In this issue:

Contributions of Traditional Web 1.0 Tools e.g. Email and Web 2.0 Tools e.g. Weblog Towards Knowledge Management

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Abstract: The use of email utilizes the power of Web 1.0 to enable users to access their email from any computer and mobile devices that is connected to the Internet making email valuable in acquiring and transferring knowledge. But the advent of Web 2.0 and social networking seems to indicate certain limitations of email. The use of social networking seems to be gaining grounds rapidly and various studies advocate its positive impact on knowledge management. However, current literature portrays the fact that some users are unsure whether to simply continue with the use of Web 1.0 tools such as email or to encourage the move to Web 2.0 tools such as Weblogs. Towards clearing such confusion and filling the gap in literature, this study examines how traditional Web 1.0 tools such as email and Web 2.0 tools such as Weblogs contribute towards knowledge management. We review the basics of email, social networking and Weblogging and examine the contributions of email and Weblogs to knowledge management alongside their limitations. We conclude that although email has long been contributing tremendously to knowledge management, Weblogs and Web 2.0 stand to contribute more than email and Web 1.0 towards the enhancement of knowledge management.

Keywords: Email, Weblogs, Web 1.0, Web 2.0, Social networking, Knowledge management

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Contributions of
Traditional Web 1.0 Tools, e.g. Email
and Web 2.0 Tools, e.g. Weblog
Towards Knowledge Management

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Abstract

The use of email utilizes the power of Web 1.0 to enable users to access their email from any computer and mobile devices that is connected to the Internet making email valuable in acquiring and transferring knowledge. But the advent of Web 2.0 and social networking seems to indicate certain limitations of email. The use of social networking seems to be gaining grounds rapidly and various studies advocate its positive impact on knowledge management. However, current literature portrays the fact that some users are unsure whether to simply continue with the use of Web 1.0 tools such as email or to encourage the move to Web 2.0 tools such as Weblogs. Towards clearing such confusion and filling the gap in literature, this study examines how traditional Web 1.0 tools such as email and Web 2.0 tools such as Weblogs contribute towards knowledge management. We review the basics of email, social networking and Weblogging and examine the contributions of email and Weblogs to knowledge management alongside their limitations. We conclude that although email has long been contributing tremendously to knowledge management, Weblogs and Web 2.0 stand to contribute more than email and Web 1.0 towards the enhancement of knowledge management.

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1. BACKGROUND OF THE STUDY

The use of Information and Communication Technologies (ICT) is permeating every sphere of today's society. The business world is one of the spheres of our society benefiting tremendously from the use of ICT. Handzic and Zhou (2005, p.60) argues that apart from using IT itself in various aspects of an organization's business, it is important for an organization to be able to creatively use ICT for competitive advantage. This is even more important in this era of knowledge economy where Singh (2007) states to be successful in the emerging knowledge economy, new processes, skills, and techniques that help to generate, manage and handle new knowledge need to be developed and practiced by information specialists.

Handzic and Zhou (2005, p.60) indicate that IT is commonly used to "support the capture, creation and sharing of knowledge assets, e.g. locating useful knowledge, transferring best practices, connecting people with relevant interests and supporting intelligent problem-solving". Similarly, Wasko and Faraj (2000) in Handzic and Zhou (2005, p.60) stresses that communication mediated by IT not only provides a quick way to receive valuable information but also provides "better access to knowledge from a large pool of people". Becerra-Fernandez and Sabherwal (2006) highlight how the utilization of leading-edge ICT systems enables dramatic improvement in Knowledge Management (KM) by supporting KM in new ways not earlier possible. Examples of such systems include Web-based conferencing

allowing interactive and instantaneous exchange of conversations and documents among people in distant locations. These emphasize the importance of the Information and communication technologies in providing some sorts of Knowledge management systems that organizations can use for competitive advantage.

Knowledge management systems (KMS) are therefore IT systems that are used as enabling technologies to facilitate and support Knowledge management processes such as the capture, creation and sharing of knowledge assets thereby ensuring an efficient and effective knowledge management (Handzic and Zhou, 2005, p.60; Maier & Hädrich, 2006; Becerra-Fernandez & Sabherwal, 2006). KMS targets the goal of bringing past knowledge on present activities thereby leading to increased organizational effectiveness (Maier & Hädrich, 2006).

However, KM involve a variety of possible processes involving activities through which knowledge is discovered or captured, shared and applied (Becerra-Fernandez & Sabherwal, 2006). Other categorization of KM processes are available in literature and various technologies support one or more processes. Handzic and Zhou (2005, p.64) classified many technologies being used to facilitate and support Knowledge Management into seven categories according to the processes they support and the objective they aim to achieve. These categories are:

- Knowledge storage technologies for capturing and storing organizational knowledge to enhance organizational memory

- Knowledge search / retrieval technologies for locating and retrieving internal and external knowledge

- Knowledge delivery / sharing technologies for distributing knowledge to the right person at the right time

- Knowledge discovery and visualization for analyzing raw data to identify and uncover hidden patterns thereby extracting new knowledge

- Knowledge utilization technologies for embedding knowledge into work processes thereby integrating and applying knowledge

- Platform technologies used conjointly with other technologies in any of the KM processes to construct a single point of access (e.g. a corporate portal) to multiple sources of knowledge

- Knowledge access technologies for improving access to stored knowledge and / or for facilitating knowledge search, delivery and transfer among people.

The seven types of Knowledge management technologies discussed previously are not mutually exclusive. Some may be used to support multiple processes and some are often combined and used in a way that produces a synergic effect. The advent of traditional web 1.0 tools led to technologies that support various knowledge management processes. Apart from the intranet and portal that widely support many knowledge management processes, email for example supports at least knowledge sharing, storage among others. However, the advent of web 2.0 tools seems to demonstrate the potential to enhance the web 1.0 experience. The objective of this study is therefore to critically examine one web 1.0 tool such as the email and one web 2.0 tool such as the weblog with regard to their contributions towards knowledge management.

The context of the research problem

The current knowledge economy highlights the role of knowledge for efficiency and competitive advantage especially in large organizations. Even as far back as towards the end of the last millennium, Milton et al (1999) identified Knowledge Management as becoming an important subject in the business community. As such, viewpoints and approaches to Knowledge Management focus around the notion that: "knowledge is a valuable asset that must be managed, and the essence of Knowledge Management is to provide strategies to get the right knowledge to the right people at the right time and in the right format (Milton et al, 1999)".

However, Milton et al (1999) further indicate that as the prominence of Knowledge Management increases, so does the realization that "the systemic documentation, distribution and reuse of knowledge are difficult and time-consuming tasks". Therefore, some organizations use a number of specific tailored and sophisticated software technologies to support knowledge management

while others resort to using common software technologies including email, document management, portals and intranets. Furthermore, Milton et al (1999) observes that most current software tools concentrate on ways of storing and communicating information rather than on ways for people to create, acquire, use and most importantly, to enthusiastically share knowledge.

Towards addressing the need to create, acquire, use and enthusiastically share knowledge, the Web has emerged as a successful and useful open information storage, retrieval and distribution system. However, Karger and Quan et al (2005) note that despite the successes of the Web, few issues were not initially worked out. These include easy publication by users. Traditionally, any information to be published has to be passed to the Webmaster. This led to the Web 2.0 era and most specifically, Weblogging ("blogging") phenomenon which has helped to realize an initial goal of the Web which is to turn enable Web content consumers to also become Web content producers. Thus, Karger and Quan et al (2005) indicates that: "Web logs ("blogs") have emerged as a potential solution to the publication problem. The idea is based on the premise that publication occurs incrementally in discrete units – blog entries – and that users manage their own content as opposed to newsgroups".

While interests in using blogs and other Web 2.0 technologies have grown tremendously for social networking especially among the youth, various studies such as Kim (2008) advocates the use of the blogs in educational institutions for teaching and learning and other studies advocates the potential of blogs in contributing towards knowledge management in organizations. A problem is that many employees spend hours on such Weblogging sites leading to employers clamping down on the use of blogs or simply discouraging its use in organizations. The situation therefore portrays the fact that some users are unsure whether to simply revert to the use of Web 1.0 tools such as email or to encourage the move to Web 2.0 tools such as blogs. Kim (2008) asserts that some studies such as Bloch (2002), Huang et al (2003), Young (2003) indicate that some researchers and academics still prefer traditional Computer-Mediated Communication (CMC) tools such as email to enhance students' communications and collabora-

tions. Kim (2008) observes that this is compounded by the lack efforts in current literature to compare blogs with traditional CMC tools, and thus, prior research has failed to answer the question of why blogs should be used over traditional CMC tools. Towards clearing such confusion, and filling the gap in literature, the research question for this study then is: How do traditional Web 1.0 tools such as email and Web 2.0 tools such as blogs contribute towards knowledge management?

The research question

The research question is: How does Email and Weblogging as examples of Web 1.0 and Web 2.0 respectively contribute towards knowledge management?

The objectives of the study

The objectives of the study are therefore given below:

1.) Determine the contributions of email and Weblogging to knowledge management.

2.) Determine the limitations of email and Weblogging.

3.) Compare the contributions along with the limitations.

The importance of the study

The main benefit of the study will be the educative choice of suitable Web tools in different fields such as in education and in organizations in the light of the contributions of such tools towards knowledge management.

Outline of the rest of the paper

We begin by reviewing the basics of email, social networking and blogging. Thereafter, we look at the contributions of email and blogging to Knowledge management as well as their limitations. To arrive at a conclusion, we view the contributions alongside the limitations. We conclude that despite the fact that Web 1.0 and email has been contributing tremendously to knowledge management, Weblogs and Web 2.0 stand to contribute more than email and Web 1.0 towards enhancement of knowledge management.

2. THE BASICS OF EMAIL & BLOGGING

Computer-Mediated Communication using Email and Web 1.0

Computer-Mediated Communication (CMC) involves the use the computer to accomplish communications and collaboration among users. Ocker and Yaverbaum (2001) in Kim (2008) claim that the use of CMC tools is likely to improve critical thinking skills, problem-solving skills and communication skills. The use of CMC with Web 1.0 is accomplished using tools such as Intranet, Portals and email. Electronic mail (email), according to Bafoutsou and Mentzas (2001) in Lightfoot (2006) is regarded as "the most widely used tool for electronic communication". Deegan (2000) in Lightfoot (2006) indicates that email is considered as a hybrid form of communication with usually informal free-flowing structure of oral conversation with the permanence and therefore formality of a written document. The origin of email predates the Internet though latest email versions are Internet and Web-based. The use of Web-based email utilizes the power of Web 1.0 to enable users to access their email from any computer that is connected to the Internet. According to Gottschalk (2008), the adaptation of email on mobile and portable handheld devices demonstrates the ability of moving beyond the restrictions and constraints of SMS to support seamless anywhere, anytime connectivity. However, the advent of Web 2.0 and social networking seems to indicate certain limitations of email.

Web 2.0, Social networking, the origin, definition and features of blogging

Web 2.0 is defined by Wikipedia as "a trend in World Wide Web technology and web design, a second generation of web-based communities and hosted services such as social-networking sites, wikis, blogs, and folksonomies, which aim to facilitate creativity, collaboration, and sharing among users". Social networking has been gaining grounds in current society. According to Ip and Wagner (2008), social networking web sites used for creating and maintaining social connections have become an important medium for interaction and sharing among individuals in the cyber world. Among the commonly used social technologies like discussion boards, P2P newsgroups, listservs and real time chat, Ip and Wagner (2008) indicate that weblogging now drives the contagion of virtual communities in the society, especially among young people. While early weblogs seem to have been used mostly by technology savvy users with journalistic reporting interests, weblogs nowadays are mostly used by young people for sharing their daily activities with peers and for keeping as well as extending relationships (Ip & Wagner, 2008). Newman (2003) in Prieto et al (2007) asserts that a weblog by itself is not as important as its impact on the community for forging ties, sharing in a social network. Such network is primarily formed by the authors of the blogs, the people who contributes by sending comments to the posts, as well as the quiet and often frequent readers of the blogs who may likely have their own weblogs.

Weblogs, first coined by John Barger in 1997, typically describe a personal diary kept and can be edited, modified or updated by an end user using few web publication skills (Bausch et al (2002) in Ip and Wagner, 2008). Du and Wagner (2006) in Ip and Wagner (2008) attribute weblog's focus to being a "log of the Web" which allows webloggers to read and comment on other web-based articles. Second generation weblogging software included more communication features such as "permalink" which are permanent URL links to each weblog entry, and the improvement in user interface through the incorporation of familiar features from word processing environment, and the incorporation of multimedia components. Third generation weblogs, according to Ip and Wagner (2008) are currently emerging, and utilize existing and new tools towards enhancing productivity and enhancing connectivity on the Web.

According to Wikipedia in Prieto et al (2007), a weblog is a website in which stories or entries by more than one authors are compiled chronologically with some common elements like a list of links to other weblogs and permanent links (permalinks) such that anyone can mention an annotation by linking an archive of past stories (called posts) and a function allowing the addition of comments.

The essence of blogging

Blogging incorporates three distinct concepts and according to Karger and Quan (2005), analyzing blogging with respect to these concepts could help to clarify how blogging compares with other approaches. The first concept involves enabling users to publish information in small discrete notes like instant messages to the Web. Users therefore would not feel lazy to publish such small notes. The second key concept is the decentralized per-user publication as blog entries are kept together or organized according to common authorship rather than common subject. By giving the control of publication to the content author, the resulting feeling of "ownership" becomes part of the blogging experience and encourages continued participation. This is unlike the situation in a discussion site or a newsgroup where entries are organized according to topics and deviation from predefined topic is usually frowned upon and can lead to censorship. Also, blogs usually exist independent of a centralized server. The last key concept involves exposing machine-readable listings which allow individual blog entries to be aggregated together. This involves the use of a family of XML-based standards that enable describing the contents of a blog loosely affiliated by the Really Simple Syndication (RSS) feature (Karger & Quan, 2005).

Developments in social computing are deemed likely to increasingly impact computing applications used by organizations for competitive advantage towards achieving business goals. This according to Ip and Wagner (2008) is because: "Organizations on the one hand need to find ways to address their customers through the weblogging medium, and on the other hand may wish to take advantage of webloggers' social computing skills and the technology to improve organizational information processing and knowledge management".

Weblogging is thus shifting importance away from traditional tools such as email (Ip & Wagner, 2008).

3. CONTRIBUTIONS OF EMAIL AND BLOGGING TO KNOWLEDGE MANAGEMENT & THEIR LIMITATIONS

Contributions of email to knowledge management

Generally, major contributions of email to knowledge management are mostly in the processes of knowledge acquisition, knowledge storage and knowledge sharing, communication and distribution. Users acquire knowledge from other people through the use of email and users communicate knowledge to others with the use of email. While in most cases, mere information are being acquired and communicated, in some other cases, codified knowledge are being acquired and communicated.

More specifically, some contributions of email to knowledge management are intrinsic and not directly transparent. Gattiker et al (2007) examine the role of email on how sourcing mechanisms deployed by buyers affect suppliers' trust, in comparisons with the role of face-to-face negotiations and Internet reverse auctions. Thus, Gattiker et al (2007) highlight how email contributes to the richness of information and knowledge exchange that enhances buyers-suppliers relationships which literature as reported by Handfield and Nichols (1999) in Gattiker et al (2007) highlights as being important to supply chain management. Furthermore, Handfield and Bechtel (2002) in Gattiker et al (2007) asserts the importance of trust in improving supply chain responsiveness and Gattiker et al (2007) use Information Richness Theory (IRT) (also referred to as Media Richness Theory) to highlight the effect of email communications on trust.

IRT states that media differ on a number of characteristics: (1) feedback immediacy (the time that elapses between sending a message and receiving a feedback response from the recipient), (2) the ability to convey multiple social cues (body language, eye contact, tone of voice, etc), (3) the variety of language accommodated (text, voice, graphics, etc.), and (4) personalization (the ability to customize the communication to the receiver's personal circumstance e.g. bulletin vs personal letter (Gattiker et al, 2007).

The findings of Gattiker et al (2007) indicates that information richness matters when it comes to trust and that email is equivalent to face-to-face communication in personalization while being similar in language variety as voice and video can be sent as email attachments. Also, email fairs reasonably with regards to feedback immediacy except when the recipient is yet to read the received email.

According to Gottschalk (2008), email communication provides information about "who knows what" as email is being used to communicate with knowledgeable persons that are in better position to help solve knowledge problems. Furthermore, Hansen et al. (1999) in Gottschalk (2008) highlights the use of email in the personalization strategy in knowledge management which implies that "knowledge is tied to the person who developed it and is shared mainly through direct person-to-person contact". The personalization strategy focuses on dialogue between and among individuals with the appreciation of the fact that knowledge is transferred usually in personal email, meetings whose minutes is communicated via email, and one-to-one conversations which is usually conducted via email among other media.

Another intrinsic contribution of email to knowledge management is given by Gottschalk (2008). In a study on maturity model for email communication in knowledge organizations, Gottschalk (2008) indicates that "email is more directly involved in knowledge work at higher stages, and that email is able to support more advanced knowledge work at higher stages". Skovholt and Svennevig (2006) in Gottschalk (2008) studied the use of email copies in workplace interactions and found out that copies also serve for building alliances and establishing personal identity within organizations. As an example, copying a colleague gives stronger institutional anchoring to a message. It makes one to be aware that other colleagues are aware of the issue at hand and so may be looking towards the seriousness of how the issue is dealt with. This also extends certain knowledge to some other people who are actually neither the directly intended sender nor the receiver of such knowledge. If the intended sender and/or the receiver suddenly resign for example, at least there would be other employees that can stand in.

Email establishes a culture and environment that is conducive to the acquisition of knowledge. Gottschalk (2008) indicates that the inside, functional usage of email "is characterized by efficiency, minimal disruption, immediacy, and freedom". Such environment is further enhanced by the advent of mobile email which according to Gottschalk (2008) enables full access to any kind of email account using portable handheld devices, thereby moving beyond the restrictions and constraints of SMS to support seamless anywhere, anytime connectivity. This has the potential to facilitate acquisition and distribution of knowledge to the right people at the right time.

An important unintended contribution of email to knowledge management is in the use of email to store information and knowledge. While information and knowledge are being distributed and shared among people in day-to-day individual, organizational and business transactions, the email server can be set to automatically save copies of the information and knowledge. Moreover, when the need to access the stored information and knowledge arises, the email system can facilitate easy retrieval by sorting according to senders or according to the time they were sent.

Contributions of blogging to knowledge management

Blogging, according to Karger and Quan (2005), enables users to publish information in small discrete notes like instant messages to the Web such that users would not feel lazy to publish such small notes. This increases the generation and acquisition of knowledge. Also, the decentralized per-user publication of blog entries which are kept together or organized according to common authorship rather than common subject encourages ownership. By giving the control of publication to the content author, the resulting feeling of "ownership" encourages continued participation and increases the generation and acquisition of knowledge. In addition, Kim (2008) indicates that the easy-to-publish-and-access attribute would increase the possibility of accommodating younger people thereby enhancing knowledge access to more people.

Furthermore, blogs usually exist independent of a centralized server. This involves

exposing machine-readable listings which allow individual blog entries to be aggregated together. This involves the use of a family of XML-based standards that enable describing the contents of a blog loosely affiliated by the Really Simple Syndication (RSS) feature (Karger and Quan, 2005). Montanez (2006) in Kim (2008) indicates that the use RSS technology ensures that "blog users no longer need to regularly visit other blogs to check for updates because the RSS technology automatically delivers a list of updated information to other bloggers that are subscribed". This increases the push of information and knowledge to the right people in the right time and on the basis of the need to know, thereby avoiding information and knowledge overload as in the case of email.

Interactivity is considered by Williams & Jacobs, 2004 in Kim (2008) as the key to the success of social networking systems such as blogs, and Du and Wagner (2006) in Kim (2008) asserts the contributions of blogs towards enhancing interactivity among blog users. Therefore, Kim (2008) highlights the contribution of blogs to knowledge management as achieved by reading other blogs, acquiring tools and resources and expressing their thoughts by posting comments to entries. Blog comments are therefore viewed as essential to the interactive nature of blogs and this is usually done enthusiastically unlike in the case of email where users often feel reluctant to reply.

An important contribution of blogs to knowledge management is expressed by Ip and Wagner (2008) using the emergent model of Task-Technology Fit (TFT) defined by Goodhue and Thompson (1995) as "the degree to which a technology assists an individual in performing his or her portfolio of tasks". The importance of this is expressed by indicating that an organization "has to know their customers' technological preferences to get closer to them with the most appropriate technologies". And given the positive trend towards social networking like blogs, Ip and Wagner (2008) indicate that today's generation of technology users "increasingly shuns email as a communication medium in favor of weblogs (or the associated communication media, such as pingbacks)". Ip and Wagner (2008) thus eventually asserts that "organizations on the one hand need to find ways to address their customers through the web-logging medium, and on the other hand may wish to take advantage of webloggers' social computing skills and the technology to improve organizational information processing and knowledge management".

Sharing of knowledge is an important aspect of knowledge management to which blogs contribute. Wagner (2003) in Ip and Wagner (2008) identify some barriers to the sharing successful propagation of knowledge in organizations which include the cost of training on the use of necessary technology for knowledge sharing and user reluctance to share. Ip and Wagner (2008) then observe that employees who already apply weblogs and related tools in social networking are "culturally" adapted to the use of blogs in organizations and thus would require little or no training in using such technology as they are already familiar with it. Furthermore, Ip and Wagner (2008) observe that by recognizing and exploiting the different user roles in blogging such as "storer" (personal user), "linker" (active and habitual users), and lurker, organizations already have the building blocks for knowledge sharing communities.

An important contribution of blogs to knowledge management is in the use of blogs to store information and knowledge. With the first generation of blogs regarded as being "a log of the Web" and the second generation incorporating the "permalink" feature which uses permanent URL link to each individual weblog entry (Ip and Wagner, 2008), and the archiving of blog entries and visitors' comments in chronological order (Kim, 2008), Weblogs definitely accomplish information and knowledge storage.

Applying the use of IRT (or Media Richness Theory) in Gattiker et al (2007) to highlight the contribution of blogs, weblogs can be considered to be highly rated in feedback immediacy, the variety of language accommodated (text, voice, graphics, etc.), and personalization (the ability to customize the communication to the receiver's personal circumstance). Kim (2008) asserts that since a blog is inherently designed to be compatible with other social software and websites, one can seek relevant information and knowledge from other websites regardless of the format which could be text, video or audio-based.

Limitations of email and blogging

While being beneficial, current CMC tools such as email are prone to certain limitations, shortcomings or weaknesses. De Bruyn (2004) and Yaverbaum (2001) in Kim (2008) explain that uneasy coordination and management of communication arises due to the need to agree on how frequently to communicate. Johnson (2007) in Kim (2008) identifies lucking or inactivity in communications. Pena-Shaff et al. (2005) in Kim (2008) indicates lack of enthusiastic sense of ownership. De Bruyn (2004) in Kim (2008) suggests that email seems instructor-centered and dissemination-based. Though email has enabled communication from low to higher authority, such communications are still low and formally used when extremely necessary. Treese (2004) in Kim (2008) cites limited support for archiving data as email users have to view poorly organized long threads of discussion. De Bruyn (2004) in Kim (2008) indicates the likelihood of receiving overloaded information thru email. Closely related to this is the problem of spam or unsolicited mails. Gattiker et al (2007) highlight the limitations of email with regard to the ability to convey multiple social cues. Further limitations include vulnerability of the password leading to misrepresentation.

Some subtle limitations of email also abound. Weber (2004) in Gottschalk (2008) indicates that email sometimes bring out a user's alter ego as users who are supportive and cordial in face-to-face interactions may take on another personality of sending aggressive and sometimes abusive email. Also, Romm and Pliskin (1998) in Gottschalk (2008) highlights the possibility of using email for political purposes in an organizational context such as using email to instigate and stage a rebellion. Furthermore, Gottschalk (2008) cites the abuse of email in organizations leading to excessive costs and sometimes litigation.

Although, certain studies such as Divitini et al. (2005) and Lin et al. (2006) in Kim (2008) advocate the use of blogs to overcome the limitations of current CMC tools such as email, blogs also possess certain limitations, weaknesses and problems. A problem is that many employees spend hours on blogging and other social networking activities. This leads excessive costs as a result of which employers clamp down on the use of blogs or simply discourage its use in organizations. On individual basis, such excessive use could also lead to ergonomic problems such as repetitive strain injury, and could also lead to addiction and social problems where users neglect other life responsibilities in favor of using technology all-day.

4. COMPARISON OF THE CONTRIBUTIONS AND LIMITATIONS

To enable an on-the-spot assessment of the contributions of email and Weblogs to knowledge management, we present a summary of the contributions alongside their limitations in table 1 and table 2 respectively in the appendix.

5. CONCLUSIONS AND RECOMMENDATIONS

This study is a step towards increasing the awareness on the contributions of email and Weblogs to knowledge management. Current literature portrays the fact that some users are unsure whether to simply revert to the use of Web 1.0 tools such as email or to encourage the move to Web 2.0 tools such as blogs. Some researchers and academics still prefer traditional Computer-Mediated Communication (CMC) tools such as email to enhance students' communications and collaborations. Towards clearing such confusion, and filling the gap in literature on the lack of efforts in current literature to compare blogs with traditional CMC tools, this study therefore addresses the failure of prior research to answer the question of whether blogs should be used over traditional CMC tools. This is especially in the light of how traditional Web 1.0 tools such as email and Web 2.0 tools such as blogs contribute towards knowledge management.

Email has been contributing tremendously to knowledge management by facilitating communications, interactions, immediacy, personalization in a way that enhances acquisition, transfer, and storage of knowledge and information. However, certain trends suggest limitations of email such as uneasy coordination of communication, lurking, lack of ownership, etc. Various studies advocate the use of blogs to overcome the limitations

of current Computer-Mediated Communication tools such as email. Divitini et al (2005) and Lin et al (2006) in Kim (2008) suggest the use of emerging technologies such as blogs by educators to overcome the weakness of current Computer-Mediated Communication tools such as email. Such weaknesses identified by Kim (2008) from various studies include uneasy coordination and management of communication, lucking or lack of posting, lack of enthusiastic sense of ownership, instructor centeredness, and limited support for archiving data. Kim (2008) also recommends the use of certain features of Weblogs in various studies that overcome the limitations of email. These include RSS delivery that automatically updates information to blog users thereby overcoming uneasy coordination, personalization available freely in blogs that increases sense of ownership, decentralized system to enhance control structure of individual entries and archiving that enhance chronological storage of blog entries. In the light of these, one can conclude that Weblogs and Web 2.0 stand to contribute more than email and Web 1.0 towards enhancement of knowledge management.

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APPENDIX

Table 1. Contributions of Email and Weblogging to knowledge management.

Email's contributions to KM		Weblogging's contributions to KM
-supports knowledge sharing, storage, retrieval & access - Useful for acquiring knowledge from knowledgeable people - More suited to communications between two people leading to interactions that could facilitate transfer of knowledge - The use of copies could ensure the availability of knowledge and information to even unintended recipients - Can be used to store knowledge contained in conversations, minutes of meetings etc - Can be used to attach knowledge in different forms such as text, audio, video etc. - Enhances the richness of Information and Knowledge exchange that can improve trust so as to enhance relationships such as buyers-sellers thereby improves supply chain management - Achieves low feedback immediacy - Enhances personalization - Adaptation of email on mobile devices support seamless anywhere, anytime connectivity which provides knowledge at the right time		-supports knowledge creation, sharing, storage, retrieval & access - Publication in small discrete notes overcomes the laziness experienced in other media and thereby increase the generation and acquisition of knowledge - The ease of publication and easy of use also increase the generation and acquisition of knowledge - The decentralized, per-user publication organized according to common authorship enhances feeling of "ownership" which encourages continued participation thereby increasing the generation and acquisition of knowledge - Overcomes barriers to knowledge such as cost of training and user resistance as the increasing trend of users with social networking implies that users are already "culturally" adapted and would require little or no training - Recognition and exploitation of the different roles in blogging such as "storer", "linker" and "lurker" provides organizations with building block for knowledge-sharing communities - Enthusiasm in the norm of social networking facilitates sharing of knowledge and information - Interactivity of blogging - Compatibility with other social networking software - Highly rated in feedback immediacy - Accommodates different formats such as text, audio and video - Highly personalized - The use of permalinks and the archiving of blog entries and visitors comments in chronological order contributes towards knowledge storage and knowledge access - The use of RSS ensures automatic update from other blogs thereby ensuring the availability and push of knowledge to the right people at the right time

Table 2. Limitations of Email and Weblogging.

Email's limitations	Weblogging's limitations
- Uneasy coordination due to the need to agree on the frequency of communication - Lurking or inactivity in communications - Lack of enthusiastic sense of ownership - Instructor-centered, dissemination-based - Limited support for archiving data and poorly organized long threads of discussion - Likelihood of receiving overloaded information - Problem of spam and unsolicited mail - Inability to convey multiple social cues - Vulnerability of the password leading to misrepresentation - Facilitates users' alter ego of aggressive and sometimes abusive email - Possibility of use for political purposes like instigating and staging rebellion - Email abuse in organizations leading to excessive costs and sometimes litigations	- Excessive use in organizations leads to employers clamping down on the use of blogs or simply discouraging its use in organizations - On individual basis, the excessive use could lead to ergonomic problems such as repetitive strain injury - On individual basis, the excessive use could lead to addiction and social problems where users neglect other life responsibilities in favor of sitting with technology all-day-long