



What is Happening in the World? Reviews of Community-Based Best Practices

Bruce Tonn, Tim Ezzell, Catherine Wilt,
Kayla Stover, Guinevere Shaw

September 2, 2015



OVERARCHING THEME: DESIGN

Overview

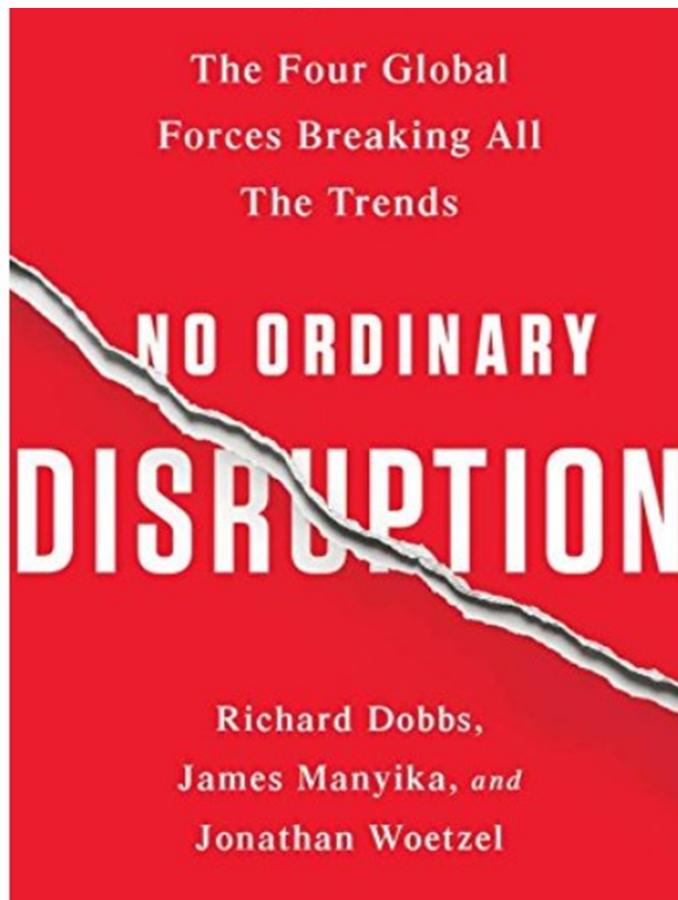
**Powerful
Trends**

**Report
Topics**

**Synthesis &
Conclusions**



Technological Trend: Technological Disruption - Innovation in a World with Ten Billion Inhabitants





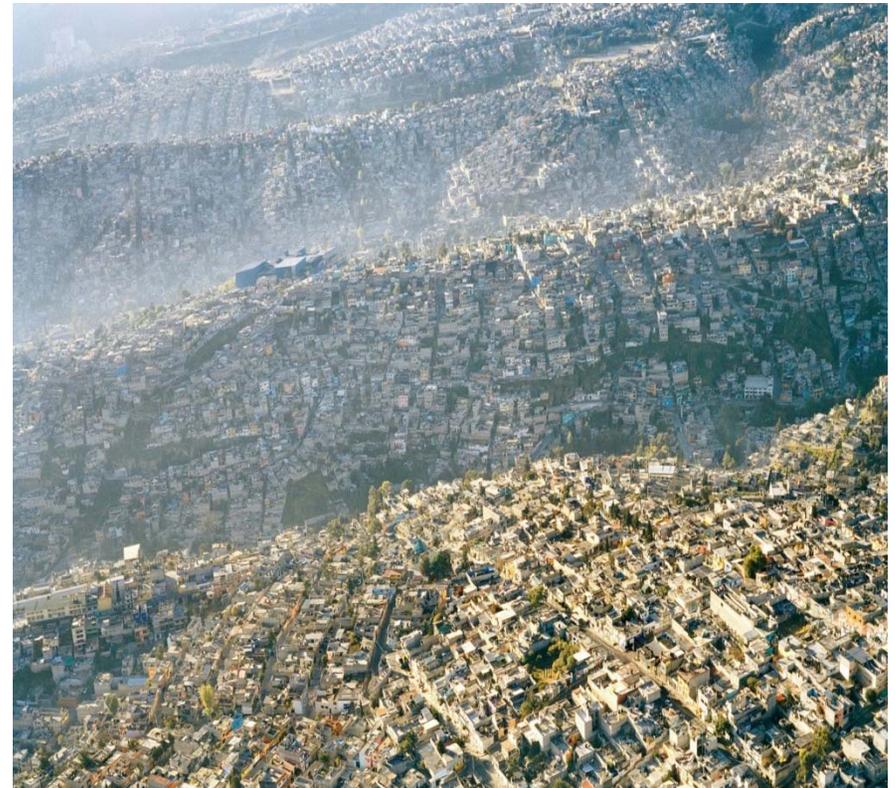
Economic Trend: Worldwide Urbanization



Shanghai,
China



Austin,
Texas



Mexico City, Mexico



Putting the Pieces Together

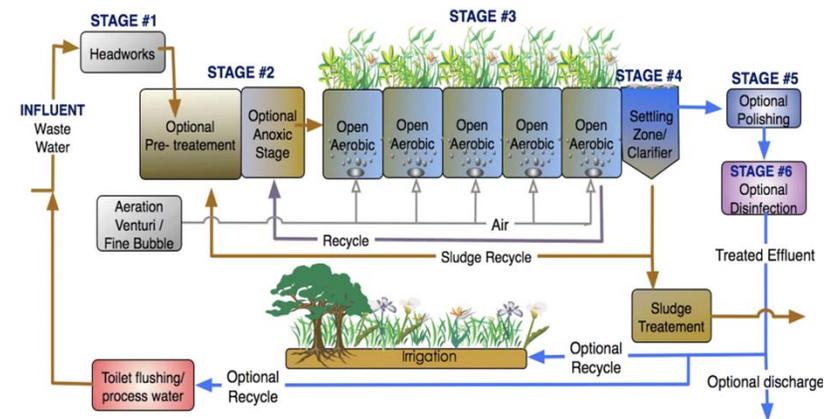
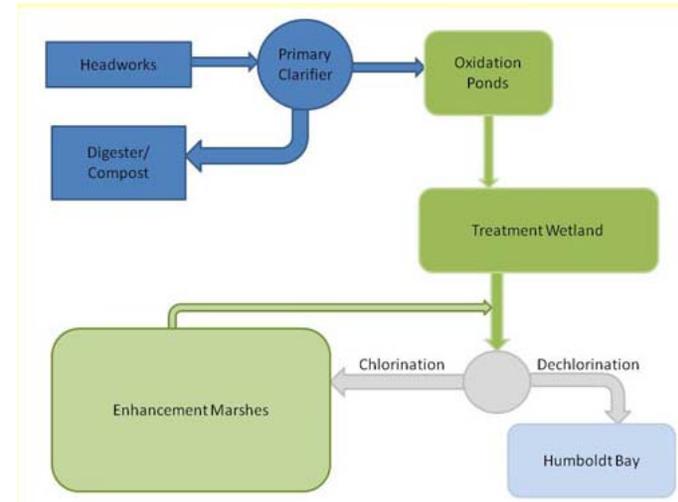
Take Maximum
Opportunities of
Technology, writ large

Find Innovative Ways
to Pay for Things

Build Rural and Urban
Social, Cultural,
Political and Natural
Capital

Imagine Futures
That Tie Pieces
Together

Waste Water Treatment and Use





Energy Efficiency & Renewable Energy

- Energy Service Companies
- Performance Contracting
- Utility of the Future....
- Low-Cost Technologies

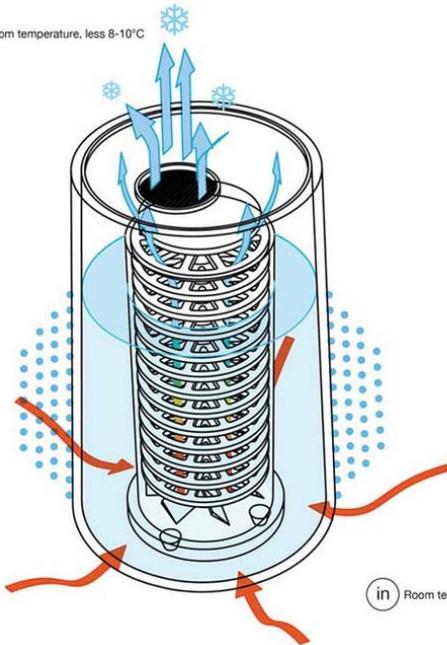




Extremely Affordable Sustainable Technologies



Room temperature, less 8-10°C



Terracotta Cooling



The Fertiloos: \$100 compost latrine



Local Food Self-Sufficiency

Lawrence Food Hub

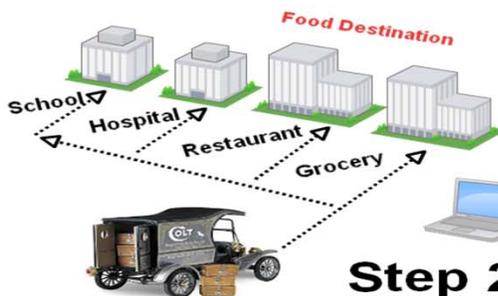
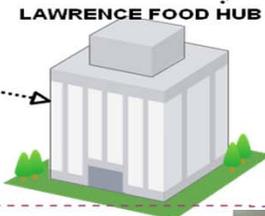


Step 1:

Lawrence food hub **picks up products** from local food producers several times a week.

Food products are delivered to the food hub, processed if necessary and checked into a **electronic inventory system**.

Products are separated and labeled with the original producer's name or farm of origin.

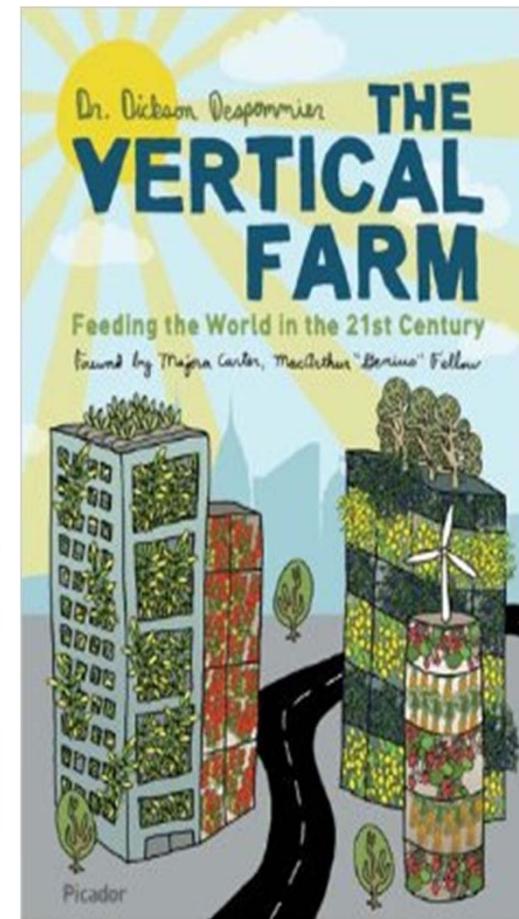


Step 2:

Registered food hub members have full visibility of what products are in inventory and can place orders online 24/7.

Orders are received at the food hub and workers prepare packages for delivery.

School cafeterias, restaurants and grocers can offer fresh picked, local foods year around thanks to regional farmers and the food hub.





Rural Community Preservation



Port of Cates Landing

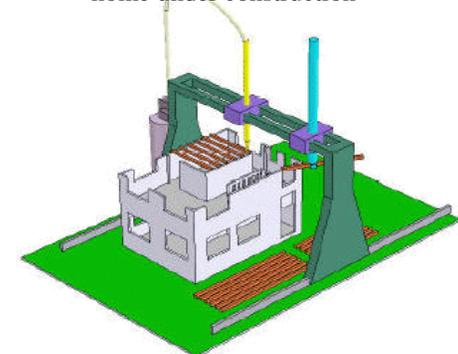
Extraordinary
Projects

Numerous
Small Scale
Actions

Discovery Park



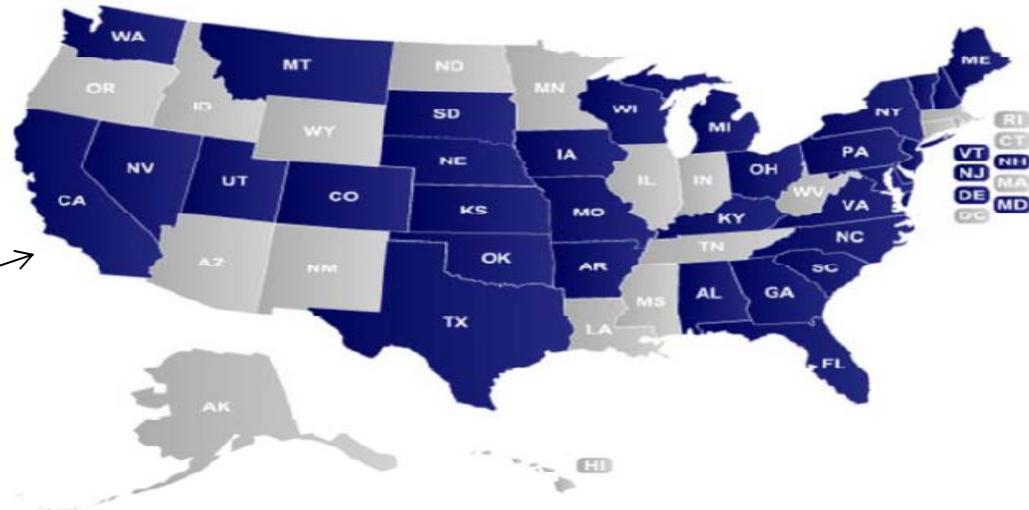
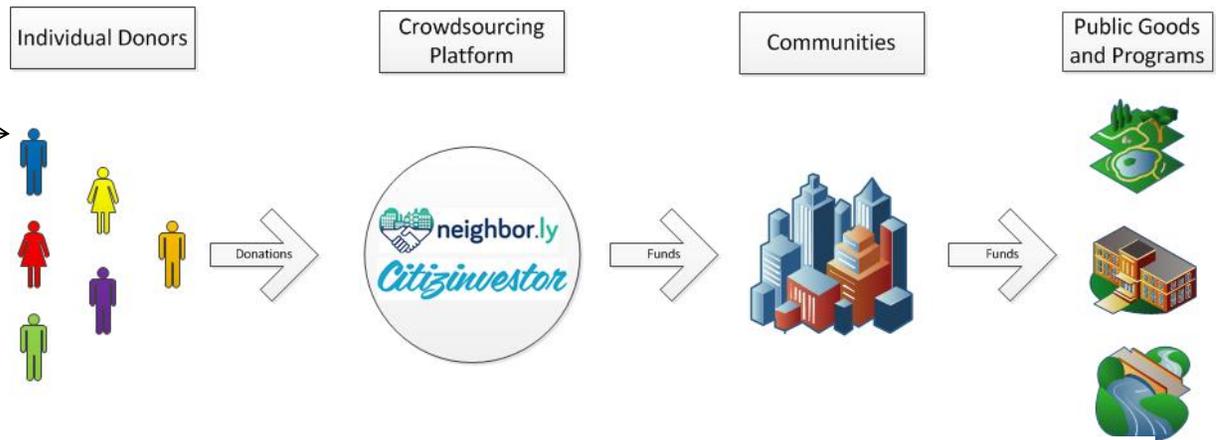
Figure 3: Rendering of a contour-crafted home under construction



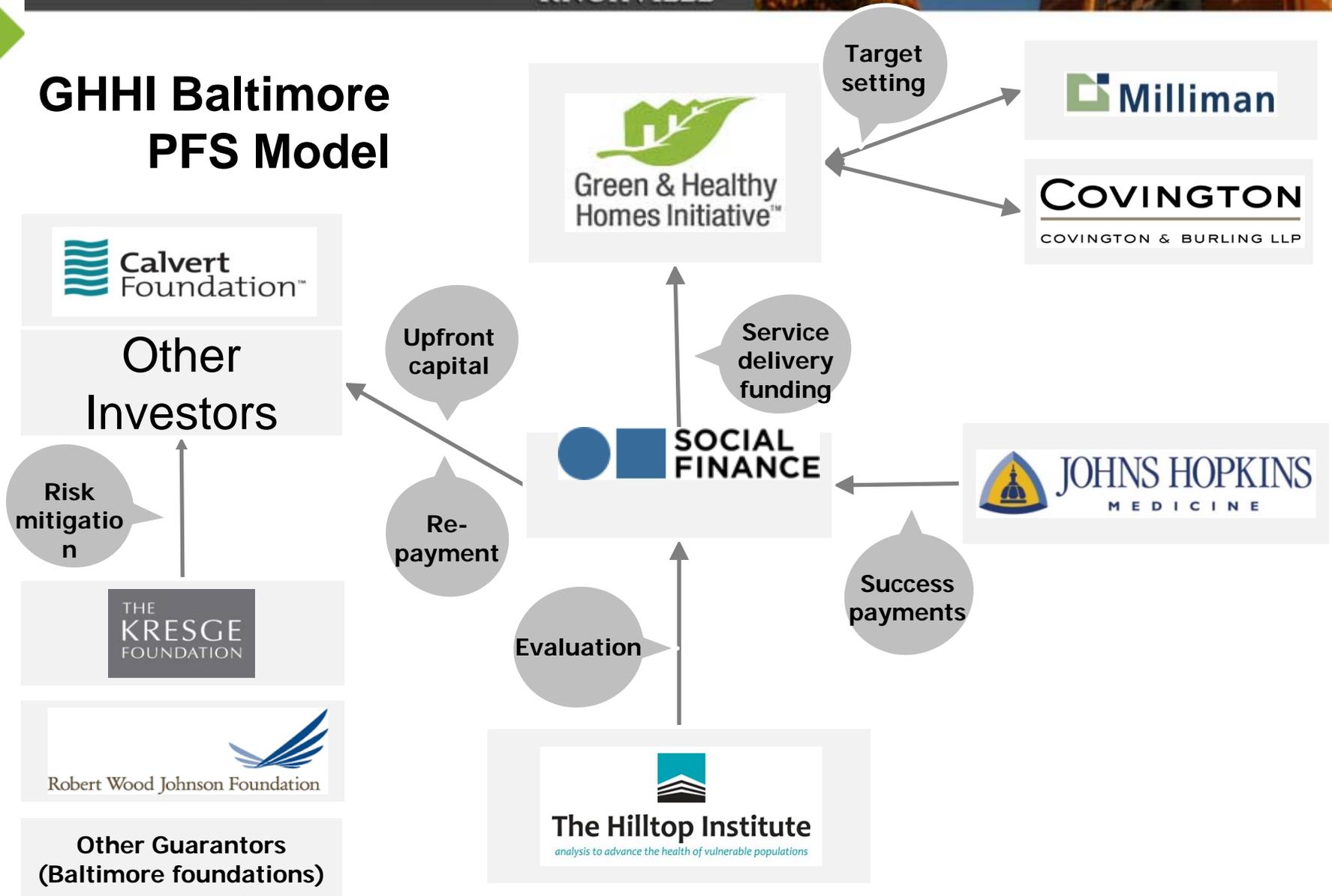


Innovative Public Finance

- *Crowd Funding
- *Street & Impact Fees
- *Revolving Funds
- *Public Infrastructure Funds
- *Energy Loan Funds



GHHI Baltimore PFS Model





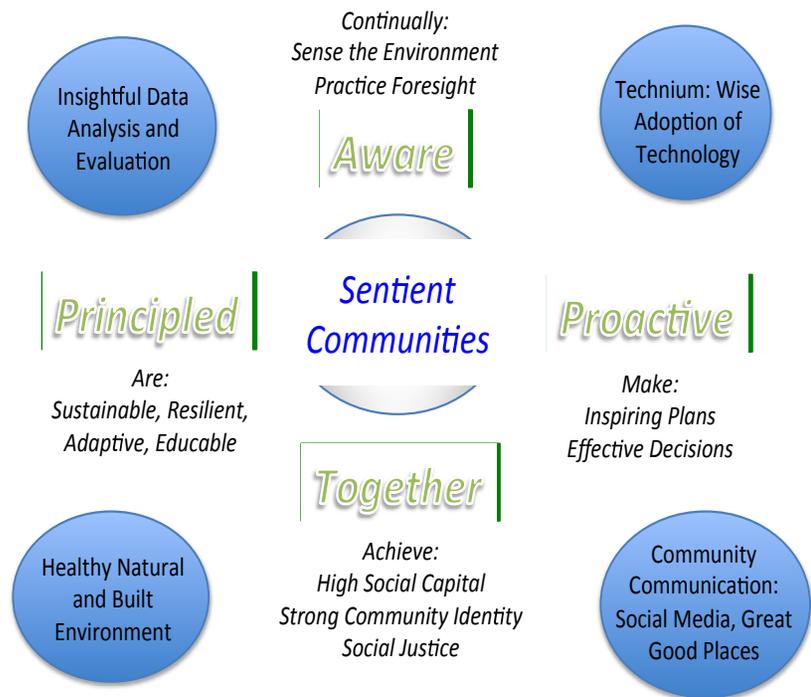
Empowerment and Community Decision Making

- Plethora of Approaches
 - Plan vans, on-line engagement, leadership programs, scenario planning, study circles, public participation plans, community visioning, community halls, etc.
- Communities that use many of these approaches could be described as being democratically vibrant



Sentient Communities

- Combine Goals
 - Sustainability
 - Resilience
 - Adaptability
 - Learning communities
- With Technologies
 - Ubiquitous computing
 - Big data
 - Intelligent systems





Conclusions

- The vibrant Sentient Communities concept ties many of these threads:
 - Support multiple empowerment approaches, organize local food and manufacturing, new revenue streams
- Disruptive ideas and thinking may be key to future sustainable communities:
 - Land use regulation, financing, combating poverty by reducing costs



Major Trends

Economic

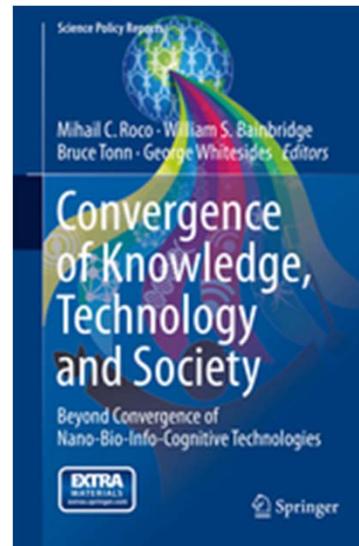
Worldwide
Urbanization
Global Flows of
Everything

Political

Specialization
Non-governmental
Actors

Technological

Technological Disruption
Manufacturing



Health

Mental Health
Antibiotic Resistant Bacteria

Environmental

Climate Change
Synthetic Biology

Social

Living Alone
Rapidly Aging
Population