Evaluating Digital Literacy Skills of EFL Thai Students' Using LINE Chat Application

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Abstract

This article provides the explanations of the key term "digital literacy" which is the foundation of optimizing learning outcomes for education in the 21st century. In the new learning environment, activities are done using digital tools. Realizing that LINE is the most popular application that young people are using now, the author incorporates LINE into a classroom at Bangkok University. Creating a LINE group enables the teacher and students to participate in the discussions as much as they want. The student-teacher interaction in LINE reflects a great deal of collaboration and response given to a very detailed question regarding unethical advertisement which the author poses. The effectiveness of employing social media system such as LINE in learning activities has become a common thread in the education vis-a-vis digital technology discourse. The digital learning environment makes a growing digitally cognitive person. In this regard, training can help teachers become aware of how knowledge is constructed to enhance learner's digital literacy skills.

บทคัดย่อ

บทความนี้อธิบายความหมายของคำว่า "ความสามารถในการใช้สารสนเทศรูปแบบต่างๆ" ซึ่งเป็นรากฐานสำคัญเพื่อให้เกิดผลลัพธ์ที่ดีที่สุดสำหรับการศึกษาในศตวรรษที่ 21 ในสภาพแวดล้อมการเรียนรู้แบบใหม่ที่มีการจัดกิจกรรมต่างๆ ผ่านเครื่องมือในรูปแบบดิจิทัล ผู้เขียนได้ตระหนักดีว่าในปัจจุบันไลน์เป็นแอปพลิเคชันที่วัยรุ่นนิยมใช้กันอย่างมาก จึงได้นำมาประยุกต์ใช้ในชั้นเรียนที่มหาวิทยาลัยกรุงเทพ การสร้างกลุ่มไลน์ทำให้อาจารย์และนักศึกษาได้พูดคุยกันอย่างกว้างขวาง การปฏิสัมพันธ์ของอาจารย์และนักศึกษาในไลน์สะท้อนถึงความร่วมมือกันเป็นอย่างดี รวมถึงมีการแสดงความคิดเห็นต่อข้อคำถามที่เกี่ยวกับการโฆษณาที่ไร้จริยธรรมที่ผู้เขียนได้ตั้งประเด็นไว้ ประสิทธิผลของการใช้ระบบสังคมออนไลน์ เช่น ไลน์ในกิจกรรมการเรียนจึงเข้ามาเกี่ยวข้องกับการศึกษาในแง่วาทกรรมผ่านเทคโนโลยีดิจิทัล สภาพการเรียนรู้แบบนี้สร้างให้คนมีความรู้ความเข้าใจทางด้านสารสนเทศมากขึ้น ดังนั้น การอบรมจะสามารถช่วยให้อาจารย์ตระหนักยิ่งขึ้นว่าจะสร้างความรู้อย่างไรเพื่อเพิ่มทักษะความสามารถในการใช้สารสนเทศรูปแบบต่างๆ ของผู้เรียนได้

Introduction

Marc Prensky started a landslide of commentary when he announced the arrival of digital natives and digital immigrants (Prensky, 2001a). Then before anyone knew what was going on, literacy went totally digital. Are digital natives literate and digital immigrants illiterate? The debate goes on and we are left with trying to define what exactly a digital literate person really is. In Paul Gilster's work *Digital Literacy* (Gilster, 1997), a digitally literate person is a person who can achieve four core competencies to achieve digital literacy: internet searching; hypertext navigation; knowledge assembly; and content evaluation.

In the last four decades, the changes in educational technology would have seemed like science fiction in 1971. However, after offering media certification to librarians for multi-media departments in libraries, and then to designing learning methodologies with tablet computers and smart phones in the 21st century, it is safe to say the changes coming in the near future will also seem like science fiction to us of today.

Referring to the questioning of what digital literacy really is, Belshaw (2012) refers to his approach as defining digital literacy as a pragmatic investigation. In chapter five of his thesis, he offers a definition of digital literacy that comes about as a result of combining the work of several authors, which he includes in his thesis and his reasoning goes as such:

"Literacy involves the mastery of simple cognitive and practical skills. To be 'literate' is only meaningful within a social context and involves having access to the cultural, economic and political structures of a society. In addition to providing the means and skills to deal with written texts, literacy brings about a transformation in human thinking capacities. This intellectual empowerment happens as a result of new cognitive tools (e.g. writing) or technical instruments (e.g. digital technologies)" (Belshaw, 2012).

The eight essential elements of digital literacy that Belshaw suggests are cultural, cognitive, constructive, communicative, confident, creative, critical, and civic. Belshaw further states that exposure to various ways of conceptualizing and interacting in digital spaces helps develop the cognitive element of digital literacy's. It is not the practice of using tools, but rather the 'habits of mind' such use can develop" (Belshaw, 2012).

These authors i.e. Prensky, Gilster, and Belshaw have invested a great deal of time elaborating on the meaning of digital literacy, which could be useful for a teacher who may not have been exposed to a world accessed primarily from a digital point of view. According to Prensky (2001b), a person who has only acquired knowledge through a digital interface would be considered a digital native. Prensky believes that there is a fundamental restructuring of the brain as a result of using digital tools. Being able to see these differences in student behavior is one aspect in this paper to be explored. The term digital literacy encompasses many other definitions on how users of the technology can be classified as digital natives as a result of using digital tools exclusively. Terms such as media-literacy, information literacy and others have also been mentioned as a way to describe the environment that students are immersed in and there are many other definitions cited in the literature as well. Such is the depth on the literature of this subject, that it is beyond the scope of this paper to itemize them. The reason for this plethora of meanings is that everyone in the 21st century is in one way or another involved in using some form of a digital interface for work, study or entertainment and, therefore, has their own concepts on what constitutes a digital

person. The internet is without question the primary digital interface that most people use on a daily basis.

LINE: The Popular Social Networking

University students in Thailand use smart phones, tablets and laptops to do their assignments like most students in progressive schools and use these devices singularly or in tandem with other digital assistants. Thai student may also use more than one application to access the information they need and usually explore every possible application for its usefulness in obtaining the results they need to complete their assignments. Mixed with their search strategies, Thai students will chat using Line or play games all at the same time. It is no wonder then that a digital immigrant teacher, who encounters a digital native, may be overwhelmed at the level of their multitasking and revert back to a more traditional teaching methodology that relies only on traditional literacy skills.

Choosing the appropriate teaching method in a world of complex digital interfaces was analyzed in a recent study at Carnegie Mellon University in Pittsburgh, Pennsylvania (Koedinger, Julie, & Klahr, 2013). The study is important because it focuses on instructional decision making in relation to the goals set out within the educational setting. A detailed chart is offered in the study on the different functions of instruction, such as fluency, induction and sense-making. The educational environment is so complex that a list of recommendations is offered in dealing with this new digital environment, which the authors agree that much effort at understanding the new digital environment is necessary to optimize learning outcomes.

As mentioned earlier, students preferred to use the LINE chat app for their social networking. In fact, Thailand is the second largest user of LINE chat with over 18 million users out of a global population of over 330 million users (Horwitz, 2013). The growth of LINE globally is shown by the chart (Millward, 2013).
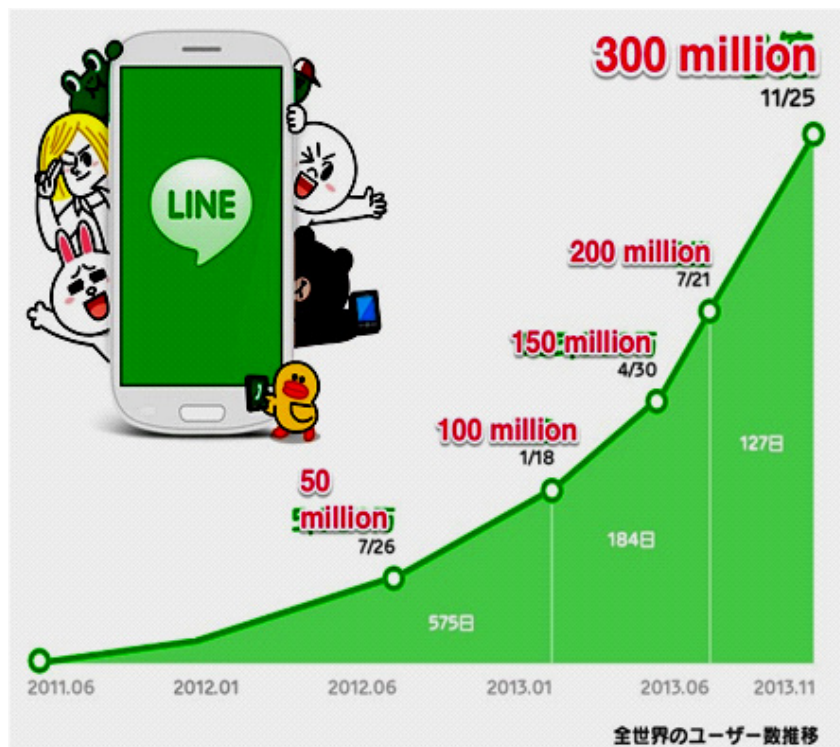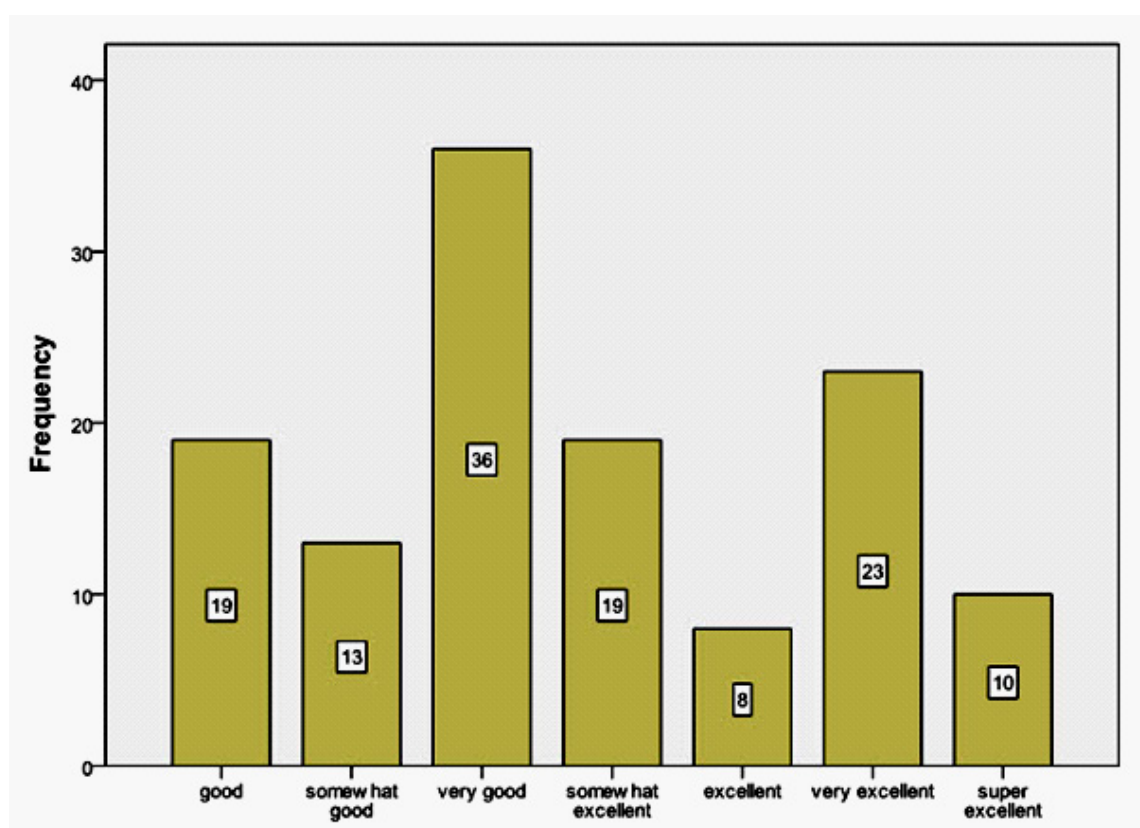

Figure 1 Growth of LINE globally
Source: Millward (2013)

Survey Results of Using LINE in the Classroom

In a recent survey, a sample of 128 Thai students was asked whether they thought LINE would be useful in doing classroom assignments. Most students felt that it was a very good idea and the second highest ranking by students felt it was a very excellent idea. As encouraging as this small survey shows, it is still up to the teacher to work closely with the students and monitor how they respond to questions. This is not an easy task because LINE is new for doing assignments and evaluating student responses with how they are using their English has to be considered. Text messaging English is often used with a truncated form of English. It will take some time to analyze whether LINE is a useful tool for provoking the students' new ideas or whether their English language is developed more effectively when it is applied in the classroom.

Table 1 Perception of Using LINE for Classroom Assignment
Source: Results from the questionnaire given to students at Bangkok University

Research Overview

A recent study conducted in Spain (Arbiol, Calvo, & Iglesias, 2013) addresses the applicability of using chat apps as an effective mobile-learning (m-learning) approach. By comparing chat apps to international guidelines a critique is offered on how appropriate the chat apps are. The conclusion was that not enough documentation was available in using the apps. However, this aspect seems less important than analyzing how the students respond to questions from the teacher and the resulting answers given by the students. Education World's editor recently published many ideas on using chat apps in the classroom (Tomaszewski, 2012). The conclusions were that chat apps can increase the student's critical thinking by building knowledge

through what is called "social constructivism." It is because of the immediacy afforded by the chat apps, which give the students an immediate connection with the teacher as well as other students. If we refer back to the eight mentioned areas that can be defined as digital literacy skills mentioned by Belshaw, then many of those definitions he offers can be applied to how we can interpret student interaction with chat apps.

Before researching chat applications, the author conducted some studies on student behavior at Bangkok University using cell phones and tablet computers to determine if in fact learning was accelerated and augmented with using digital assistants (Van De Bogart, 2011, 2012). The question of whether there was a way to integrate LINE in the classroom to teach a specific discipline was posted. A roster of over 200 third-year students majoring in communication arts and specializing in advertising was asked to respond. The challenge for this investigation was to see if the students could integrate both text messaging and emoticons when communicating ideas and opinions about advertising. This was the first time a decision was made to incorporate LINE into a classroom environment at Bangkok University and all students were foreign language learners of English. Each class had to create a LINE group, of which the author was also a group member so as to participate in the student discussions.
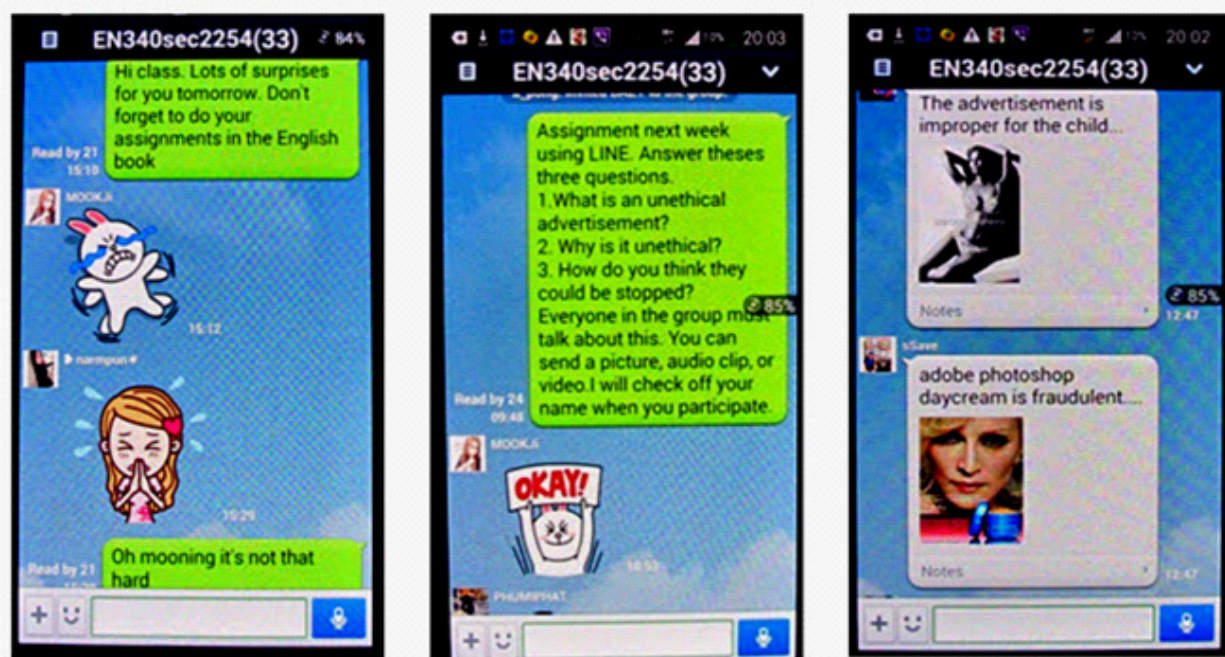

Figure 2 Screen shots taken from classwork at Bangkok University using LINE chat app
Source: Van De Bogart (2011)

If we analyze the three screen shots taken from LINE as a result of the student-teacher interaction there is a great deal of collaboration and response given to a very detailed question as to what constitutes unethical advertisement. But what is more obvious is that there is a very personal expression that can be shown by using an emoticon. This is followed by a response from the teacher, which in turn gives the student the confidence that the assignment will not be difficult. It is at this level in the teacher-student relationship where the student, as a digital native, is interacting in their own world with the teacher thus bridging an enormous generation gap but still allowing the teacher to be relevant in a digital space in which the students perceive meaningfulness in their own world. By

creating an opportunity that allows the student to give the teacher an answer to a question prompts intelligent and immediate responses that are faster and more to the point than if the student had to sit down and write the answer out on paper. What is unique about LINE is that the students are able to express themselves with more than just words or plain emoticons but they also have a wide variety of characters to choose from that display different types of personalities (Wee, 2013).

The success of the Manga series of emoticons allows LINE chat users to express themselves with four of the most popular emoticons in the chat app constellation of characters available for downloading. James is the blond headed boy who is always concerned with the way he looks and is a way for users to express the way they see themselves. Bear is a character with a good heart and always gives good advice. Moon is an unpredictable emoticon with many personalities to fit many situations and lastly, Rabbit who is an emoticon always displaying different moods. These characters have become extremely popular in Asia and the success of LINE has been the ability to put a personality with an emoticon. When the emoticon is mixed with a class assignment it is interesting to see how these characters are juxtaposed with a student response to show their feelings toward an assignment. In screen shot one Rabbit is crying because of an assignment that is due, but with a

reply from the teacher it is followed by a gentle emoticon displaying the traditional Wai hand gesture used in the Thai culture to say thanks and pay respect.

The debate will continue, of course, as to what constitutes digital literacy. The Guardian UK's Higher Education Network recently conducted a chat panel addressing digital literacy (Anyangwe, 2012). This panel came up with as many as 20 different ways an educator could look at digital literacy. One of the Higher Education Network participants in the panel, Helen Beetham, made the comment that students are arriving with some well established digital practices of their own. A supportive role is necessary so students know how to scaffold their ideas and provide what she calls "digital-mediated contexts."

Similarly at Mount Saint Mary College in San Francisco, a study was conducted on technology enhanced teaching and learning for the student. The study recognized that the incoming students already possessed skills and practices in getting information from the internet and literally lived in a virtual vernacular world (Smirnova, 2008). This research should be cited because once the EFL students at Bangkok University were presented with a question, their responses demonstrated that they knew how to get access to the information to answer the question and posted it immediately in their chat discussion group.
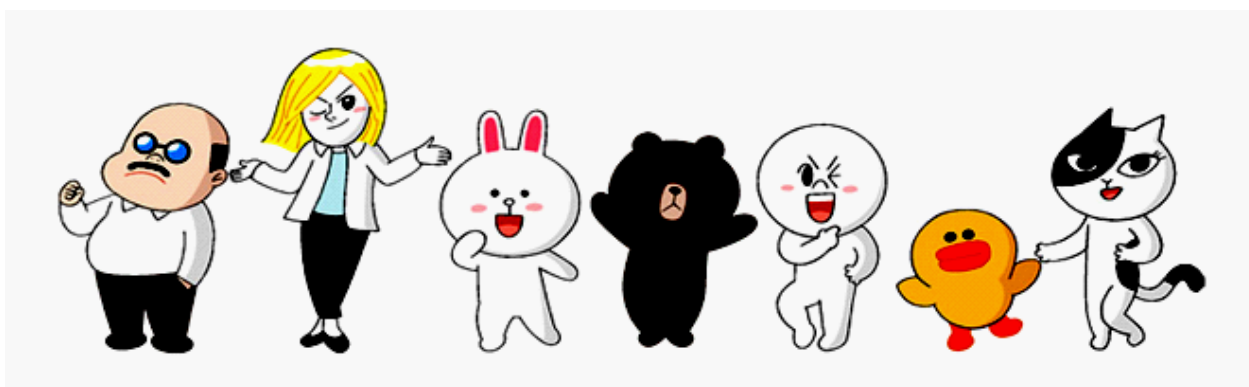

Figure 3 Line sticker characters for different personalities
Source: Lee (2013)

In looking again at the three screen shots of student participation using LINE, the answers show a real world interaction and relevancy to the question. The student is providing an insight into the world they are involved with everyday and are applying a set of ethics which has been instilled in them from the environment and from the community where they come from. The on-line community is established with their class groups and each student begins to see how their friends in the group are answering the questions. This is a very accurate monitoring of the students involvement with their cyber world, which is removed from daily activities and is more representative of a cyber reality that they are more accustomed too. Since the cyber world is the student's reality where they want to participate, any comments can be directly offered in response to their concerns as shown in the screen shot one of Figure 2.

Discussions on LINE Application for Language Teaching

The decision to use the LINE chat app was predicated on direct observation that all students were already using LINE as their preferred method of communication and an active survey showing their acceptance of using LINE for classroom assignments. Thus, LINE activity was incorporated into an English course as one of the new teaching methodologies. In this regard, the class and the teacher created a LINE group so that they became a member of the group. Eight assignments using LINE were prepared to suit the course objective which aimed at developing the students' communication skills. The assignments consisted of questions related to the course work which the students had to reply. Some assignments required the students to respond to answers made by the others. This approach resulted in even more motivating activity as the students felt comfortable responding to what other students had said. This activity continued throughout the semester with students commenting back. The replies would either be in the form of a sticker, emoticon or a short remark. The findings brought about some interesting issues to be discussed in the following paragraphs.

The speed of the responses was noticeable, which can be attributed to the fact that the students are always using LINE for communication. Once the assignment was posted in LINE, every student gave a reply within two days. The thoroughness of the answers showed an awareness of the subject matter with more detail in the answers when compared to those written on paper. The usage of the English language to answer the questions had more words. This is probably because the interaction between the teacher and the students put both sides on the same social networking platform. The students were willing to have everyone in their group exchange ideas. As to whether more retention of the subject matter was achieved or more learning took place using this method of teacher student interaction using LINE for assignments would require further testing. But for a pilot project the output was more immediate, the work was more extensive in its response to questions verses a paper response and the feedback was instant. As can be seen by Table 1, the students had a favorable attitude in using LINE for their course work.

Since the results showed that students were quite receptive to using LINE to do their assignments, LINE can be an active way to have the students respond to the teacher input. The teacher, however, must be well-prepared to participate with the students based on a shared networking aspect to the lessons. More innovative-based knowledge can be provided such as adding small audio clips to pronounce difficult words and phrases, sending video clips and images to demonstrate an idea and providing links to other resources so that the students can freely explore other ideas on their own.

Teacher Training

The use of LINE is a direct way to reach the students, and it increases the teacher's role. Moreover, it is not just responding to the student's answers that are critical, but knowing that the cognitive level of the student in this cyber environment is one of a growing digitally cognitive person who is searching in cyberspace for answers at speeds one can only imagine. The teacher needs to be aware of how knowledge is constructed, and then develop an understanding of how digital skills can be elaborated upon as demonstrated in the field of information science (Debons, 2008). Debons, in his book, "Information Science 101", brings into academic discourse the idea of knowledge subsystems and how they impact decision making and problem solving. If we look at the students answer in screen shot three, the student says that the advertisement is improper for a child or is fraudulent. This comment brings into focus how scaffolding can be implemented by a teacher for a student's understanding of the effects of unethical advertisement on children by providing the student with more information on fraudulent behavior. Social constructivism, also called collaborative learning, is a perfectly good philosophy when aplied to the chat apps. However, just knowing how social behaviors have a philosophical foundation does not touch on the real learning foundations, which come from the understanding of such disciplines as information science, information counseling and knowledge management systems. Information counseling, or knowledge counseling, is the ability to apply evaluative techniques when acquiring data, information and knowledge to a search strategy. How quickly a student can learn unethical advertisement is crucial to determining if the student's use of LINE chat is in fact helping to store information into their long term memory in the understanding of unethical advertisement and not just gaining the answer with the results provided by a search engine.

This whole new learning methodology of social constructivism reflects on what was found in the research at Carnegie Mellon University (Koedinger, Julie, & Klahr, 2013). What methodology is appropriate in the context of the learning situation? How to best understand or best conceive the cyberspace the student is learning in has been interpreted by Roy Ascott, of Plymouth University, UK (Moravec, 2013). Ascott believes that the cybernet is the sum of all those artificial systems of probing, communicating, remembering and constructing data processing which enhances our ability to understand the world. When a student begins to enter that cybernet Ascott is referring to, their cognitive understanding of the world has been highly influenced by what they have thus far seen on the internet. In this respect the teacher has to be knowledgeable about how knowledge systems are constructed and can augment student learning behavior by directing their attention to an idea they may of otherwise not have considered. It is at this point in their digital literacy skills that their learning can be enhanced.

Conclusion

Considering the availability of digital devices that support community development, if there is no recognition of how much these new tools are being absorbed into the students lives then there will be no way to comprehend the behavior and learning initiatives which could be understood and implemented into course work. The trend of students who are eager to participate in a world full of innovation will naturally adapt to communicating with others in a larger cyber community. It is necessary to see that learning in the cyber culture of today will increase, and students will be making associations from many different sources of information faster than ever before. And it will not be long before the overwhelming majority of students will be using natural language search

engines. IBM has already begun to develop such a search engine called "Watson" (Ferrucci et al., 2009). Watson is an artificially intelligent computer system capable of answering questions posed in natural language. IMB has even developed a logo for Watson which is the symbol of a smart planet.

Figure 4 IBM's smarter planet logo
Source: Wikipedia (2013)

Clearly this natural language search engine will make available knowledge from every conceivable community around the globe, and that reality is only a few years away. The literary practices that are done in these virtual environments can be understood with a definitive study titled Digital Literac (ies), Digital Discourses, and Communities of Practice (Eyman, n.d.). What was found in this study is that using English in a virtual environment supports both digital literacy instruction and the development of communities of practice. Granted the use of LINE chat is a new development in course work at Bangkok University as a way to get students to respond to their assignments. However, when a broad search is conducted in what is being done in industry, educational institutions and research centers of learning methodologies, such as the one conducted at CMU, a clear picture is beginning to emerge, that Prensky has given voice to, and that is students have fundamentally changed the way they access information in their environment. The author realizes this is a very succinct analysis of the effectiveness of EFL improvement, and specifically for Thai students using LINE, however, with the initial results received from conducting this initial attitude survey, teachers need to spend more time learning the different ways of knowledge acquisition that young learners of today are quickly adapting to.

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