Ethics and Governance of ICT-based social engagement in institutional aged care

Ken Eustace and Oliver Burmeister
School of Computing and Mathematics,
Charles Sturt University, NSW, Australia.

Abstract
A pilot project in 2010-2011 aimed to determine whether the introduction of technology at an aged care facility in North-East Victoria had increased social engagement for residents. The study aimed to determine the extent to which ICT and Internet access had increased the social engagement of residents, within and outside the aged care facility. This study uniquely included the views of staff and management and provides a focus for discussion about the ethics and governance of ICT-based social engagement in institutional aged care.

Introduction
Governance is an important area of ethical consideration, including in the business of institutional aged care. More widely, governance as an area of ethical discussion, has been addressed both nationally and internationally (Weckert & Lucas, 2012; Burmeister, 2013), and some recent work has also examined governance in technology use by seniors (Burmeister, Foskey, Hazzlewood & Lewis, 2012), and in institutional aged care (Bernoth, Dietsch, Burmeister & Schwartz, 2013). Use of ICT and Internet in aged care by residents was relatively new in 2010 even as many retirement villages were introducing technology for use by residents. The key question for this study was:

Has the ICT introduced at the aged care facility, increased the social engagement of its residents?

The data collected using ethnographic interviewing techniques and the criterion based purposive sampling of information rich-cases would also contribute to the in-depth analysis of ethics and governance issues.

3. Snapshots of some Rich Data Observations

T1 is retired teacher and began using computers in 1983 in primary schools. T1 is a volunteer trainer and "pet therapist" whose mother was living at the aged care facility, and is continuing her contact with the home as a volunteer each Thursday afternoon.

The training goes for an hour as the seniors may get tired. T1 is experienced in working with training seniors having done work with the University of the Third Age. Her approach is friendly, conversational and uses self-paced student-centred approach small groups, with 2 learners as the best training format. In her opinion, training in small groups works better for older people.

Many with eyesight and motor skill problems find it hard but one male R3 is looking at ways to participate in training. Up to five residents have started the computer training but have dropped out for several reasons including frustration and lack of confidence.

R1 and R2 are friends. Knowing that R2 is deaf in her right ear and that R1 can’t move her neck to the left so all is well as long as R1 always sits at the left side of R2. R2 is a keen computer user due to life experience and told that her family members do make big use of computers around their home.

Now R1 and R2 are together in ICT training focused on use of the Internet. Both women are bright, alert and an open mind towards use of computers and certainly not afraid but rather
excited about using the technology to “break out” or escape from the walls of the home, even though they enjoy being there. Regular family contact is a big motivator.

In their working lives, R1 as personnel officer in Human Resources while R2 had worked for the PMG in telecommunications and worked on teleprinters and for OTC. Both had supervised other staff as team leaders.

R1 interview results
R1 uses a track ball as the mouse was too hard with arthritis and the cursor with trail made it easier to see. R1 was in her late 90s and had trouble with her neck movements to the left. R1 uses hotmail account that her daughter set up but T1 prefers Gmail as the interface pops up ready to use and the good spam filtering, giving the uncluttered feel. R1 has relatives in Norway and Nova Scotia and hopes to make contact with great grandchildren.

Facebook is scary to R1 while all agreed that it has privacy issues and is blocked on the local network. R1 says it may be in the future that they get to use Facebook, after further developing their self-efficacy with email and Skype as the first step.

R2 interview results
R2 was using her Gmail account to write an email message and she uses the room quite often and was the “power user” of some influence. She is quite confident in some ways although feels she still has so much to learn. R2 has Skype contacts with 3 family members. R2 was fascinated with the key size of the iPad and with how small and light it was to carry around. During an iView benchmark R2 was introduced to the service as “service oriented motivation”. She was able to watch the last 6 minutes of the New Inventers grand finale that she missed the previous evening.

4. Summary and discussion of findings
The user experience by the residents in this study was influenced by several interplaying factors. These included some factors to enhance the experience while others were limiting factors:

1. Motivation to use ICT to stay in touch with the family;
2. Prior experiences with ICT, including privacy issues with social networks;
3. The individual’s own self efficacy, confidence and pride in using ICT;
4. Access to and availability of the ICT services in the aged care facility;
5. Support and encouragement from family, peers and staff;
6. Reluctance to go beyond using e-mail, Internet and Skype on a computer to using social media, mobile device and applications;
7. Device interaction and usability (computers and tablets preferred over smart phones)
8. Physical disabilities with sight, hearing and motor skills (hand movements).

For the staff at the aged care facility, the ethics and governance is providing ICT as an Enterprise System requires changes that will increase running costs (e.g. wireless networks and keeping up to date with new ICTs) as well as a need to make changes to governance processes, people and existing systems such as a re-design of ICT infrastructure and processes, possible job re-training for staff and integration with other core services at the aged care facility.

In the two years since the study, there have been some huge changes in both the technologies available, like tablet devices and the changes on the horizon with the National Broadband Network or NBN, and the style of ICT-based social engagement by seniors, but further research is needed to investigate the scope of it all again in 2014 for both the residents in institutional aged care and the wider ethical implications, role and governance of management in an aged care facility.
Research conducted in the USA by Zickuhr & Madden (2012) revealed findings of significance and pointers for future research in Australia on the patterns of behaviour with seniors and ICT use as shown in the short list of their findings below:

• Over 53% of seniors over 65 use the Internet, with 70% of that group going online daily;
• Once online, Internet use becomes a regular part of seniors lives with 39% having broadband at home;

However after age 75, the Internet and Broadband use drops away significantly and this category has strong representation in our aged care facilities:

• 68% of those aged 75+ did not feel confident and needed someone to help them get online;
• Only 20% of users in this cohort use social networking sites and just 8% on a daily basis;
• Relevancy of the Internet and lack of interest in using e-mail became an issue for 38% over those aged 75+

**Conclusion**

Technology use by seniors is not new. Many studies have shown that seniors of all ages enjoy learning to use technology (Arjan, Pfeil & Zaphiris, 2008; Burmeister, 2012; Burmeister, Weckert & Williamson, 2011; Sayago & Blat, 2010; Xie, 2008) and that there are many benefits to gain apart from social engagement for those with reading and physical issues, in using iPad and other Tablet applications (Silveira, Daniel, Casati & de Bruin, 2013).

This study was an Australian first in that it looked both at resident and staff use of technology for social engagement, in institutional aged care. The future plan of this research is for regular and more detailed examination on the ethics and governance of ICT-based social engagement to include staff and residents as a community with equity and access to technology, particularly before the “baby boomers” populate the aged care communities in the 75+ age category from 2020.
References


Xie, B. (2008). The mutual shaping of online and offline social relationships. Information Research, 13(3).


Ethics & Governance of ICT-based social engagement in institutional aged care

Ken Eustace & Oliver Burmeister
ICT Security Group
School of Computing & Mathematics
Charles Sturt University

Presented at
7th AICE Conference, RMIT
Melbourne, Australia
3 December 2013