Contents lists available at ScienceDirect

Sustainable Futures

journal homepage: www.elsevier.com/locate/sftr

Sustainable ICT equals not ICT for sustainability

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ARTICLE INFO

ABSTRACT

In this opinion paper we promote the idea of an open dialogue to take place from within the Sustainable Futures journal that will offer the opportunity to a wide range of actors and stakeholders to present their ideas, concerns and worries on a variety of issues relevant and related to aspects of sustainability. Such an open-ended approach will help overcome opposing dynamics that currently cater for polarization and as a result to the segregation within the scientific community and the society at large. On the positive side, there is a wide spectrum of ambitious, game-changing and disruptive initiatives that can be taken from academia, from the industry, from the activists' movements and the citizens at large, which will aim to increase our freedoms and not reduce them.

1. A wide field of opposing dynamics

Pre-Christmas period and Black Friday offer a good opportunity to discuss issues related to sustainable consumption [1–3]. Apart from the case that this may be a paradox as consumption presupposes lack of sustainability at all or keeping this at a necessary minimum, we may all be used to terms like immaterial and intangible goods or services – so wherever there are goods and services, there may also be consumption as well. Discussions such as the calculation of the carbon footprint of a google search is not new as seen in [4] and sparked discussions and further research as seen in [5–7].

What may appear as a worrying phenomenon is that *there appear trends in the society and the economy that trigger opposing dynamics to stakeholders and the society at large*. While for instance we may increase our Web and Internet use and search rates, we try to teach ourselves to give up flights (what we refer to as flying or flight shame). Furthermore, what the CEO of a major airline company suggested for the increase of the prices so that no flight tickets could be purchased for under 100 Swiss Francs (about 91 Euros, 712 Chinese Yuan or 101 US dollars) may be welcomed as a voice of sensibility and reason [8].

The idea of introducing information systems at the corporate and organizational level that will take care of monitoring and reporting environmental or other sustainability-related and sustainability-relevant aspects is also not new as one can see in [9–11] though there is always the possibility that this may not have taken off as of today because of a lack of political imperative so a déjà vu to what happened in corporate financial reporting with the introduction of the Sarbanes–Oxley Act of 2002 [12].

The issue is that legislation and regulation may care for the absolute minimum in compliance – and hence they may never lead us to

innovations. *What we may now rather badly need is that a wide spectrum of ambitious, game-changing and disruptive initiatives will be sparked from academia, from the industry, from the activists' movements and the citizens at large, which will aim to increase our freedoms and not reduce them.*

The currently existing loophole in the legislation and the regulation internationally is our biggest opportunity – we have to seize it before some improvised (as we all know, even great ideas can be ruined by committee thinking), autoschediastic and ad-hoc approach will be suggested for adoption. We rather all of us have evidence of how this works for reducing a subject to what is considered as a common denominator. The application of legislation and regulation as iron corsets shows that doesn't help innovation and competitiveness – it rather helps create diseconomies. Globalisation as we nowadays experience it may have its origins as a cost-reduction saga – at that time value creation may have not been an issue at all.

1.1. Role of teaching and need for action

From our own accumulated experiences of several years of teaching and research activities with our students we are aware that learning is not a unidirectional activity for the students and just a service provision from the tutor's side. For teaching to be sustainable it encompasses also a learning dimension for the tutors themselves. As we all know, in research the questions matter usually more than the answers; the latter may (and are usually) wrong - while a question, even a naive seeming one, may wait for years to get a good or correct answer. Most discussions for change management that take place in companies and organisations take a finger-pointing form and nurture gaps or schisms, without contributing in a positive way to the corporate or organizational culture. So, there should be no doubt left about their inherent lack of sustainability.

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To avoid a wrong reading of the above, we are not supporting the idea of doing nothing – quite the opposite and as it will be more explicitly made below, *there is need for action now.*

1.2. Open dialogue

What we suggest is that a dialogue shall open, and we suggest that this will take place from within the Sustainable Futures journal that will offer the opportunity to a wide range of actors and stakeholders to present their ideas, concerns and worries.

Sustainability does not comprise an economic only dimension. Phenomena related to radicalization in the society, the emergence of hate speech in the social media and networks are very relevant as they relate to our understanding of what may keep us together or helps us not disintegrate and fall apart as a society. Tolerance is a rather old-fashioned term and quality but may have contributed to sustainability more than we may be able to conceive. Fake news is also a driving force that we also need to consider in relation to sustainability: their growing influence on social media and the Web should alert us for their possible effects on consumer attitude and brand reputation. *Climate change should not worry us more than the fact that many people identify themselves as climate change deniers.*

Once this dialogue opens, we shall need to reflect and assess all opinions that will come from the different sides and parts of the society.

Some of them may be – we are sure on this – heavily biased and deeply polarizing. Ignoring them is not a good idea at all – firstly because it is not … sustainable. Taking into account a wide gamut of exceptions may make difficult to build rules. In that case we may need to reconsider what is the value in general or the value *here and now* of strict rules. However, one may also see a challenge there from a research perspective: something that the human mind may be unable to conceptualise or perceive, may be relatively easy or trivial once computational thinking is applied and the support of AI and machine learning is brought on board.

It is a common disease in academic and research circles what one calls paralysis by analysis. And there is undoubtedly a great contribution that comes from individuals and groups of activists. Greta Thunberg succeeded in mobilizing organisations and stakeholders and inspired millions of people and especially the young(er) ones. However, and strictly speaking, her approach was a rather populist one – but we may agree that *though populist, it was for a good purpose.* Isn't this possibly notifying the opportunity to capitalize on the fuel that one may find in populist movements and use them for good purpose as well?

1.3. Responsibility of academic institutions to expand civic space for action

Universities are supposed to teach young people qualities that they may neither possess nor care to build or acquire. The dying art of discussion with people that have a different opinion or ideology is left to the few. *Hoi polloi* prefer to not 'play the ball but the man'.

After all, any discussion on sustainability takes the form of an open-ended challenge, similar to a journey to Ithaka: the journey to sustainability, in all its excesses and rollercoaster-like manifestations, offers an unprecedented opportunity to revisit one's values and for improving different types of intelligence of our organizations (emotional, digital, environmental, etc.). There are numerous examples of companies shouting with whole page advertisements that they care for sustainability, while everything they do speaks for the opposite. Sometimes a great part of the work we need to undergo towards more *sustainable futures for all* doesn't need any pompous grand challenges involving AI or Big Data, and a mild dose of common sense and goodwill suffices.

Rankings as the ones that appear in the Global Competitiveness Index [13] and the Global Innovation Index [14] bring close together countries that exhibit extreme big differences in many aspects of society, economy, culture, and in some cases also the ideologies and the rule of law. However, the unifying element that brings them close together is the imperative of staying competitive and innovative whatever the cost may be. Societies, independent on how burdened these may be from a variety of reasons, possess the quality to solve problems efficiently once they admit they are important.

For the form of the dialogue that we suggest taking place we are confident that the editors, the editorial committee as well as the readers of the *Sustainable Futures* journal shall be able to reflect and share their views and make it happen. The gains will be many and in various levels. A systematization of the results of the dialogue may not be given priority at this stage: no need to build taxonomies that no one will care to use or consider in their actions. What is now important is to take an inclusive, all-embracing approach that will reach audiences that may not be informed at all or even been considered and to which the opportunity will be now given to include sustainability as part of their agendas.

Declaration of Competing Interest

None.

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