



Manifesting the Ghost of the Future: Sustainability

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Sustainability in our context is understood as:

- Have thriving of human and other life on this planet
- Includes 5 dimensions: economic, technical, individual, social, and environmental
- To operationalize that definition for any system, we have to scope it by answering “Sustain what? For whom? For how long? At what cost?”
- Relation to software systems:
 - Software-intensive systems facilitate almost every aspect of human life .
 - They have a big impact on human behavior & planet: Direct effects, Enabling effects, and Systemic effects.
→ Therefore we need to take “general” sustainability into account when designing software systems.



A Manifesto to...

- Point to what is going wrong
- Promote principles that help get it right
- Start a discussion
- Online at www.sustainabilitydesign.org



What is going wrong?

We identify 11 Misperceptions, inter alia

- **framing sustainability as only protecting the environment;**
- **dismissing sustainability as a distinct research discipline; and**
- **thinking that taking small steps toward sustainability is sufficient, appropriate, and acceptable.**



How to get it right?

Principles

- Sustainability is systemic.
- ... is multidimensional.
- ... is interdisciplinary.
- ... transcends the system's purpose.
- ... applies to both a system and its wider contexts.
- ... requires action on multiple levels.
- ... requires multiple timescales.
- Changing design to take into account long-term effects doesn't automatically imply sacrifices.
- System visibility is a precondition for and enabler of sustainability design.



Let's discuss!



Summary: 1 definition, 11 misperceptions & 9 principles

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