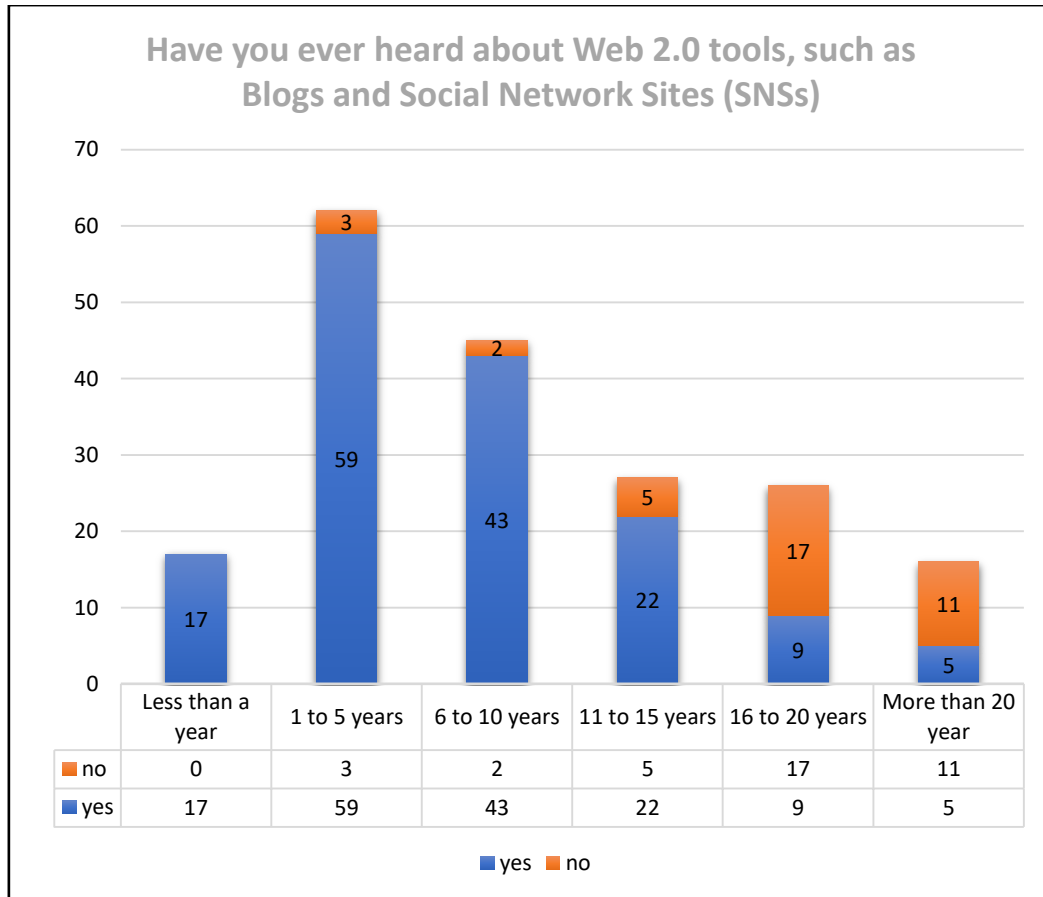
To obtain more accurate results, the correlation between years of experience and other sections were confirmed.

## **SECTION II: Usage of Web 2.0 Tool (Blogs and SNSs)**

This part of the questionnaire sought to obtain results on the usage of Web 2.0 tools (Blogs and SNSs). The researchers started this section by asking the participants if they had "ever heard about Web 2.0 tools, such as Blogs and SNSs". The results showed that more participants had heard about SNSs than Blogs. For instance, all participants with less than a year of experience mentioned that they had heard about SNSs. Similarly, most participants with

experience of between 1 and 15 years had heard the same. In contrast, respondents with 16 to 20 and

more than 20 years of experience had heard more about Blogs than SNSs as can be seen in Figure 5.



**Figure 5: Had the participants ever heard about Web 2.0 tools, such as Blogs and/or SNSs**

#### **Web 2.0 Usage by High School Librarians:**

This part attempted to identify the percentage of respondents' regular use of Web 2.0 tools such as Blogs and SNSs in their libraries. Starting with the Blogs, the findings showed that out of 193 participants only 5 (2.6%) always used this tool while 18 (9.3%) said they used it sometimes and 57 (29.5%) were weak in using Blogs; most participants (112; 58.6%) never used Blogs at all in their libraries. Conversely, the results showed that most

respondents (98; 50.7%) always used SNSs while 49 (25.4%) said sometimes, 27 (14%) were weak in using SNSs as a Web 2.0 tool and just 19 (9.8%) respondents never used them. These results confirm that high school librarians prefer using SNSs over Blogs as shown in Figure 6. These results were in line with those of Kingsley (2018) since most of the librarians in that study were most familiar and engaged with social media in public, school and academic libraries in Alaska.

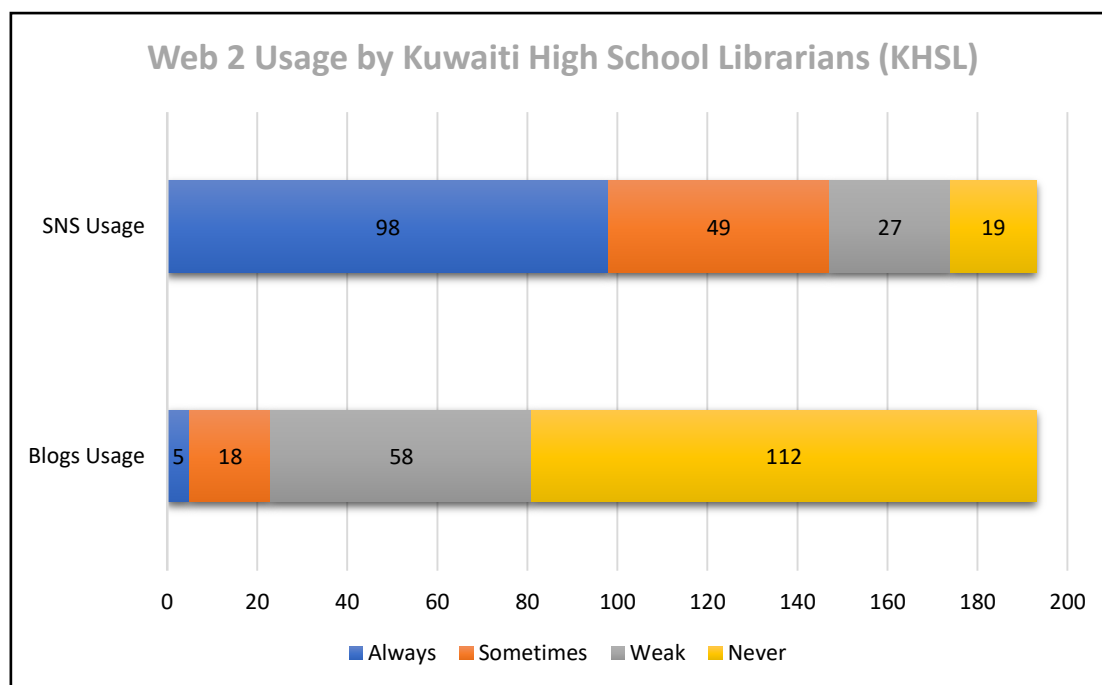


Figure 6: Web 2.0 usage

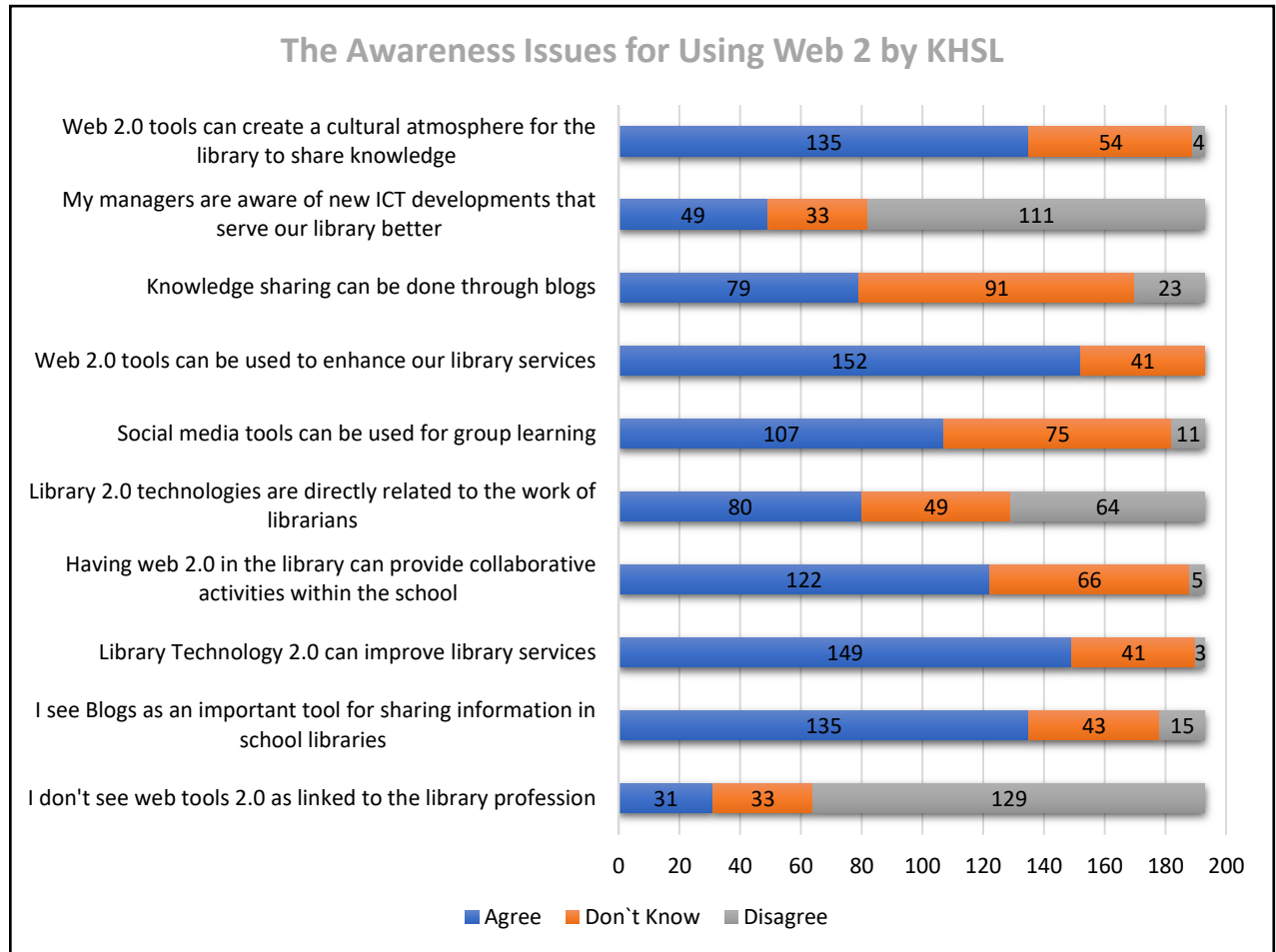
### SECTION III: Challenges to using Web 2.0 tools (Blogs and SNSs)

This section sought to identify the challenges to using Web 2.0 tools (i.e., Blogs and SNSs). In this part the questionnaire was divided into three sections: awareness, administrative aspects and personal issues, with a total of 23 statements using a 3-point Likert Scale (Agree- Don't know- Don't agree).

#### a.Awareness Issues Regarding the Importance of Using Web 2.0 Tools:

Regarding the awareness of respondents of using Web 2.0, the majority (152 = 78.8%) agreed that "Web 2.0 tools can be used to enhance our library services". In the same vein, 149 (77.2%) admitted that "library technology 2.0 can improve library services". Moreover, 135 (69.9%) confirmed that "Web 2.0 tools can create a cultural atmosphere for the library to share knowledge", with same percentage of respondents agreeing that "I see Blogs

as an important tool for sharing information in school libraries". However, more than half the participants (111=57.5%) disagreed that "my managers are aware of new ICT developments that serve our library better". (Figure 7). It was clear that the results showed that librarians were aware of the importance of using Web 2.0 tools in their libraries to improve the library services and for sharing information and knowledge in their schools. Similar results concerning librarians' awareness on the usage of Web 2.0 tools to improve library services were shown in Pakistan by Rehman and Shafique (2011) and Iqbal (2018). However, the findings revealed that half of the participants believed that their managers lacked awareness of the new ICT developments which could enhance the library services. This indicates that not only librarians should be aware of the importance of Web 2.0 tools but also that managers need to update themselves about the new tools that can help in developing library services.

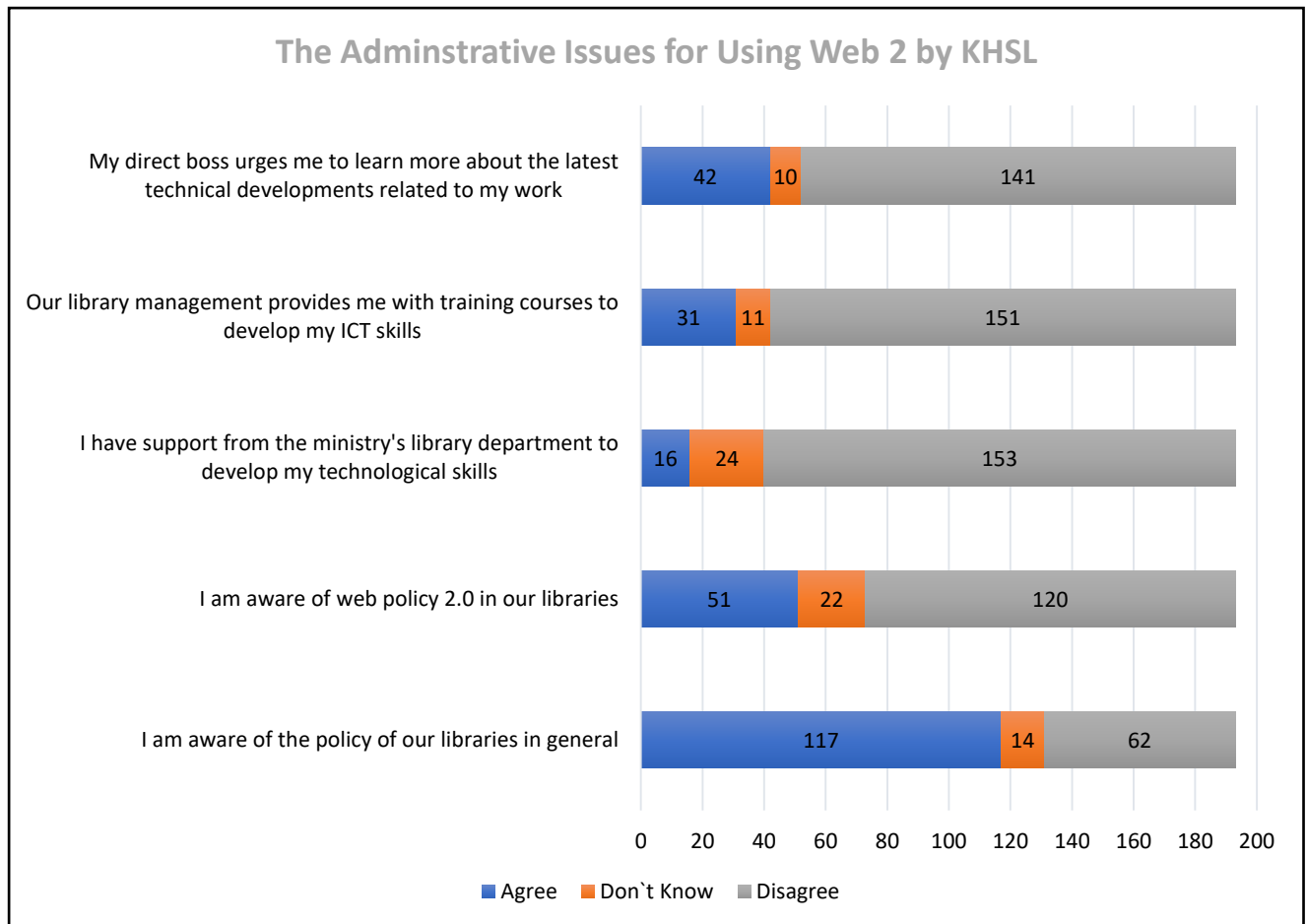


**Figure 7: Awareness Issues Regarding Using Web 2.0**

#### **b. Administrative Issues Regarding Using Web 2.0:**

According to the results, there are clear problems in terms of administrative issues surrounding the use of Web 2.0 in Kuwaiti high school libraries. For instance, most participants (153 = 79.3%) did not have support from the Ministry's library department to develop their technological skills. Furthermore, 151 (78.2%) confirmed that their library management did not provide them with training courses to develop their ICT skills. In addition, 141 (73%) respondents mentioned that their direct superior did not urge them to learn more about the

latest technical developments related to their work. However, more than half the participants (120 = 62.2%) were not aware of the policy regarding Web 2.0 in their libraries while 117 (60.6%) were aware of the policy of their libraries in general (Figure 8). The results indicated that management support in adopting Web 2.0 tools and providing training is very important to develop the library services and enhancing the technological skills of librarians in the use of Web 2.0 tools. Similar results were shown in other research studies such as those of Jheng and Lai (2007), LeSueur (2010), Iqbal (2018) and Singha and Sarmah (2015).

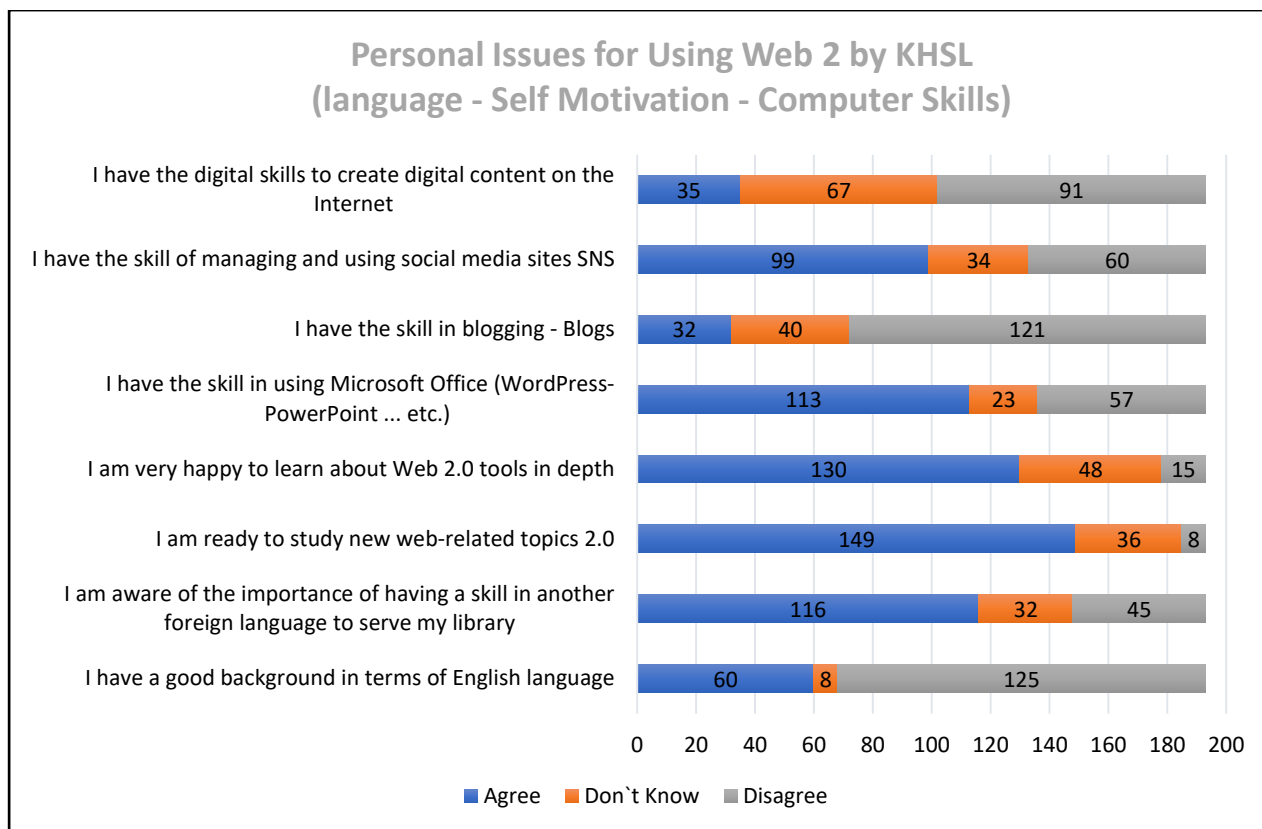


**Figure 8: Administrative Issues Concerning the Use of Web 2.0**

#### **c. Personal Issues Concerning the Use of Web 2.0:**

There are certain personal issues that could help in supporting the usage of Web 2.0 such as language competency, self-motivation and computer skills. However, 125 (64.8%) of participants did not have a good background in terms of the English language. Hence, 116 (60.1%) agreed that they were aware of the importance of having a skill in another foreign language to serve their libraries. Regarding self-motivation, 149 (77.2%) participants were ready to study new Web 2.0-related topics while 130 (67.4%) were very happy to learn about Web 2.0 tools in depth. With regard to computer skills, most

participants (130 = 58.5%) had the skill to use aspects of Microsoft Office such as WordPress, PowerPoint, etc. In the same vein, 99 (51.3%) respondents had the skill to manage and use social media sites. On the other hand, 121 (62.7%) of participants did not have the skill to use Blogs while 91 (47.2%) did not possess the skills to create digital content on the Internet as presented in Figure 9. The results indicate that a librarian's personal willingness and self-motivation are important in adopting new tools, together with less resistance to change in learning new language and technological skills.



**Figure 9: Personal Issues Regarding the Use of Web 2.0**

#### Conclusions and Recommendations:

The first two objectives of the current research were met and addressed through the primary data collection method; major issues were identified as factors that hindered the use of Web 2.0 tools in high school libraries. These are presented below:

- Lack of awareness on the part of library managers and authorities of the importance of Web 2.0 tools to enhance library services and the sharing of knowledge.
- Lack of management support in developing new technologies and services in school libraries.
- Lack of ICT training, especially on new Web 2.0 tools.
- Lack of English language background to help librarians offer better services.

The third objective was to provide recommendations for school libraries to develop services and facilitate knowledge sharing by using

Web 2.0 tools in schools. The researchers present here recommendations for school library authorities to promote the usage of Web 2.0 tools in school libraries:

#### 1)Promoting awareness:

Authorities need to pay attention to increasing awareness of the importance of new Web 2.0 tools and technologies and their effect on developing library tasks, as well as encouraging librarians in KHSLs through financial and moral incentives.

#### 2)Professional training:

Authorities need to provide continuous training in the workplace for new technologies and tools that could enhance libraries' sharing of knowledge and dissemination of information.

#### 3)Developing Language Courses:

Since most publications are published in English, it is important to concentrate on developing librarians' English language skills to enhance the work and services of libraries.

#### 4)Developing LIS Courses:

LIS professionals and the Kuwaiti Library Association need to develop courses for library professionals to update their knowledge of new technologies and trends in order better to serve the development of KHSLs.

#### Further Studies:

The study was limited only to librarians working in Kuwaiti governmental high schools. Therefore, further research is recommended into the preferences of librarians and students of Web 2.0 tools where results could help to implement a tool in KHSLs that fits in with their preferences and skills. Moreover, more research is also recommended into LIS programs role in developing the right skills for future librarians.

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