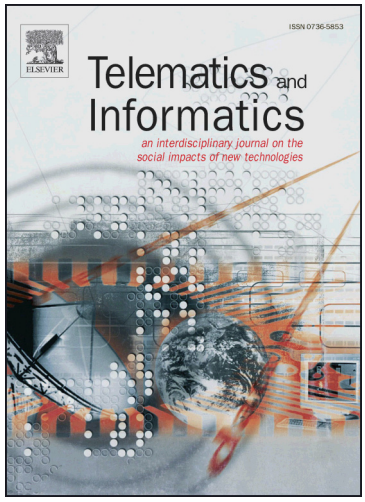

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Social Media for Knowledge-Sharing: A Systematic Literature Review

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Abstract

Context: Advanced social media tools have changed the way people communicate, share content, interact, and collaborate. Nowadays, social media (SM) is becoming a valuable platform for facilitating knowledge sharing (KS) and communication, not only on a personal or individual level, but also for organizations. This trend has attracted significant attention from the professional and academic fields. However, despite the important and rapid growth of research in this area, few attempts have been made to systematically review and incorporate findings from previous surveys, and to assess the current state of research regarding social media's use in knowledge sharing.

Objective: The main objective of this paper is to provide a better understanding, and a detailed review, of the current state of research regarding social media use for knowledge sharing. In this research, we conducted a systematic review approach to collect, analyze and synthesize data regarding the accuracy and value of previous articles focused on this research field, addressing a variety of topics, and published in digital databases between 2010 and 2016.

Method: We used a Systematic Literature Review (SLR) method to collect and review studies by following a predefined review procedure, integrating both the automatic and manual search strategies, in order to cover all relevant research papers published in this period.

Results: From the review study, we identified 103 selected primary studies presenting research about SM use for KS, reviewed through a systematic mapping approach that extracted relevant information to answer a defined set of research questions. We analyzed and categorized the published papers, covering numerous research topics including SM for KS user behavior, utility and benefits, social media platform and tools, and other topics that otherwise attract little attention. For this research, the majority of the studies reviewed focused on SM for KS user behaviors. This in turn highlighted a direction for further research.

Conclusions: The systematic review indicated that, although SM is increasingly used for KS and giving a promising new area of research, a better understanding of the landscape and direction is not well reported. This study offers a related discussion and conclusions.

Keywords

Knowledge sharing, social media, systematic literature review

1. Introduction

Advanced social media (SM) tools have increasingly attracted global attention, due to their pervasiveness and social impact. The dramatic development of this media form has revolutionized how people share their knowledge, and communicate and collaborate with each other, while engaging in conversations in the workplace in a timely manner (Filo et al., 2015; Li and Sakamoto, 2014). Social media platforms incorporate a wide range of online media, including word-of-mouth forums such as Social Networking (SNS) (like Myspace and Facebook), microblogs (like personal blogs or Twitter), pictures or video-sharing applications (like Flickr or YouTube), and collaborative websites like Wikipedia (Kaplan and Haenlein, 2010; Osatuyi, 2013; Yan et al., 2013). These types of social media tools are considered to be prominent and well-established spaces for creating knowledge sharing channels, where people are able to find other individuals with similar interests, and share their thoughts with them (Bilgihan et al., 2016).

Nowadays, social media applications have moved beyond personal use. They have been increasingly adopted by organizations as tools for knowledge sharing and communication, through a myriad of different means (Kane et al., 2014; Lam et al., 2016). For instance some organizations, including those in the public sector, are exploring the ways social media can be used for knowledge sharing, as a way of enriching citizen's awareness, and the actions of governments (Dekker and Bekkers, 2015; Osatuyi, 2013). Others may use the tool as a means of generating knowledge within business sectors, and integrating customers into several areas of activity (Busalim, 2016; Kormin and Baharun, 2016). Higher education institutions have also adopted social media as a means of inspiring learning activities (Balakrishnan and Gan, 2016; Kulakli and Mahony, 2014). Health care organizations have adopted the internal use of social media tools for knowledge sharing, facilitating the efficient flow of work-related information within and between teams (Li et al., 2016; Yan et al., 2016a). Moreover, since the 2010 Haiti earthquake, social media has increasingly been used for knowledge sharing within the disaster management field (Yates and Paquette, 2011). All in all, the knowledge sharing applications of social media has dramatically changed how we live, work, learn and interact. They allow for smooth and continuous knowledge sharing within the virtual world (Lussier et al., 2010).

Research about social media's use in knowledge sharing research is still at an early stage of progress, although the notion of social media for knowledge sharing has been progressively developed, and has received growing levels of attention over the last few years (Behringer and Sassenberg, 2015; Chai and Kim, 2010). However, no efforts have been made to systematically review these studies, as a means of providing researchers and practitioners with an overview of current, state-of-the-art social media tools used for knowledge sharing. Therefore, this study has three main objectives. The first objective is to systematically collect, summarize, analyze and synthesize information regarding the accuracy and values of previous studies published in literature between 2010 and 2016. The second objective is to comprehensively report on the holistic, empirical findings of this domain's existing studies. It is systematically conducted to provide a rich picture and grounded evidence of the current state of research covering social media's use for knowledge sharing to all the professionals and researchers. The third objective is to identify knowledge gaps that require further exploration, and to suggest opportunities for

future research in this area. To achieve these objectives, the following research questions (RQs) have been put forward:

RQ1: What social media activities are used for knowledge sharing?
RQ2: What are different contexts in which social media's knowledge sharing applications have been addressed, and what are the main topics within reviewed studies?
RQ3: What are different theoretical lenses, adopted by research regarding social media use for knowledge sharing?
RQ4: What key challenges are faced when using social media for knowledge sharing?
RQ5: What are limitations and gaps within current research about social media for knowledge sharing?

The answers to these questions will guide the reader and enhance their understanding of the current development of social media in the direction of knowledge sharing activities. A more comprehensive picture of various emergent topics/themes, methodologies and theories will be offered, while details will be provided about the number of sub-topics involved in this subject. Additionally, this review intends to contribute to the growing body of knowledge on social media, regarding knowledge sharing studies, through careful analysis of 103 selected papers. This review offers a clear analytical overview to the research community and its practitioners, informing them of areas where research is lacking, or where more exploration is needed to identify issues that have been researched. The results can also be used by practitioners, in improving social media's use for knowledge sharing within their field.

This paper is structured with sixth sections. The following section provides a background of social media and knowledge sharing. The third section describes the methodology through which the review processes were conducted. The fourth section presents the SLR results, followed by the fifth section which reports on the research questions' results, as organized according to their sequences. Finally, the sixth section presents a discussion of the review, and its conclusion.

2. Background

2.1 Social Media Definitions

While there are contrasting definitions and a number of overlapping views within the currently-existing literature, social media is generally defined as being "a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content" (Kaplan and Haenlein, 2010, p. 61). Some authors have used the term 'social media' interchangeably with Web 2.0 (Berthon et al., 2012). Some have defined social media as a wide range of software applications, which allow a large number of users to freely interact and share content with each-other (Leonardi et al., 2013; Oh et al., 2014).

On the other hand, social media is considered a tool for facilitating communication mechanisms, and bringing people together through sharing content, which is known as user-generated communication (Michaelidou et al., 2011). Social media has also become an important information channel from the perspective of work organizations, as a tool for searching for and finding available information, which evolves through collaboration between workplace employees (Nah and Saxton, 2013). Leonardi et al. (2013, p.2) defines social media in the work environment as being:

> "Web-based platforms that allow workers to (1) communicate messages with specific coworkers or broadcast messages to everyone in the organization; (2) explicitly indicate or implicitly reveal particular coworkers as communication partners; (3) post, edit, and sort text and files linked to themselves or others; and (4) view the messages, connections, text, and files communicated, posted, edited and sorted by anyone else in the organization at any time of their choosing."

Building on the various different definitions and terminologies, Rambe and Nel, (2015) have described social media technology as including a wide range of applications, such as Facebook, blogs,

wikis, Flickr, YouTube and Twitter, that use distribution methods that bring together users in a digital sphere. These include watching online videos, live chat, commenting on each-other's content, reading and sending instant messages, creating, searching for and sharing information and knowledge, and playing virtual games (Hajli and Lin, 2014; Rambe and Nel, 2015). Indeed, the availability of such powerful platforms allow individuals to create content, uniquely-identifiable profiles, status updates, publicly-articulated online sites, chat spaces and related discussions (Eid and Al-Jabri, 2016; Ellison et al., 2015; Everson et al., 2013). As Everson et al. (2013) reported, 61% of adult users who go online to interact with others, say they use social media sites for this purpose. Meanwhile, 73% of teens use social media sites as tools for online interactions with their peers. Similarly, a recent study conducted by the Pew Research Center determined that "91% of smartphone owners aged between 18 and 29 used social network on their phones at least once over the course of the study period, compared with 55% of those aged 50 and older" (Smith, 2015, p. 35). Table 1 shows several views or definitions on social media, as presented by scholars in the existing literature.

Table 1
Some Social Media Definitions from Previous Studies

N	Definitions	References
1	Social media refers to the activities through which people share their knowledge, within a collaborative online environment.	(Papadopoulos et al., 2013)
2	Social media refers to Internet-based media that allows individuals to share information and knowledge.	(Chang and Chuang, 2011)
3	Social media refers to "the means of interactions between people in which they create, share, and exchange knowledge and ideas within virtual communities and networks".	(Zeng and Gerritsen, 2014)
4	Social media is defined as "a group of internet-based applications that build on the ideological and technological foundations of Web 2.0, that allow the creation and exchange of user-generated content".	(Kaplan and Haenlein, 2010)
5	Social media use for knowledge sharing is comprised of interactive digital tools, allowing users to not only share knowledge, but also to create or influence content.	(Chomsky, 2012)
6	Social media refers to "New media technologies facilitating interactivity and co-creation that allow for the development and sharing of user-generated content among and between organizations (e.g. teams, governing bodies, agencies and media groups) and individuals (e.g. consumers, athletes and journalists)".	(Filo et al., 2015)

2.2 Social Media and Knowledge Sharing

Knowledge sharing occurs when individuals convey knowledge, or acquire it from others (Bilgihan et al., 2014; Chen and Hung, 2010; Chen et al., 2013). Hung and Cheng (2013) have indicated that knowledge sharing is a process, or an activity of exchange between individuals, groups or organizations. Ma and Chan (2014, p. 52) have defined knowledge sharing as "the communication of knowledge from a source in such a way that it is learned and applied by the recipient". Similarly, Wang and Noe (2010, p. 117) suggested that knowledge sharing refers to "the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies and procedures". The increasing growth in the use of social media for facilitating knowledge sharing, and ensuring its broad diffusion among the individuals, communities and societies that use social media tools, creates a virtual space that supports knowledge sharing activities (Kwahk and Park, 2016).

The use of social media platforms offers greater opportunities for rapid knowledge flow between people working across different geographical areas, than could be provided through traditional tools such as search engines or databases (Panahi et al., 2016b).

Several scholars have stated that the greater adoption of social media as a knowledge sharing tool spanning different contexts (e.g. work tasks, cultures, customers, business, competitors, or sports), has recently attained significant attention in the industry and among academic researchers (Al Saifi et al., 2016; Bilgihan et al., 2016; Majchrzak et al., 2013). They have been recognized as important tools that make it possible to freely join together large sets of users, who can easily exchange knowledge, and express thoughts, experiences and perceptions (Kaplan and Haenlein, 2010; Shang et al., 2011).

Previous research has indicated that many organizations encourage employees to share their knowledge via social media tools, because it facilitates efficient information flow within and between teams (Pee and Lee, 2015). It helps describe what, how and where to find useful knowledge within an organization (Jin et al., 2015). For example, IBM employs social media tools (such as social networks), as tools for knowledge sharing between its 400,000 employees, thereby helping enhance their collaboration and innovation (Majchrzak et al., 2013). Furthermore, Kiron et al. (2012) has reported that 86% of managers valued social media as a means of knowledge sharing for their businesses.

3. The Review Method

As formerly stated, this study is a Systematic Literature Review (SLR) – a repeatable process combining all existing research literature related to a specific topic or particular research question (Kitchenham, 2007). The main aim of performing this type of review, is to collect, sum up and evaluate evidence about a particular area. This is undertaken so as to discover any research gaps within existing studies, thereby allowing for the recommendation of further research, and allowing for greater insight and deeper understanding into the phenomenon being addressed (Unterkalmsteiner et al., 2012). For this review, the authors have broadly followed the guidelines proposed by Kitchenham and Charters (Kitchenham, 2007). These guidelines have established that a review should be comprised of three phases, including its planning, conducting and reporting. Each stage has sub-elements, including (1) identifying review questions; (2) formulating a review protocol; (3) identifying inclusion and exclusion criteria; (4) reviewing selection procedures and strategy; (5) studying quality assessment; and (6) data extraction and the synthesis of evidence, so as to answer the research questions RQ1 to RQ5. Each step has been explained in turn, through the following sections:

3.1 Review Protocol

To undertake this systematic literature review, a comprehensive review protocol was defined that would guide the study and provide a clear path for its progress (Kitchenham, 2007). The review protocol is an important step in performing SLR, specifying the approach that will be used to undertake the completion of the review's objectives, by minimizing the likelihood of researcher bias (Kitchenham, 2004). The review protocol process consists of several stages, including the research setting, the search strategy, the review questions, the criteria for the review selection process, the elements of quality assessment, the data extraction method, and the synthesis of the extracted data (Kitchenham, 2007). The study review questions and research settings have been described in this paper's previous sections, while the following sub-section contains further details about the remaining listed elements.

3.2 Inclusion and Exclusion Criteria

The aim of applying an inclusion and exclusion criteria, is to ensure that all selected primary studies in the SLR are pertinent, and are related to the study. The purpose of this systematic review is to understand issues surrounding social media within a knowledge sharing context. The review involved collecting related data from journal articles, conference papers, book chapters and workshops, written in

English and published in digital databases from 2010 to 2016. Through a peer-review process, this paper's authors excluded research articles whose content did not apply to social media use within a knowledge sharing setting. Table 2 shows the criteria for this review.

Table 2
Inclusion and Exclusion Criteria

Included articles were:	○ Available as full-text ○ Published in the period between 2010 and 2016 ○ Were written in English ○ Related to the research questions ○ In the domain of SM for KS ○ Published in selected digital databases
Excluded articles were:	○ Had full text not available ○ Outside the search timeframe ○ Had a non-English manuscript ○ Were not related to the research questions ○ Were duplicated studies

3.3 Search Strategy

As Fig 1 shows, the review's search strategy involved both an automatic search and a manual search. Both these search approaches were used to explore content for the review, consequently including additional studies, which could provide a broader perspective. According to Kitchenham (2007), after an automated search, the manual search was conducted for primary study references. The automated search was based on research keywords, and was conducted as an electronic search, using online scientific databases to address this review's research questions. Therefore, this review performed the first research step. After this, five online databases including ScienceDirect, ISI web of knowledge, IEEE explore, ACM Digital Library, and Scopus, were selected as the main sources for the research. These online databases were selected because they were deemed to be the most relevant, providing complete information for the field of social media for knowledge sharing.

In this study, in order to establish boundaries for what would be considered, the keywords of interest were searched for in both research titles and research questions. To match identified keywords with the published research and relevant literature, a mix of common social media and knowledge sharing keywords were used to search through the selected databases. The aim of this was to identify as many relevant articles as possible in the domain. These keywords included: 'social media for knowledge sharing', 'knowledge sharing via social media', 'social media for knowledge exchange', 'knowledge sharing via social software', 'knowledge sharing via Twitter', and 'knowledge sharing via Facebook'. After the first search stage, this study used a manual search for the second round. For instance, a forward and backward search approach, as developed by Webster and Watson (2002), was employed to trace the collected references for primary studies, for instance through additional reference scanning. This helped ensure that the review achieved its objective, and answered the proposed research questions. This second manual search also guaranteed that the systematic search was relatively complete, while also identifying if the study had missed anything (Webster and Watson, 2002; Zhang et al., 2011). It was used for organizing and sorting all primary studies, through the use of the Mendeley application. It also managed and kept all collected studies from the two stages, making it easy to remove the duplicate studies.

3.4 Study Selection Process

After accomplishing the first and second round search processes using the defined key-words, this study returned 388 papers. Out of this total, 121 papers were duplicates and were accordingly removed through use of the Mendeley application. After the duplicated papers were removed, the

inclusion/exclusion criteria was applied to the remaining 267 papers, focusing on each paper's title and abstract. The aim of this step was to eliminate results that were of no use, including results that were not obtained from sources including journals, conference papers, or workshops. 167 studies were excluded through this step, based on their research titles, abstracts and keywords. This left a total of 157 studies. As recommended by Kitchenham (2007), all papers that did not cover issues included in this review were excluded. In order to determine whether there were unclear or irrelevant studies, the next step involved the full-text scanning of remaining studies. After reading their full text, a total of 52 studies were excluded, leaving results from 105 studies. In this selection review processes' final stage, the 'snowballing' approach (Budgen et al., 2008) was followed as a means of scanning the references of primary studies. In this step, in order to ensure the review process's accuracy, the author's applied a manual search method that utilized the references of each horizontal and vertical search, using Google Scholar as a means of obtaining more reliable primary studies. Therefore, each of the 105 reference lists of primary studies were screened, and 16 other studies were found. The final result of the systematic review included 121 primary studies. Lastly, this total number of primary studies identified in both automatic and manual searches were subjected to quality assessment criteria, as a result of which 18 were removed. Accordingly, this paper's authors selected 103 primary studies for the review, which shaped future steps in this SLR stage as tabulated in Appendix A.

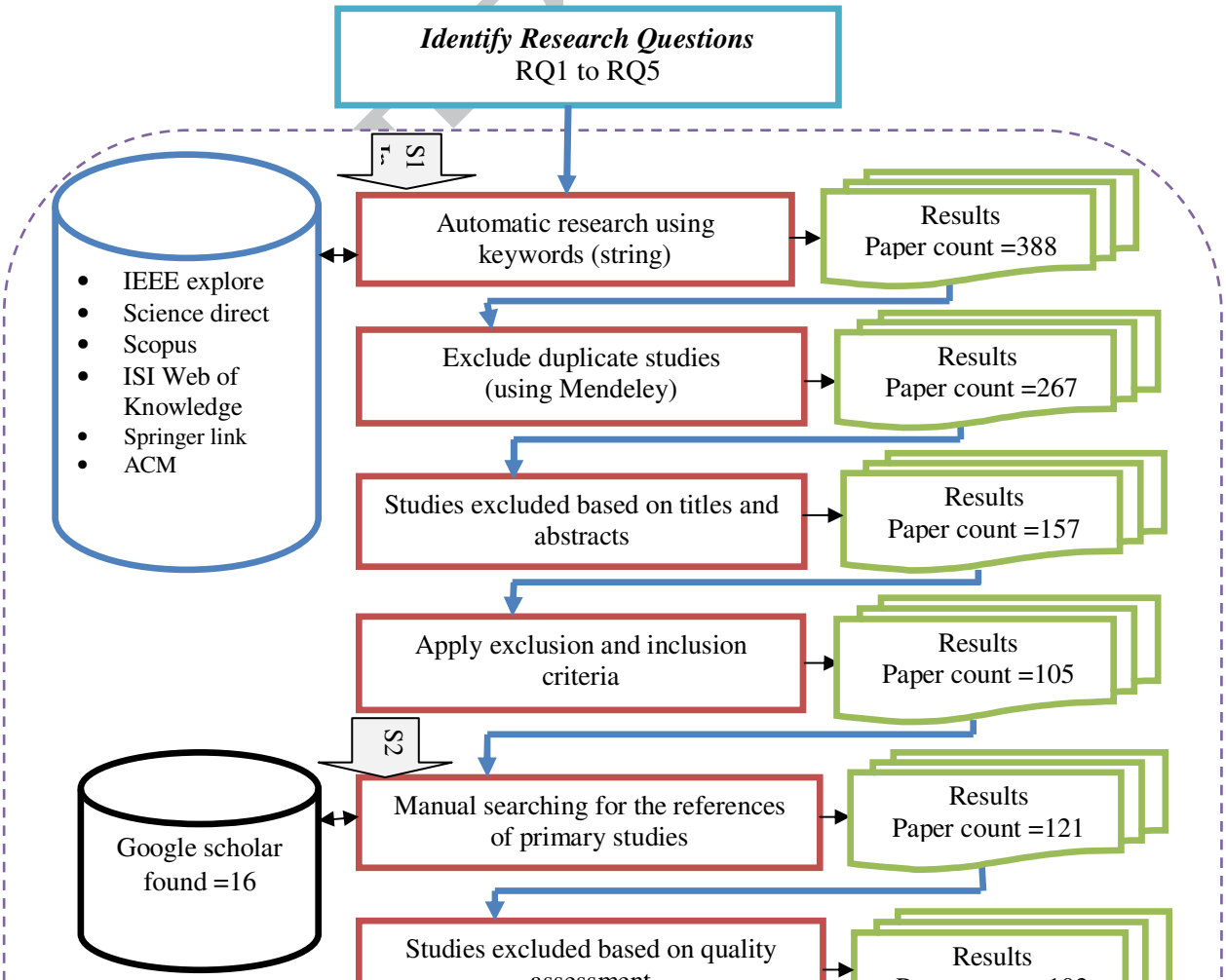

Fig 1 Study Selection Process

The circulation of the number of primary studies in this review, as retrieved from different online databases during the systematic searching process, are shown in Table 3. The study pointed out that most studies gathered before the selection process were found in IEEE Explore (125), followed by ScienceDirect (118), ISI Web of Knowledge (73), Scopus (31), Springer Link (23) and the ACM Digital Library (18). Google Scholar was not utilized within the first stage of the review process. When conducting the second selection process, the majority of primary studies were returned from ScienceDirect (40), followed by ISI Web of Knowledge (19), IEEE Explore (15), Google Scholar (14), Springer Link (9), Scopus (4), and finally ACM Digital Library (2).

Table 3
Study Selection Process Results

Online Database used in SLR.	Initial Results	Relevant Studies
Science Direct	118	40
ISI Web of Knowledge	73	19
IEEE Explore	125	15
Springer-Link	23	9
Scopus	31	4
ACM Digital Library	18	2
Google Scholar (used only in second stage)	-	14
Summary	**388**	**103**

3.5 Quality Assessment (QA)

The principle of quality assessment has helped the researchers assess the quality of each selected review paper, using a set of criteria, while providing a decision regarding the interpretation and findings of the primary studies (Kitchenham, 2007). Therefore, the authors conducted a quality assessment of this review, as a means of evaluating the quality and accuracy of the selected primary studies. Five QA criteria were developed for this review, as detailed below:

QA1. Is the topic addressed in the paper related to social media for knowledge sharing?

QA2. Is it clear in which context the research was carried out?

QA3. Is the research methodology adequately described?
QA4. Is the process of the data collection methodology clearly explained in the paper?
QA5. Is the data analysis approach accurately evaluated in the paper?

The five quality assessment questions listed above were employed to evaluate the 121 selected research papers, in order to strengthen the researchers' confidence in the credibility of their findings. To grade quality levels through this criteria, three quality rankings were utilized including 'high', 'medium', and 'low' (Nidhra et al., 2013). Therefore, the quality of each study could be considered through the resulting load score. Based on the quality level criteria, the results were divided between three ratings. Firstly, if a study completely fulfilled a quality criteria, it was assigned a rating of 2 for that criteria. Secondly, if a study partially fulfilled a quality criteria, it was assigned a rating of 1 for that criteria. Lastly, if a study did not meet a quality criteria, it was assigned a rating of 0 for that criteria. Consequently, with regards to the five quality criteria, a study's highest possible score is 10 (or 5 x 2), while its lowest possible score is 0 (or 5 x 0). In this review, the quality of each paper was considered to be high if it scored greater than or equal to 6. A paper which scored 5 was considered to be of medium quality, and a paper that scored less than 5 was considered to be low quality. Through the quality assessment process, it was determined that 18 studies did not fulfill the criteria. These were accordingly excluded from the final outcome of the quality assessment. Hence, based on the quality assessment criteria of Nidhra et al. (2013), in terms of QA most articles achieved a relatively high score as indicated in Fig 2. The list of QA ratings of each of this review's 103 primary studies, can be found in Appendix B.

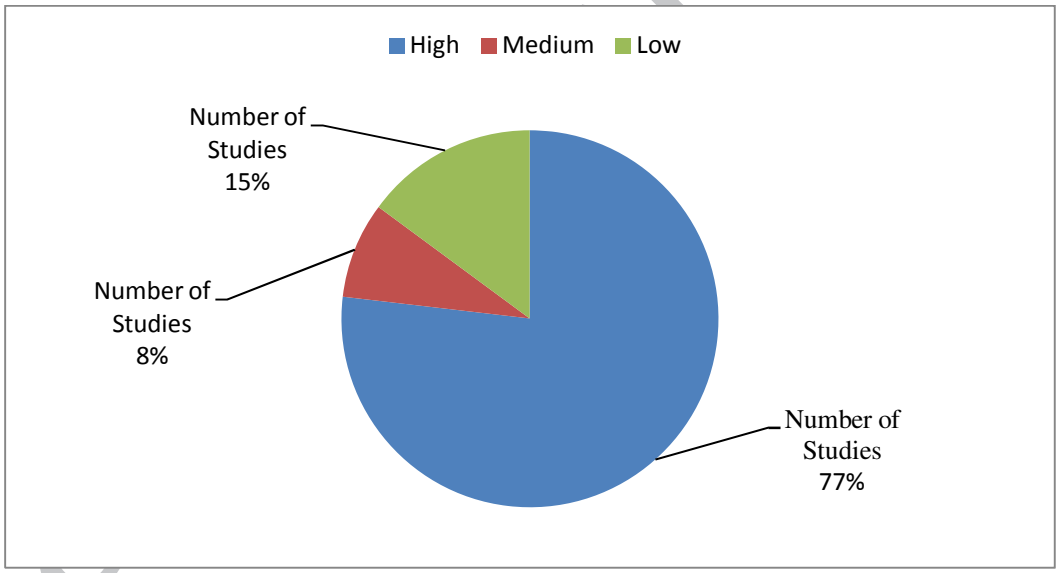

Fig 2 QA: Distribution of Research Studies

4. Data Extraction and Synthesis for SLR

Data extraction is one of the most important activities within the systematic review process. Therefore, in this step, this paper's researchers developed a data extraction form, and with it they accurately recorded all information from 103 studies. The main objective of this section was to use data extraction forms as a means of accurately recording the information gathered through the review (Kitchenham, 2007). This process was conducted by scanning each study, and extracting related information using Microsoft Excel spreadsheets and Mendeley. The study adopted several elements proposed by earlier data extraction studies, including research domain, theories, research methods, and

social media activities (Zeng and Gerritsen, 2014). The following columns were also considered for this review, including Study SID, Paper Title, Year, Type of Paper, Sources, National/Regional, Contexts/Sectors, Research Methodology, and Underpinning Theory. Essentially, a form shown in Table 4 drove data extraction for the 103 studies.

Table 4
Data Extraction for Each Study

Extracted Data	Description
SID:	A unique identity for each paper
Authors:	Names of all the authors
Publication Date:	The year the paper was published (2010-2016)
Study Title:	The name of the paper, appearing in the searching stage
Type of Paper:	Book chapter, journal, conference, or workshop article
National/Regional:	The countries covered by the primary studies
Research Topics:	The description of the study topic/themes, such as behavior
Theory:	The theories adopted by the papers - social support, motivation, or others
Methodology:	The use of quantitative, qualitative, or mixed methodologies
Contexts/Sectors:	Description of the study area, in either industrial or academic settings

4.1 Publication Sources Overview

Following the systematic review, a total of 103 papers were finally selected as primary studies, published within the field of research regarding social media use for knowledge sharing. These 103 studies were selected after inclusion and exclusion criteria were applied, following a quality assessment. As shown in Fig 3, the results were comprised of 69 journal articles, 31 conference papers, 2 book chapters, and 1 workshop. This study revealed that journal articles were the most popular publication type, followed by conference articles.

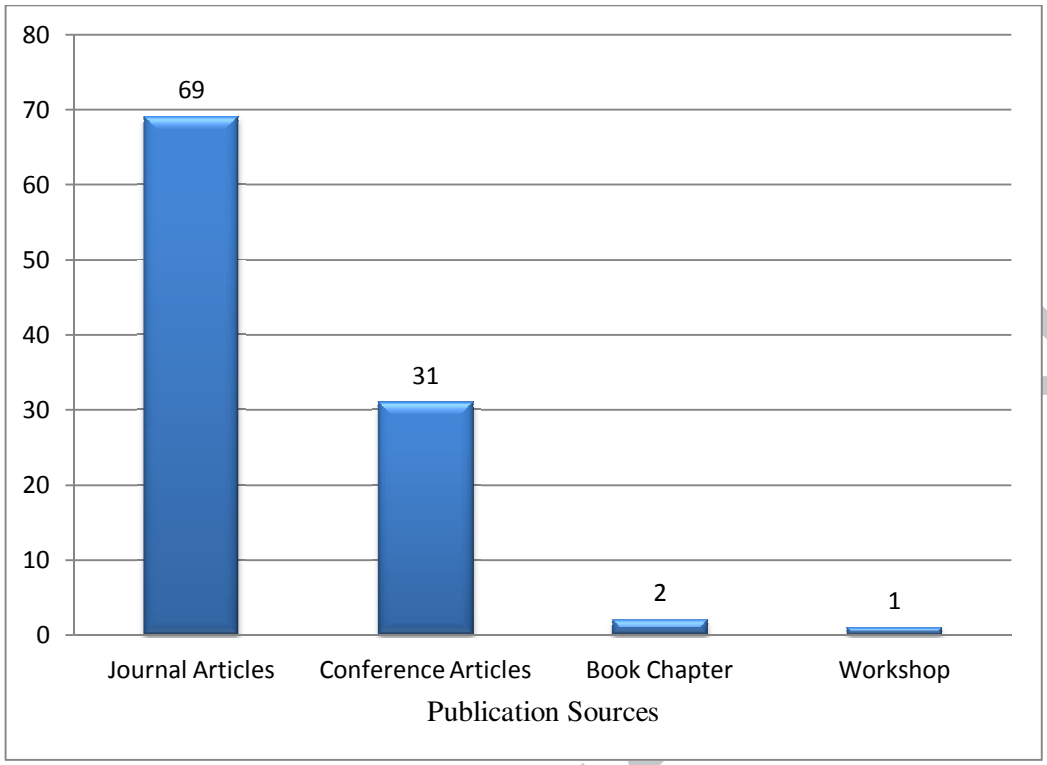

Fig 3 Distribution of Research, Based on Publication Source

4.2 Chronological View

The 'social media for knowledge sharing' publication topic has a very short research history. Fig 4 shows the distribution of all studies in the period from 2010 to 2016. Among the 103 publications identified, 2010, 2011 and 2012 each saw 11 studies published, 33 in total. 13 studies were collected for 2013, while 2014 saw 11 studies published. As can be seen in Fig 4 the publications related to social media use for knowledge sharing quickly increased from 2015 to 2016. In 2015 there were 25 publications, and in 2016 there were 21. This is conceivably not surprising, as the concept of using social media for knowledge sharing began only arose in the last decade, as was argued by Zeng and Gerritsen (2014). Nevertheless, the review reveals that the number of studies focusing on social media's use for knowledge sharing has gradually increased.

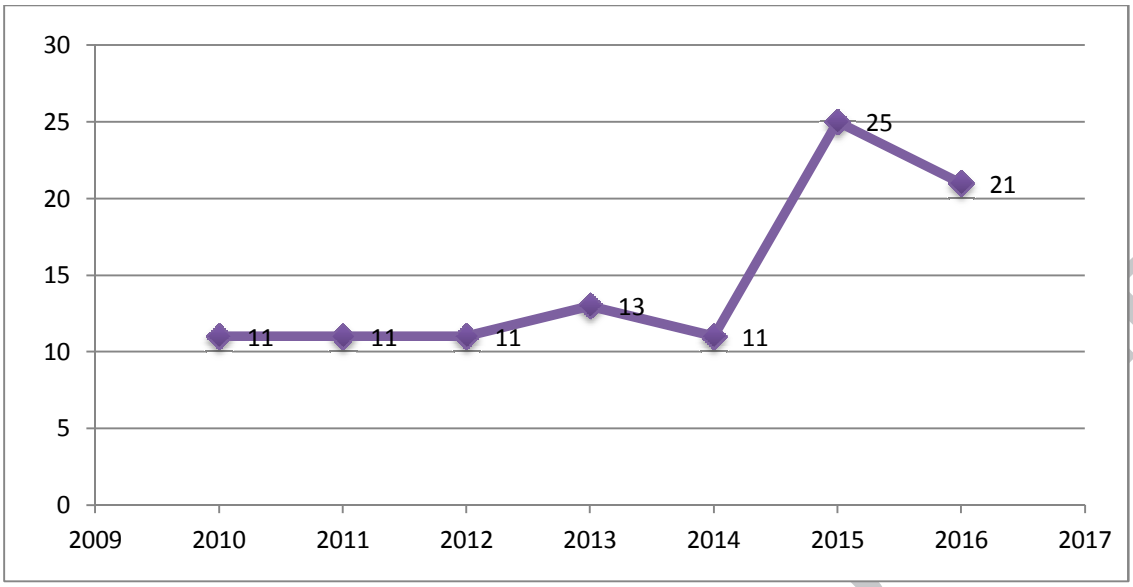

Fig 4 Publication Numbers by Year (2010 - 2016)

4.3 Research Methodologies

Multiple methodologies have been utilized in research covering social media's use in knowledge sharing, including qualitative and quantitative methods (Zeng and Gerritsen, 2014). The distribution of included studies, with respect to research methodologies, is shown in Fig 5. It can be seen that the majority of social media for knowledge sharing studies have used quantitative methodology, and most of these studies have been survey-based. In a few studies, both qualitative and quantitative methodologies have been used together as a means of complementing each other, as shown in Fig 5. Out of a total of 103 studies, 54 used quantitative methodology, and 11 used qualitative methodology. Additionally, three (3) used mixed methodologies, six (6) were reviews, and two (2) were conceptual. The remaining 27 studies were unclear in terms of their nature. These divisions have been presented in Fig 5.

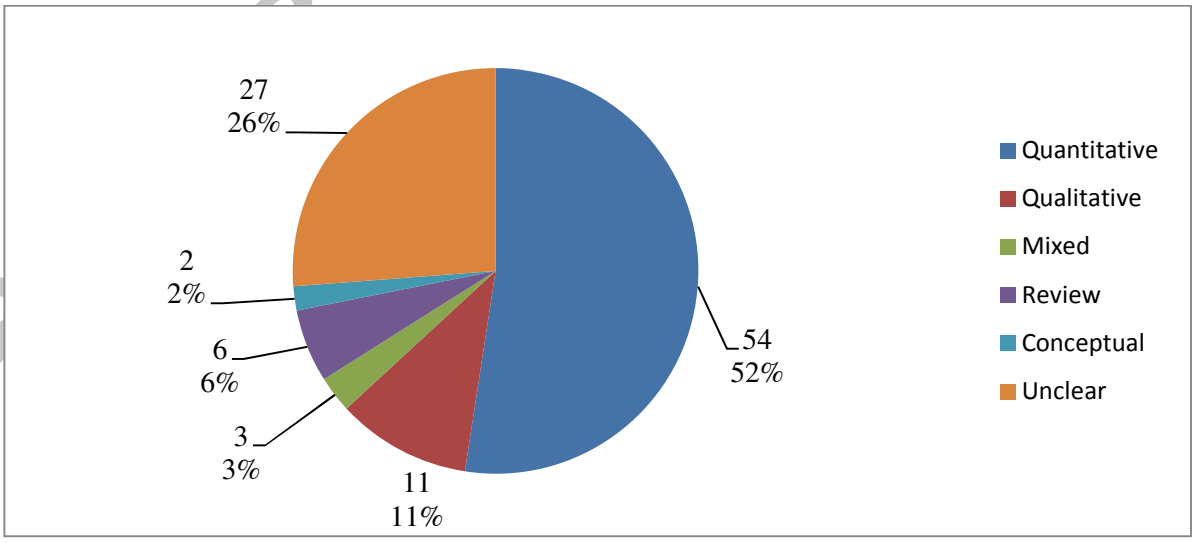

Fig 5 Research Methodologies Distribution

4.4 Coverage of Research Regions

In this systematic review, the research for primary studies covered at least 21 different countries. As can be seen from Fig 6 the Asia-Pacific region contributed the greatest number of articles at 57, followed by North America which contributed 21, Europe which contributed 15, the Middle East which contributed 7, Africa which contributed 2, and Latin America which contributed 1. This result roughly indicates that the majority of research publications focusing on social media for knowledge sharing, meeting this studies' inclusion criteria, were mainly published within the Asia-Pacific, North America and Europe regions, as shown below.

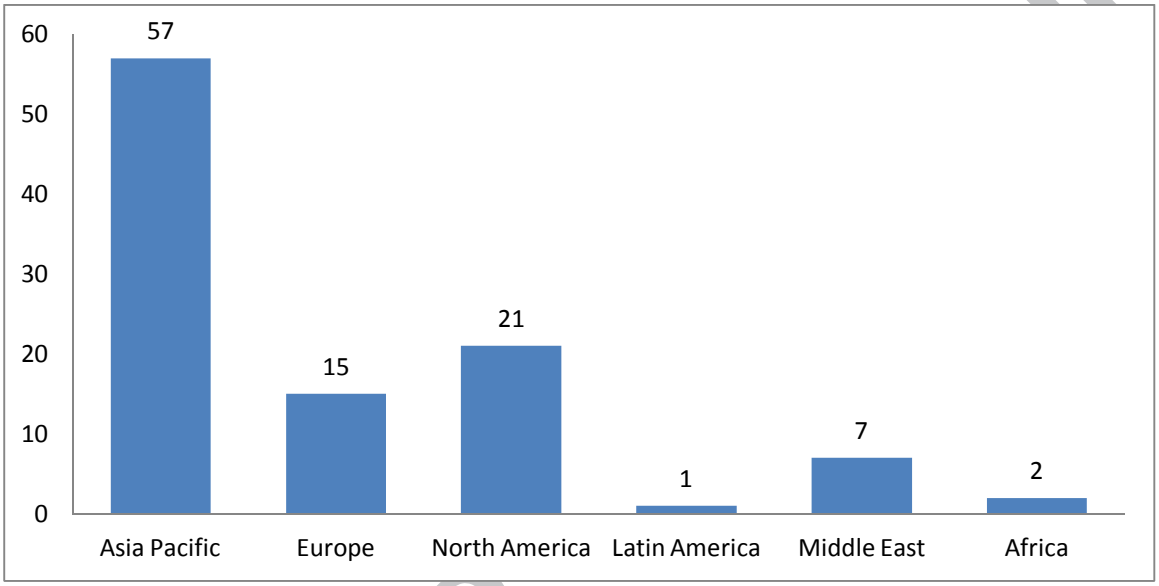

Fig 6 Papers Published by Region

5. Research Question Results

5.1 What social media activities are used for knowledge sharing? (RQ1)

Advanced social media applications have offered unique features, by introducing new platforms where hundreds or even thousands of people on a worldwide scale can interact with each-other, and generate content online (Kwahk and Park, 2016). Social media has significantly become an integral part of today's social activity. It has drastically changed the way users contribute to public knowledge, sharing their experience with their friends, family, and markets (Chang and Chuang, 2011). By helping web 2.0 technology, social media for knowledge sharing is comprised of more distinctive activities when compared to the functionalities of older, traditional media (Panahi et al., 2016b). Based on this review, three main activities have been identified that complement the unique benefits of social media for knowledge sharing, and differentiate it from traditional forms of knowledge sharing and communication behaviors. These behaviors specifically include knowledge-seeking, knowledge-contributing, and social interactivity.

5.1.1 Knowledge-Seeking

People increasingly seek knowledge or information, through social media, for their own benefit. A person is not born with knowledge, and thereby the process of attaining insight from others, as per their expertise, can be achieved through both formal and informal communication (Ahmed et al., 2016; Kim

and Benbasat, 2012; Yan et al., 2013). Social media applications, such as Facebook, blogs and wikis, have all empowered the knowledge-seeking activities of individuals. Here the individuals can achieve a variety of personal or organizational goals, or access services such as those available in cyberspace, where knowledge seekers can connect with each-other and access internal and external knowledge sources that lie beyond their geographical boundaries (Herrick, 2016; Ellison et al., 2015). Social media presents a way for knowledge seekers around the world to ask or answer questions within their networks, and to seek useful knowledge about others with similar interests (Panahi et al., 2016b; Yu et al., 2010). The common practice of knowledge-seeking behavior, through social media, combines three major, interrelated activities. These three include (1) the recognition of knowledge needs, which leads to (2) knowledge-seeking and navigation processes, and then to (3) knowledge use and sharing (Kim and Benbasat, 2012).

5.1.2 Knowledge-Contributing

Research indicates that achieving perfect social media use for knowledge sharing activities, is important when employees share knowledge within a work environment. As such, it helps employees generate new knowledge (Chai and Kim, 2012; Chen and Hung, 2010; Hung and Cheng, 2013). As more professionals use social media tools to attain and share knowledge, this increases their valuable contributions to the work environment, and enables them to acquire knowledge which they can contribute to a collective gathering and sharing effort, in an effective way (Yu et al., 2010). Knowledge-contribution refers to "the extent to which knowledge exchanged from an individual is valuable to other individuals" (Chang et al., 2013, p. 253). Social media applications enable users on networks to easily and quickly combine their knowledge, ideas and skills with that of other users around the world (Pi et al., 2013). The networks enhance knowledge-contributing behaviors among a wide range of users, or between colleagues, in a way that rates the knowledge possessed by each individual (Chai and Kim, 2012). The benefits of contributory acts conducted through social media, and the collective contribution of the peoples' knowledge, can be seen in a number of forms. These can include the posting of knowledge, specifically what a person knows, important information, or something they need to focus upon, and also the posting of useful answers to questions posed in the form of solutions, feedback, or opinions (Ahmed et al., 2016). Specialized social media tools allow workers whose tasks rely on knowledge, to search, collect, contribute and exchange this resource (Majchrzak et al., 2013).

5.1.3 Social Interactivity

The presence of social interactivity in online social media applications implies that individuals are able feel their way around these applications, and once they feel at ease in using them for interactive purposes, they consequently get more comfortable and can engage in significantly more interactions by enabling information exchange and task sharing through the internet-enabled media space (Blasco-Arcas et al., 2013). Social interactivity is one key activity of a new dynamic drive, caused by the emergence of social media tools that ultimately result in the building of communications and knowledge-exchange platforms (Fischer and Reuber, 2011). The social media features that relate to social interactivity mainly include two way communications, that contain social interactions (Okazaki and Taylor, 2013). The increasingly growing implementation of social interactions, through social media technology, has not only changed the structure of interpersonal or group knowledge exchange, but has also reshaped the perception of interactivity between business sectors members and their customers (Blasco-Arcas et al., 2013).

5.2 What are different contexts in which social media's knowledge sharing applications have been addressed, and what are the main topics within reviewed studies? (RQ2)

In the systematic review, at the stage of extracting data through the included primary studies, this study's authors examined different contexts and the main research topics/themes that were addressed in or

applied to research regarding social media use for knowledge sharing purposes. The results indicated that the review covers a wide spectrum of different research contexts and main research themes. These have been further discussed below.

Fig 7 provides an overview of the distribution of selected primary studies, regarding the different contexts in which social media for knowledge sharing research has been conducted. The analysis shows that the majority of studies within the research context have come from the business/industries field, where 28 studies have been conducted. This was followed by 21 studies conducted in the academic field, 12 studies conducted in the health care field, 10 studies conducted in professional learning and training environments, and finally, eight (8) studies conducted in a disaster management (DM) field. The remaining 24 studies were conducted in other contexts, including individual and personal knowledge sharing (e.g. friends, families etc.). Table 5 shows details and descriptions for each context/sector, related to the primary studies that this review has examined.

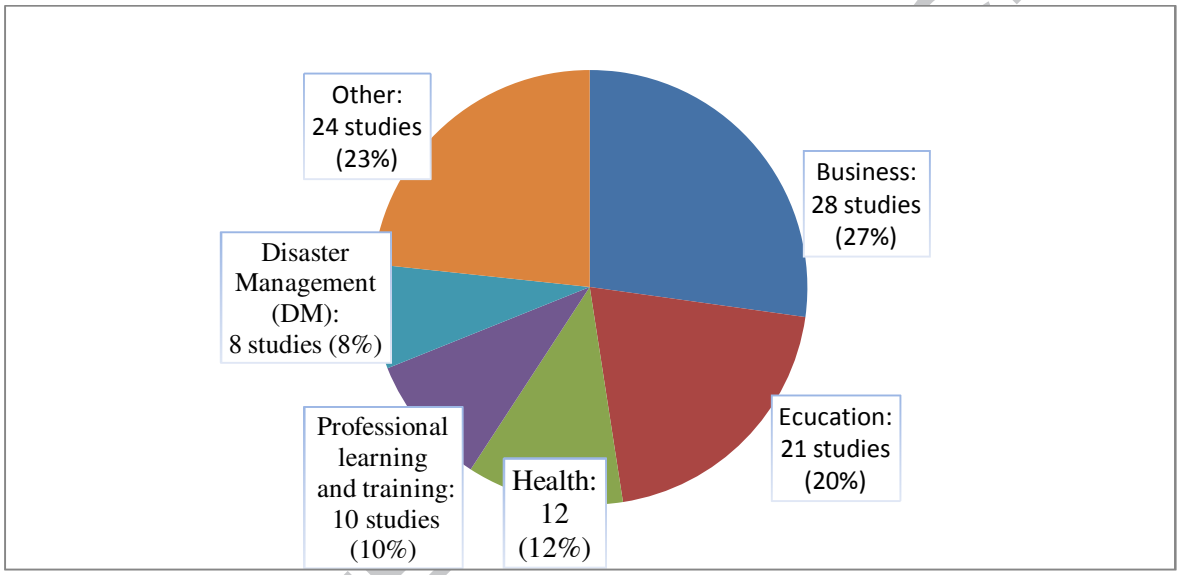

Fig 7 Distribution of Primary Studies, According to their Contexts/Sectors

Table 5
Categorizations of Social Media for Knowledge Sharing Contexts

Context/Sector	Description	References
The business /industry perspective	Social media creates collective knowledge, and serves as a tool for facilitating knowledge sharing and communication processes between business sector managers. It can also help them seek information about customers and suppliers, as well as that about other stakeholders.	(Amidi et al., 2015a; Behringer and Sassenberg, 2015; Bilgihan et al., 2016; Chung et al., 2015; Digmayer and Jakobs, 2014; Harden, 2012; Hashim and Tan, 2015; Hemsley and Mason, 2012; Hung et al., 2015; Jadin et al., 2013; Kim and Benbasat, 2012; Lee and Lim, 2011; Leonardi, 2014; Liu et al., 2015; Liu et al., 2014; Margaryan et al., 2015; Munar and Jacobsen, 2014; Nezakati et al., 2015; Nguyen et al., 2015; Oostervink et al., 2016; Ostrowski, 2011; Pan et al., 2015; Papadopoulos et al., 2013; Pillet and Carillo, 2016; Sigala and Chalkiti, 2015; Stewart and Osei-Bryson, 2013; Wei et al., 2015b; Xiang and Gretzel, 2010)
Education perspective	Within the education field, social media is integrated as an online education tool which allows learners	(Allam et al., 2012; Balubaid, 2013; Chai and Kim, 2010; Chan et al., 2013; Chen and Hung, 2010; Chung et al., 2016; Eid and Al-Jabri, 2016; Forkosh-Baruch and

Context/Sector	Description	References
	to share and generate knowledge within their academic departments, and to perform various functions including teaching, scheduling, registration and course management.	Hershkovitz, 2012; Kaewkitipong et al., 2016b; Kulakli and Mahony, 2014; Lambić, 2016; Li, 2011; Li and Ma, 2014; Ma and Yuen, 2011; Ma et al., 2012; Mahmood and Dahlan, 2013; Osatuyi, 2013; Yan et al., 2016b; Yen, 2016; Yilmaz, 2016; Zhang et al., 2010)
Health perspective	To health professionals, social media provides a means for sharing health knowledge on an online platform through which they can communicate with patients, and exchange knowledge with their fellow clinicians.	(Alali and Salim, 2013; Choo et al., 2015; Dumbrell and Steele, 2014; Gilbert, 2016b; Lee and Jang, 2010; Lee et al., 2015; Li et al., 2016; Oh, 2012; Panahi et al., 2016a; Stewart and Abidi, 2011; Yan et al., 2016)
Disaster Management (DM) perspective	Within the DM context, social media applications are considered a prominent platform for establishing a real-time communication bridge, used to share knowledge in the face of natural and manmade disasters.	(Ahmed et al., 2016; Aisha et al., 2015; Kaewkitipong et al., 2016a; Lu and Yang, 2011; Neubaum et al., 2014; Rice and Spence, 2016; Simon et al., 2015; Yates and Paquette, 2011)
The professional learning and training (PLT) perspective	Social media applications provide unique features used by organizations and HR professionals, for educating and training staff and individuals, across geographical boundaries.	(Alvino et al., 2011; Chakraborty et al., 2013; Fang and Chiu, 2010; Gang and Ravichandran, 2015; Hau and Kang, 2016; Hau and Kim, 2011; Jin et al., 2015; Knees, 2014; Omar et al., 2016; Wu et al., 2015)
Other perspectives	Social media is also used for individual and collective knowledge sharing and communication means, such as online chatting with friends and family, making new friends, sharing photos, audio and video clips, and exchanging generated content that might not be accessible elsewhere.	(Chai and Kim, 2012; Chang and Chuang, 2011; Cheon et al., 2015; Cho et al., 2010; Din and Haron, 2012; Hung and Cheng, 2013; Jarrahi, 2012; Kwahk and Park, 2015; Kwahk and Park, 2016; Lussier et al., 2010; Ma and Chan, 2014; Majumdar and Krishna, 2011; Pai and Yeh, 2014; Park and Lee, 2010; Pee and Lee, 2015; Pi et al., 2013; Seliaman, 2013; Shang et al., 2016; Shiue et al., 2010; Tamjidyamcholo et al., 2014; Wang et al., 2016; Wei et al., 2015a; Yan et al., 2013; Yu et al., 2010)

Table 6
Social Media for Knowledge Sharing Topics/Theme Categorizations

SM for KS Topic Category	Description
SM for KS User behavior	Studies discussing users' perceptions of using SM for KS, their usage intentions, adaptation to new tools, and contributing factors.
Utilizations and benefits	Studies analyzing the utilization of SM for KS, and its benefits for individual and organizational users, helping them meet their needs and objectives.
Platforms and tools	Studies investigating the development of SM platforms, and tools for supporting knowledge sharing processes.
Concerns with privacy	Studies providing details on privacy issues regarding SM for KS, and the uses and risks associated with online sharing.

The research topic is considered a central issue, with content that has thoroughly targeted, examined, and explored by academics (Liang and Turban, 2011). In this review, during the data extracting and synthesis phase, the researchers examined primary studies that focused on main research topics within the subject of the use of social media for knowledge sharing. After an analysis of selected primary studies, we have classified research topics/themes addressed in this review into four main topics. These include user behavior, utilizations and benefits, SM for KS platforms and tools, and privacy concerns. Table 6 provides definitions and explanations for each topic.

Fig 8 presents an overview of research topic categories, as identified by primary studies. As shown in Fig 8, the first category of the research topic is SM for KS user behavior, which has included the greatest number of papers reviewed - specifically 62 articles, or 60% of the selected primary studies. The significant number of studies within this topic were mainly examined, in order to show how emerging social media platforms influence user's behavior, in terms of their knowledge sharing and communication, while also investigating factors that affect social media for knowledge sharing adoption behaviors. For example, studies by Fang and Chiu (2010), Harden (2012), and Papadopoulos et al. (2013) have investigated how factors such as interpersonal trust, helping attitudes, and expectations of relationships, all act as motivation behind a user's decision to utilize social media tools as a method of knowledge sharing.

The second category is utilizations and benefits, a topic highlight by 27 studies, or 26% of the total number of studies. Studies within this topic mainly focused on opportunities and benefits that allow for the use of social media as knowledge sharing and communication platforms, and provide explanations about how individuals and organizations use the tools to achieve their goals. The third category of research classification topic is platforms and tools, including 12 studies, or 12% of the total studies in this review. Most of these studies discuss the design and features of social media sites, and how these sites speed up knowledge exchange and interactions. The final category relates to privacy concerns, where only 2 studies were performed which focused on analyzing users' privacy issues (as shown in Fig 8).

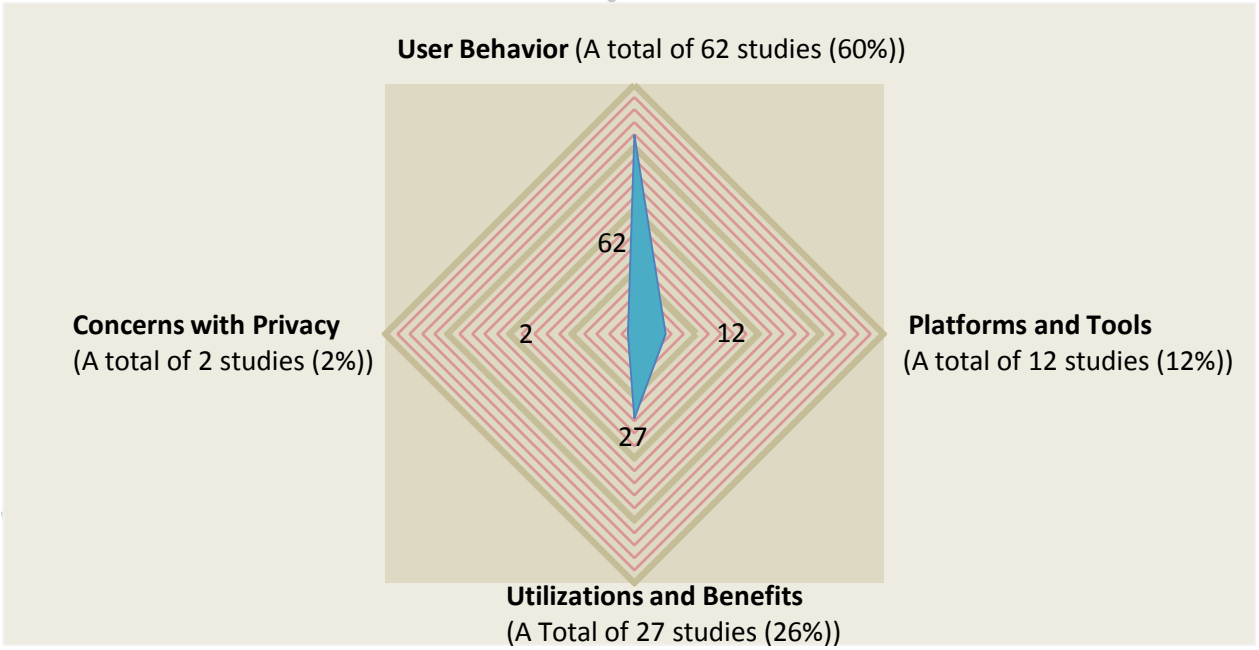

Fig 8 Social Media for Knowledge Sharing - Topic Categories

5.3 What are different theoretical lenses, adopted by research regarding social media use for knowledge sharing? (RQ3)

In accordance with this study's preceding analysis and synthesis of the SLR question results, the reviewed studies highlighted a range of theories and models employed for social media, within the field of knowledge sharing research. Gregor (2006) has classified information system theories into four generic types, with consideration of strategies and central goals, including analysis, explanation, prediction and prescription. The author acknowledged that the combination of these four goals, significantly leads to the creation of five interrelated groups of theories. These include (1) Explanation, (2) Prediction, (3) Explanation and prediction (EP), (4) Design, and (5) Action. Based on the review result, the authors found that the most commonly-used theories in research regarding social media's use in knowledge sharing research, have utilized the types of theories which have EP as their basis. For instance, the EP theory addresses both causal explanations and testable propositions. Likewise, the recent review by Ngai et al. (2015) has categorized EP theories into three groups of returns, including (1) personal behavior, (2) social behavior, and (3) mass communication theories. Table 7 shows a number of theories/models which have been applied to the research of social media for knowledge sharing, mostly based on the individual level theory. Those theories/models applying to the greatest number of studies have been selected and discussed as follows.

As shown in Table 7, a total of 30 theories/models have been identified in primary studies covering this review's different contexts, aiming to explain the socio-psychological behaviors exhibited by the knowledge sharing users of social media. These theories, and the models of social capital theory, are the most commonly-used theories in social behavior. They comprise of both social ties and social interactions. Lu and Yang (2011) explain how during disaster events, each dimension/mechanism of social capital, influences knowledge exchange among individual members or groups through online social networks. Their study was used to examine the effect of three social factors, specifically structural capital, relational capital, and cognitive capital, on knowledge exchange through social media. Based on this review's results, the social capital theory has been used to explore pro-social behaviors, such as individual or group knowledge/information sharing, and interactions among people or communities. For example, studies conducted by Chang and Chuang (2011), and Jin et al. (2015), have applied social capital theory as a means of investigating how social factors, including social ties, trust and others, influence a user's decisions or actions in connection with social media use for knowledge sharing activities.

This systematic literature review has revealed that the second-most used theory in social media for knowledge sharing research, is the Technology Acceptance Model (TAM). This model explains the perceptions of using new technologies, with a focus on ease of use and usefulness, in turn effecting the intention of adopting social media as a tool for knowledge sharing (Hung and Cheng, 2013). The studies included in this review have shown that TAM has been widely applied in research regarding social media's use in knowledge sharing, as a means of looking into different scenarios for knowledge sharing, and at emerging IT. Such studies include those of Alali and Salim (2013), Allam et al. (2012), Bilgihan et al. (2016), Harden (2012), Hung and Cheng (2013), Hung et al. (2015), Pai and Yeh (2014), Papadopoulos et al. (2013), and Seliaman (2013). They discuss assumptions regarding why users are willing to directly share knowledge through new technology, and the related benefits.

Table 7
Theories and Models used in Social Media for Knowledge Sharing Research

Theories and Models	References	N
Adopting Diffusion Theory	(Jadin et al., 2013; Pillet and Carillo, 2016)	2
Attachment Theory	(Chung et al., 2016)	1
Communication Theory	(Leonardi, 2014)	1
Commitment-trust Theory	(Hashim and Tan, 2015)	1
Critical Mass Theory	(Wang et al., 2016)	1
ERG Theory	(Hau and Kim, 2011)	1

Theories and Models	References	N
Field Theory	(Shang et al., 2016)	1
Expectancy Theory	(Behringer and Sassenberg, 2015)	1
ISCM Model	(Hashim and Tan, 2015)	1
IS Success Model	(Alali and Salim, 2013)	1
Learning Performance Model	(Eid and Al-Jabri, 2016)	1
Lead User Theory	(Hau and Kang, 2016)	1
Social Capital Theory	(Chakraborty et al., 2013; Chang and Chuang, 2011; Chung et al., 2016; Hau and Kang, 2016; Jin et al., 2015; Kwahk and Park, 2015; Kwahk and Park, 2016; Lu and Yang, 2011; Pan et al., 2015; Yen, 2016)	10
Social Exchange Theory	(Gang and Ravichandran, 2015; Jin et al., 2015; Li, 2011; Osatuyi, 2013; Yan et al., 2016)	5
Social Cognitive Theory	(Chen and Hung, 2010; Jin et al., 2015; Kwahk and Park, 2015; Kwahk and Park, 2016; Papadopoulos et al., 2013)	5
Social Identity Theory	(Yen, 2016)	1
Social Influence Theory	(Papadopoulos et al., 2013)	1
Social Learning Theory	(Alvino et al., 2011)	1
Social Support Theory	(Li et al., 2016)	1
Socialization and Structuration Theories	(Kaewkitipong et al., 2016a)	1
Task Technology Fit Model	(Lee and Lim, 2011)	1
Technology Acceptance Model (TAM)	(Alali and Salim, 2013; Allam et al., 2012; Bilgihan et al., 2016; Harden, 2012; Hung and Cheng, 2013; Hung et al., 2015; Pai and Yeh, 2014; Papadopoulos et al., 2013; Seliaman, 2013)	9
Theory of Justice	(Fang and Chiu, 2010)	1
Theories of Motivation	(Gilbert, 2016a)	1
Theory of Planned Behavior (TPB)	(Ahmed et al., 2016; Alajmi, 2012; Cho et al., 2010b; Hau and Kim, 2011; Hung et al., 2015; Stewart and Osei-Bryson, 2013)	6
Theory of Reasoned Action (TRA)	(Alajmi, 2012; Gang and Ravichandran, 2015; Harden, 2012; Pi et al., 2013)	4
Transactive Memory System Model	(Chung et al., 2015)	1
Triandis Theory	(Tamjidyamcholo et al., 2014)	1
Uses and Gratification Theory (U&G)	(Aisha et al., 2015; Lee and Jang, 2010; Neubaum et al., 2014; Yen, 2016)	4
Unified Theory of Acceptance and Use of Technology (UTAUT)	(Kaewkitipong et al., 2016b)	1

On considering the review results, the third-most-used theory was the Theory of Planned Behavior (TPB), which explains the individual adoption and implementation of social media for knowledge sharing. Here, the people who willingly participate and engage in knowledge sharing are influenced by four groups of factors, namely attitudes, subjective norms, perceived behavioral control beliefs, and behavioral intentions (Cho et al., 2010). In social media for knowledge sharing research, the TPB model has been implemented through several studies which include those conducted by Alajmi (2012), Cho et al. (2010), and Hung et al. (2015), as a way to seeking the formation of users' behavior, regarding their intention to adopt new technology tools for knowledge sharing.

From the reviewed studies, the fourth-most used theories were the Social Cognitive (SCT) and Social Exchange Theories (SET), which serve to explain social interactions and behaviors, here in the framework of research regarding social media's use in knowledge sharing. Based on both the SCT and SET theories, Jin et al. (2015) summarized four aspects of socio-psychological motives which influence

people's knowledge, contributed to through social media applications which include identity communication, peer recognition, the group-size effect, and social learning. According to Li (2011), SCT has been used to study how personal factors such as outcome expectation and self-efficacy, and environmental factors such as system trust, contribute to individual knowledge sharing behavior. Furthermore, Chen and Hung (2010) use SET to investigate social exchange, by presenting the related benefits of social interactions. For example, SET emphasizes that users who share knowledge with others via social media may want to obtain some future return, whereas SCT emphasizes an individual's belief in his ability to perform a specific action.

These theories and models, applied to the reviewing of primary studies, were largely used to explain individual user behavior in using social media for knowledge sharing, within dissimilar context areas. Therefore, this review might result in critical and theoretical implications among different practitioners.

5.4 What key challenges are faced when using social media for knowledge sharing? (RQ4)

From this review's results, it is evident that social media for knowledge sharing implementation is associated with different forms of behavior, and has the potential to address challenges related to its usage. According to Amidi et al. (2015), the greatest challenge that might be faced when sharing knowledge through online social media tools, is the distribution of tacit knowledge (such as experience, ideas and thoughts) to organization members. Thereby, knowledge embraced by individuals is intensified and internalized, as part of an organization's knowledge base. From this perspective, a number of key challenges might also be faced individuals and organizations. These may relate to the willingness to reuse codified knowledge, the distribution of knowledge across a boundary range of online users, and the building of interpersonal trust (Chen and Hung, 2010).

Researchers have pointed out that the handling and sharing of dynamic knowledge is a particularly difficult task for several oft-cited reasons, including the fear of losing knowledge power, and a perceived lack of personal benefit. Another challenge relates to the costs and time associated with knowledge codification. In terms of the loss of knowledge power, knowledge is considered to be unique, and is seen as a power which individuals may not like to freely distribute. With regards to personal benefits, the same employees may share their knowledge if they feel the benefits of doing so outweigh the costs, or when the results of doing so meet their expectations (Pee and Lee, 2015).

Likewise, Chang and Chuang (2011) have mentioned that the use of social media for knowledge sharing within organizations, is driven by a combination of personal efforts to seek interaction with others, and a willingness to help each other. Therefore, some key challenges might relate to an individual's willingness to engage in a relationship, the personal benefits of doing so, a lack of trust, and a low priority perception regarding the use of social media for knowledge sharing. Furthermore, Stewart and Osei-Bryson (2013) have studied challenges that might affect knowledge contributors within an online atmosphere. The results have shown that the organizational climate, the nature of knowledge and culture, and a lack of leadership and managerial direction, are all key challenges behind the development and promotion of a vision that shapes an online knowledge sharing culture. Table 8 summarizes the key challenges faced when using social media for knowledge sharing.

Table 8

Key Challenges Faced When Using Social Media for Knowledge Sharing

References	Key Challenges	N
(Amidi *et al.*, 2015b; Pee and Lee, 2015)	• Sharing dynamic and tacit knowledge • Costs of codifying knowledge • Perceived lack of personal benefit • Fear of losing knowledge power • Power relationships	5

(Stewart and Osei-Bryson, 2013; Chen and Hung, 2010)	• Cross boundary knowledge sharing • Organizational climate and the nature of knowledge culture • Perceived lack of leadership and managerial direction • The building of interpersonal trust • Willingness to reuse codified knowledge	5
(Alajmi, 2012)	• Unwillingness to share knowledge with others • Individual motivations and reward systems • Intentions to adopt new tools (e.g. SM) for KS • Low user adoption and participation	4
(Chang and Chuang, 2011)	• Personal benefits • Low priority perception, regarding the use of SM for KS • Lack of trust	3

5.5 What are limitations and gaps within current research about social media for knowledge sharing? (RQ5)

This paper's authors reviewed several studies in order to better understand the current use of social media for knowledge sharing. From the results, it has been identified that the concept of using social media for knowledge sharing has evolved rapidly, and has prompted increased attention and interest among practitioners and researchers. However, within the current body of knowledge regarding the use of social media for knowledge sharing purposes, some topics have received limited attention and need greater investigation. Considerably, the private lives of many individuals and organizations have gradually adopted the practice of using social media for knowledge sharing. This study has revealed that very few empirical studies have been conducted in a way that addresses disaster management (DM) context, totaling to only eight studies. Greater efforts are needed to understand and evaluate strategies and approaches which can help disaster management organizations intentionally improve their usage of knowledge sharing via social media tools. It is significant that research addressing social media's knowledge sharing in extreme disaster events, discusses the use of emerging social media features and designs, as related to individual willingness, for use in disaster-related knowledge sharing (Kaewkitipong et al., 2016a; Lu and Yang, 2011).

Additionally, within the reviewed studies, scholars have been evidently very focused on individual level theory, with a few studies also applying organizational level theories as well. It is notable that social media applications have been recognized as being useful for facilitating organizational knowledge sharing activities, included in their daily operations, and in other business matters (Ngai et al., 2015). However, research investigating organizational levels, and their relationship to the adoption and use of social media for knowledge sharing, and the identification of key factors that drive them, remains significantly inadequate. Furthermore, from a methodological aspect, the mixed research method has not been widely used, with only a few studies being conducted. Moreover, as pointed out in this paper, the results of the reviewed studies have mostly examined research topics such user behavior, utilizations, benefits, platforms, and tools applicable for knowledge sharing through social media sites. This considered, the lack of attention regarding the impact of security and privacy concerns, as related to knowledge sharing behaviours on social media sites, has been highlighted by researchers (Chakraborty et al., 2013).

6. Discussion and Conclusions

This paper is based on an intensive literature review, providing an overview of social media for knowledge sharing studies. After performing several steps within the systematic process, 103 studies were

selected which concentrated on the notion of social media for knowledge sharing. Following the data analysis process, the results from the selected primary studies offered a clear, comprehensive overview of the current research which focuses on knowledge sharing through social media, and identified three main activities of social media applications, which include knowledge-seeking, knowledge-contributing, and social interactivity. Moreover, this study's results indicated that various key contributors to social media for knowledge sharing studies have been classified across a range of businesses, education services, health services, disaster management, general professional services, and other entities.

As shown in this review's results, the selected primary studies have been categorized through four research topics/themes of studies, as related to social media for knowledge sharing. These included user behavior, utilizations and benefits, platforms and tools, and concerns with privacy. This finding leads to the conclusion that a large number of studies have focused on users' behaviors regarding social media's use in knowledge sharing, followed by utilizations, benefits, platforms and tools, whereas concerns over privacy have not received sufficient research attention. Conversely, the majority of reviewed articles (52%) have involved quantitative approach studies, while 11% have involved qualitative approach studies, and 5% have been review studies.

Furthermore, theories such as the Social Capital Theory (SCT), the Technology Acceptance Model (TAM), and the Theory of Planned Behavior (TPB), have most frequently been previously used in social media for knowledge sharing implementation. This means that professionals and researchers have aimed to examine how knowledge sharing through social media application can influence a user's intentions and behavior when using social media. Additionally, based on a rigorous analysis of 103 selected papers, the authors discussed the research's gaps and limitations. It can therefore be concluded that this study provides a valuable summary, enabling researchers and practitioners to understand and obtain an overview of the current research and position of social media, regarding knowledge sharing studies. As social media use for knowledge sharing is still a new field of research, this review's results can serve as a reference for other researchers in this field. It can help them discover relevant topics, when seeking to study social media's use in knowledge sharing.

Nevertheless, this review has a series of limitations that also open future lines of research. First, the literature search of this review was initially carried out only papers published in the period from 2010 to 2016. However, research about social media's use in knowledge sharing is still at an early stage, and further publications will continue to surface. Thus, future research should be considered in recently published SM for knowledge sharing studies. This will help increase awareness of the field among professionals and researchers, especially with the continuous proliferation of new social media's use for knowledge sharing applications. Second, even though this study comprehensively examined different theories and models, it does not accurately count the main factors that can influence use of social media for knowledge sharing. This could be required attention in future studies to elaborate how these factors contribute user's behavior. Finally, in the current review, we have eliminated a search for grey literature as it is especially difficult to identify through database searches. Despite this, the review is only considered the suggested databases introduced in the systematic review guidelines. Nevertheless, the study acknowledges that the inclusion of the grey literature in the review could be further improved the validity of results from this SLR. On the other hand, the generalizable results of this review provide the researchers and practitioners with a point of view in the current research position and a good basis for further research in this area.

Appendix A.

Primary Studies References.

SID	References
S1	Aisha, T. S., Wok, S., Manaf, A. M. A., and Ismail, R. (2015). Exploring the use of social media during the 2014 flood in Malaysia. *Procedia-Social and Behavioral Sciences*, *211*, 931-937.
S2	Alali, H., and Salim, J. (2013). Virtual communities of practice success model to support knowledge sharing behaviour in healthcare sector. *Procedia Technology*, *11*, 176-183.
S3	Allam, H., Blustein, J., Bliemel, M., and Spiteri, L. (2012). Knowledge Contribution in Social Media:

SID	References
	Exploring Factors Influencing Social Taggers' Acceptance towards Contributing and Sharing Tags. *Information Systems, Technology and Management*, 112-123.
S4	Amidi, A., Jusoh, Y. Y., Abdullah, R. H., Jabar, M. A., and Khalefa, M. S. (2015, December). An overview on leveraging social media technology for uncovering tacit knowledge sharing in an organizational context. In *2015 9th Malaysian Software Engineering Conference (MySEC)* (pp. 266-271). IEEE.
S5	Balubaid, M. A. (2013). Using Web 2.0 technology to enhance knowledge sharing in an academic department. *Procedia-Social and Behavioral Sciences*, *102*, 406-420.
S6	Behringer, N., and Sassenberg, K. (2015). Introducing social media for knowledge management: Determinants of employees' intentions to adopt new tools. *Computers in Human Behavior*, *48*, 290-296.
S7	Bilgihan, A., Barreda, A., Okumus, F., and Nusair, K. (2016). Consumer perception of knowledge-sharing in travel-related Online Social Networks. *Tourism Management*, *52*, 287-296.
S8	Chai, S., and Kim, M. (2010). What makes bloggers share knowledge? An investigation on the role of trust. *International Journal of Information Management*, *30*(5), 408-415.
S9	Chakraborty, R., Vishik, C., and Rao, H. R. (2013). Privacy preserving actions of older adults on social media: Exploring the behavior of opting out of information sharing. *Decision Support Systems*, *55*(4), 948-956.
S10	Chan, R. C. H., Chu, S. K. W., Lee, C. W. Y., Chan, B. K. T., and Leung, C. K. (2013). Knowledge management using social media: A comparative study between blogs and Facebook. *Proceedings of the Association for Information Science and Technology*, *50*(1), 1-9.
S11	Chang, H. H., and Chuang, S. S. (2011). Social capital and individual motivations on knowledge sharing: Participant involvement as a moderator. *Information & management*, *48*(1), 9-18.
S12	Chen, C. J., and Hung, S. W. (2010). To give or to receive? Factors influencing members' knowledge sharing and community promotion in professional virtual communities. *Information & management*, *47*(4), 226-236.
S13	Gang, K., and Ravichandran, T. (2015). Exploring the determinants of knowledge exchange in virtual communities. *IEEE Transactions on Engineering Management*, *62*(1), 89-99.
S14	Cheon, Y. J., Choi, S. K., Kim, J., and Kwak, K. T. (2015). Antecedents of relational inertia and information sharing in SNS usage: The moderating role of structural autonomy. *Technological Forecasting and Social Change*, *95*, 32-47.
S15	Choo, E. K., Ranney, M. L., Chan, T. M., Trueger, N. S., Walsh, A. E., Tegtmeyer, K., McNamara, S. O., Choi, R. Y., and Carroll, C. L. (2015). Twitter as a tool for communication and knowledge exchange in academic medicine: A guide for skeptics and novices. *Medical teacher*, *37*(5), 411-416.
S16	Chung, N., Lee, S., and Han, H. (2015). Understanding communication types on travel information sharing in social media: A transactive memory systems perspective. *Telematics and Informatics*, *32*(4), 564-575.
S17	Chung, N., Nam, K., and Koo, C. (2016). Examining information sharing in social networking communities: Applying theories of social capital and attachment. *Telematics and Informatics*, *33*(1), 77-91.
S18	Digmayer, C., and Jakobs, E. M. (2014, October). Corporate lifelong learning 2.0: design of knowledge management systems with social media functions as learning tools. In *2014 IEEE International Professional Communication Conference (IPCC)* (pp. 1-9). IEEE.
S19	Din, N., and Haron, S. (2012). Knowledge sharing as a culture among Malaysian online social networking users. *Procedia-Social and Behavioral Sciences*, *50*, 1043-1050.
S20	Dumbrell, D., and Steele, R. (2014). Social media technologies for achieving knowledge management amongst older adult communities. *Procedia-Social and Behavioral Sciences, 50,* 229-236.
S21	Eid, M. I., and Al-Jabri, I. M. (2016). Social networking, knowledge sharing, and student learning: The case of university students. *Computers & Education*, *99*, 14-27.
S22	Fang, Y. H., and Chiu, C. M. (2010). In justice we trust: Exploring knowledge-sharing continuance intentions in virtual communities of practice. *Computers in Human Behavior*, *26*(2), 235-246.
S23	Forkosh-Baruch, A., and Hershkovitz, A. (2012). A case study of Israeli higher-education institutes sharing scholarly information with the community via social networks. *The Internet and Higher Education*, *15*(1), 58-68.
S24	Gilbert, S. (2016). Learning in a Twitter-based community of practice: An exploration of knowledge exchange as a motivation for participation in #hcsmca. *Information, Communication & Society*, *19*(9),

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S25	Harden, G. (2012, January). Knowledge Sharing in the Workplace: A Social Networking Site Assessment. In *45th Hawaii International Conference on System Science (HICSS)* (pp. 3888-3897). IEEE.
S26	Hashim, K. F., and Tan, F. B. (2015). The mediating role of trust and commitment on members' continuous knowledge sharing intention: A commitment-trust theory perspective. *International Journal of Information Management*, *35*(2), 145-151.
S27	Hau, Y. S., and Kim, Y. G. (2011). Why would online gamers share their innovation-conducive knowledge in the online game user community? Integrating individual motivations and social capital perspectives. *Computers in Human Behavior*, *27*(2), 956-970.
S28	Hemsley, J., and Mason, R. M. (2012, January). The Nature of Knowledge in the Social Media Age: Implications for Knowledge Management Models. In *45th Hawaii International Conference on System Science (HICSS)* (pp. 3928-3937). IEEE.
S29	Li, J. (2011, August). Informational cascades and knowledge sharing in virtual communities: An Empirical study. In *2011 2nd International Conference on Artificial Intelligence, Management Science and Electronic Commerce (AIMSEC)* (pp. 3071-3074). IEEE.
S30	Pai, F. Y., and Yeh, T. M. (2014). The effects of information sharing and interactivity on the intention to use social networking websites. *Quality & Quantity: International Journal of Methodology*, *48*(4), 2191-2207.
S31	Jin, J., Li, Y., Zhong, X., and Zhai, L. (2015). Why users contribute knowledge to online communities: An empirical study of an online social Q&A community. *Information & Management*, *52*(7), 840-849.
S32	Kaewkitipong, L., Chen, C. C., and Ractham, P. (2016). A community-based approach to sharing knowledge before, during, and after crisis events: A case study from Thailand. *Computers in Human Behavior*, *54*, 653-666.
S33	Kaewkitipong, L., Chen, C. C., and Ractham, P. (2016). Using social media to enrich information systems field trip experiences: Students' satisfaction and continuance intentions. *Computers in Human Behavior*, *63*, 256-263.
S34	Seliaman, M. E. (2013, June). Exploring the adoption of online discussion forums for knowledge sharing and social relations among virtual communities. In *2013 World Congress on Computer and Information Technology (WCCIT)* (pp. 1-5). IEEE.
S35	Kulakli, A., and Mahony, S. (2014). Knowledge Creation and Sharing with Web 2.0 Tools for Teaching and Learning Roles in So-called University 2.0. *Procedia-Social and Behavioral Sciences*, *150*, 648-657.
S36	Kwahk, K. Y., and Park, D. H. (2016). The effects of network sharing on knowledge-sharing activities and job performance in enterprise social media environments. *Computers in Human Behavior*, *55*, 826-839.
S37	Kwahk, K. Y., and Park, D. H. (2015, January). Network Sharing beyond Knowledge Sharing: The Mediating Role of Tertius Iungens Orientation in Social Media Contexts. In *2015 48th Hawaii International Conference on System Sciences System Sciences (HICSS)* (pp. 3900-3909). IEEE.
S38	Lee, A. S. H., and Lim, T. M. (2011, July). Enhance task-technology fit model by task categorization characteristics for a proposed knowledge creation and sharing model via weblogs. In *2011 7th International Conference on Information Technology in Asia (CITA 11)* (pp. 1-6). IEEE.
S39	Lee, E. J., and Jang, J. W. (2010). Profiling good Samaritans in online knowledge forums: Effects of affiliative tendency, self-esteem, and public individuation on knowledge sharing. *Computers in Human Behavior*, *26*(6), 1336-1344.
S40	Lee, K., Agrawal, A., and Choudhary, A. (2015, August). Mining social media streams to improve public health allergy surveillance. In *Advances in Social Networks Analysis and Mining (ASONAM), 2015 IEEE/ACM International Conference on Computer and Information Technology (WCCIT)* (pp. 815-822). IEEE.
S41	Leonardi, P. M. (2014). Social Media, Knowledge Sharing, and Innovation: Toward a Theory of Communication Visibility. *Information systems research*, *25*(4), 796-816.
S42	Li, S. M., and Ma, W. W. (2014, August). Exploring Interpersonal Relationship and Growth Need Strength on Knowledge Sharing in Social Media. In *International Conference on Hybrid Learning and Continuing Education* (pp. 288-299). Springer, Cham.

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S43	Li, Y., Wang, X., Lin, X., and Hajli, M. (2016). Seeking and sharing health information on social media: A net valence model and cross-cultural comparison. *Technological Forecasting and Social Change*.
S44	Liu, J., Rau, P. L. P., and Wendler, N. (2015). Trust and online information-sharing in close relationships: a cross-cultural perspective. *Behaviour & Information Technology*, *34*(4), 363-374.
S45	Knees, P. (2014, July). The use of social media for music analysis and creation within the GiantSteps project. In *Proceedings of the first international workshop on Social media retrieval and analysis* (pp. 41-42). ACM.
S46	Lu, Y., and Yang, D. (2011). Information exchange in virtual communities under extreme disaster conditions. *Decision Support Systems*, *50*(2), 529-538.
S47	Lussier, J., Raeder, T., and Chawla, N. (2010). User Generated Content Consumption and Social Networking in Knowledge-Sharing OSNs. *Advances in social computing*, 228-237.
S48	Ma, W., Sun, K., and Ma, J. (2012). The Influence of Attachment Styles on Knowledge Sharing in Social Media Environments. *Hybrid Learning*, 231-242.
S49	Ma, W. W., and Chan, A. (2014). Knowledge sharing and social media: Altruism, perceived online attachment motivation, and perceived online relationship commitment. *Computers in Human Behavior*, *39*, 51-58.
S50	Mahmood, J., and Dahlan, H. M. (2013, December). Enhancement of e-learning system by using social network features. In *2013 IEEE Conference on e-Learning, e-Management and e-Services (IC3e)* (pp. 24-29). IEEE.
S51	Majumdar, A., and Krishna, S. (2011, October). Social computing implications for technology usage and team interactions in virtual teams. In *2011 7th International Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom)* (pp. 443-450). IEEE.
S52	Margaryan, A., Boursinou, E., Lukic, D., and de Zwart, H. (2015). Narrating Your Work: an approach to supporting knowledge sharing in virtual teams. *Knowledge Management Research & Practice*, *13*(4), 391-400.
S53	Munar, A. M., and Jacobsen, J. K. S. (2014). Motivations for sharing tourism experiences through social media. *Tourism management*, *43*, 46-54.
S54	Neubaum, G., Rösner, L., Rosenthal-von der Pütten, A. M., and Krämer, N. C. (2014). Psychosocial functions of social media usage in a disaster situation: A multi-methodological approach. *Computers in Human Behavior*, *34*, 28-38.
S55	Nezakati, H., Amidi, A., Jusoh, Y. Y., Moghadas, S., Aziz, Y. A., and Sohrabinezhadtalemi, R. (2015). Review of Social Media Potential on Knowledge Sharing and Collaboration in Tourism Industry. *Procedia-social and behavioral sciences*, *172*, 120-125.
S56	Nguyen, B., Yu, X., Melewar, T. C., and Chen, J. (2015). Brand innovation and social media: Knowledge acquisition from social media, market orientation, and the moderating role of social media strategic capability. *Industrial Marketing Management*, *51*, 11-25.
S57	Omar, M. K., Dahalan, N. A., and Yusoff, Y. H. M. (2016). Social Media Usage, Perceived Team-Efficacy and Knowledge Sharing Behaviour among Employees of an Oil and Gas Organisation in Malaysia. *Procedia Economics and Finance*, *37*, 309-316.
S58	Oostervink, N., Agterberg, M., and Huysman, M. (2016). Knowledge sharing on enterprise social media: Practices to cope with institutional complexity. *Journal of Computer-Mediated Communication*, *21*(2), 156-176.
S59	Osatuyi, B. (2013). Information sharing on social media sites. *Computers in Human Behavior*, *29*(6), 2622-2631.
S60	Ostrowski, D. A. (2011, September). Predictive Semantic Social Media Analysis. In *2011 Fifth IEEE International Conference on Semantic Computing (ICSC)* (pp. 283-290). IEEE.
S61	Panahi, S., Watson, J., and Partridge, H. (2016). Information encountering on social media and tacit knowledge sharing. *Journal of Information Science*, *42*(4), 539-550.
S62	Panahi, S., Watson, J., and Partridge, H. (2016). Conceptualising social media support for tacit knowledge sharing: physicians' perspectives and experiences. *Journal of Knowledge Management*, *20*(2), 344-363.
S63	Papadopoulos, T., Stamati, T., and Nopparuch, P. (2013). Exploring the determinants of knowledge sharing via employee weblogs. *International Journal of Information Management*, *33*(1), 133-146.
S64	Pee, L. G., and Lee, J. (2015). Intrinsically motivating employees' online knowledge sharing: Understanding the effects of job design. *International Journal of Information Management*, *35*(6), 679-

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S65	Pi, S. M., Chou, C. H., and Liao, H. L. (2013). A study of Facebook Groups members' knowledge sharing. *Computers in Human Behavior*, *29*(5), 1971-1979.
S66	Pillet, J. C., and Carillo, K. D. A. (2016). Email-free collaboration: An exploratory study on the formation of new work habits among knowledge workers. *International Journal of Information Management*, *36*(1), 113-125.
S67	Rice, R. G., and Spence, P. R. (2016). Thor visits Lexington: Exploration of the knowledge-sharing gap and risk management learning in social media during multiple winter storms. *Computers in Human Behavior*, *65*, 612-618.
S68	Shang, S. S., Wu, Y.-L., and Li, E. Y. (2016). Field effects of social media platforms on information-sharing continuance: Do reach and richness matter? *Information & Management.*
S69	Shiue, Y. C., Chiu, C. M., and Chang, C. C. (2010). Exploring and mitigating social loafing in online communities. *Computers in Human Behavior*, *26*(4), 768-777.
S70	Sigala, M., and Chalkiti, K. (2015). Knowledge management, social media and employee creativity. *International Journal of Hospitality Management*, *45*, 44-58.
S71	Simon, T., Goldberg, A., and Adini, B. (2015). Socializing in emergencies—A review of the use of social media in emergency situations. *International Journal of Information Management*, *35*(5), 609-619.
S72	Yan, Z., Wang, T., Chen, Y., and Zhang, H. (2016). Knowledge sharing in online health communities: A social exchange theory perspective. *Information & Management*, *53*(5), 643-653.
S73	Stewart, G., and Osei-Bryson, K. M. (2013). Exploration of factors that impact voluntary contribution to electronic knowledge repositories in organizational settings. *Knowledge Management Research & Practice*, *11*(3), 288-312.
S74	Stewart, S. A., and Abidi, S. S. R. (2011, January). Using Social Network Analysis to Study the Knowledge Sharing Patterns of Health Professionals Using Web 2.0 Tools. In *International Joint Conference on Biomedical Engineering Systems and Technologies* (pp. 335-352). Springer, Berlin, Heidelberg.
S75	Tamjidyamcholo, A., Baba, M. S. B., Shuib, N. L. M., and Rohani, V. A. (2014). Evaluation model for knowledge sharing in information security professional virtual community. *Computers & Security*, *43*, 19-34.
S76	Wang, J., Yang, J., Chen, Q., and Tsai, S. B. (2016). Creating the sustainable conditions for knowledge information sharing in virtual community. *SpringerPlus*, *5*(1), 1-9.
S77	Wei, C. P., Lin, W. B., Chen, H. C., An, W. Y., and Yeh, W. C. (2015). Finding experts in online forums for enhancing knowledge sharing and accessibility. *Computers in Human Behavior*, *51*, 325-335.
S78	Wu, L., Pa, N. C., Abdullah, R., and Rahman, W. N. W. A. (2015, December). An analysis of knowledge sharing behaviors in requirement engineering through social media. In *Software Engineering Conference (MySEC), 2015 9th Malaysian* (pp. 93-98). IEEE.
S79	Xiang, Z., and Gretzel, U. (2010). Role of social media in online travel information search. *Tourism management*, *31*(2), 179-188.
S80	Yates, D., and Paquette, S. (2011). Emergency knowledge management and social media technologies: A case study of the 2010 Haitian earthquake. *International journal of information management*, *31*(1), 6-13.
S81	Jarrahi, M. H. (2012, October). Social technologies and knowledge sharing within and across organizations. In *Proceedings of the 17th ACM international conference on Supporting group work* (pp. 287-288). ACM.
S82	Yen, C. (2016). How to unite the power of the masses? Exploring collective stickiness intention in social network sites from the perspective of knowledge sharing. *Behaviour & Information Technology*, *35*(2), 118-133.
S83	Yilmaz, R. (2016). Knowledge sharing behaviors in e-learning community: Exploring the role of academic self-efficacy and sense of community. *Computers in Human Behavior*, *63*, 373-382.
S84	Yu, T. K., Lu, L. C., and Liu, T. F. (2010). Exploring factors that influence knowledge sharing behavior via weblogs. *Computers in Human Behavior*, *26*(1), 32-41.
S85	Liu, W., Zhang, X., and Jin, F. (2014, October). Framework of Knowledge Sharing in Software Organizations Using Big Data and Social Network. In *2014 International Conference on Management of e-Commerce and e-Government (ICMeCG)* (pp. 268-272). IEEE.

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S86	Chai, S., and Kim, M. (2012). A socio-technical approach to knowledge contribution behavior: An empirical investigation of social networking sites users. *International Journal of Information Management*, *32*(2), 118-126.
S87	Park, B. W., and Lee, K. C. (2010). Effects of knowledge sharing and social presence on the intention to continuously use social networking sites: The case of twitter in Korea. *U-and E-service, science and technology*, 60-69.
S88	Hau, Y. S., and Kang, M. (2016). Extending lead user theory to users' innovation-related knowledge sharing in the online user community: The mediating roles of social capital and perceived behavioral control. *International Journal of Information Management*, *36*(4), 520-530.
S89	Ma, W. W., and Yuen, A. H. (2011). Understanding online knowledge sharing: An interpersonal relationship perspective. *Computers & Education*, *56*(1), 210-219.
S90	Pan, Y., Xu, Y. C., Wang, X., Zhang, C., Ling, H., and Lin, J. (2015). Integrating social networking support for dyadic knowledge exchange: A study in a virtual community of practice. *Information & Management*, *52*(1), 61-70.
S91	Lambić, D. (2016). Correlation between Facebook use for educational purposes and academic performance of students. *Computers in Human Behavior*, *61*, 313-320.
S92	Alvino, F., Agrifoglio, R., Metallo, C., and Lepore, L. (2011). Learning and Knowledge Sharing in Virtual Communities of Practice: A Case Study. In *Information technology and innovation trends in organizations* (pp. 425-432), Physica-Verlag HD.
S93	Jadin, T., Gnambs, T., and Batinic, B. (2013). Personality traits and knowledge sharing in online communities. *Computers in Human Behavior*, *29*(1), 210-216.
S94	Hung, S. W., and Cheng, M. J. (2013). Are you ready for knowledge sharing? An empirical study of virtual communities. *Computers & Education*, *62*, 8-17.
S95	Oh, S. (2012). The characteristics and motivations of health answerers for sharing information, knowledge, and experiences in online environments. *Journal of the Association for Information Science and Technology*, *63*(3), 543-557.
S96	Zhang, Y., Fang, Y., Wei, K. K., and Chen, H. (2010). Exploring the role of psychological safety in promoting the intention to continue sharing knowledge in virtual communities. *International Journal of Information Management*, *30*(5), 425-436.
S97	Cho, H., Chen, M., and Chung, S. (2010). Testing an integrative theoretical model of knowledge-sharing behavior in the context of Wikipedia. *Journal of the Association for Information Science and Technology*, *61*(6), 1198-1212.
S98	Hung, S. Y., Lai, H. M., and Chou, Y. C. (2015). Knowledge-sharing intention in professional virtual communities: A comparison between posters and lurkers. *Journal of the Association for Information Science and Technology*, *66*(12), 2494-2510.
S99	Alajmi, B. M. (2012). The Intention to Share: Psychological Investigation of Knowledge Sharing Behaviour in Online Communities. *Journal of Information & Knowledge Management*, *11*(03), 1250022.
S100	Wei, X., Chen, W., and Zhu, K. (2015, January). Motivating User Contributions in Online Knowledge Communities: Virtual Rewards and Reputation. In *2015 48th Hawaii International Conference on System Sciences (HICSS)* (pp. 3760-3769). IEEE.
S101	Ahmed, Y. A., Ahmad, M. N., and Zakaria, N. H. (2016). Towards Exploring Factors that Influence Social Media-Based Knowledge Sharing Intentions in Disaster Management. *Journal of Theoretical and Applied Information Technology*, *88*(3), 487.
S102	Yan, Y., Davison, R. M., and Mo, C. (2013). Employee creativity formation: The roles of knowledge seeking, knowledge contributing and flow experience in Web 2.0 virtual communities. *Computers in Human Behavior*, *29*(5), 1923-1932.
S103	Kim, T. H., and Benbasat, I. (2012, January). Effectiveness of Knowledge Seeking Behaviors Embedded in Social Networks: A Perspective of Individuals in Workplaces. In *2012 45th Hawaii International Conference on System Science (HICSS)* (pp. 3848-3857). IEEE.

Appendix B.

Quality Assessment Scores of Each Selected Studies. QAC Stands for "Quality Assessment Criterion"

SID	QA1	QA2	QA3	QA4	QA5	Total Score
S1	2	2	2	2	2	**10**
S2	2	2	2	2	1	**9**
S3	1	2	1	2	2	**8**
S4	2	2	2	1	0	**7**
S5	2	2	1	0	0	**5**
S6	1	2	2	1	1	**7**
S7	2	2	2	2	2	**10**
S8	2	2	1	2	2	**9**
S9	2	1	1	1	0	**5**
S10	1	1	2	1	2	**7**
S11	2	2	1	2	2	**9**
S12	2	2	2	2	2	**10**
S13	2	2	1	1	1	**7**
S14	2	2	1	1	1	**7**
S15	2	2	2	1	0	**7**
S16	2	1	1	1	0	**5**
S17	2	2	2	1	2	**9**
S18	2	2	1	1	1	**7**
S19	2	2	2	2	2	**10**
S20	2	1	1	1	1	**6**
S21	2	2	1	1	1	**7**
S22	2	2	1	1	2	**8**
S23	2	2	1	1	1	**7**
S24	2	1	1	2	1	**7**
S25	2	2	1	1	1	**7**
S26	2	2	2	2	2	**10**
S27	2	1	1	2	2	**8**
S28	2	1	1	1	0	**5**
S29	2	2	1	2	2	**9**
S30	2	2	1	1	1	**7**
S31	2	2	2	2	1	**9**
S32	2	2	2	2	2	**10**
S33	1	2	1	1	2	**7**
S34	2	2	1	2	1	**8**
S35	2	2	1	1	1	**7**
S36	2	2	2	2	2	**10**
S37	2	2	1	1	1	**7**
S38	2	2	1	1	1	**7**
S39	2	2	2	1	1	**8**
S40	2	1	1	1	0	**5**
S41	2	1	2	1	1	**7**
S42	2	2	1	1	1	**7**
S43	2	2	2	1	2	**9**
S44	2	1	1	1	1	**6**
S45	2	2	1	1	0	**6**
S46	2	2	2	2	2	**10**
S47	2	1	1	1	1	**6**
S48	2	2	1	1	1	**7**
S49	2	2	2	2	1	**9**

SID	QA1	QA2	QA3	QA4	QA5	Total Score
S50	2	2	2	1	1	**8**
S51	1	1	2	1	0	**5**
S52	2	2	1	1	1	**7**
S53	2	1	1	1	1	**6**
S54	2	2	1	1	1	**7**
S55	2	2	2	1	0	**7**
S56	2	1	1	1	1	**6**
S57	2	2	2	1	1	**8**
S58	2	1	1	1	1	**6**
S59	2	2	2	2	2	**10**
S60	2	1	2	1	1	**7**
S61	2	2	2	1	2	**9**
S62	2	2	1	1	0	**6**
S63	2	2	2	2	2	**10**
S64	2	2	1	1	1	**7**
S65	2	2	2	2	2	**10**
S66	2	1	0	1	1	**5**
S67	2	2	2	1	1	**8**
S68	2	2	1	1	1	**7**
S69	1	2	1	1	1	**6**
S70	2	2	2	2	1	**9**
S71	1	2	2	1	0	**6**
S72	2	2	1	1	1	**7**
S73	2	2	1	1	1	**7**
S74	2	1	1	0	1	**5**
S75	2	2	2	2	2	**10**
S76	2	2	1	1	1	**7**
S77	2	2	1	0	0	**5**
S78	2	2	2	2	1	**9**
S79	2	1	1	1	1	**6**
S80	2	2	2	1	0	**7**
S81	2	1	1	1	0	**5**
S82	2	2	2	2	2	**10**
S83	2	2	1	1	1	**7**
S84	2	2	2	2	2	**10**
S85	2	2	2	1	1	**8**
S86	2	2	2	2	2	**10**
S87	2	2	1	1	1	**7**
S88	2	2	2	1	2	**9**
S89	2	2	1	1	1	**7**
S90	2	2	2	1	1	**8**
S91	1	2	1	1	1	**6**
S92	2	2	1	1	1	**7**
S93	2	2	2	2	2	**10**
S94	2	2	2	1	1	**8**
S95	2	2	1	1	1	**7**
S96	2	2	1	1	1	**7**
S97	1	1	1	1	1	**5**
S98	2	2	2	2	2	**10**

SID	QA1	QA2	QA3	QA4	QA5	Total Score
S99	2	2	2	1	1	**8**
S100	2	2	1	1	1	**7**
S101	2	2	2	0	0	**6**
S102	2	2	2	1	2	**9**
S103	2	2	1	1	1	**7**

Appendix C.
Journals, Conferences, Books and Workshops List

Acronym	Full Name of Journals, conferences papers, book chapters and workshop lists	Type	Count
CHB	Computers in Human Behavior	Journal	18
TM	Tourism Management	Journal	3
IJIM	International Journal of Information Management	Journal	10
DSS	Decision Support Systems	Journal	2
IM	Information and Management	Journal	7
TEM	IEEE transactions on engineering management	Journal	1
TFSC	Technological Forecasting and Social Change	Journal	2
MT	Medical Teacher	Journal	1
TELE	Telematics and Informatics	Journal	2
CE	Computers and Education	Journal	4
IGE	Internet and Higher Education	Journal	1
ICS	Information, Communication and Society	Journal	1
IJM	International Journal of Methodology	Journal	1
ISR	Information Systems Research	Journal	1
BIT	Behaviour and Information Technology	Journal	2
KMRP	Knowledge Management Research and Practice	Journal	2
IMM	Industrial Marketing Management	Journal	1
JCMC	Journal of Computer-Mediated Communication	Journal	1
JIS	Journal of Information Science	Journal	1
JKM	Journal of Knowledge Management	Journal	1
IJHM	International Journal of Hospitality Management	Journal	1
CS	Computers and Security	Journal	1
SP	Springer Plus	Journal	1
JASIST	Journal of the Association for Information Science and Technology	Journal	2
JIKM	Journal of Information and Knowledge Management	Journal	1
JATIT	Journal of Theoretical and Applied Information Technology	Journal	1
HICSS	Hawaii International Conference on System Sciences	Conference	4
GCBSS	Global Conference on Business and Social Science	Conference	2
ICEEI	International Conference on Electrical Engineering and Informatics	Conference	1
ICISTM	International Conference on Information Systems, Technology and Management	Conference	1
MySEC	Malaysian Software Engineering Conference	Conference	2
IFEE	International Forum on Engineering Education	Conference	1
IPCC	IEEE International Professional Communication Conference	Conference	1

Acronym	Full Name of Journals, conferences papers, book chapters and workshop lists	Type	Count
AcE-Bs	ASEAN Conference on Environment-Behavior Studies	Conference	1
IC-ININFO	International Conference on Integrated Information	Conference	1
AIMSEC	International Conference on Artificial Intelligence, Management Science and Electronic Commerce	Conference	1
WCCIT	World Congress on Computer and Information Technology	Conference	1
ISMC	International Strategic Management Conference	Conference	1
CITA	International Conference on IT in Asia	Conference	1
ASONAM	IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining	Conference	1
ICHCE	International Conference on Hybrid Learning and Continuing Education	Conference	1
ICSCBM &P	International Conference on Social Computing, Behavioral Modeling, and Prediction	Conference	1
ICHL	International Conference on Hybrid Learning	Conference	1
IC3e	IEEE Conference on e-Learning, e-Management and e-Services	Conference	1
CBRIB	ASIS&T conference on Beyond the Cloud: Rethinking Information Boundaries	Conference	1
INCOMaR	International Conference on Marketing and Retailing	Conference	1
ICSC	IEEE International Conference on Semantic Computing	Conference	1
IJCBIOSTEC	International Joint Conference on Biomedical Engineering Systems and Technologies	Conference	1
ICSGW	International conference on Supporting group work	Conference	1
ICMeCeG	International Conference on Management of e-Commerce and e-Government	Conference	1
UNESST	International Conference on U-and E-Service, Science and Technology	Conference	1
ICCCNA	International Conference on Collaborative Computing: Networking Applications and Work-sharing	Conference	1
ITITO	Book chapter on Information Technology and Innovation Trends in Organizations	Book Chapter	1
UCOSNK	Book chapter on user generated content consumption and social networking in knowledge sharing OSNs	Book Chapter	1
SoMeRA	Proceedings of the first international workshop on social media retrieval and analysis	Workshop	1

Appendix D: Data Extraction Form.

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
S1	Aisha et al. (2015)	Exploring the Use of Social Media During the 2014 Flood in Malaysia	Malaysia	Disaster	Utilization and Benefits	Quantitative	Survey	507	Uses and gratification theory(U&G)	Conference: (GCBSS)	Science Direct
S2	Alali and Salim(2013)	Virtual Communities of Practice Success Model to Support Knowledge Sharing Behaviour in Healthcare Sector	Jordan	Health	Utilization and Benefits	Quantative	Survey	362	IS success model and Technology Acceptance Model (TAM)	Conference (ICEEI)	Science Direct
S3	Allam et al . (2012)	Knowledge Contribution in Social Media : Exploring	Canada	Education	User Behavior	Quantative	Survey	87	Technology Acceptance Model (TAM)	Conference (ICISTM)	Springerlink

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		Factors Influencing Social Taggers ' Acceptance towards Contributing and Sharing Tags									
S4	Amidi et al. (2015)	An Overview on Leveraging Social Media Technology for Uncovering Tacit Knowledge Sharing in an Organizational Context	Malaysia	Business	Platforms and Tools	Review	Unclear	_	_	Conference (MySEC)	IEEE
S5	Balubaid, (2013)	Using Web 2.0 Technology to Enhance Knowledge Sharing in an Academic Department	Saudi arabia	Education	Platforms and Tools	Quantative	Survey	77	Unclear	Conference(IFEE)	Science Direct
S6	Behringer and Sassenberg , (2015)	Introducing social media for knowledge management: Determinants of employees' intentions to adopt new tools	Germany	Business	User Behavior	Quantative	Survey	315	Expectancy theory	Journal (CHB)	Science Direct
S7	Bilgihan et al.(2016)	Consumer perception of knowledge-sharing in travel-related Online Social Networks	USA	Business	User Behavior	Quantative	Survey	322	Technology Acceptance Model (TAM)	Journal (TM)	Science Direct
S8	Chai and Kim, (2010)	What makes bloggers share knowledge? An investigation on the role of trust	USA	Education	User Behavior	Quantative	Survey	485	Unclear	Journal (IJIM)	ISI Web of Knowledge
S9	Chakrabort y et al. (2013)	Privacy preserving actions of older adults on social media: Exploring the behavior of opting out of information sharing	USA	Professional & training	Concerns with privacy	Unclear	_	50	Social capital theory	Journal (DSS)	Science Direct
S10	Chan et al. (2013)	Knowledge management using social media: a comparative study between blogs and Facebook	China	Education	Utilization and Benefits	Mixed-method	Interviews	73	Unclear	Conference (CBRIB)	Scopus
S11	Chang and Chuang, (2011)	Social capital and individual motivations on knowledge sharing: Participant involvement as a moderator	Taiwan	Others	User Behavior	Quantative	Survey	282	social capital theory	Journal (IM)	Science Direct
S12	Chen and Hung,(201 0)	To give or to receive? Factors influencing	Taiwan	Education	User Behavior	Quantative	Survey	323	Social Cognitive Theory (SCT)	Journal (IM)	Science Direct

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		members' knowledge sharing and community promotion in professional virtual communities									
S13	Gang and Ravichandran,(2015)	Exploring the Determinants of Knowledge Exchange in Virtual Communities	South Korea	Professional & training	User Behavior	Quantative	Survey	118	TRA and social exchange theory (SE)	Journal (TEM)	IEEE
S14	Cheon et al., (2015)	Antecedents of relational inertia and information sharing in SNS usage: The moderating role of structural autonomy	South Korea	Others	User Behavior	Quantative	Survey	320	Unclear	Journal (TFSC)	Science Direct
S15	Choo *et al.* (2015)	Twitter as a tool for communication and knowledge exchange in academic medicine: A guide for skeptics and novices	USA	Health	Utilization and Benefits	Review	Unclear	–	–	Journal (MT)	ISI Web of Knowledge
S16	Chung et al., (2015)	Understanding communication types on travel information sharing in social media: A transactive memory systems perspective	South Korea	Business	User Behavior	Quantative	Survey	309	Transactive Memory System model	Journal (TELE)	Science Direct
S17	Chung et al.,(2016)	Examining information sharing in social networking communities: Applying theories of social capital and attachment	South Korea	Education	User Behavior	Quantative	Survey	502	Attachment theory and Social capital theory	Journal (TELE)	Science Direct
S18	Digmayer and Jakobs, (2014)	Corporate lifelong learning 2.0: design of knowledge management systems with social media functions as learning tools	Germany	Business	Platforms and Tools	Qualitative	Interview	7	Unclear	Conference (IPCC)	IEEE
S19	Din and Haron, (2012)	Knowledge Sharing as a Culture among Malaysian Online Social Networking Users	Malaysia	Others	Utilization and Benefits	Qualitative	Interview	25	Unclear	Conference (ASEAN)	Science Direct
S20	umbrell and Steele, (2014)	Social Media Technologies for Achieving Knowledge Management Amongst Older	Australia	Health	Utilization and Benefits	Quantative	Survey	150	Unclear	Conference (ICININFO)	Science Direct

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		Adult Communities									
S21	Eid and Al-Jabri, (2016)	Social networking, knowledge sharing, and student learning: The case of university students	Saudi Arabia	Education	Utilization and Benefits	Quantative	Survey	308	Unclear	Journal (CE)	Science Direct
S22	Fang and Chiu,(2010)	In justice we trust: Exploring knowledge-sharing continuance intentions in virtual communities of practice	Taiwan	Professional & training	User Behavior	Quantative	Survey	142	A Theory of Justice	Journal (CHB)	Science Direct
S23	Forkosh-Baruch and Hershkovitz, (2012)	A case study of Israeli higher-education institutes sharing scholarly information with the community via social networks	Israeli	Education	Utilization and Benefits	Qualitative	Interview	73	Unclear	Journal (IHE)	ISI Web of Knowledge
S24	Gilbert, (2016)	Learning in a Twitter-based community of practice: an exploration of knowledge exchange as a motivation for participation in #hcsmca	Canada	Health	User Behavior	Qualitative	Interview	24	theories of motivation	Journal (ICS)	ISI Web of Knowledge
S25	Harden, (2012)	Knowledge sharing in the workplace: A social networking site assessment	USA	Business	User Behavior	Unclear	_	_	TAM and Theory of reasoned action(TRA)	Conference (HICSC)	IEEE
S26	Hashim and Tan, (2015)	The mediating role of trust and commitment on members' continuous knowledge sharing intention: A commitment-trust theory perspective	Malaysia	Business	User Behavior	Quantative	Survey	220	Commitment-trust theory (CTT) and ISCM model	Journal (IJIM)	Science Direct
S27	Hau and Kim, (2011)	Why would online gamers share their innovation-conducive knowledge in the online game user community? Integrating individual motivations and social capital perspectives	South Korea	Professional & training	User Behavior	Quantative	Survey	1244	Theory of planned behavior (TPB) and and ERG theory	Journal (CHB)	Science Direct
S28	Hemsley and Mason, (2012)	The nature of knowledge in the social media age: Implications for	USA	Business	Utilization and Benefits	Review	Unclear	_	_	Conference (HICSS)	IEEE

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		knowledge management models									
S29	Li, (2011)	Informational cascades and knowledge sharing in virtual communities: An Empirical study	China	Education	User Behavior	Quantative	Survey	213	Social cognitive theory	Conference (AIMSEC)	IEEE
S30	Pai and Yeh, (2014)	The effects of information sharing and interactivity on the intention to use social networking websites	Taiwan	Others	User Behavior	Quantative	Survey	304	Technology Acceptance Model (TAM)	Journal (QQIJM)	Springerlink
S31	Jin et al., (2015)	Why users contribute knowledge to online communities: An empirical study of an online social Q&A community	China	Professional & training	User Behavior	Unclear	_	1006	SCT, SET, and social cognitive theory,	Journal (IM)	Science Direct
S32	Kaewkitipong et al., (2016)	A community-based approach to sharing knowledge before, during, and after crisis events: A case study from Thailand	Thailand	Disaster	Utilization and Benefits	Qualitative	Interview	Unclear	socialization and structuration theories	Journal (CHB)	Science Direct
S33	Kaewkitipong *et al.*, (2016b)	Using social media to enrich information systems field trip experiences: Students' satisfaction and continuance intentions	Thailand	Education	User Behavior	Quantative	Survey	169	Unified Theory of Acceptance and Use of Technology (UTAUT)	Journal (CHB)	Science Direct
S34	Seliaman, (2013)	Exploring the Adoption of Online Discussion Forums for knowledge Sharing and Social Relations among Virtual Community	Sudan	Others	User Behavior	Quantative	Survey	123	Technology Acceptance Model (TAM)	Conference (WCCIT)	IEEE
S35	Kulakli and Mahony, (2014)	Knowledge Creation and Sharing with Web 2.0 Tools for Teaching and Learning Roles in So-called University 2.0	UK	Education	Utilization and Benefits	Review	_	_	_	Conference (ISMC)	Science Direct
S36	Kwahk and Park, (2016)	The effects of network sharing on knowledge-sharing activities and job performance in enterprise social media environments	South Korea	Others	Utilization and Benefits	Quantative	Survey	259	Socialcognitive theory and socialcapitaltheory	Journal (CHB)	Science Direct
S37	Kwahk	Network sharing	South	Others	Utilization and	Quantative	Survey	259	Social	Conference	IEEE

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
	and Park,(2015)	beyond knowledge sharing: The mediating role of tertius iungens orientation in social media contexts	Korea		Benefits				cognitive and social capital theories	(HICSS)	
S38	(Lee and Lim, (2011)	Enhance task-technology fit model by task categorization characteristics for a proposed knowledge creation and sharing model via weblogs	Malaysia	Business	User Behavior	Unclea	_	_	Task technology fit model	Conference (CITA)	IEEE
S39	Lee and Jang, (2010)	Profiling good Samaritans in online knowledge forums: Effects of affiliative tendency, self-esteem, and public individuation on knowledge sharing	South Korea	Health	User Behavior	Quantative	Survey	82	Uses and gratification theory	Journal (CHB)	Science Direct
S40		Mining Social Media Streams to Improve Public Health Allergy Surveillance	USA	Health	Utilization and Benefits	Unclear	_	_	_	Conference((ASONAM)	IEEE
S41	Leonardi, (2014)	Social Media , Knowledge Sharing , and Innovation : Toward a Theory of Communication Visibility Social Media , Knowledge Sharing , and Innovation : Toward a Theory of Communication Visibility	USA	Business	Platforms and Tools	Qualitative	Interview	16	Communicatio n theory	Journal (ISR)	ISI Web of Knowledge
S42	Li and Ma, (2014)	Exploring interpersonal relationship and growth need strength on knowledge sharing in social media	China	Education	User Behavior	Quantative	Survey	485	Unclear	Conference (ICHCE)	Springerlin k
S43	Li et al., (2016)	Seeking and sharing health information on social media: A net valence model and cross-cultural comparison	China	Health	User Behavior	Quantitive	Survey	293	Social support theory	Journal (TFSC)	Science Direct
S44	Liu et al., (2015)	Trust and online information-sharing in close relationships: a	Germany	Business	User behavior	Unclear	Survey	400	Unclear	Journal (BIT)	ISI Web of Knowledge

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		cross-cultural perspective									
S45	(Knees, 2014)	The Use of Social Media for Music Analysis and Creation Within the GiantSteps Project	Austria	Professional & training	Platforms and Tools	Presentation and discussions	Unclear	_	_	Workshop (SoMeRA)	ACM DL
S46	Lu and Yang, (2011)	Information exchange in virtual communities under extreme disaster conditions	China	Disaster	User Behavior	Quantative	Survey	475	social capital theory	Journal (DSS)	Science Direct
S47	Lussier et al., (2010)	User Generated Content Consumption and Social Networking in Knowledge-Sharing OSNs Social Network Knowledge	USA	Others	User Behavior	Unclear	_	_	_	Bchapter (UCOSNK)	Springerlink
S48	Ma et al., (2012)	The influence of attachment styles on knowledge sharing in social media environments	China	Education	User Behavior	Quantative	Survey	3590	Unclear	Conference (ICHL)	Springerlink
S49	Ma and Chan, (2014)	Knowledge sharing and social media: Altruism, perceived online attachment motivation, and perceived online relationship commitment	China	Others	User Behavior	Quantitive	Survey	299	Unclear	Journal (CHB)	Science Direct
S50	Mahmood and Dahlan, (2013)	Enhancement of e-learning system by using social network features	Malaysia	Education	Platforms and Tools	Quantitive	Survey	50	Unclear	Conference (C3e)	IEEE
S51	Majumdar and Krishna, (2011)	Social computing implications for technology usage and team interactions in virtual teams	India	Others	User Behavior	Unclear	Unclear	Unclear	Unclear	Conference (ICCCN)	IEEE
S52	Margaryan et al., (2015)	Narrating Your Work: an approach to supporting knowledge sharing in virtual teams	UK	Business	Utilization and Benefits	Mixed-method	Survey, Interview	28	Unclear	Journal (KMRP)	Springerlink
S53	Munar and Jacobsen, (2014)	Motivations for sharing tourism experiences through social media	Denmark , and Norway	Business	User Behavior	Quantitive	Survey	398	Unclear	Journal (TM)	Science Direct
S54	Neubaum et al., (2014)	Psychosocial functions of social media usage in a disaster	Germany	Disaster	User Behavior	Mixed-method	Survey , interview	181	Uses and gratification theory	Journal (CHB)	Science Direct

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		situation: A multi-methodological approach									
S55	Nezakati et al., (2015)	Review of Social Media Potential on Knowledge Sharing and Collaboration in Tourism Industry	Malaysia	Business	Utilization and Benefits	Review	Unclear	_	_	Conference (GCBSS)	Science Direct
S56	Nguyen et al., (2015)	Brand innovation and social media: Knowledge acquisition from social media, market orientation, and the moderating role of social media strategic capability	China	Business	Utilization and Benefits	Quantitive	Survey	357	Unclear	Journal (IMM)	ISI Web of Knowledge
S57	Omar et al., (2016)	Social Media Usage, Perceived Team-Efficacy and Knowledge Sharing Behaviour among Employees of an Oil and Gas Organisation in Malaysia	Malaysia	Professional & training	User Behavior	Quantative	Survey	98	Unclear	Confeence (INCOMA)	Science Direct
S58	(Oostervink et al., 2016)	Knowledge Sharing on Enterprise Social Media: Practices to Cope With Institutional Complexity	Netherlandss	Business	User Behavior	qualitative	Interview	50	Unclear	Journal (JCMC)	ISI Web of Knowledge
S59	Osatuyi (2013)	Information sharing on social media sites	USA	Education	Utilization and Benefits	Quantative	Survey	200	Social exchange theory	Journal (CHB)	Science Direct
S60	Ostrowski, (2011)	Predictive semantic social media analysis	USA	Business	User Behavior	Unclear	Unclear	_	_	Confeence (ICSC)	IEEE
S61	Panahi et al., (2016)	Information encountering on social media and tacit knowledge sharing	Australia	Health	Platforms and Tools	Qualitative	Interiew	24	Unclear	Journal (JIS)	Scopus
S62	Panahi et al., (2016a)	Conceptualising Social Media Support for Tacit Knowledge Sharing : Physicians ' Perspectives and Experiences	Australia	Health	Platforms and Tools	Qualitative	Interiew	28	Unclear	Journal (JKM)	ISI Web of Knowledge
S63	Papadopoulos et al., (2013)	Exploring the determinants of knowledge sharing via employee weblogs	Thailand	Business	User Behavior	Quantitative	Survey	175	TAM,Social cognative theory and Social influence theory	Journal (IJIM)	Science Direct
S64	Pee and Lee, (2015)	Intrinsically motivating employees' online knowledge sharing:	Singapore	Others	Utilization and Benefits	Quantative	Survey	211	Unclear	Journal (IJIM)	Science Direct

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		Understanding the effects of job design									
S65	Pi *et al.*, (2013)	A study of Facebook Groups members' knowledge sharing	USA	Others	User Behavior	Quantative	Survey	271	Theory of reasoned action (TRA)	Journal (CHB)	Science Direct
S66	(Pillet and Carillo, 2016)	Email-free collaboration: An exploratory study on the formation of new work habits among knowledge workers	France	Business	User Behavior	Quantative	Survey	66	Diffusion of Innovation Theory	Journal (IJIM)	Science Direct
S67	Rice and Spence, (2016)	Thor visits Lexington: Exploration of the knowledge-sharing gap and risk management learning in social media during multiple winter storms	USA	Disaster	Utilization and Benefits	Unclear	_	_	_	Journal (CHB)	Science Direct
S68	Shang et al. (2016)	Field Effects of Social Media Platforms on Information-Sharing Continuance: Do Reach and Richness Matter?	Taiwan	Others	User Behavior	Quantative	Survey	568	Field Theory	Journal (IM)	Science Direct
S69	Shiue *et al.* (2010)	Exploring and mitigating social loafing in online communities	Taiwan	Others	User Behavior	Quantative	Survey	323	Risk perception theory, and SocialCapitaln theory	Journal (CHB)	Science Direct
S70	Sigala and Chalkiti, (2015)	Knowledge management, social media and employee creativity	Greek	Business	User Behavior	Quantative	Survey	132	Unclear	Journal (IJHM)	Science Direct
S71	Simon *et al.*, (2015)	Socializing in emergencies - A review of the use of social media in emergency situations	Israel	Disaster	Utilization and Benefits	Review	Unclear	_	_	Journal (IJIM)	Science Direct
S72	Yan *et al.* (2016)	Knowledge sharing in online health communities: A social exchange theory perspective	China	Health	Utilization and Benefits	Quantative	Survey	323	Social exchange theory	Journal (IM)	Science Direct
S73	Stewart and Osei-Bryson, (2013)	Exploration of factors that impact voluntary contribution to electronic knowledge repositories in organizational settings	Jamaica	Business	User Behavior	Quantative	Survey	72	Theory of planned behavior (TPB)	Journal (KMRP)	Springerlink
S74	Stewart and Abidi, (2011)	Using Social Network Analysis to	Canada	Health	Utilization and Benefits	Unclear	Unclear	_	_	Conference (IJCBIOSTEC)	Springerlink

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		Study the Knowledge Sharing Patterns of Health Professionals Using Web 2.0 Tools									
S75	Tamjidya mcholo et al., (2014)	Evaluation model for knowledge sharing in information security professional virtual community	Malaysia	Others	User Behavior	Quantative	Survey	165	Triandis theory	Journal (CU)	Science Direct
S76	Wang et al., (2016)	Creating the sustainable conditions for knowledge information sharing in virtual community	China	Others	Platforms and Tools	Unclear	_	99	Critical mass theory	Journal (SP)	Springerlin k
S77	Wei et al., (2015)	Finding experts in online forums for enhancing knowledge sharing and accessibility	Taiwan	Others	Concerns with privacy	Unclear	_	_	_	Journal (CHB)	Science Direct
S78	Wu et al., (2015)	An Analysis of Knowledge Sharing behaviors in Requirements Engineering through Social Media	Malaysia	Profession al & training	User Behavior	Review	_	_	_	Conference (MySEC)	IEEE
S79	Xiang and Gretzel, (2010)	Role of social media in online travel information search	USA	Business	Platforms and Tools	Unclear	_	_	_	Journal (TM)	Science Direct
S80	Yates and Paquette, (2011)	Emergency knowledge management and social media technologies: A case study of the 2010 Haitian earthquake	Haiti	Disaster	Utilization and Benefits	Review	Unclear	_	_	Journal (IJIM	ISI Web of Knowledge
S81	Jarrahi, (2012)	Social technologies and knowledge sharing within and across organizations	USA	Others	Platforms and Tools	Qualitative	Interview	54	Unclear	Conference (ICSGW)	ACM DL
S82	Yen, (2016)	How to unite the power of the masses? Exploring collective stickiness intention in social network sites from the perspective of knowledge sharing	Taiwan	Education	User Behavior	Quantative	Survey	201	Social capital theory; social identity theory; use and gratification theory (U&G)	Journal (BIT)	ISI Web of Knowledge
S83	Yilmaz, (2016)	Knowledge sharing behaviors in e-learning	Turskey	Education	User Behavior	Unclear	Survey	316	Unclear	Journal (CHB)	Science Direct

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		community: Exploring the role of academic self-efficacy and sense of community									
S84	Yu et al. (2010)	Exploring factors that influence knowledge sharing behavior via weblogs	Taiwan	Others	User Behavior	Quantative	Survey	442	Unclear	Journal (CHB)	Science Direct
S85	Liu et al., (2014)	Framework of Knowledge Sharing in Software Organizations Using Big Data and Social network	China	Business	Utilization and Benefits	Review	Unclear	–	_	Conference(ICMeCeG)	IEEE
S86	Chai and Kim, (2012)	A socio-technical approach to knowledge contribution behavior: An empirical investigation of social networking sites users	USA	Others	User Behavior	Quantative	Survey	211	Unclear	Journal (IJIM)	ISI Web of Knowledge
S87	Park and Lee, (2010)	Effects of Knowledge Sharing and Social Presence on the Intention to Continuously Use Social Networking Sites: The Case of Twitter in Korea	South Korea	Others	User Behavior	Quantative	Survey	105	Unclear	Conference (UNESST)	Springerlink
S88	Hau and Kang, (2016)	Extending lead user theory to users' innovation-related knowledgesharing in the online user community: The mediating roles of socialcapital and perceived behavioral control	South Korea	Professional & training	User Behavior	Unclear	Survey	140	lead user theory and social capital theory	Journal (IJIM)	Science Direct
S89	Ma and Yuen, (2011)	Understanding online knowledge sharing: An interpersonal relationship perspective	China	Education	User Behavior	Quantative	Survey	71	Unclear	Journal (CE)	ISI Web of Knowledge
S90	Pan et al., (2015)	Integrating social networking support for dyadic knowledge exchange: A study in a virtual community of	China	Business	Utilization and Benefits	Unclear	_	_	social capital theory	Journal (I M)	ISI Web of Knowledge

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		practice									
S91	Lambić, (2016)	Correlation between Facebook use for educational purposes and academic performance of students	Serbia	Education	User Behavior	Unclear	Survey	139	Unclear	Journal (CHB)	ISI Web of Knowledge
S92	Alvino et al., (2011)	Learning and Knowledge Sharing in Virtual Communities of Practice: A Case Study	Italy	Professional & training	Platforms and Tools	Unclear	_	_	Social Learning Theory	Bchapter (ITITO)	Springerlink
S93	Jadin *et al.*,(2013)	Personality traits and knowledge sharing in online communities	Austria	Business	User Behavior	Unclear	Survey	256	Adopting diffusion theory	Journal (CHB)	ISI Web of Knowledge
S94	Hung and Cheng, (2013)	Are you ready for knowledge sharing? An empirical study of virtual communities	Taiwan	Others	User Behavior	Quantative	Survey	Unclear	Technology Acceptance Model(TAM)	Journal (CE)	ISI Web of Knowledge
S95	Oh, (2012)	The Characteristics and Motivations of Health Answerers for Sharing Information, Knowledge, and Experiences in Online Environments	USA	Health	User Behavior	Quantative	Survey	257	Unclear	Journal (JAIST)	ISI Web of Knowledge
S96		Exploring the role of psychological safety in promoting the intention to continue sharing knowledge in virtual communities	China	Education	User Behavior	Quantative	Survey	173	Unclear	Journal (IJIM)	ISI Web of Knowledge
S97	Cho et al., (2010)	Testing an Integrative Theoretical Model of Knowledge-Sharing Behavior in the Context of Wikipedia	Singapore	Others	User Behavior	Unclear	Survey	223	Theory of planned behavior(abbreviated TPB)	Journal (JAIST)	ISI Web of Knowledge
S98	Hung et al. (2015)	Knowledge-sharing Intention in Professional Virtual Communities: A Comparison between Posters and Lurkers	Taiwan	Business	User Behavior	Quantative	Survey	423	Theory of planned behavior(abbreviated TPB) and Technology Acceptance Model(TAM)	Journal (JAIST)	ISI Web of Knowledge
S99		The Intention to Share: Psychological Investigation of Knowledge Sharing Behavior in Online	Kuwait	Education	User Behavior	Unclear	Survey	158	Theory of planned behavior(abbreviated TPB) and Theory of reasoned action(TRA)	Journal (JIKM)	Scopus

ID	Author(s) & Year	Study Title	National /Regional	Context	Topics	Methodology	Gathering data	Sample size	Underpinning theory	Type of paper	Data provider
		Communities									
S100	Wei et al., (2015)	Motivating User Contributions in Online Knowledge Communities: Virtual Rewards and Reputation	USA	Business	User Behavior	Unclear	_	_	_	Conference (HICSS)	IEEE
S101		Towards Exploring Factors that Influence Social Media-Based Knowledge Sharing Intentions in Disaster Management	Somalia	Disaster	User Behavior	Quantitative	Unclear	_r	Theory of planned behavior(abbreviated TPB)	Journal (JATIT)	Scopus
S102		Employee creativity formation: The roles of knowledge seeking, knowledge contributing and flow experience in Web 2.0 virtual communities	China	Others	User Behavior	Qualitative	Survey	232	Self-perception theory	Journal (CHB)	Science Direct
S103	Kim and Benbasat, (2012)	Effectiveness of Knowledge Seeking Behaviors Embedded in Social Networks: A Perspective of Individuals in Workplaces	Canada	Business	User Behavior	Unclear	_	_	_	Conference (HICSS)	IEEE

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We are glad to receive your valuable comments with respect to our article.