Sustaining the Information Society:

New (and Old) Conflicts in the Knowledge Economy

Gavin Baker

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University of Florida
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Free culture

- *Free Culture* (2004)
  - *How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity*
  - by Lawrence Lessig, Stanford Law
- FreeCulture.org
  - student organization
  - “Creativity always builds on the past”

Sustainability...?

- “Lawrence Lessig could be called a cultural environmentalist.”
  - *Free Culture* Web site

- “A Politics of Intellectual Property: Environmentalism for the Net?”
  - James Boyle, 47 Duke L. J. 87 (1997)

“Sustainability”

- “meeting contemporary needs without compromising the ability of future stakeholders to satisfy their needs”
  - ecological preservation
  - economic viability
  - social justice

Source: UF Office of Sustainability

Is “meatspace” all that matters?

No

- Heinrich Boell Foundation, WSIS 2003
  - The environments which now increasingly influence our private, working and public lives are electronic ones, where we move independently of space and time limitations: these environments complement and in some cases take the place of natural environments and material goods. Therefore, like natural environments and material goods, these electronic environments must also be organized according to the principles of sustainability.

Information society

- “a society in which the creation, distribution and manipulation of information is a significant economic and cultural activity.
- “The knowledge economy is its economic counterpart whereby wealth is created through the economic exploitation of understanding.”

Source: Wikipedia

Needs

- Communication
- Access to knowledge
- Free speech
- Control
- Competition
- Criticism
- Community

Sustainability

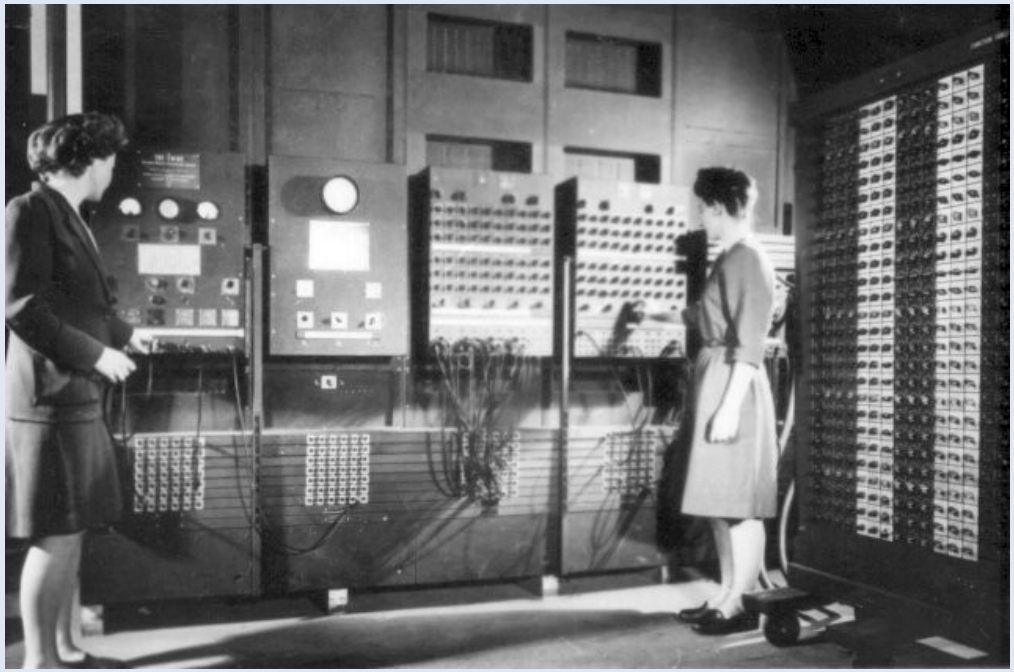
- The rise of the information society has been met with a growth of interest in sustainable management of information goods and resources
- Academic communities are taking particular interest as they strive to fulfill their mission to serve the public good
  - “to create and share knowledge”

Examples

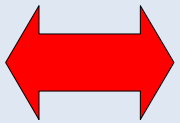
- Information
- Technology

Sustainable computing

- Seventh generation
  - of computers!



Good luck



Library of Alexandria

- world's greatest library
- burned down
- could fit on a hard drive
  - but would we be able to read it in 10 years?

File formats

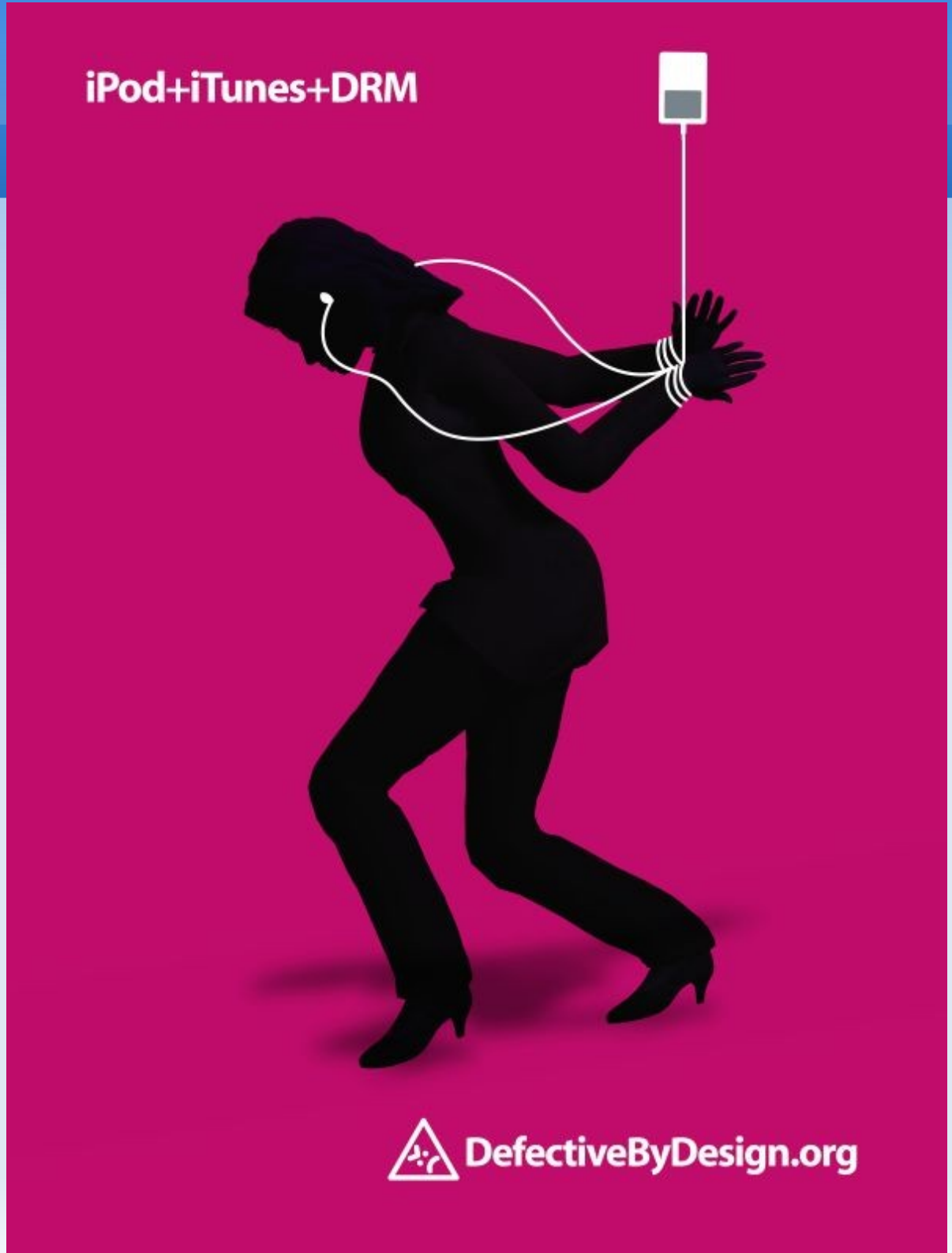
- e.g. .doc, .html, .pdf, .mp3
- Proprietary vs. open
- Open file formats
  - published specification
  - free of legal restrictions on use
  - often maintained by standards body

Open formats & sustainability

- Accessible in perpetuity
- Prevents vendor lock-in
  - Encourages competition, sustainable development

DRM

- “Digital rights management”
  - Dumb restriction method
- “Copy protection” / “access control”
- Goodbye, first sale rights
- Protected by DMCA
- Lock-in++


iPod+iTunes+DRM
DefectiveByDesign.org

Sustainable information

- Sharing knowledge is sustainable
  - “Knowledge is power”
  - cf. social justice, economic development

Barriers

- Financial (dis)incentives
- Social habits
- Technical
- Language
- Digital divide
- Legal

“Ownership is 9/10 of the law”

- James Boyle:
  - “It is **intellectual property** … that provides the key to the distribution of wealth, power and access in the information society.”
- By sharing knowledge, academic and public institutions can help make that distribution more equitable
  - cf. social justice, economic development

Creative Commons

- SF-based non-profit founded by Lessig
- provides copyright licenses for authors to allow sharing & re-use of their work

Attribution	Share-Alike
Non-Commercial	No Derivatives

- 145 million licensed works
- goal
- Science Commons

OpenCourseWare

MITOPENCOURSEWARE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

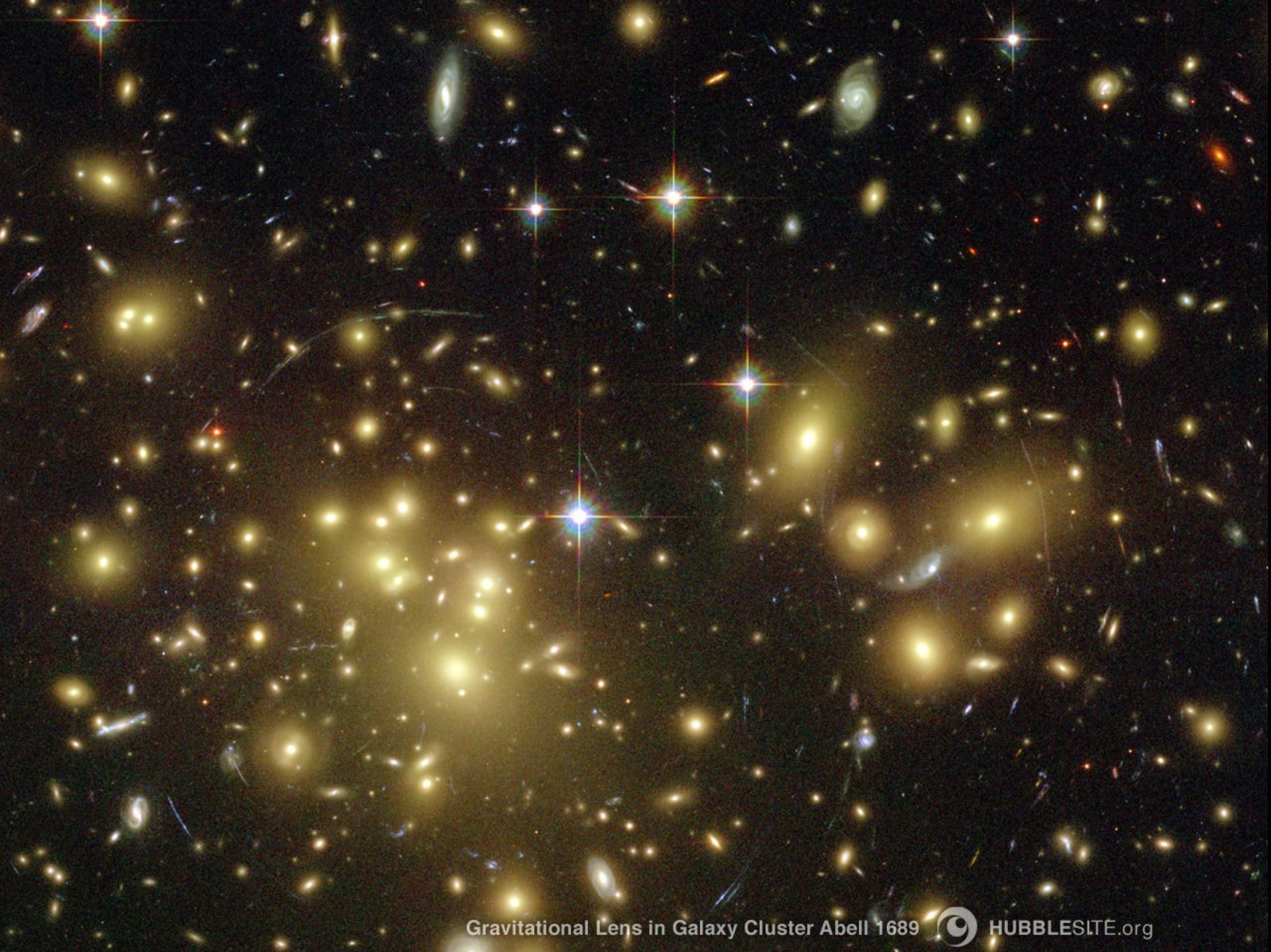
- Massachusetts Institute of Technology
  - initiative to put all of the educational materials from MIT's courses online, free and openly available to anyone, anywhere, by the year 2007
- all materials ... for everyone
- uses cc by-nc-sa
- OCW Consortium

Open access research

- academic literature
  - online, free of charge, and free of most copyright and licensing restrictions
- removes price and permission barriers
- by the journal or by the article
  - funders
- improves impact
- public health

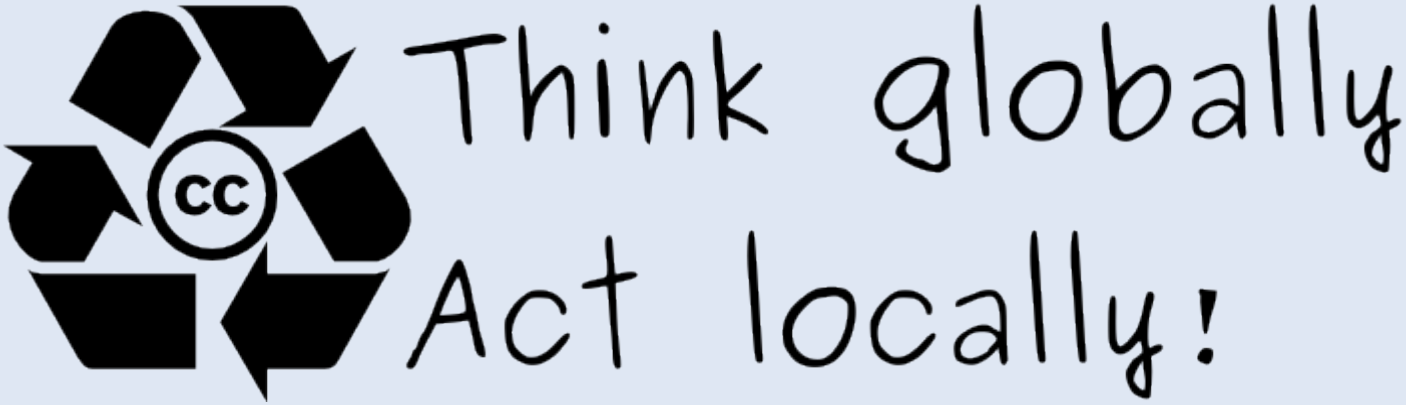
University Channel

- Princeton University
- publishes video and audio of academic lectures and events
- uses Creative Commons licenses


Gravitational Lens in Galaxy Cluster Abell 1689
HUBBLESITE.org

Your turn

How can **you** contribute to a free and sustainable future?



fin.

Slides, links, recommended reading:

www.gavinbaker.com/conferences/sustainability

Email: grbaker@ufl.edu

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