

Rapture and Suffering with Technology in Nursing

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Abstract

Technology has shaped human life. As technology has become increasingly sophisticated philosophers, such as Heidegger, have pondered the worth of its influence on the quality and duration of life. Concerns about technology encompass the experiences of persons whose lives depend upon technologies and the experiences of those persons who care for them. Accompanying the rapture of technologies in nursing is the consequent suffering or the price of advancing dependency with technologies that critically influence contemporary human lives. With increased use of technologies and ensuing technological dependency experienced by recipients of care, the imperative is to provide technological competency as caring in nursing, guided by a formalized practice model such as the technological competency as caring in nursing theory.

Key Words: Technology, caring, intentionality, standing-reserve

"I think people are often afraid that technology is making us less human."

C. Brazeal, 2001

Introduction

Technological advancements have shaped human life. As technology has become increasingly sophisticated, philosophers have carefully pondered the worth of its influence on the quality and duration of life. In healthcare, issues of the good, utility, and cost are foiled by the often fatal attraction of a glamorous drug or "technoluxe" cosmetic procedure (Frank, 2003) that promises rapture but instead delivers horror and suffering. From a Heideggerian philosophical view concerning technology and its "revealing" and complemented by Locsin's (1995) theory of technological competency as caring in nursing as framework, this paper will accentuate and discuss the effects of modern technology on healthcare and focus its influences primarily on nursing. The beneficial effects of technology are traced integral to healthcare, not only for nurses in professional practice but also for other professional caregivers who are faced with the burden of caring for persons in high-tech settings, including the home.

Over 50 years ago, well before the burgeoning of modern healthcare and specialized healthcare technology, the philosopher Martin Heidegger (1993) prophetically spoke of the danger of uncritical acceptance of technology and of disregard for its "ambiguous" (p. 338) essence. In dry, meaningful language, he described how technology may not appear to be what it really is—coercive and consuming, and how human beings are simultaneously needed, both to bring order to or be ordered, or used by technology. In describing the ways that modern technology is revealed, Heidegger observed, "The energy concealed in nature is unlocked, what is unlocked is transformed, what is transformed is stored up, what is stored up is in turn distributed, and what is distributed is switched about ever anew" (p. 322).

Heidegger's (1993) central concern was that future generations would not realize that this technological metamorphosis will create a "standing-reserve" (p. 322) that waits solely upon and for the technology. Not only is nature in this standing reserve but human beings both as sources and resources. For example, as Heidegger witnessed so many years ago, the "supply of patients for a clinic" (p. 323) was a standing reserve. It is precisely the idea of human beings in this duality, influencing and being influenced by healthcare technology; its it-

erations and various metamorphoses; and the challenges experienced in nursing caring in a technological environment that form the justification for this paper.

The tension between the technological assessing of persons as objects, despite anthropomorphic "user friendly" external appearances, and the caring intention of nurses to know the person as whole and complete in the moment, obliquely pay homage to Heidegger's (1993) conception of the ambiguity (p. 338) of the essence of technology. Can this tension be ameliorated or reconciled?

Person or Object of Care?

The focus of nursing ought to be the understanding of patients as participants in their care, rather than as objects of care. Often, the perspective of wholeness of person denotes the appreciation of the whole person as composite or derived from the understanding of an object-self. The object body is understood as that which can be known by an observer, a material entity, while the subject self is the phenomenological body, "the body known from the inside, the body that is experienced, the lived body, the body as 'me'" (Sakalys, 2006, p. 17). The conception of person as whole is predicated on the various understandings of this distinctive term. The fundamental differences among knowing the composition of the person stem from the philosophical perspectives through which these terms are viewed. Commensurate with technology, from a positivist philosophical perspective, persons are appreciated through their component parts, recognizing the completeness of the person from a 'lens' that is dependent upon human sensory perception. The person is a whole being because the sensory (visual, hearing, touch, smell) data obtained by the observer, and which are able to be machine replicated, reflect a "complete" person with physical composites and human physi-

ological functioning. Consider the subject of Shelley's (1919/1969) novel, *Frankenstein*. Frankenstein was a composite being and known for committing gruesome crimes. Created from several human body parts that were, in turn, obtained from as many different human beings, Frankenstein was put together, completed, made whole, and then brought to life. This human replica that was put together using various human parts was created biologically and humanly complete, and eventually, when brought to life appeared "more" human. Frankenstein came to be regarded as a human, albeit grossly distorted as a monster with characteristics "inherited" from the multiple donors of organ and limb to his life.

When viewing persons as participants in their care, instead of objects of care, biological wholeness and completeness as sensory evidence are not primary sources of knowledge. Rather, it is the relationship with others and the understanding of the value placed on life that allows nurses to know persons fully as "being cared for."

Influence of Technology on Practice

Such a conception may seem rhetorical, that a person is a person. However, in nursing, views of persons range from the view of persons as whole in the moment, to notions of persons as made up of parts. This latter understanding illustrates nursing practice as "fixing" persons to make them wholes again and does not serve nursing well as a discipline of knowledge and practice profession. Rather, it perpetuates the understanding of nursing as a practice technique with a recipe to follow as guide to produce an outcome of care. Yet, the Heideggerian (1993) notion of "enframing" (p. 324), the coercive perpetuation of technology, forces nurses to objectify persons in order to care and challenges understandings of persons who are participating within the shared experience of a nursing situation. A glimpse of the influence of contemporary technology, with its extraordinary hold over human care and ethics, and the potential for

nursing practice may be well perceived within the influences of social-political factors. Such a concern may happen to a person in custodial care and is in a "questionable" vegetative state. Is this person a living human being? Should the concern be that this person is only "like a human being" rather than "is a human being?"

In such a situation, when can a person cease to be a "real" human being? How often do similar objectifications and characterizations of persons not recognized as a real human being occur? In contrast, distinct and apart from this view of person as object, dwells the particular idea of persons who are fully human, despite suffering endured and ensured by dependency on technological advances.

Punctuating this discussion of wholeness is a poignant story of an infant born in 1995 to migrant farmers working in the fields of South Florida. The infant was beautiful and healthy but was born without any arms or legs. It was totally dependent, then and now, on being cared for to supply every want and need. Yet, the infant is a whole person regardless of the missing parts. The customary technological resources used in assessing the health of persons created a distinct and limiting realization that with appendages missing, those vital "parts" around which the technologies were designed, for example, blood pressure cuffs, rendered the technologies deficient and immaterial. Physicians and nurses were concerned about how they could perform the usual but necessary technological care such as performing laboratory tests and the use of contraptions that traditionally require access through the limbs. This situation emphasized Sandelowski's (1993) concern about the practice of nursing and the advent of technological dependency. While the existence of modern, sophisticated, and advanced technologies were critical to modern nursing and healthcare, none of these technologies were up to the challenge of a person requiring unusual healthcare technological

demands. "Knowing" the infant who is a living and functioning human being, a person who is whole and complete in the moment regardless of the missing parts, was a reality and coping with this reality was another challenge.

The focus of nursing is to know persons (Locsin, 2005). Ways of knowing persons are manifold and include empirical, ethical, aesthetic, and personal (Carper, 1978), as well as the symbolic and integrative ways of knowing (Phenix, 1964). In knowing persons, the imperative is for nurses to focus on the "objective" composite of persons and, more important, on the "subjective" nature of being human. In a nursing encounter, this particular view includes the moral imperative to know "who" is the person rather than the objectifying "what" is a person.

Coming to know the person is critical to nursing. Competently using technologies to achieve this goal is essential in order to appreciate nursing practice more fully as an integral aspect of human healthcare.

Human-Technology Interface in Nursing: Source or Re-Source?

The paradoxical enchantment/disenchantment of society with technology continues to spur the tension between subject and object, person and technology, source or resource, and the need for unified and integral care of the whole person. This disenchantment ripples from consumer to manufacturer and to investor, and is ultimately reflected in decreasing financial gains, far removed from the plight of the person experiencing the technology. In a report to over 700 investors, reporters, and entrepreneurs, the following Shipley (2006) stated:

Making realistic robots is going to polarize the market, if you will...You will have some people who love it and some people who will really be disturbed...Individuals are becoming overwhelmed and worse, I believe that this state of being overwhelmed has

moved the personal computing market to the point of diminishing returns.

The question arises, Does the disenchantment emanate from the view of technology as mere technology or is it something far deeper and primal? Is the acceptance of technology in various forms assisted by creating “user friendly” anthropomorphic attributes and human look-a-likes or, as this excerpt below recounts, a human feel-alike? Hogan (2004) stated:

After more than 2½ years of physical therapy and electronic stimulation, stroke victim Mike Marin still couldn't open a door with his left hand. Now, thanks to a robot, Marin can open a door. His atrophied left arm isn't completely useless anymore. Marin is at the forefront of what may seem an unlikely use for robots: providing the caring human touch.

This suggestion that robots and robotics-based technologies are designed to “provide the caring human touch” is intriguing. While the goal is to provide the best quality of life for a person lacking the essential composites of a fully functioning human being, emulating a human through a provision of a robotic “caring human touch,” although a technological advancement, seems to be a paradoxical answer to the challenges of human-computer interaction. Nevertheless, Hogan (2004) claimed being able to show consistently improved therapy outcomes after using robots versus humans providing conventional, standard care. This is a far cry toward achieving even minimal “care” for persons who are technology-challenged.

“Nursebot,” a robot that alternately can assume the male and female personalities of Earl and Pearl by changing the voice gender, was tested among elderly patients. Despite the stereotype of older people being “technology phobic,” the seniors accepted the robots. Their major concern was that the robots would not be able to do enough to provide adequate help for them. However,

while robotic assistants are better suited for repetitive tasks, such as escorting persons to restrooms or reminding them to take medications, these same functions are now accomplished more cheaply by watches, radios, and the ubiquitous walker frame with tennis ball “gliders” on the legs.

The answer of society to the traditional ontological question, “What is nursing?” does not adequately reflect both the growth and development of nursing as a discipline of knowledge or as an expert, complex, practice profession. The need to continuously raise this question can be ascribed to the perennial use of the word “nurse” as narrowly referring to the routine performer of tasks and, as a consequence, to the image of nursing practice in all its complexity persisting as merely the performing of tasks. The creation of the robo-nurse—a complex piece of machinery that, in human fashion, is made to perform technical nurse activities such as taking a person's temperature (Gutierrez, 2000)—perpetuates this image. The robo-nurse simply facilitates completion of tasks for people, as does the nursebot described above. The persistent image of nursing as accomplishing tasks undeniably makes the nurse appear to be an automaton (Locsin, 2001). The essence of technology, whether enframed (Heidegger, 1993, p. 324) in complex anthropomorphic machinery or in graphic “live” viewing of functioning internal body parts, coerces and challenges caring as the essence of nursing in the expression of nursing practice.

Much can be said about technology in nursing, from its fascinating essence allowing greater dimensions of efficient and competent practice, to the creation of phenomenal opportunities for persons in order to live more fully. From the appreciation of care practices as the skillful performance of activities for making persons well or healthy, to the use of instruments and tools for promoting health and preventing illness, technology in nursing is critical to fostering health and wellness in contemporary times. The results of these technolo-

gies, however, also increase opportunities for care and cure activities, to the extent that contemporary healthcare appears to exist only because of the advantages of technological advances. While technology captures our fascination with visions of an idyllic life, living out a life that is dependent on technology can, likewise, lead to deep suffering. In doing so, understanding the ambiguity of the essence of technology and the consequences it evokes are befitting the revealing or poiesis (p. 317) of which Heidegger (1993) wrote. With increasing persistence for technological advancements, and the dependency that these technologies create for recipients and the users of the technologies, the imperative is to recognize and provide prospects for nursing guided by a framework of practice such as technological competency as caring (Locsin, 2005).

Two foci dictate the significance of technologies in nursing: *technological nursing* described as the nursing of persons with lives that are dependent on technology and *knowing persons* described as the process through which nurses come to practice nursing using technological competency as caring in nursing to know persons more fully (Locsin, 2005). In each of these foci, nursing provides the essential recognition of the influences of technology in nursing and healthcare. These essentials are directed toward the understanding of persons who experience life fully as human beings, regardless of being dependent with technologies.

Theory-Based Practice

Unraveling and acknowledging the allure of technology and the suffering occurring as a consequent of technology and its use are essential to nursing and its critical practice nature. Technological Competency as Caring in Nursing (Locsin, 2005) is a practice framework that allows for knowing the other as person and for providing self and the other opportunities to come to know through appreciating, affirming, and celebrating each other as person.

The Practice of Nursing as Knowing Persons

How will the practice of nursing as knowing persons engage future human beings through caring, while simultaneously recognizing the often limited physical and psychological form and function of being human? How is competency with technology expressed in knowing persons as whole in the moment? The ultimate purpose of technological competency is to acknowledge persons as whole. Such acknowledgment compels the redesigning of processes of nursing—ways of expressing, celebrating, and appreciating the practice of nursing as continuously knowing persons as whole from moment to moment. In this practice of nursing, technology is used not to answer the question, “What is a person?” but rather, to come to know “Who is a person?” While the former question alludes to the notion of persons as objects, the latter addresses the uniqueness and individuality of persons as human beings.

The advent of medical technology and its domination as a major influence in healthcare places nursing in an awkward position; being dependent upon competencies for these technologies in order to engage in practice. The practice of nursing as technological competency—an expression of caring in nursing—is the achievement of knowing persons as whole moment to moment. It is the authentic, intentional, knowledgeable, and efficient use of technologies of nursing. These technologies influence the recognition of nursing as integral to healthcare. As such, this practice recognizes the role technology has on the practice of nursing. Technological competency allows the nurse to participate in the process of knowing persons as whole in the moment; the ultimate purpose of which is to continuously acknowledge persons as whole.

Nonetheless, in such a contemporary environment, there is the possibility and likelihood that the nurse will be able to predict and prescribe for the one nursed. When this occurs, these situations forcibly lead nurses

to appreciate persons more as objects than as person. Such a situation can only occur when the nurse has assumed to “have known” the one nursed. While it can be assumed that with the process of “knowing persons as whole in the moment,” opportunities to continuously know the other become limitless, there is also a much greater likelihood that having “already known” the one nursed, the nurse will predict and prescribe activities or ways for the one nursed, and objectification of person ultimately occurs. This is the coercive yet elastic tension between the essence of technology and caring as the essence of nursing: Both are mediated by the thoughtful, technologically competent, and caring nurse. While it is necessary to understand the operation of machine devices in order to understand the functioning human being, the use of these technologies should not consign persons to be regarded as objects. The objectification of persons becomes an ordinary occurrence in situations wherein the practice of nursing is merely understood as achievement of tasks.

Technological competency as caring involves intentionality (Purnell, 2003) with compassion, confidence, commitment, and conscience as requisites to caring in nursing. Intentionality, in which are embedded patterns of values, ideals, and unique professional knowledge, which distinguish nursing, is active in shaping, guiding, and directing practice (Purnell, 2006). This is where the process of nursing takes on a focus different from the traditional series of problem-solving actions. By donning the lens of Nursing as Caring (Boykin & Schoenhofer, 2001), technological competency as caring in nursing is acknowledged. Through this lens, nursing is expressed as the simultaneous, momentary interconnectedness between the nurse and the nursed (Locsin, 1995). The nurse relies on the patient for calls for nursing. These calls are specific mechanisms that patients use and they provide the opportunity for the nurse to respond with the authentic intention to

know the other fully as whole person. Calls for nursing may be expressed as hopes, dreams, and aspirations. As uniquely as these nursing situations are expressed, the nurse is challenged to hear these calls for nursing and to respond authentically and intentionally in nurturance. These appropriate responses may be communicated as patterns of relating information, such as those derived from machineries like the electrocardiogram monitor, in order to know the physiological status of the person in the moment, or to administer life-saving medications, institute transfers, or to refer patients to other healthcare professionals as advocate for the patient in the moment.

The challenge of nursing is expressing technological competency as caring, ably focusing on the other as caring person, whole and complete in the moment, and growing in caring from moment to moment. Every human being uniquely responds to personal conditions in the moment. The nurse understands that the process of nursing occurs without preconceived views that categorize persons as needing to fixed, like fitting the individuals into boxes of predicted conditions. By allowing the patient to unfold as a person and to live fully as a human being, the nurse facilitates the goal of nursing in the “caring between” and enhances personhood (Boykin & Schoenhofer, 2001) of both the nursed and the nurse.

Nursing practitioners long for a practice of nursing that is based on the authentic desire to know persons fully as human beings rather than as objects. Through this authentic intention and desire, nurses are challenged to use every creative, imaginative, and innovative way possible to appreciate and celebrate the person’s intentions to live more fully and grow as a human being. Only with expertise with technologies of nursing can technological competence as an expression of caring in nursing be realized. The nurse as artist overcomes the essence of the technology with its continuing influence on the object or part and reveals what Heidegger (1993) called *physis* (p. 317)—a

higher essence of poesis, the unfolding of something into what it is, such as a blossom opening, or a call to a more primal truth (p. 333). In nursing, this primal truth is coming to know the one nursed through intention to care for wholeness of person, and for the whole person (Purnell, 2003), where in authentic presence, the nurse brings all that he/she is to the nursing situation and attends to what matters.

It is evident from this description that describing nursing practice as the completion of tasks does not answer to the unfolding fullness of nursing. Nurses are urged to value technological competency as an expression of caring in nursing and as integral to healthcare. Otherwise, the image of the robo-nurse, simply facilitating completion of tasks for people, will render the nurse an automaton. The nurse will have fulfilled Heidegger's (1993) depictions of persons as standing-reserves, standing ready in endless cycles to serve the technology through a task-oriented practice.

Artificial Emotions and Evocative Objects

How will nursing be practiced in the future when human beings are partly machines? Turkle (2004) tapped into a side of technological dependence that is seldom addressed; that of emotional attachment. She stated:

What has become increasingly clear is that, counter-intuitively, [human beings] become attached to sophisticated machines not for their smarts but their emotional reach. They seduce [human beings] by asking for human nurturance, not intelligence. [Humans] are suckers not for realism but for relationships. (n.p.)

The advent of technological marvels in sustaining human lives, viewed from the ideals of persons as whole and the many ways nursing practice is grounded in caring perspectives, underscores nursing as a caring discipline. Nursing theories vicariously view human beings as whole and complete in the moment, as nursing transpiring between the nurse and the one nursed, and the

appreciation of health as quality of life. The appreciation of these concepts dictates the understanding of how nursing is recognized, how it is practiced, and how nursing is integral to healthcare.

Reconciliation or Rift - Technology and Caring in Nursing

The focus of nursing is the person. However, technological advances, especially in modern medical and nursing practice, continue to challenge definitions of person. Through the lens of nursing as caring, all persons are understood as caring by the virtue of their humanness (Boykin & Schoenhofer, 2001). Persons are held to be whole in the moment with health as quality of life understood by the person being cared for. As human beings move closer toward the posthuman (Hayles, 2000), caring nursing theories must be flexible enough to accommodate new understandings of person. Traditionally, the central focus of nursing care has dealt with the human being as person. However, as modern and future advances in technology push toward our technological evolution, depending upon our perspective, we will see partly human beings or partly human machines—cybernetic organisms (cyborgs) and other technosapiens as recipients of nursing. What will be this nursing? How will nursing be experienced by the nurse and the one nursed? Will caring as the essence of nursing hold sway over technology? Heidegger (1993) said it best, “The closer we come to the danger, the more brightly do the ways unto the saving power begin to shine and the more questioning we become. For questioning is the piety of thought” (p. 341).

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