Carting before the Horse: the troublesome reification of new technologies in solving community-based environmental issues

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Scale: Everyday world

(how we move through & make sense of our everyday world)

Design not policy-making
Troublesome thoughts began … in 1996: GreenPeace & wokabout sawmills

“they have the knowledge/wisdom about the rainforest”

- Whole community involved
- Practice: Cut trees once or twice a year
- Cut only trees they knew well
- Followed taboos and elders’ advice

- Young entrepreneurs (few women or elders)
- Felled trees according to market need
- Cut trees unknown (poisoned water, slow-growing)
- Few taboos (sawmill too heavy & injuries)
- Elders understood but when it was too late
A key difference between technologies/tools that enhance or restrict our ways of being/becoming in our everyday worlds is not the sophistication of ‘kit’

but

if Practical Wisdom is integrated into the design values of the technologies (leaves space for the performance of human creativity, careful deliberation, judgement and action with foresight in … our everyday worlds).

Key: is extending human senses not replacing them … (injustice)
Technologies as extension of our senses

(Wittgenstein’s concept of ‘gesture’ not Margaret Mead’s we like technology that is simple)

How we make sense of the world…. Embodied but not embodied cognition.. )
The rise of the Robots

“... human are slow to evolve and will be superceded by machines.”

(Hawkings)
The rise of the Robots

(Dominant public narratives: myth-making)

**Nature of technologies**

- Disconnects *or* connects us
- Reified then deified or demonised. [blaming our tools]
- Assign agency (structural power)
- Othered (black box or mechanical toys)

**The role of Practical Wisdom (absence of)**

- Ethics ... big data, information, knowledge, intelligence but rarely about wisdom (or it elides with intelligence).
Does it matter?

• How we understand our technologies is how we design, develop and evaluate ‘what we create’.

• Without space for practical wisdom … we become disconnected from our environment.

  “writing is the end of truth” (Socrates)
“WOULD YOU MIND NOT INTERRUPTING? I'M TRYING TO HAVE A SENSIBLE CONVERSATION.”
Alternative view: Technological Beings & Technologically wise

- We have always been technological beings (stone axes to cloud computing).

- Humans evolved symbiotically with technologies … (embodied artefacts.. Not only extending the physical body but our intentions)

- but our technologies are never neutral

- We continually interact, subvert, convert & submit to…

“we are our bodies—but in that very basic notion one also discovers that our bodies have an amazing plasticity and polymorphism that is often brought out precisely in our relations with technologies. [Idhe, 2002: 137]
"Equipped with our five senses we explore the universe around us and call the adventure science."
- Edwin Hubble
"Equipped with our five senses - along with telescopes and microscopes and mass spectrometers and seismographs and magnetometers and particle accelerators and detectors sensitive to the entire electromagnetic spectrum - we explore the universe around us and call the adventure science."  Edwin Hubble

Visualism of Science’ Don Idhe 2012
Medical consultation
Good Consultation(s)
Dialogue as Practical Wisdom
A key difference between technologies that enhance or restrict our ways of being/becoming in our everyday worlds is not the sophistication of ‘kit’ (or transparency/visualisation of the body in medical practice).

But

If Practical Wisdom is integrated into the design values of the technologies (leaves space for the performance of human creativity, careful deliberation, judgement and action with foresight in … our everyday worlds).
A sickbay that uses space-age technology to diagnose diseases ranging from stomach bugs to cancer has been unveiled at a British hospital. The first of its kind, it contains a bewildering array of equipment, including probes designed for missions to Mars. The gadgets in the million-pound unit can detect illness without the need for painful and invasive tests. They combine information about the sight, smell and 'feel' of a disease to produce a diagnosis.

- **High definition infra-red imager:** Measures temperature changes, which can be a sign of problems.
- **Hyper-spectral imager:** Picks up changes in the colour of a patient that could mean liver or kidney problems.
- **Mass spectrometer for breath analysis:** Looks at body's metabolism and detects bacteria.
- **Propac monitor:** Standard NHS machine that measures pulse, blood pressure and electrical activity of the heart.
- **Near infrared spectroscopy monitor:** Measures oxygen in body.
- **Transcutaneous oximetry monitor:** Measures oxygen and carbon dioxide in blood.
- **Supra-thoracic Doppler:** Ultrasound, measuring heart function.
- **Thoracic electrical bioimpedence monitor:** Shows how well heart and circulation are working.
- **Gas sampling instrument and capnograph:** Gauges exhaled and inhaled carbon dioxide.
- **Spirometer:** Measures breath volume, depth and speed, and picks up gases linked to infection.
- **Multi-spectral imager:** Measures patient's colour changes. Quick but less detailed than hyper-spectral imager.
- **LCD monitors:** Show imaging data.
Telemedicine (NASA & Prisons)
Men have become the tools of their tools.

Henry David Thoreau
Technological Beings & Technologically Wise

• If we accept …

• To ‘engage’ with our everyday world technologies need to be framed as extensions of human senses not replacements for our senses … but they are also not neutral.

• New technologies are inherently disruptive not moral (forest fire)

• But we decide our sense of ‘everyday’ morality through engaging in practical wisdom.

• Practical wisdom relies on us understanding ‘what is going on’ and so technology should be extension of human senses

• But if we replace our senses with technologies, and naturalise underlying human intentions/values, we restrict our ability to engage with practical wisdom. In this way we become disconnected from the world around us. (injustice)
1. Technologies as extension of our senses

- Don Idhe (Michael Jackson).

“we are our bodies—but in that very basic notion one also discovers that our bodies have an amazing plasticity and polymorphism that is often brought out precisely in our relations with technologies. [Idhe, 2002: 137]
Practical wisdom

"doing the right thing at the right time for the right reason"

• Practical Wisdom: according to Aristotle, (or Prudence according to Aquinas) is the ability to negotiate and make sense of the everyday world – through thoughtful deliberation, judging well for the common good and acting decisively with foresight.

• Each situation can be different, context specific

• Thinking-through-doing rather than Thinking-then-doing

• It cannot be taught. Relies on experience

• Fails when: too little time to deliberate
1996: Practical wisdom and portable sawmills

“they have the knowledge/wisdom about the rainforest”

... thoughtful deliberation, judging well for the common good & acting decisively with foresight.
Traditional forestry

(right thing at the right time for the right reason)

• Whole community involved
• Practice: Cut trees once or twice a year
• Cut trees they knew well
• Followed taboos and elders’ advice

... thoughtful deliberation, judging well for the common good & acting decisively with foresight.
Portable sawmill
“right thing at the right time for the right reason”

- Young entrepreneurs (few women or elders)
- Felled trees according to market need
- Cut trees unknown (poisoned water, slow-growing)
- Few taboos (sawmill too heavy & injuries)
- Elders understood but when it was too late

... thoughtful deliberation, judging well for the common good & acting decisively with foresight.
I learned

• Knowledge and wisdom is performed as a group of bodies
• Technologies are important in making sense of our environment.
• But as extension of human senses
Most of us would prefer the personal interaction and hands-on collaborative care provided by primary care physicians in the time of my grandfather. But those days are gone. The fact of the matter is that current health care systems and methods are on the cusp of reform. Medical treatment will need to be more efficient, productive, and profitable to avoid a health care crisis in our rural communities and with our aging baby boomer populations.

Telemedicine is a viable and growing form of connected medicine that deserves our appreciation.
A key difference between technologies that enhance or restrict our ways of being/becoming in our everyday worlds is not the sophistication of ‘kit’ but if Practical Wisdom is integrated into the design values of the technologies (*leaves space for the performance of human creativity, careful deliberation, judgement and action with foresight in … our everyday worlds*).
Actor Charlie Chaplin said in 1916, two years into his film career, “The cinema is little more than a fad. It’s canned drama. What audiences really want to see is flesh and blood on the stage.”