Colloquium d'informatique de Sorbonne Université

Six of the nine planetary boundaries are transgressed How we do research in Anthropocene

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Six of the nine planetary boundaries are transgressed, which have led Humanity into the Anthropocene, i.e. out of the safe operating space where we now clearly see the effects of climate change and of biodiversity collapse. Information and Communication Technologies (ICTs) contribute to the exceedance of these boundaries e.g. by contributing to 2-4% of the global greenhouse gas emissions.
Research in ICT mostly follows the mainstream agenda of improving the technological efficiency (e.g. through Moore's Law, energy-efficient computation and communication). However, this quest for efficiency so far has failed to reduce the absolute environmental footprint of ICTs. In this talk, we will decode the socio-economic conditions that prevented us to turn the efficiency improvement into footprint reduction. We will then try to shape the necessary socio-ecological transition to include sobriety in ICT research and innovation.

David Bol is a Professor at UCLouvain. In 2010, he was a visiting postdoctoral researcher at the UC Berkeley Lab for Manufacturing and Sustainability, Berkeley, CA. In 2015, he participated to the creation of e-peas semiconductors spin-off company, Louvain-la-Neuve, Belgium. Prof. Bol leads the Electronic Circuits and Systems (ECS) group focused on ultra-low-power design of integrated circuits for environmental and biomedical IoT applications with a holistic focus on environmental sustainability. He is actively engaged in a social-ecological transition in the field of ICT research with a post-growth approach. Prof. Bol has authored more than 150 papers and conference contributions and holds three delivered patents. On the private side, Prof. Bol pioneered the parental leave for male professors in his faculty, to spend time connecting to nature with his family in a post-growth deceleration.

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