

Nursing Informatics/Health Care System Assessment Term Paper

Vernell Kea 4048

Nursing Informatics section 2738

To aid me in my assessment of an information system I interviewed Ms. Margaret R. Silberger RN, MSN, CNS who works in the nursing informatics department at New York-Presbyterian Hospital (NYPH). I'm going to analyze NYPH information system utilizing the concepts of information and change theories and propose changes to their present information system.

NYPH is the number one hospital in New York and is considered one of the most wide-ranging university hospitals in the world. NYPH is composed of 2 medical centers, New York – Presbyterian Hospital/Columbia University Medical Center and New York – Presbyterian Hospital/ Weill Cornell Medical Center. NYPH is also affiliated with two ivory league medical institutions, Columbia University College of Physicians and Surgeons and Weill Cornell Medical College. NYPH has continuing care clinics in New York, New Jersey, and Connecticut. NYPH has national recognition and has received the 2011 Energy Star Award for sustained excellence in Energy management, the U.S. News and World Report's honor roll of American's Best hospitals, and New York Magazine's 2011 best doctors ("New York-Presbyterian. The University Hospital of Columbia and Cornell," n.d.). Among the doctors honored were Dr. Memmet Oz and Dr. Nicolas Schiff who were voted Time's 100 best physicians. NYPH has 19,881 full time staff and generates revenue of 3.7 billion dollars a year ("New York-Presbyterian. The University Hospital of Columbia and Cornell," n.d.).

Allscripts, an electronical documentation system uses at NYPH, is used by all disciplines involved in patient care including and not limited to nurses, doctors, social workers, physical therapy, dietary, and nursing assistants/techs. According to Margaret Silberger most of allscript end users are nurses. Margaret stated, "Nurses use electronical documentation via allscripts for all aspects of a patient charting including vital signs, assessments, referrals, teaching, etc."

Margaret also detailed that amongst the population using allscripts the doctors are the second major users of the documentation system; they are able to write electronic orders instead of paper orders which makes patient care faster and efficient.

The system I'm going to analyze from NYPH is allscripts formerly known as Eclipsis ("Allscripts," n.d.). In talking with Margaret Silberger I can shed light on the information system used at NYPH. I met with Margaret on an early May morning just before she started her shift; she was very knowledgeable about allscripts and was eager to share her informational technologic experience on the implementation of the system with me.

Margaret indicated that allscripts was chosen by senior leadership because they wanted to have an electronic documentation system that could be used by all disciplines for the in-patient world. Senior leadership looked at multiple systems before choosing allscript and decided that features and finance would decide what documentation system to go with. Margaret went on to say that senior leadership believed that some but not all of the benefits of having the system would be legible orders, interoperability of the system, simultaneous multiple charting and viewing from various points in the hospital, written doctor orders from any computer in the hospital, user friendliness, fast retrievable information, and less clicking while charting on a patient.

When asking Margaret about equipment requirements she specified that going from paper to computerized charting needed a lot of hardware such as hardwire pc's and mobile pc's. Margaret also went on to say that equipment caused an environmental challenge as well; computers had to have specific places to be placed on each unit causing slight environmental changes to be made throughout the hospital. Margaret also went on to say that new

reliable/secure interfacing was needed to insure issues such as dropped orders would not occur. Conductivity was also another issue that Margaret pointed out; because there would be an increase in electrical usage new hardwiring of electrical cables and sockets would be required to support all the computers.

Margaret detailed that in developing the system multiple people of different disciplines were asked to input their ideas to have a more fluid suitable system; the hospital was set on getting all end user input because they would be the ultimate users of the system. In speaking about standardization Margaret sighed, “This was bit of a problem because NYPH has two campuses east and west.” Margaret identified that at implementation the system had a glitch because the east campus and the west campus were not communication electronically for nursing; east campus used scc version of allscripts and the west campus used the sa version. The glitch was fixed by merging the two systems but optimization of both systems is an ongoing issue and continues to be a work in progress as stated by Margaret.

Margaret indicated that measures to test the system were time consuming; measures had to be made to make interfacing and flow from pharmacy to allscripts rapid. Margaret went on to say that measures had to be made to make sure that orders that were written once a day actually showed up and was scheduled once a day. She went on to say that there were multiple test measures to make sure nursing orders went to the appropriate patients. The interfacing and flow from allscripts to other programs also had a glitch; the glitch was fixed and interfacing became rapid.

After the interview with Margaret I had the privilege of talking to a few of the nurses. I asked the nurses if allscripts work for them and the general consensus was that they found

themselves double charting a lot of data and that the system was slow and stalled a lot. The nurses also stated that going from paper to computerized charting was not easy. The nurses stated that they did not agree with Margaret that there was less clicking while charting and that the speed of the computer was faster.

My proposed changes are to get newer computers with faster operating systems because of the pausing and delay times. Secondly a task force informatics committee needs to be in place to go over the system's software and tweak it to eliminate repetitive information found in drop boxes and nursing presets. This task force will then be responsible to educate the nurses on the benefits of change and to re-educate the nurses to write less free text nursing notes and rely more on the use of allscripts drop down boxes instead; this will eliminate the feeling of double charting.

Knowing that the nurses felt that the implementation of allscripts was not easy I knew this was their way of saying that they were resistance to change. In order to put my proposal in effect the issue of change would have to be addressed. Changing a document and ignoring the psychosocial nature of the users is one way to set oneself up for failure (Thede & Sewell, 2010, pg. 314). In order to implement my proposal the end users need to be on board; as stated in Roger's Diffusion of Innovation Theory the innovators, early adopters, early majority, and laggards would have to be identified (Thede & Sewell, 2010, pg. 314). Once identified, the early adopters would need to be focused on because they are the respectable opinion leaders who function as primary promoters of an innovation ("Diffusion of innovations," 2012); the early adopters would be used to promote the system and get all the nurses on board. As shown in figure one of the Roger's Diffusion of Innovation Curve the adopters adapt to technology almost as soon it becomes available which would make them the appropriate target for promoting

change. The adaptors should be given a new meaningful name called allscript champions; they will make the implementation and change process easy.

One aspect of change is fear. NYPH has to make sure that the nurse's fear is put to rest by educating the staff about why the change is happening and what positive outcomes implementation has on the patients. As shown from a study in a Dutch hospital, from the international journal of nursing studies, implementation was effective once the nursing staff understood the effects of the implementation of electronic documentation on the quality of care (De Veer & Francke, 2010).

In order to get a faster operating system the existing computers would need an upgrade. In order to get this upgrade NYPH would have to use capital budget to buy new equipment. About five hundred thousand dollars could be feasible for the proposed job. The benefits of my proposal would increase nursing moral about the system being slow and will create a faster moving computer which in return can help the nurses chart quicker and be able to spend more time at the bedside. NYPH already had a massive rewiring as stated by Margaret Silberger so implementation of updated operating systems would be able to be supported. Since there was a problem with standardization in the past with the east and west campus this issue would be address and the implementation would have to be troubleshoot for both campuses.

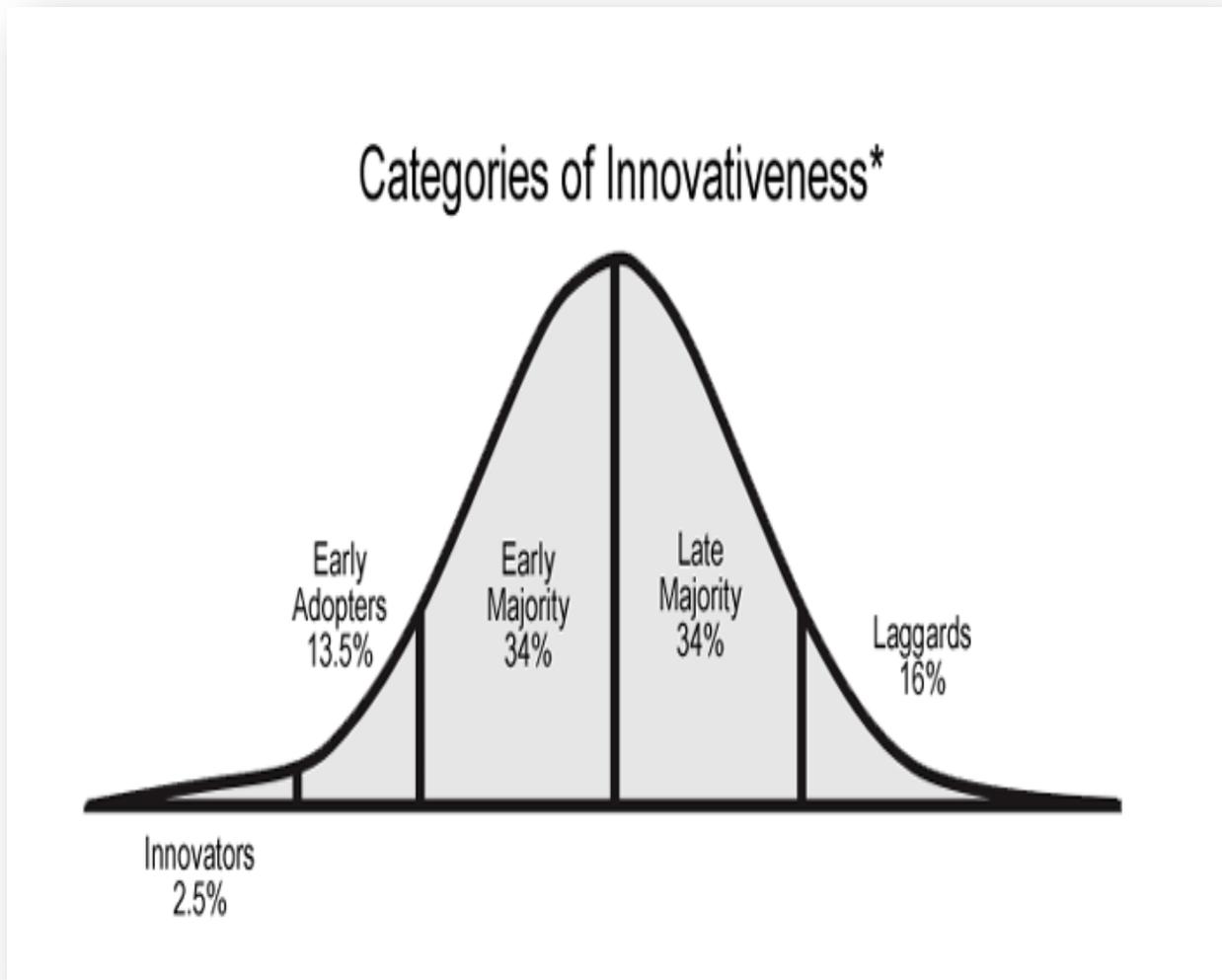
I noticed that change of shift report at NYPH was done by means of paper hand-offs. I also noted that during change of shift people were also writing on pieces of their own paper despite receiving the hand written document. My proposal for future consideration would be for NYPH to implement an electronic change of shift report. This change of shift report would make

change of shift faster, paperless, and decrease the amount of unauthorized over time given because of the paper oriented change of shift style that's present.

In conclusion, the implementation of my proposal will impact nursing by alleviating stress on end users who feel that they are working on slow moving computers thus causing frustration with using electronical documentation. By implementing my proposal many nurses would be able to understand and deal with change better than in the past.

# Roger's Diffusion of Innovation curve

Figure 1



## REFERENCES

- Allscripts. (n.d.). - *Home*. Retrieved from <http://www.allscripts.com/>
- De Veer, A. J., & Francke, A. L. (2010). Attitudes of nursing staff towards electronic patient records: A questionnaire survey. *International Journal of Nursing Studies*, 47(7), 846-854. doi: 10.1016/j.ijnurstu.2009.11.016
- Diffusion of innovations. (2012, May 21). *Wikipedia*. Retrieved from [http://en.wikipedia.org/wiki/Diffusion\\_of\\_innovations](http://en.wikipedia.org/wiki/Diffusion_of_innovations)
- NewYork-Presbyterian. The University Hospital of Columbia and Cornell. (n.d.). *About Us*. Retrieved from <http://nyp.org/about/>
- Thede, L. Q., & Sewell, J. P. (2010). *Informatics and nursing: Competencies & applications*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins.