

The Digital-Environment System Coalition (DESC)

Tim Unwin

International Symposium

*European Approaches Towards a Sustainable
Digitalization*

6th May 2021



United Nations
Educational, Scientific and
Cultural Organization



UNESCO Chair in
ICT for Development
Royal Holloway, University of London

<https://ict4d.org.uk/desc>

5 minutes on:

- Short **introduction** of the Digital-Environment System Coalition (DESC)
- The **potentials** of such **scientific networking** processes to drive policy debate towards stronger sustainability focus of digitalization?
- What (else) would be needed to **make digitalization work for sustainability**?



East Africa Data Centre, Nairobi, Kenya

The Digital-Environment System Coalition (DESC)

<https://ict4d.org.uk/desc>



United Nations
Educational, Scientific and
Cultural Organization



UNESCO Chair in
ICT for Development
Royal Holloway, University of London


<https://ict4d.org.uk> <http://unwin.wordpress.com>

Many existing initiatives on digital sustainability



UNESCO Chair in
ICT for Development
Royal Holloway, University of London

- **Cambridge Institute for Sustainability Leadership** – and the **environmental footprint of cryptocurrency**
- **ClimateAction.tech** – using the skills of tech workers to accelerate climate action
- **climatecare** and their work on the **carbon footprint of the Internet**
- **Digitalisierung und sozial-ökologische Transformation (Digitalization and Sustainability)** project – a cooperation between the Technische Universität Berlin (TU Berlin) and the Institute for Ecological Economy Research (IÖW)
- **EIT Raw Materials Academy** – especially **learning map of the lifecycle of a phone**
- **Ericsson's** understandings of environmental sustainability
- The UK's **EPSRC Digital Economy's Theme** on Sustainable Digital Society
- **EuroDig wiki – drowning in data** – lists useful references and resources
- The **European Commission's work** on digital sustainability
- The **European Space Agency's work** on space trash and debris
- **GeSI's** work seeking to enable digital sustainability
- The GIP Digital Watch observatory on **Digital and Environment**
- The **Global e-Waste Statistics Partnership** (GESP) founded by the ITU, UNU and ISWA
- Greenpeace's work on **greener electronics**
- The **Green Web Foundation** including **Green Web Datasets**
- The GSMA's work at the interface between mobiles and climate change
 - 2021 report on **The Role of Digital and Mobile-Enabled Solutions in Addressing Climate Change**
- The ITU's activities on **ICTs for a sustainable world** (see also **ICT-Centric Economic Growth, Innovation and Job Creation**)
- The **Restart Project** and associated initiatives
- The **Shift Project**
- The **StEP** initiative on e-waste
- **Sustainable Digital Infrastructure Alliance**
- Some of the **UN's work on the impact of digital technologies**
- The **World Economic Forum's** circular vision for electronics



But none yet
addresses these
issues in a
sufficiently
holistic manner

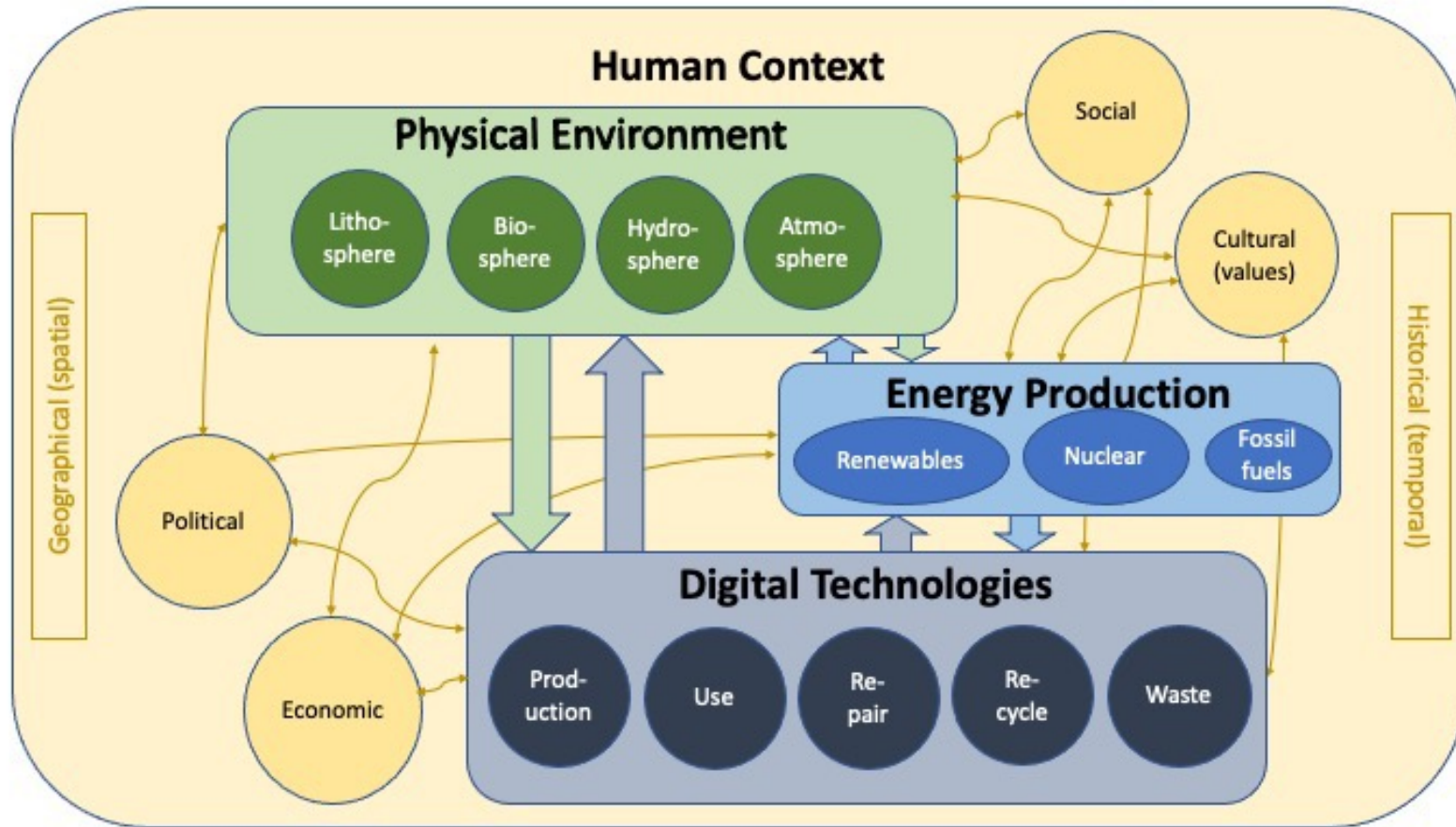
Crafting a new more holistic systemic framework – exploring the positives and negatives within this system



United Nations
Educational, Scientific and
Cultural Organization



UNESCO Chair in
ICT for Development
Royal Holloway, University of London



<https://ict4d.org.uk/desc>

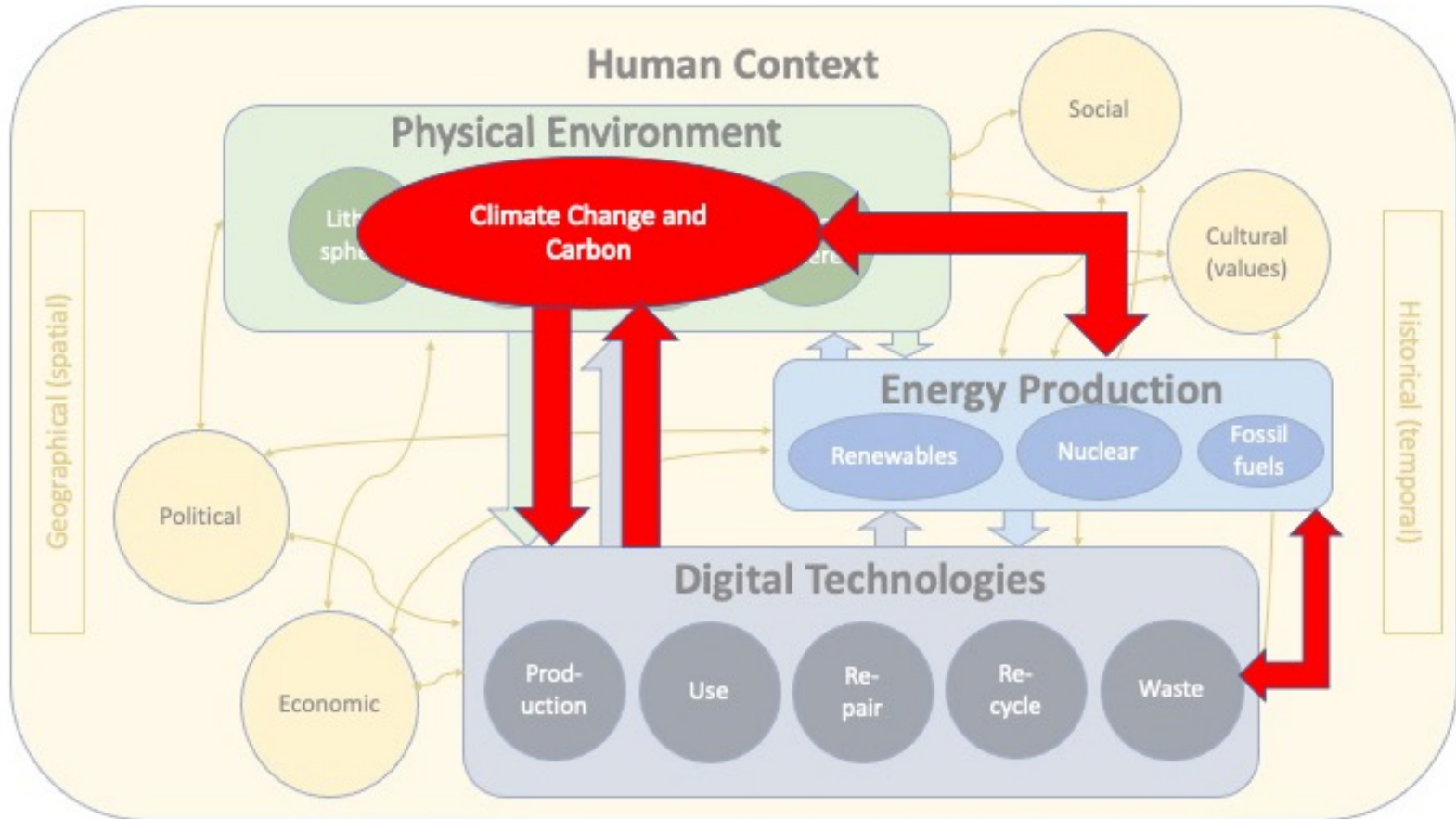
... rather than mainly



United Nations
Educational, Scientific and
Cultural Organization

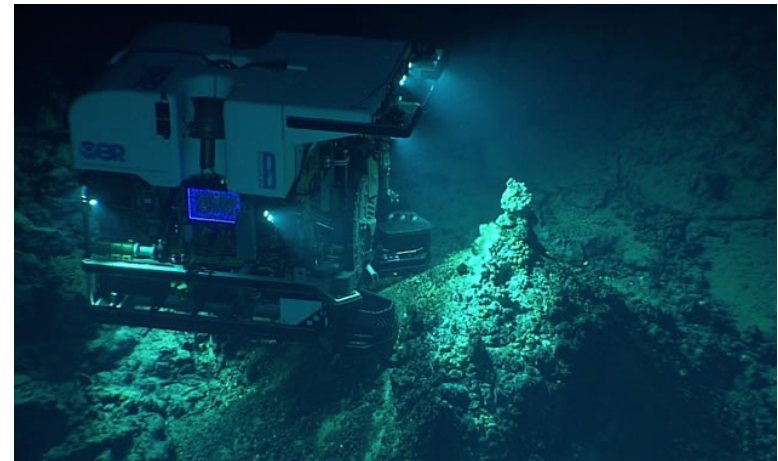


UNESCO Chair in
ICT for Development
Royal Holloway, University of London



Clear actions and outputs

- Establishing a flexible framework
- Developing new research clusters
- Engaging in policy dialogue and disseminations
 - Workshops
 - Diversity of publications
- Towards a 2025 report
 - Five years before end of Agenda 2030



Potentials of scientific networking processes to drive policy debate



United Nations
Educational, Scientific and
Cultural Organization



UNESCO Chair in
ICT for Development
Royal Holloway, University of London

Potentials

- Current positions are very entrenched
 - Sustainable Development Goals (SDGs)
 - The Climate Change agenda (and the carbon fetish)
 - Driven very largely by powerful private sector interests
 - Digital tech almost always seen in a positive light
- But that makes it all the more interesting
 - Strong evidence base
 - Working with relevant stakeholders
 - Governments, private sector, civil society,
 - Convincing arguments
 - Vehement dissemination of ideas
 - Active engagement with policy makers



Making digitalization work for sustainability



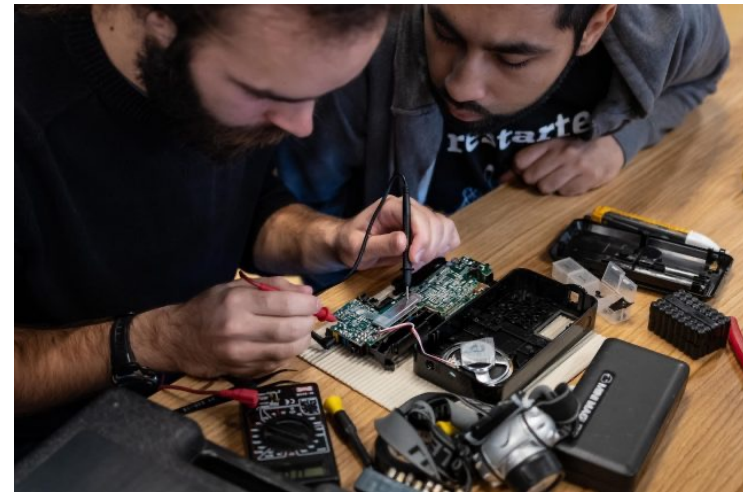
United Nations
Educational, Scientific and
Cultural Organization



UNESCO Chair in
ICT for Development
Royal Holloway, University of London

Making digitalization work for sustainability

- Depends on how sustainability is defined!
- Our agenda is very radical
 - Claims that much use of digital tech is actually “anti-sustainable”
 - Must move beyond just climate change to a holistic view of the digital-environment system
- Must mitigate the harms if the benefits are to be realised



<https://therestartproject.org/>

Thanks



Digitalization and Sustainability

To find out more

<https://ict4d.org.uk/desc>



United Nations
Educational, Scientific and
Cultural Organization



UNESCO Chair in
ICT for Development
Royal Holloway, University of London