

TECHNOLOGY AND ETHICAL/MORAL DILEMMAS OF HIGHER EDUCATION IN THE 21ST CENTURY

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Abstract

During the 2008 ICICTE Conference in Corfu, Greece, conference participants were challenged to make predictions about the future of educational technology. As a participant I envisioned the need to rewrite the rules for civic engagement and acceptable action in the 21st century and beyond. Now that we are in the second decade of the 21st century, there is a strong sense of urgency to examine and revise current policy, so that society may connect with the realities of the present. How we embrace technology is an important part of the conversation. This paper will address those needed changes in greater depth, and provide a framework for exploring issues of ethics, and the dilemmas faced by educators in the 21st century, with regard to teaching and learning in higher education.

Introduction

When we reflect on the numerous technological innovations designed to enhance quality of life, there is reason to celebrate accomplishments, and struggle to address challenges. We live in an environment which applies technology to support global efforts of some of the world's most brilliant scientific minds, to rescue thirty-three miners trapped beneath the earth's surface in Chile. Our enhanced ability to communicate led to the rescue of victims of the 2010 earthquake in Haiti. Technology also enhanced our ability to communicate, save time, and inspire a generation of innovative leaders. There is a challenge associated with the moral dilemmas emerging from this burst of technological innovation, the abuse of technology, as seen through revealing video postings, invasion of privacy, cyber bullying, and identity theft. The challenges have resulted in harm to society, present a threat to the mental health of individuals and their families, and stir controversy amongst stakeholders in the future of the global economy. This paper will support the notion that as society progresses and becomes more technologically advanced, a new set of rules, laws, policies, and procedures must emerge to govern, guide, and protect the rights of individuals within this new technological environment

In a theoretical approach to ethics, Beale (2004) suggested that ethics is interdisciplinary and can be applied to any profession. When applied to learning

and teaching objectives, the theoretical approach to ethics involves the development of reasoning skills, logic, and analytical skills. Although the theoretical approach can be applied to disciplines beyond the conventional subjects of philosophy, theology and religious studies, Beale expressed a concern that the students of other disciplines would not relate to the theoretical approach. The interdisciplinary nature of ethics, allows scholars of different professions to learn from each other. This paper presents a model for examining ethics in higher education, as applied to the practice of teaching and learning.

During the spring 2011 President's Day Professional Development Conference, the College of Saint Rose recruited the talent of distinguished faculty to explore four critical questions: How do we learn? What do we learn? With whom do we learn? and Why do we learn? (Brannigan, 2011). The questions were focused on higher education and technology. The purpose of this paper is to provide a framework for exploring issues of ethics and the dilemmas faced by educators in the 21st century, with regards to technology, teaching and learning in higher education.

Literature Review

As indicated by Linda Darling Hammond in the *Flat World and Education* (2010), a number of changes are needed to prepare students to compete in this global society. There are a series of questions regarding technology integration into teaching and learning examined by higher education faculty. When examining the process of preparing K–12 teachers, Hofer and Swan (2006), discussed the need to master and implement technological pedagogical content knowledge (TPCK) into the classroom environment. They referenced the theory of Shulman which emphasized the importance of the connection between content knowledge and mastery of appropriate pedagogical teaching strategies. They referenced the work of Koehler and Mishra (2007) when building a model that examines technological pedagogical content knowledge. As implied by the label, technological pedagogical content knowledge (TPCK) recognizes the importance of the connection between pedagogical teaching strategies, content knowledge, and mastery of technological skills. A graphic representation of the intersection of these distinct areas was presented in the form of a Venn diagram, demonstrating all areas of mastery necessary for successful outcomes, technological knowledge, technological content knowledge, content knowledge, pedagogical content knowledge, pedagogical knowledge, technological pedagogical knowledge, and technological pedagogical content knowledge (Hofer & Swan, 2006). They referenced the work of numerous scholars to explore the barriers between successful technology integration in K–12 settings, even when districts have demonstrated a commitment to the integration of technology in all classroom environments. The scholars (Hofer & Swan, 2006) described a project involving four teachers and their implementation of digital media to enhance student learning. The three-week project was implemented in four 6th grade social studies

and English classes, where students were guided in the production of 3–5 minute documentaries on events and significant historical figures surrounding the Civil War. The justification for technology integration was student centered: an authentic experience, encouraging students to engage in subject matter, and become more motivated, with a heightened sense of ownership (Hofer & Swan, 2006). A case study approach was used to analyze the results of the project, which led to the conclusion that each of the teachers exhibited a range of strengths in each component of technological pedagogical content knowledge (TPCK). The development of student-produced, historical, documentaries are complicated, worthwhile projects and effective media for student learning.

Frye, Trathen, and Koppenhaver (2010) expressed four objectives to be accomplished by students in a successful educational environment:

- acquire, organize, interpret, and communicate information;
- process information to investigate questions, develop knowledge, and draw conclusions;
- generate and evaluate well-informed, alternative approaches to problem-solving and decision-making; and
- interact responsibly with others

The authors described the implementation of a well-researched social studies curriculum, designed to expose students to productive websites, engage in research, and foster creativity in writing. The fourth objective, interact responsibly with others, is consistent with the theme of this paper. The examination of moral and ethical issues was also mentioned by Kenneth Green who stated “social networks are creating social problems” (2010).

In *Theoretical Approaches to Ethics*, Beale distinguished between a theoretical approach and an issue based approach on three levels: “the role of theory in issues based ethics teaching, an outline of the key differences between the theoretical approach and the pragmatic/embedded approaches in respect of learning and teaching objectives, and consideration of the key skills that may be enhanced by adopting a theoretical approach” (2004, pp. 65–66). She proposed two essential questions: What is distinctive about ethics in particular disciplinary practices, and what is transferable across disciplines? (p. 66). According to the author, scientific, moral and ethical questions emerge across disciplines, encouraging students to consider perspectives other than their own. According to Beale consideration of desired student outcomes is the motivation for embedding ethics into the curriculum. Students are expected to: “Apply research guidelines or a professional code; promote good professional conduct; engage in reflective practice; explore background moral beliefs; and develop empathy” (p. 70). In order to support student accomplishment of these outcomes, Beale suggested the following tools:

“government legislation and guidelines; professional code of conduct; research guidelines; and canonical text” (p.70). This paper is focused on the development of guidelines, specifically professional code of conduct, as well as, government legislation and guidelines.

Behavior

Beale (2004) discussed applications of moral theory, identification, and analysis of morally challenging situations. She proceeded to identify four components of moral behavior as stated by Rest: moral sensitivity, judgment, motivation, and character. These represent the areas of ethics I refer to in the discussion of the need for new rules, guidelines and procedures, particularly for scholars responsible for students in higher education.

John Strain (2005) made a presentation on ethics, where he discussed three concepts regarding ethics in professional practice: care, knowledge, and design. Central to the three concepts is communication between client and professional. Although the concepts are applied to the healthcare professions, specifically nursing, professionals across disciplines are expected to adopt the standards. Strain discussed virtue theory from an Aristotelian perspective and defined virtue theory as “focused on the acquisition and development of dispositions in the practitioner to act with an appropriate emotional response, and which reflect the practitioner’s acting with practical wisdom or phronesis in any circumstance” (p. 76). Strain made reference to the Code of Conduct for members of the British Computer Society:

The Public Interest

Members shall in their professional practice safeguard public health and safety and have regard to protection of the environment. Members shall have due regard to the legitimate rights of third parties. Members shall ensure that within their chosen fields they have knowledge and understanding of relevant legislation, regulations and standards and that they comply with such requirements. Members shall in their professional practice have regard to basic human rights and shall avoid any actions that adversely affect such rights.

Duty to Employers and Clients

Members shall carry out work with due care and diligence in accordance with the requirements of the employer or client and shall, if their professional judgment is overruled, indicate the likely consequences. Members shall endeavour to complete work undertaken on time and to budget and shall advise their employer or client as soon as practicable if any overrun is foreseen. Members shall not offer or provide, or receive in return, inducement for the introduction of business from a client unless there is full prior disclosure of the facts to the client. Members shall not disclose or authorise, to be disclosed, or use for personal gain or to benefit a third party, confidential information acquired in the

course of professional practice, except with prior written permission of the employer or client, or at the direction of a court of law. Members should seek to avoid being put in a position where they may become privy to or party to activities or information concerning activities which would conflict with their responsibilities in 1–4 above. Members shall not misrepresent or withhold information on the capabilities of products, systems or services with which they are concerned or take advantage of the lack of knowledge or inexperience of others. Members shall not, except where specifically so instructed, handle client's monies or place contracts or orders in connection with work on which they are engaged where acting as an independent consultant. Members shall not purport to exercise independent judgment on behalf of a client on any product or service in which they knowingly have any interest, financial or otherwise.

Duty to the Profession

Members shall uphold the reputation of the Profession and shall seek to improve professional standard through participation in their development, use and enforcement, and shall avoid any action which will adversely affect the good standing of the Profession. Members shall in their professional practice seek to advance public knowledge and understanding of computing and information systems and technology and to counter false or misleading statements which are detrimental to the Profession. Members shall encourage and support fellow members in their professional development and, where possible, provide opportunities for the professional development of new entrants to the Profession. Members shall act with integrity towards fellow members and to members of other professions with whom they are concerned in a professional capacity and shall avoid engaging in any activity which is incompatible with professional status. Members shall not make any public statements in their professional capacity unless properly qualified and, where appropriate, authorised to do so, and shall have due regard to the likely consequences of any statement on others.

Professional Competence and Integrity

Members shall seek to upgrade their professional knowledge and skill and shall maintain awareness of technological developments, procedures and standards which are relevant to their field, and shall encourage their subordinates to do likewise. Members shall seek to conform to recognised good practice including quality standards which are in their judgment relevant, and shall encourage their subordinates to do likewise. Members shall only offer to do work or provide a service which is within their professional competence and shall not claim to any level of competence which they do not possess, and any professional opinion which they are asked to give shall be objective and reliable. Members shall accept professional responsibility for their work and for the work

of their subordinates and associates under their direction, and shall not terminate any assignment except for good reason and on reasonable notice. Members shall avoid any situation that may give rise to a conflict of interest between themselves and their client and shall make full and immediate disclosure to the client if any conflict should occur.

Beale stated that “students should be encouraged to “think critically” rather than simply apply a code or set of standards” (2004, p. 27). A number of ethics policies and procedures are in place to monitor those who conduct research. The rights of the subjects and responsibilities of the researchers are clearly articulated by institutions of higher education. The ethics committee referred to in the article has an established role protect subjects in applied psychological research.

Beale examined the role of ethics in producing desired outcomes for students in higher education. The development of flexibility and independence, analytical skills, decision making, and communication skills serve as justification for incorporating ethics, across disciplines, in higher education curriculum.

As higher education faculty and administration prepare students for the professions they will enter we need to consider several factors, across disciplines. In order to support interprofessionalism within the context of interprofessional cooperation, Beale stated, “Here we have ethics embedded in the notion of an interpersonal worker for whom ethics is not a separate skill or a defined way of thinking but merely one aspect of collaborative working practice” (2004, p. 37). She defined fitness for practice in terms of the relationship between medical doctors and their patients. Beale suggested that there were lessons to be learned for the responsibilities of physicians to respect patients’ rights, listen to patients, provide clear information, and maintain patient care as their top priority. In the context of higher education, confidentiality between student and professor, and advisor and advisee, is required. Presence of and patient accessibility to the healthcare professional is essential. When applied to higher education, Beale discussed the methodology and expressed advantages of learning and teaching professional ethics when she made reference to “the extent to which it involves the student in their own education, both during and after Higher Education” (p. 46). Beale listed several outcomes of using methods such as role-play and narratives to teach ethics, including developing empathy, understanding multiple perspectives of culture, gender, and religion, and “Allow the use of imagination in concert with reason in the formulation of ethically significant courses of action” (p. 53).

Madsen (2009) made reference to the myth of higher education, as protected from the “struggles and conflicts of the real world.” She listed professional principles including, “Strive to enhance the personal and intellectual development of other persons” (p. 7). She defined ethics into three categories: “The Ethics of Justice, Caring, and Critique” (p. 12). Madsen introduced a model for faculty ethics of scholarship: Idea (idea generation and ownership); Process (research process);

Relationship (research and scholarship relationships); Professional (professional behavior in scholarships) (p. 21). Madsen concluded her presentation with several statements regarding the responsibilities of educators in higher education. She referenced how education impacts and changes the world on many levels, including the impact on character. Madsen stated, “The activity of the university requires the development of a morality that includes honesty, candor, justice, even love or compassion within the community” (p. 36).

Ethics Challenges

Green’s assessment of social media calls to mind the unfortunate abuse of a social network, to violate a person’s privacy, and eventually lead to severe injury or death. Perhaps the problem is not that social networks are causing problems, but the problem could be the need to structure rules for people to exhibit appropriate behavior, and use social networks as a tool for developing relevant connections.

The K–12 Environment

In order to prepare future teachers for the realities of the classroom, there is a need to establish clarity of the ethical and normal environment within the K–12 setting. As stated by Darling-Hammond (2010) extensive research has revealed the need for systemic school reform to prepare students to compete in global society. Equity in recruitment of qualified teachers, appropriate facilities, financial support, distribution of resources, authentic measures of accountability, and just treatment of children in the classroom setting, must be achieved. In order to prepare future K–12 educators, higher education faculty must guide teacher-candidates as they clarify ethical values within the context of the classroom setting. Although teachers are not always decision makers, their behavior, guided by ethical standards, can have a major impact on the outcomes of students in their classes.

Interdisciplinary Nature of Ethics

Many of the concepts or ideas around the study of ethics are focused on the areas of philosophy, theology, and religious studies. I agree with Beale (2004) who explored the idea of applying the study of ethics in professional environments. Currently there are many guidelines and standards for ethics within the medical profession. There are opportunities to apply those principles across disciplines.

Higher Education

As expressed by Strain, Beale, and Madsen, the ideal development of ethics in higher education would be to guide student development of ethical dispositions and behaviors. It would incorporate more than simply studying ethics because it is a required course in the journey towards a profession.

Pre-Assessment

In order to plan for the spring 2011 President's Day professional development, the College of Saint Rose Provost and Senior Vice-President Dave Szczerbacki led a college-wide committee of faculty, administrators, and staff in the development of a survey to discover the priorities of the faculty, in further development of excellence in teaching and learning. The committee designed 20 essential questions and asked the faculty to select 3 questions, in order of priority. They were also given the option to write their own question, if their choices were not reflected in the original list. Of the 207 full-time faculty members 155 responded to the survey within a two-week window. Of particular interest to me were questions 5 and 11. Question 5 asked "What effects may online activity have on student civility and respect?" Of the 155 survey respondents, 34 selected question 5 as a first choice, 10 as a second choice and 11 as a 3rd choice. Question 11 asked "In what ways do we weigh the political, ethical and economic implications of technological platforms against their pedagogical potential, and how can we model these kinds of complex decisions for our students?" Twenty-two of the survey respondents selected this question: 8 as a first choice, 7 as a second choice, and 7 as a third choice.

Spring 2011 President's Day Professional Development

The committee used the data to construct essential questions for the plenary session and the workshops.

- How can faculty make productive use of smart classroom technology?
- How can technology enable synchronous and asynchronous learning outside of the traditional classroom?
- What works, why, and how for the hybrid course?
- What is the potential for e-portfolio technology as a teaching platform and as an assessment tool?
- How can digital media, and alternative delivery methods bring library resources to the classroom, dorm, and beyond?
- The Americans with Disabilities Act was amended in 2008. The focus of the discussion was on the impacts of these amendments as they relate to the use of technology in the classroom and online and blended courses.

Discussion

In their presentations Professor Michael Brannigan and Associate Professor Kim Middleton addressed the questions of how we learn, what we learn, with whom we learn, and why we learn. They explored the new standard for the new generation of scholars, and labeled it “Hyper-real.” They drew a contrast between the modern vs. post-modern era where the students are digital natives and faculty members have become digital migrants. The need for an awareness was presented in the statement “as we construct our technologies, our technologies construct us” (Brannigan, 2011). This statement leads me to believe that there is a need for policy to reflect modern technology in higher education. Given the outcomes of the pre-professional development survey, and the resulting professional development discussion, a number of ideas emerged.

Conclusion

Professional societies such as the International Society for Technology Education (ISTE) and the British Computer Society (BCS) publish standards which can serve as a starting point for the development of public policy or regulations, designed to protect members of society. In higher education, colleges and universities have developed a set of policies which may have been updated to address the reality of the new technological age we live in. I propose the following:

- Abuse of social media to communicate with anyone, with the intent to commit acts of violence, should be treated as a federal crime.
- Broadcasting live, violent acts towards another human being with the intent to brag, or glorify such acts, should be treated as severely as the act itself.
- Higher education faculty should include standards for ethical behavior across all disciplines in syllabi, and questions of ethics should be integrated throughout the curriculum.
- The owners of social networks can be held accountable for properly informing the public about standards for appropriate behaviour.

In addition to academic freedom enjoyed by members of academe, there must also be a level of responsibility to protect the rights of individuals within society. The laws which may have been written in the past adhered to a society which is very

different from present society. I propose that we guide the use of technology to benefit society.

References

- Beale, D. (2004). *Ethics in applied research and teaching*. Nottingham: University of Nottingham, Institute of Work, Health and Organizations.
- Brannigan, P. (2011). *Perspectives on critical questions. Technology and the teaching learning process*. Albany: College of Saint Rose.
- British Computer Society. (2004). *The Code of Conduct for Members*. London: The British Computer Society.
- Darling-Hammond, L. (2010). *The flat world and education*. New York: Teachers College Press.
- Frye, E. M., Trathen, W., & Koppenhaver, D. A. (2010). Internet workshop and blog publishing: Meeting student (and teacher) learning needs to achieve best practice in the twenty-first century social studies classroom. *The Social Studies*, 46–53.
- Green, K. (2010). Campus Computing 2010: The 21st National Survey of Computing and Informatin Technology in US Higher Education. *The Campus Computing Project* (pp. 1–24). Anaheim: www.campuscomputing.net.
- Hofer, M., & Swan, K. (2006). Technological pedagogical knowledge in action: A case study of a middle school digital documentary project. *Journal of Research on Technology in Education*, 179–200.
- Madsen, S. R. (2009). Ethics in higher education. *Center for the Study of Ethics-Utah Democracy Project* (pp. 1–38). Utah Valley: Utah Valley University Center for the Study of Ethics.
- Strain, J. (2004). Care, knowledge and design in professional practice. *LTSN Conference* (pp. 73–77). Federal University of Surrey Center for Applied and Professional Ethics.