

Greening Through IT

Chapter: Ways Forward

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Humanity is on Unsustainable Trajectory

Together we have built this world of modern infrastructure and comfort. But our very success, however has created the biggest problem. Such as -

- Using too many resources
- Producing too many wastes
- Air pollution
- Deforestation

Enacting Change

1. Understand the stages between the current reality and sustainable future
2. Two main ways to integrate changes
 - a. Continuous gradual change
 - b. Discrete Quantum transformation

Continuous Gradual Change

- Required monotonic change in people's environmental impact
- It systems can encourage people to engage in monotonic changes
- Two main factors - personal change and broad social adoption



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Discrete Quantum Transformation

- Major social transformation happening in a relatively short period of time
- Collective shift in behavior
- IT can bring dramatic social transformation



Balancing both methods

Gradual change may not be significant enough to achieve global sustainability

As the *Smart 2020* report asserts, “It is becoming clear that incremental change is not going to be enough to tackle climate change to the degree and at the speed required to keep carbon at ‘safe’ levels in the atmosphere”

According to the author: many gradual changes collectively move humanity toward sustainability, but occasionally we may need to undergo more dramatic alterations in order to be able to make gradual progress once again.

Long Term Impacts

- Corporate research and development tend to deal with issues one to five years in the future
- Academic research typically deals with events two to ten years away
- Thinking about impact twenty times further into the future requires a different set of approaches
- IT has been around for a long time—from number systems to written text to maps to the printing press to computers.
- Just as IT has supported efforts to deal with past challenges, it will be a key component of our response to environmental issues as well.

Other Global Challenges

United Nations offers eight “Millennium Development Goals”:

1. ending poverty and hunger
2. ensuring universal education
3. promoting gender equality
4. reducing child mortality
5. improving maternal health
6. combating HIV/AIDS
7. achieving environmental sustainability and
8. developing a global partnership

As with sustainability, the seven other goals have a certain commonality: they are all beyond the scope of any one individual. Still, they are all critical to a just future.

A Cautiously Optimistic Perspective

- thousands of projects are currently underway around the world
- several hundred pages of this book only begin to scratch the surface of the problem
- We must remain cautiously optimistic about humanity's ability to respond to these challenges without needing to survive an apocalypse.
- Cautious, because the challenges are great and the stakes are high.
- Optimistic, because what humans lack in foresight, we make up for in enthusiasm and compassion.

“I hope and believe that people can take the initiative to enact change on a global scale, rather than becoming the victims of global change.”

-Bill Tomlinson

Discussion Questions

1. Do you agree that revolutionary changes are needed to achieve environmental sustainability? If yes, then what can be the next revolution after internet?
2. Is it possible to ensure environmental sustainability without ensuring universal education and ending poverty and hunger?
3. Do you believe IT can be the key factor to bring change in an individual and global scale?

Thank you