

Assignment 2.1 Evaluating web resources

Health reform is evident with the application of computer technology to nursing (Nursing Informatics) to support the delivery of nursing care. As a result, theories were applied to Nursing informatics. These are categorized as change, Informatics, cognitive and the Novice to expert theories .

The diffusion of innovation theory and Lewin's change theory comprise the change theories. The diffusion of innovation theory was promoted in 1962 by Everett Rogers. Kaminski (2001) shared “diffusion of innovation refers to the process that occurs as people adopt a new idea, product, practice and philosophy.....”. The change is unplanned and attitudes to the new method (e.g. highly technological hospital environments) varies. Innovators apply the required knowledge, early adopters examine the new method, early majority acquire the method based on budget and trusted referral, late majority purchase based on peer pressure or competitiveness and laggards resist the change or are satisfied with the present condition (e.g. the traditional paper based system).

In contrast, Lewin's change theory (1947) is one of planned change. It includes the unfreezing, change and refreezing stages. Unfreezing occurs when driving forces (e.g. need for more efficient health care) makes the traditional way seem less effective (e.g. paper based system). Change occurs when preference is given to the new way and refreezing takes place when the new way is confirmed.

The information shared by Kaminski and the sites used to acquire knowledge as it relates to the mentioned change theories were found to be credible. The author and selected site met several criteria importance when the evaluation aspects of Authority, Accuracy, Objectivity, Currency and Coverage were considered. As it relates to Authority, the site selected was <http://cjni.net> which is a global site of the Canadian Journal of Nursing Informatics (CJNI). This site shares online quality journals. The search engine at www.alexa.com showed that twenty one (21) sites are linked to CJNI and one was

able to view the site's past appearance via Way back machine. The links used to acquire research information were cjni.net/journal/?p=1210 and cjni.net/journal/?p=1444. The author of the articles shared (Theory applied to informatics-Lewin's change theory and Diffusion of innovation theory – theory of Nursing informatics column,2011) was identified in the Google search engine. June Kaminski (identified author) was shown to be an expert (qualified RN, MSN, PHD). The link at [http://ubc.academia.edu/June Kaminski](http://ubc.academia.edu/June_Kaminski) verified the author and her contributions. Kaminski is also the editor in chief of CJNI and her articles are listed as scholarly in the Google search engine. She was also cited at the end of each article. The fact that the author is qualified and an expert in the field of nursing allowed for the acquisition of quality information by the researcher as it relates to theories of nursing informatics.

The information acquired is reliable and error free as it is edited by the CJNI. The CJNI in the Google search engine was identified to be a “peer- reviewed, online, quarterly journal”. This means that the articles were critiqued by multiple scholars before it's publication. Several references were found which verified the information shared e.g Kurt Lewin's change theory in the field and in the classroom: notes towards a model of managed learning. Working paper 3821.

The articles or information presented were mostly objective. There was no use of persuasive language or advertisement. Kaminski used the articles to provide information on the theories and to explain their application to informatics. Kaminski reinforced that “theory is important to robust informatics knowledge”. This view was observed to be opinionated but for the most part an objective approach was utilized to explain the theories. The articles (theory applied to informatics. Lewin's change theory and Diffusion of Innovation theory- theory of Nursing Informatics column) were written on the 23rd March, 2011 and 19th June, 2011 respectively. Issues related to the exclusion of selected

data due to copy right issues were not found. Both articles provided an intrinsic value in that they are dependable and workable models for nursing informatics implementation in healthcare.

Furthermore as it relates to currency, the references and links provided were verifiable and were not expired. The publication date of each article was given e.g the article on Lewin's change theory was dated 23 March 2011, volume 6 No 4 and 19 June 2011, volume 6 No 2 for the article on the diffusion of innovation theory. Both articles were not revised or up to date but information remains applicable to this era of technological reform in health systems.

The information theories include Blum's theory and the Data- information- knowledge- wisdom continuum. Blum (1986) shared “the frame work of Nursing informatics relies on the taxonomy and definitions.....of data, information and knowledge”. Data includes unbiased content, information is interpretation of the data, and knowledge is combination of the information to form solutions. This is important in making diagnosis and effective implementations via the computer and technology in the provision of nursing care.

Graves and Corcaron (1989) based the data- information -knowledge – wisdom continuum on the aspects of data, information and knowledge as shared by Blum. The aspect of wisdom was added which involves using knowledge in the achievement of objectives .

The cognitive theory focuses on explaining how a computer screen is understood by the brain. The human brain is compared to a computer in that the computer produces data to cause solutions. Likewise humans make the most appropriate choices to their situations.

The novice to expert is another theory applied to Nursing Informatics by Patricia Benner (1984). It comprises the Novice (clinician lacks knowledge and experiences), advance beginner(more

experience and observant), competent (independence in problem solving), proficient (more holistic problem solving analysis and expert which is where experience allows for immediate interventions.

Research information about the additional theories was acquired again from the website of the Canadian journal of nursing informatics (CJNI) via this link ([cjni.net/ journal/?p=967](http://cjni.net/journal/?p=967)) and the editor in chief June Kaminski. This site was selected for further research as CJNI was proven as expressed before to be legitimate and provide reputable information based on the evaluation criteria. This was ensured to acquire accurate information since there is the existence of 'hoax' or false websites on the internet. Information acquired from false websites ultimately affects the accuracy and validity of the content acquired as it can be very misleading.

Another valid site selected to acquire the shared information is that of the online journal of Nursing Informatics <http://ojni.org> .The site and author met most of the evaluation criteria. When one considers the criteria of Authority , the reputation of the author or publisher is very important. One wants to ensure that the author is qualified or an expert in the field to ensure accurate or concise information. The online journal of Nursing informatics (OJNI) is an online publication started in 1996 and the longest operational journal related to Nursing Informatics. The article used is titled The “Hitch hiker's guide to nursing informatics theory: using the Data-knowledge-information- wisdom frame work to guide information research”. The editor of the article is Maxim Topaz who is qualified as a RN, Spencer Scholar, Bachelor in Nursing, Masters in Nursing in gerontology and PHD . This link [http ://scholar.google.com/citationshl=en&user=7mxxj2uAAAAJ&view_op=list_workspagesize=100](http://scholar.google.com/citationshl=en&user=7mxxj2uAAAAJ&view_op=list_workspagesize=100) verified and supported Topaz's credentials . The OJNI site was also verified @ www.alexia.com with 21sites linking in and Way back machine showed it was updated forty six times between march 2008.

The OJNI is a free online, peer reviewed nursing journal that is published three times a year under the Healthcare information and management systems society (HIMSS) which is a global non profit organization dedicated to improving health care quality. The fact that the journals are peer reviewed means that it is fact checked by scholars in the field before publishing. There is also the use of references to support the information given. The latter and former aspects are important to meeting the criteria of accuracy.

The information provided must be factual and unbiased, since biased information is opinionated and will affect the quality and truthfulness of the data, research and findings. A balanced view was given by Topaz who spoke on the history and what consisted the theory. While an example was given as to how the theory could be applied, the intention of the article “was to present a possible theoretical blueprint for nursing and healthcare informatics researchers.....”. The editorial was the opinionated aspect of the article but the majority of the information was unbiased as it relates to what consist the theory.

The depth and value of the material or information provided consist the criteria of coverage. This is also important for quality information as the extent of the data provided in a journal or article can affect the knowledge and expertise gained by the researcher. The information shared by the ONJI and Topaz was in depth with use of examples and illustrations describing aspects of the theory. There fore, one was able to acquire a better understanding of the theory explained. In contrast, the information shared by Kaminski via the previous mentioned site of CJNI was accurate but not quite in depth. There are no evident revision dates or copy right issues related to the article. The data provided covered the data-information-knowledge- wisdom framework or theory.

The currency of the shared links are important to ensure up to date information and verification. The article is dated 31st October 2013, volume17, No3 and wasn't updated since. However, the information

provided remains current to nursing informatics as it consists a workable and dependable theory that is applied. The links provided and references e.g about the author and journal are directable and are not expired.

In conclusion knowledge is a requirement of daily living. This is often acquired via experiences, sharing and acquiring of information e.g via research using the internet . However, not all websites are factual and the information shared can be misleading. There exists false websites and links that provide incorrect information via the internet. Several of these false sites were encountered during the research on theories of nursing informatics. When the research criteria were applied these sites failed e.g several of the links were not directable, information about the site and author was unavailable, the information was not in depth or supported by other site , they were not legitimate and errors and extreme bias was noted in several of these articles. As a result such sites were not selected since one was aware that the information provided was not accurate and use of such sites will hamper quality research. Therefore the evaluation criteria of Authority, Accuracy, Objectivity, Coverage and Currency must always be applied to ensure credible and legitimate information. Research acquired on the theories of nursing informatics using the mentioned sites and editors met the criteria and importance which determined their selection and acquisition of accurate information.

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References

- Kaminski, J.(2011). The applied to informatics-Lewin's change theory. Retrieved from <http://cjni.net/journal/?p=1210>

- Kaminski, J.(2011). Theory applied to informatics- Novice to expert. Retrieved from <http://cjni.net/journal/?P=967>
- Kaminski, J. (2011). Diffusion of Innovation Theory. Theory in Nursing Informatics column. Retrieved from <http://cjni.net/Journal/P=1444>
- Topaz, M.(2013) The Hitch Hiker's guide to nursing informatics theory: using the data-knowledge-information-wisdom framework to guide informatics research. Retrieved from <http://ojni.org/issues/?P=2852>
- Blum, B.L (1986) Clinical information systems