

PHILOSOPHICAL PAPER

Visualism and technification—the patient behind the screen

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Abstract

At stake in this study is the patient's credibility. The Cartesian philosophical standpoint, which holds sway in western thinking, questions with scepticism whether the reported symptoms are "real." Do they reside in the body, or are they mentally concocted. However, from the caring perspective any symptom must be both listened and attended to in its own right, not just scrutinized as evidence for an accurate diagnosis.

In cognitively and emotionally complex high-tech units caregivers are juggling a precarious handful of cards. Technical tasks take precedence or have more urgency than caring behaviour. Assuming an irremediable tension between object–subject and care–cure in nursing is futile dualism. By addressing the essence of technology—the non-neutral and highly visual technology—this paper aims to find, from a philosophical point of view, a more comprehensive understanding for the dominance visualism and technification within intensive care.

Screens give us access to vital signs. Screens record numbers and lines that relate to a graph and afford superfine spiked "readings." However, the most relevant vital signs may be missing.

Key words: *Heidegger, intensive care, nursing, technology, vision*

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Introduction

For two-and-a-half millennia, technology has accompanied Western civilization like a shadow. Nowadays, tremendous developments have multiplied its impact upon society at large. This is the age of planetary technology, of cyberspace and information technology. If we wanted to deny that fact, we would have to use a computer, email, SMS messages, or the FAX machine to communicate our contestation. At this point in history, therefore, its impact is impossible to refute.

From the perspective of rationalistic-dualist Cartesian thought, symptoms result from the mind receiving and interpreting bodily impressions and sensations. Physicians may thus view symptoms as subjective interpretations of the body's real disease. The mind is considered less reliable when it comes to reporting symptoms than those that can be documented objectively with medical instrumentation and measurement (Benner, 2001).

The Cartesian ideology, that splits mind/body, subject/object, etc., calls into question the credibility

of the patient's report of her symptoms. Simply put, Cartesian thought doubts that the symptoms as reported are real, but suspect that they are mentally concocted rather than bodily based. However, from the caring perspective any symptom must be both heard and attended to in its own right. Not just as evidence for an accurate diagnosis.

Modern medicine focuses on pathological processes. Organ failure and abnormalities tend to take up the health care providers' attention at the price of understanding the patient's reactions to her/his illness. Before the development of highly technological diagnostic equipment, the physician's diagnosis depended upon the patients' stories (Johannisson, 2004). There has been a transformation; a shift to vision and its reduction to a certain kind of vision (Ihde, 2002). Medical technologies used to be more auditory than visual (Sandelowski, 2000). The visual has become the "truth" and it exceeds the value of the audible, for example, what a monitor shows is more "true" than the patients story (Almerud, 2008). Knowledge ripened during years of clinical practice, such as "seeing" from the color of his skin

whether the patient is well saturated with oxygen, now takes back seat to objective measures and parameters that can be viewed from a monitor or a medical chart. But the objective information that technological devices grant is only valuable when interpreted with understanding by a professional aware of and sensitive to lived human experience (Walters, 1995). Advances in technology permit a much more penetrating, in-depth gaze of the physical body. The gaze transforms the body. Caregivers tend to see only an outline or small part of the person rather than the whole individual (Barnard & Sinclair, 2006). Screens access vital signs and technology depicts the body by measuring it. Is not balance required? Both patients and caregivers take the effectiveness of technology for granted and to that degree exhibit a deficit of awareness. In a highly technicized ward, such as an intensive care unit (ICU), all eyes, even of the family members, are focused on the machinery, not on the patient (Almerud, Alapack, Fridlund, & Ekeberg, 2007a). Practitioners step away from the people (bodies) to make judgements about ongoing care. It may be common practice to stand at distance in order to interpret and assess the progress of care. Consequently the potential for compassionate understanding dwindles. The opportunity to get to know the person's subjectivity fades away and the subsequent distancing smoothes over individual uniqueness and subjective experience (Almerud, 2008; Barnard & Sinclair, 2006). Graphs and technical devices display the body in a series of pictures to observe. The spectator retreats from the body in order to know it, not as a whole, but as a compound of displayed segments (Barnard & Sinclair, 2006). Focusing upon a purely visual environment gives the impression of control and objectification, but multi-sensory dimensions remain constant even if the practitioner is not attuned to them. Observing a cardiac monitor puts the spectator's focus on an isolated body part, enhancing the experience of visual pre-eminence. If these solely observing actions lead the practitioner to return to the person to ask how they feel, they have made a purposeful choice to focus on the person through other senses. If the caregiver does not return, (s)he has then made a choice to take a distance from the patient and to reject alternative senses. But that action merely creates the illusion of control while in fact it risks losing it (Barnard & Sinclair, 2006). If we perpetuate this way of knowing that gives primacy to objective and detached knowledge, nursing epistemology will contribute to an impersonal health care system in much the same way as the biomedical model has (Walters, 1995). In the technological milieu, the deeply subjective issues about illness lack a place. It is not because caregivers

in the technological milieu purposely ice out subjective issues or existential dimensions. Modern technology has a definite place in nursing practice, but as a supplement to and not a substitute for the art of healing (Mitchell, 2007). The naturally shallow technological routines consume time and control too much of the caregiver's time and attention. In consequence, (s)he overlooks the patient as a unique person and fails to notice idiosyncratic worries (Almerud, 2008). The caregiver overlooks the lived body's experiences because they defy technological monitoring (Walters, 1995). Technology, however, is not necessarily opposed to humanized care (Barnard & Sandelowski, 2001).

Human choices; human acumen or human error

In high-tech units, cognitively and emotionally complex environments, caregivers juggle a precarious handful of cards. Despite being constantly monitored and observed, patients feel invisible. The patient and the apparatus easily meld into a unit, one item to be regulated and read. From the patients' perspective, caregivers demonstrate keen vigilance over technological devices and measured parameters, but pay scant attention to their stories and experiences. Technical tasks take precedence or have more urgency than caring behaviour (Almerud et al., 2007a). Technology has usurped the human touch and the bedside manner of the physician and nurse.

The aim of care is not immediately to "fix" the person who is out of balance—out of equilibrium—but to focus and to see treatment on the whole person, seeing illness as a lifeworld disturbance as well as a biological disturbance (Gadamer, 1996). Assuming an irremediable tension between object–subject and care–cure in nursing is futile dualism. The challenge is to understand the meaning of technology and its relationship to suffering humans, i.e., patients (Almerud, 2008). Heidegger (1954/1993) tells us that thinking must precede and ground doing. How we think takes priority over what we do. He also reminds us that the uncanny thing about thinking is that we have not yet begun to think. Heidegger's thinking and the awareness he advances sets us walking on the razor's edge. However, strong the lure of the paraphernalia, it is human choice, or default of choosing, that adopts the attitude. Is it possible to understand reflectively the dominant paradigm of our age? If we can indeed comprehend it, how do we authentically assess it? There are situational conflicts that emerge when a nurse or physician faces a crisis. What calls the shots? Is it monitoring device or human intuition

and the human heart? In this study I make a humble contribution to start thinking in a relevant direction by examining the presence of technology in high-tech wards with the focus on seeing. The aim of this study is to find, from a philosophical point of view, a more comprehensive understanding for the dominance of visualism and technification within intensive care.

Technology and tools in practice

Technology is a featured actor in many hospital settings, but in the ICU in particular. In a hospital setting humans tend to interpret themselves in terms of technology by claiming that a rhythm strip observed on a cardiac monitor is my heart and that urine in a catheter bag is my urine (Barnard & Sinclair, 2006). The gadgetry is ambiguously both a support and a burden (Almerud, Alapack, Fridlund, & Ekeberg, 2007b). Nurses and physicians, no matter how impressive our technological equipment becomes, must never be reduced to technicians. “Good” technology provides information, gives parameters and saves lives. The human alone can utilize the data properly to prohibit human harm; the human alone can garner the promises of new possibilities for a richer existence (Almerud et al., 2007b). Communication “through” technology is so complex that keeping in perspective what or who is the focus for “seeing” or caring is a difficult challenge (Almerud et al., 2007b). Tools do nothing by themselves; they perform the work done by different staff members and regulate infusions and drug injections. Like the injection pump, the drip counter and the ventilator are the resources for skilled personnel. Tools are nothing but tools. Medicine and machines are minor tools, as soon as one recognizes that the major tool is the tool-user; the caregiver who speaks and listens, who draws near and touches, but who also sees from afar and acts with appropriate distance. It is a subtle dialectic of closeness-distance (Almerud, 2008). Technologies transform human experience, but they cannot replace them.

The essence of technology

We can mine positive possibilities out of all the technologies available to us. Heidegger’s perspective on technology, although far removed from the mundane matters of nursing, provides the lifeline for the joining technology and nursing care into their inherent fittingness (Heidegger, 1954/1993, 1962). The essence of technology, *Gestell*, is not technological. *Gestell* is the striving after efficiency for efficiency’s sake. It pursues efficiency not only for the sake of the products it will bring forth, the

money it will generate, but also for the power it will garner. The attitude of technology seeks efficiency to be ceaselessly efficient (Heidegger, 1977). So easily it spins out of control and proliferates, that it blurs the radiance of all other ways of coming-to-presence and swallowing other values (Heidegger, 1954/1993).

The “danger” is this. Under the domination of *Gestell*, all beings whatsoever are disclosed as stock or resource; objective, calculable, quantifiable, profitable, or disposable. The self-emerging natural things, such as water, coal, and oil are used as resources for industrial, mechanical, and technical operations. Words written by the poet or thinker are subject to the calculations of the publishing industry before they find their way into print. The values of profit and of efficiency for efficiency’s sake sabotage what by vocation we should shelter and safeguard, viz., our own being and Being (Heidegger, 1954/1993). The power and beauty of Heidegger’s analyses is that they fit both the broad geopolitical situation and the local clinical milieu. Lucid thinking about *Gestell* must not be satisfied to “affirm or deny” technology, or to “merely represent and pursue” it, “put up with or evade it” or—worst of all—regard it as something neutral (Heidegger, 1954/1993, pp. 311–312). Human decision control and eliminate the Green House gases, just as a nurse reads the calibrations of a ventilator. The technological attitude blurs Being’s radiance, renders it empty and tawdry. But the drive for mastery and profit is a human not technological decision (Heidegger, 1954/1993).

The non-neutral technology

Ihde (1990) addresses the diversity and complexity of human–technology relationships in our era. He reiterates the point that technology is not neutral. The literal relationship between the humans and the world should be conceived as a symbiotic and mediated relationship instead of as a divided and instrumental one (Ihde, 1990). According to Merleau-Ponty (1962/2002), there are many ways for consciousness to be conscious and for the body to be body. Ihde (1993) also says, there are many ways for technology to be a technology. No technical object is restricted to what designers intended it for or conceived the outcome of its use. It is the context that co-constitutes the use of a technical implement (Ihde, 1993). Heidegger (1962) hands us the hammer. In its use, it becomes the means and not the object of the experience. There is no “user” somehow apart from the “tool.” The two are ineluctably joined. The “menu” here is not one substance, the hammer, and a second substance,

the carpenter. We must understand the tool relationally. It is not an “in itself,” but its meaning is an implement. As the “for which” it is oriented, at minimum, to the nails and to the man’s arm. One knows the hammer by hammering (Heidegger, 1962).

Relationships with the technology both enhance and transform our perceptual-bodily experience of the environment or the world (Ihde, 1990). Ihde’s (2002) insistence on non-neutrality is important. Barnard (1997) critiques nursing literature and identifies a failure to confront the belief that the technology is a neutral object. For many nurses technology may not be a neutral servant of her or his act of will, but a pervasive reality which modifies practice, politics, values, and environments. Technology is given its own “life” (Almerud et al., 2007a), it becomes anthropomorphized. Whatever “good” or “bad” outcome technology generates, it is never neutral (Almerud et al., 2007a). What is neutral in terms of being a patient in ICU? Nothing! Next of kin and patients feel safer in a technological intense environment—not neutral. Work in wards handling advanced technological apparatuses is high status and prestigious—not neutral. Put in positive terms, some value is at stake and is calling the shots. In a “dehumanized” field, nonetheless, still there is a need for humanity. We make the machine human and predicate human characteristics to it. If technology was just neutral, why make it human? Machine contact, however, can be regarded as neutral in the sense that there is nothing reciprocal about it. For the sick person, interactions with the machine evoke only frustration, intimidation, or the strangeness and awkwardness of finding oneself plugged in (Almerud, Alapack, Fridlund, & Ekeberg, 2008).

The visual technology

Caretakers in the ICU interpret the physical body in different ways. It becomes measurable and, to some extent, predictable, and controllable. The technology of the ICU gives primacy to information displayed in graphical or numerical forms. When we are a patient, our objective body—the body that we have—is cable-connected to apparatuses, such as a monitoring device. Caretakers demonstrate keen vigilance over technological devices, documented data, laboratory results, and measured parameters (Almerud et al., 2007b). The twist concerning vigilance and invisibility creates an alienating collision. Instruments confirm treatment status and progress (Almerud et al., 2007b; Barnard & Sinclair, 2006; Benner, 2001). Monitoring closely the early critical periods is vital. Careful observation does indeed promote a feeling of security (Almerud et al.,

2007a). However, transforming patients into ciphers, albeit unwittingly, is contra-therapeutic.

Visualism

Ihde (2002) calls *visualism* the cultural habit of science to produce, display, and reiterate what counts for evidence in visual form. The various information-gathering devices are increasingly developed to make visual displays. This cultural habit has been accelerated in late modernity through the sophisticated development of imaging technologies (Ihde, 2002). I see—through the optical artifact—the world. Technologies are thus in between the seer and the world. These new perceptual insights enhance our bodily experiences of being in the world (Ihde, 1993). Early modern visualism was also technologized. The camera obscura reduced three-dimensional images to two-dimensional images. Photography, like the camera obscura, easily reduced the object to an isomorphic and realistic fixed image on the photographic plate, completely without subjectivity (Ihde, 2002). Nevertheless, constant clinical surveillance boomerangs. It oppresses whenever seemingly medical needs of examinations, treatment, or exercise ride rough-shod over human concerns. Patients feel constantly monitored and observed, not seen (Almerud et al., 2007a; Barnard & Sinclair, 2006). Checking the screen to make sure the top line does not go flat is indeed the bottom line in a situation of critical or life-threatening illness, but serious monitoring does not have to obscure the nurse’s sensitivity to see the suffering human. Likewise, physicians can get “stuck” in handling technological devices by routine, solely manipulating buttons and technological adjustments such that they end up treating “bad” laboratory test results, not sick patients (Almerud et al., 2007a; Barnard & Sinclair, 2006).

It is that strange identification again. On superficial, one-dimensional levels, the patients “know” they are seen insofar as “their” apparatus is read continually and regulated religiously. Their visibility is a function of the chords and cables that connect them to the machine. But at personal levels of depth and height, they feel invisible. To them, for the most part, it is evident that the faith that the caregivers demonstrate in apparatuses is not matched by comparable reflection upon their dominant presence or by any discussion with them of its human impact (Almerud et al., 2007a). “The desire is to see, but seeing is seeing through instrumentation” (Ihde, 1990, pp. 75–76). The caregiver sees the patient through the monitor. Visualization is the Western way. Whether looking at the patient in bed or a monitor, caregivers interpret and understand the

world via their eyes. “Seeing is believing” is the ultimate criterion of empiricism. Thus, professional nurses of today encounter technology as a virtual reality in increasingly interpretive relations in front of screens seeking image-based realities to evaluate the health–disease dimension (Barnard & Sinclair, 2006). Technology mediates the seer and the seen situation (Ihde, 1993). But seeing goes beyond visualism: “it is only with the heart that one can see rightly; what is essential is invisible to the eye” (de Saint-Exupéry, 1943/1995).

Final reflections

How do we perceive what we look at? In the West, we have become so used to computers and TV and one-way virtual realities—accustomed to adjudging what comes at us via our eyes is not just neutral, but also the truth, the “visual truth.” Wrapped into this bias is “calculomania.” What cannot be measured has lower status. What cannot be monitored does not count. Within the politics of the hospital, it is not the caring for critically ill or injured persons that creates the high status, but rather skilful use of the technological equipment. The monitor is the “finish line” which provides us with the “truth.” Merleau-Ponty (1962/2002) writes that “decision precedes motive.” In what almost amount to a rationalization, nurses express the conviction that their professional duties, per se, bring them constantly close to their patients. But it is the “technical” closeness of washing, cleaning, and turning the patient. They decide that having bedside computers even increases closeness to the patients (Almerud et al., 2007b). But what is closeness? Distancing from the person in bed, gives the caregivers a spectator’s vision. They are with the person, yet strangely distant because they lost the intimacy and connectedness that can be obtained by close physical and emotional proximity (Barnard & Sinclair, 2006).

From Merleau-Ponty’s (1962/2002) standpoint, we as flesh are seen-seers, heard-hearers, touched because we also touch. Dualisms are thus cancelled out. In the matter of clinical observation, seeing must not stop at the monitor. The caregiver must look behind the numbers on the screen to see the person. We can look at the patient with double vision, not look as if a Cyclops. Authentic “objectivity” presence is given equally to the monitor and to the naked eye.

There are times a nurse concentrates on the objective measurements displayed on the monitoring equipment to the detriment of humanistic caring. But in a life-threatening emergency, s(he) needs technology to provide objective information about

physiological processes. It is lifesaving (Walters, 1995). The nurse can use a gadget in such a way to either bring her closer or drive her away from her patient (Barnard, 2006). From a Heideggerian standpoint, claiming that any technical device is inherently good or evil would lead nowhere. Touch, the basis for care, makes it impossible to separate technology from caring. Seeing is touching and touching is seeing. Technology is co-creating the way we interpret ourselves and conceptually depict the world. It effects and affects the views that human users of technology have of themselves and the world. How many times would you expect to read in a hospital’s charting book or in a medical report the phrases she was “heart-sick” after her mother’s death or she died of a broken heart? Screens give us access to vital signs, we believe. Maybe we need to change focus and terminology. Screens record numbers and lines that relate to a graph. The vital signs, the real vitals signs, may be missing even though the spiked “reading” is superfine.

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