Culture of Safety

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Preamble
Remember, we wanted, and want it this way:

DIY Biology

- Lower cost of technology
- Easier design and use of technology
- Diffusion of technology
- Early STEM education

Culture: It used to take a village …

… now it takes travel money, the Internet …

… and it takes global, integrative, life-cycle thinking

Elements of a culture of safety & how to get there

Global, Integrative, Life Cycle Thinking

- It's not "us *vs* them": CO-PRODUCTION
- Diffuse innovation system: LIFE CYCLE THINKING
  - My three lenses: (1) DESIGN, (2) MITIGATION, (3) ADAPTATION

(1) CULTURE OF DESIGN

- Engagement (but get them to come, rather than finding them)
- Co-produce (and start with understanding the existing culture)
- Full breadth of values (what is “safety” anyway?)
- Long time spans (young people *should* be good at that)

(2) CULTURE OF MITIGATION

- Culture = virtue + education?
- But: we cannot predict complex, chaotic systems
- Therefore: monitoring, benchmarks, rules, control, enforcement
  - aka regulation, self-regulation, soft-regulation, governance …

(3) CULTURE OF ADAPTATION

- Accept that we cannot control perfectly
- Plan and manage adaptively
- Start (for example with a “Rolodex” – it goes a long way)
- Use New Tools: big data, data mining, surveillance
  - Also for mitigation/enforcement (with thanks to Robert Carberry, RCC)

DESIGN + MITIGATION + ADAPTATION = RESPONSIBLE INNOVATION

- **An invitation**
  - Check out “Responsible Innovation” - it’s gaining momentum
- Example: www.RICAH.ca, a member of VIRI
- More info: msaner@uottawa.ca