The University of New South Wales
GSOE9510/ELEC4122
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LECTURE OUTLINE
Ethics & sustainability

sustainable: can be provided with what is needed to continue, endure; about **future** state

- stability over (what?) time-frame

(*fr physics*) material & energy conservation, thermodynamics (entropy)

$\therefore$ $\exists$ limit to use of technology

resource depletion & human condition are useful indicators

Are people a resource?

- **not** a property of a simple system in isolation, but complex
- hard or soft?
- environmental/ecological, social, economic aspects

Why does it matter? Respecting the "future" is a **choice**, a question of ethics. *[why?*

Pursuit of sustainability is a (strategic) **design choice** to be made; not a technical challenge.

For engineer, $\exists$ tools: e.g.

To be sustainable, must be closed system!

Change the paradigm?
become holistic; accept bounds on what can be attempted, some things cannotshould not be done

Design with **margins for unknowns**, incl ecological & social aspects (not just for 'safety').

Engage in debates!

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refer Beder ch10, Dowling et al ch8