the case for digital degrowth

radically rethinking our digital futures
How can we have ICT that is better for people, better for communities, and better for the planet?
we are living in a world of digital excess/excessive digitization

... we need sustainable ICTs that support sustainable ways of living
Green Tech Industry Thrives with $70.1 Billion Investment in 2022, Poised for Continued Growth in 2023.
Akshat Rathi

"An important read for anyone in need of optimism about a clean energy future"
BILL GATES

CLIMATE CAPITALISM

Winning the Race to Zero Emissions and Solving the Crisis of Our Age

Hannah Ritchie

*Truly essential* Margaret Atwood, TED23

Not the End of the World

How We Can Be the First Generation to Build a Sustainable Planet

Deputy Editor and Lead Researcher at Our World in Data
“Degrowth makes the case that we have to produce and consume differently, and also less. That we have to share more and distribute more fairly, while the pie shrinks. To do so in ways that support pleasurable and meaningful lives in resilient societies and environments requires values and institutions that produce different kinds of persons and relations.”

(Kallis et al. 2020, p.5)

- Post-capitalist
- Low impact
- Slowing down & scaling back
- Voluntary simplicity
- Rebalancing
- Collective deliberation
- Local self-determination
- Cooperation
Conviviality
Autonomy
Commons
Care
WHAT ARE THE ICT EQUIVALENTS OF THE BICYCLE?
Degrowth welcomes tech that is “empirically feasible, ecologically coherent and socially just”

Degrowth pushes for the reduction of all technologies that are clearly destructive and/or less necessary to the wellbeing of people & planet

Degrowth pushes for the revitalisation of technologies that might add to the wellbeing of people & planet

Degrowth pushes for innovating novel technological approaches

The global economy is structured around growth — the idea that firms, industries and nations must increase production every year, regardless of whether it is needed. This dynamic is driving climate change and ecological breakdown. High-income economies, and the corporations and wealthy classes that dominate them, are mainly responsible for this problem and consume energy and materials at unsustainable rates. Many industrialized countries are now struggling to grow their economies, given economic convulsions caused by the COVID-19 pandemic, Russia’s invasion of Ukraine, resource scarcity and stagnating productivity improvements. Governments face a difficult situation. Their attempts to stimulate growth clash with objectives to improve human well-being and reduce environmental damage. Researchers in ecological economics call for a different approach — degrowth. Wealthy economies should abandon growth of gross domestic product (GDP) as a goal, scale down destructive and unnecessary forms of production to reduce energy and material use, and focus economic activity around securing
COMPUTING WITHIN LIMITS

review articles

The future of computing research relies on addressing an array of limitations on a planetary scale.

BY DONNE NABEL, BILL TOMLISON, DONALD J. PATTERTSON, JAY CHEN, DANIEL PARSHAM, BRADTH RAHMANSON, AND BRIDT PENDZIELAK

Computing within Limits

computing researchers and practitioners are often seen as inventing the future. As such, we are implicitly also in the business of predicting the future. We plot trajectories for the future in the problems we select, the assumptions we make about technology and societal trends, and the ways we evaluate research. However, a great deal of computing research focuses on one particular type of future, one very much like the present, only more so. This vision of the future assumes that current trajectories of ever-increasing production and consumption will continue. This focus is perhaps not surprising, since computing machinery as we know it has existed for only 60 years, and is a period of remarkable industrial and technological expansion. But humanity is rapidly approaching, or has already exceeded, a variety of planetary-scale limits related to the global climate system, fossil fuels, raw materials, and bio-capacity.1-3

It is understandable that in computing we would not focus on limits. While planetary limits are obvious in areas such as extractive capacity in mining or fishing,
Digital degrowth innovation: Less growth, more play

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In the article that launched this forum, Robhiv (2019) describes a dairy firm in rural Wisconsin where human labor—farmers working at 3 a.m. to milk cows in the freezing cold—has been replaced by a highly-efficient milk production system run by robots. Robbins’s intention is to explore how labor-saving technologies, often associated with capitalist growth, might have a role in creating more livable and sustainable futures. While seeking companionship, Robbins’s example seems to offer a binary choice: large-scale technological solutions, or the romance of green, anthropocentric local projects. Subsequent contributions to this forum further highlight the tensions that remain between primitivist and techno-optimist views in degrowth debates. This research suggests many alternatives to this binary. Focusing on digital innovations, our aim in this contribution is to find common ground among degrowth thinkers and human ecologists and sociologists of technology (2019) have argued, advocates of racial eco/modernism tend to oversimplify the degrowth position on technology, falsely implying that degrowthers uniformly reject technoscientific and digital innovation. However, post-optimist critiques that are either apocalyptic or fatalistic towards innovation do have a presence in the degrowth movement. In the more technophobe-optimist branches of the degrowth movement, technology appears as something to be tolerated rather than actively enthralled or pursued. Much of the recent degrowth literature requires critiques of technology formulated by earlier thinkers like Debord (1993), who understand that growth-oriented innovation destroys both nature and human freedom. While physical infrastructure takes its toll on nature, our “smart” devices, for many degrowthers, have become synonymous with white-colonialist and primitivist nationalism. Political geography – the dialectic interaction of power and space – offers a fruitful lens through which to explore this relationship. Or, as the Danish philosopher Jürgen Habermas (2019) writes, “We must consider how to pluralize the world, or ‘think about a thinking world’.”
#1. Working out which digital technologies need to “destroyed for good” (Sadowski 2025)

* Influencing public opinion and political thinking
* Making the digital technology a focus of deliberative democracy
* Organising protest and resistance
* Harnessing the efforts of tech workers
* Encouraging the ‘redesigning’ and ‘undesigning’ of technologies
#2. Digital technologies that “should be taken apart, to be rebuilt for new purposes” (Sadowski 2025)

* Digital public goods and the digital commons
* Building our own computers
* Right to digital repair
* Modular devices
* Communal and shared resources
* Collectively run infrastructure
#3. Radical future forms of resilient computing

* Salvage computing
* Frugal computing
* Software sufficiency
* Improvised devices
* Collapse O/S
* Solar-powered websites
#3. Radical future forms of nature-based computing

* Nature-powered computing
* Intermittent computing
* Biodegradable computing
* Fungal computing and other forms of ‘wetware’
Why Degrowth Is the Worst Idea on the Planet

Despite still growing over the last 50 years, we already figured out how to reduce our impact on Earth. So let’s do that.

The Techno-Optimist Manifesto
Marc Andreessen

The Enemy

We believe technology opens the space of what it can mean to be human.

We have enemies.

Our enemies are not bad people — but rather bad ideas.

Our present society has been subjected to a mass demonization campaign for six decades — against technology and against life — under varying names like “existential risk”, “sustainability”, “ESG”, “Sustainable Development Goals”, “social responsibility”, “stakeholder capitalism”, “Precautionary Principle”, “trust and safety”, “tech ethics”, “risk management”, “de-growth”, “the limits of growth”. 
How can we have ICT that is better for people, better for communities, and better for the planet?

"BEGIN TO BUILD THE NEW WORLD WITHIN THE SHELL OF THE OLD" (Samuel Alexander)
The challenges of radically changing ICT

* Convincing ourselves this is possible
* Dealing with vested interests
* Building support and solidarity
* Starting local ... but moving beyond the local