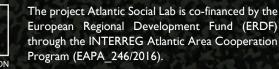
Atlantic Social Lab Cooperation for the Promotion of Social

Innovation

Social Innovation in a World of Multiple Transitions

EAPA 246/2016 ERFD-INTERREG WP6 Atlantic Social Innovation Observatory





TECHNICAL DATA

Authors Manuel Laranja, Hugo Pinto

Photographs Project partners

Revision André Guerreiro, Fiona Henderson, Geoffrey Whittam, Juliette Crowley, and Project partners

Proofreading Paola Di Nunzio

Photographs Photographs used are available in free stock image repositories.

Photograph p.8: Pixabay Photograph p.19: Getty Images Photograph p.24: Pixabay Photograph p.28: Getty Images Photograph p.34: Pexels Photograph p.41: Pixabay Photograph p.46: iStockphoto by Getty Images Copyrights belong to their respective owners.

How to cite this document: Laranja, Manuel & Pinto, Hugo; (org.) (2020) Social Innovation in a World of Multiple Transitions, Atlantic Social Lab and Centro de Estudos Sociais: Coimbra.

ISBN 978-989-8847-27-0

Disclaimer: This document reflects only the views of the authors. The Atlantic Area Programme, the European Commission or the project partners are not liable for any use that may be made of the information contained herein.

CONTENTS

TECHNICAL DATA	2
CONTENTS	3
1. INTRODUCTION	4
2. The Well-being Economy	9
3. Finance and Banking as if People Mattered	19
4. Work with Meaning and Purpose	24
5. Tech for Good	28
6. Transformative Learning and Education	34
7. Leadership, Governance and the Need for New Coordination Mechanisms	41
8. A Final Comment: Disruptive Social Innovation and Opportunities for Social-Economic	
Transformation	46
References	49

1. INTRODUCTION

The Study

This document is the final report of the contracted study about the role of social innovation in the transition towards a more sustainable and equal society in a postpandemic world. This study was prepared for the Centre for Social Studies in the context of the Atlantic Social Innovation Observatory (http://atlanticsociallab.eu/), Work Package 6 of the Atlantic Social Lab project ASL - Atlantic Cooperation for the Promotion of Social Innovation. The ASL is a cooperation project co-financed by the European Regional Development Fund (EAPA_246/2016) through the INTERREG Atlantic Area Cooperation Programme. It comprises 9 partners, seven of which implemented the pilot actions while the other two dealt with the research part of the project, and 10 associated partners from the countries that compose the Atlantic Area of the European Union: Portugal, Spain, France, United Kingdom and Ireland. The leading partner is the municipality of Avilés, Spain. The ASL project has the goal of promoting and developing Social Innovation approaches in order to come up with better solutions to complex social problems located within the regions that constitute the Atlantic Area. Ultimately, the project intends to induce social change by involving citizens, social enterprises, third sector organisations and public institutions, to find sustainable solutions to existing issues.

The crisis triggered by COVID-19 has further exposed many weaknesses of our current socioeconomic system: job insecurity for many people, the increase of remote work, the emphasis on the essential professions needed to ensure public and vital services, the difficulties felt by healthcare systems to respond to the pandemic due to years of budget cuts and austerity measures, etc. We live in a world where millions of children die every year from preventable causes and more than 800 million people are undernourished. At the same time, biodiversity and ecosystems are constantly being degraded and greenhouse gases continue to soar, leading to anthropogenic climate change and causing sea level rise, stronger storms, droughts and wildfires that devour entire regions. While the world economy produces more than ever before, it fails to take care of humans and the planet. In addition, we need to be aware of the exploitation of the crisis by anti-systemic movements, which welcome measures such as the rise of mass surveillance and invasive technologies, border closures and restrictions on the right of assembly.

The Context of the Current Crisis

The current social, economic and environmental changes, the ones stemming from the COVID-19 pandemic and the ones that were presented before, bring new challenges and demand reflexive analysis. To a certain extent, the pre-pandemic global surge of fundamentalism, xenophobia and authoritarianism (e.g. in the EUA, Brazil, Hungary, Poland, etc.) underline the same phenomena: our struggle as a society to respond to the

need for deep social-changes i.e. our lack of capacity to deal with entire social system changes over longer processes. Instead, we continue to see change as a "fast-forward" of the past.

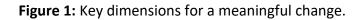
Hence, there is a need for a new vision of social innovation. The field of social innovation has emerged over the last two decades, attracting interdisciplinary research and interest from policy-makers, third-sector organisations, and businesses (Adams and Hess, 2010; Marques, Morgan, and Richardson, 2017). In our view, social innovation refers to changes in social relationships, systems and structures in order to answer to a specific human need/goal or solve a relevant societal problem.

The need to respond to our current social changes triggered a growing international movement of people and organisations, at the interception between the ecology, civil rights and participatory democracy social movements. These relatively new initiatives are often test beds for new forms of cooperation and solidarity that appear to be flourishing. For example, there is now wider appreciation of basic societal services like universal income and health. There are also progresses in the adoption of new work models, online education, etc. The pandemic has also led to unprecedented government actions, demonstrating what it is possible to achieve when there is a will to act. For example, the reshuffling of public budgets, the expansion of social security systems to cover for temporary unemployment, the rapid public health campaigns and investments, particularly in the testing for the infected with the SARS-CoV-2, and the outstanding support awarded to R&D in the search for a possible vaccine.

The pandemic crisis brought us a new opportunity to start a transition towards a radically different kind of society.

Structure of the Study

The report sections are organised around key dimensions of broad and profound changes that illustrate needs, opportunities and existing cases for social innovation (Figure 1). In this context, social innovation may be a partial answer to tackle many of these challenges. Existing responses may be interesting points for reflecting on how to trigger wider socioeconomic transformations.





Source: Own elaboration.

Section 2 will be dedicated to reflections on the major social innovations needed to make way for what is called the well-being economy. In our view, the well-being economy correspond to a post-growth approach to economics based on the assumption that we cannot continue on an endless economic expansion that relies on externalising the cost of natural capital onto the planet and future generations. Major changes are needed in order to slow down, while sustaining good quality of life for us all (and not solely for the more developed countries).

Following from the previous section, section 3 will look at finance and banking as vehicles for Social Innovation. The current finance system, despite accumulating an oversupply of money and capital, focuses its funding in areas that produce high financial returns, but low environmental and social returns. However, there are cases of banks and funds that choose to do otherwise. We need to reflect on these examples and how they can inspire a larger transformation of the financial sector.

In the fourth section, we will reflect on how social innovation may help set new ways of working, more specifically, working with meaning and purpose. Opportunities for social innovation related to work cannot just focus on means to find jobs for the jobless, but they should also aim to rethink the notion of work by factoring in meaning and purpose.

Another issue that needs to be analysed is how technology can serve the needs of social innovation. Too often, we see science and technology presented as capable of solving anything, when actually digital technologies are creating new problems that need to be addressed. In section 5, we will critically look at the uses and misuses of technology, in particular digitalisation and internet technologies.

Further to the use of capital and technology in support of Social Innovation, in section 6 we will also reflect around education. Education is usually considered as the main "social elevator" i.e. the main mechanism for upward social mobility. However, the education system itself is being questioned more than ever before. There is a poor fit between what the education system teaches and the increasing complexity and interdependency of social and economic phenomena. With the use of technology, the learning process is also changing to a much more autonomous, self-determined process, which poses new challenges for the education system.

In section 7, we will reflect on the role of social innovation in promoting changes in leadership and new governance mechanisms. Failure of current leaders to anticipate change suggests that the established forms of leadership and governance are no longer working. There is a new need for leaders capable of advancing transformation processes that prioritise human, social and environmental issues.

Finally, the document presents some concluding remarks regarding opportunities for social innovation along the key dimensions considered.



The Well-being Economy

2. The Well-being Economy

Many of the social and economic problems we witness today have their root in a deep ecological divide between humans and nature. While it is true that there have been significant improvements in eco-efficiency that will continue in the context of the European Green Deal¹, these gains will not compensate the current economic expansion, which will lead to a higher natural resources usage.

Today, we use more ecological resources than nature can regenerate and our carbon dioxide emissions into the atmosphere continue to grow. Humanity requires the equivalent of 1.7 Earths to provide the resources we need to fuel the economy and absorb all the waste, meaning that it takes the Earth one year and seven months to regenerate what we use in a year.

Using 12 social-economic indicators and 12 earth-system indicators, Steffen et al. (2015) argue that, since the 1950s, the dominant feature of the global socioeconomic system is that the economic activity of the human enterprise is growing at a rapid rate. A "great acceleration" in human activity is causing profound changes in the structure and functioning of our planet's physical, chemical and biological systems as clearly illustrated by the earth-system indicators². Human actions have been a primary cause of the climate changes observed in the past decades, affecting vital ecosystems, such as agriculture, water management, transportation, fishing, bio-diversity, biological conservation and many other activities. For example, difficulties in accessing fresh water are likely to increase six-fold and one-third of our agricultural land has disappeared over the last decades.

The mismatch between infinite economic growth and finite (natural) resources is therefore a consequence of a deep disconnection between man and nature³. Accordingly, in all modern economic theory, "nature" is taken as a commodity. However, as claimed by Karl Polanyi (1957), nature is not produced by us and, therefore, should not be treated as a "commodity fiction".

Our disconnection with nature can also be seen in the so called "green innovation proposals". In this approach, technological innovation i.e. technology for renewable

¹ Proposed by the European Commission President, Ursula von der Leyen, the European Green Deal aims to transform the 27-country block from a high to a low-carbon economy, without reducing prosperity and while improving people's quality of life through cleaner air and water, better health and a thriving natural world.

² See more at <u>http://www.anthropocene.info/</u>

³ See <u>https://www.theguardian.com/environment/2020/sep/10/humans-exploiting-and-destroying-nature-on-unprecedented-scale-report-aoe?CMP=twt_a-environment_b-gdneco</u>

energy, carbon sequestration, etc., will provide solutions that will enable people to keep or even increase their current lifestyles, while contributing to the creation of new jobs and maintaining economic growth. Jeremy Rifkin (2011), author of "The Third Industrial Revolution", is particularly confident about this perspective, arguing that open-access online-tools, individual means of production (new spaces for services and production) and technologies for renewable energy will eventually converge to a more efficient and democratically distributed use of natural resources and energy, similarly to what has happened with the access to the internet. However, the issue is not how we distribute the usage of natural resources but how we overuse natural resources. In addition, the beneficial effects of green innovation may not be available to us all and instead be the privilege of a few in the Western countries.

With the same goal in mind, Ernst Ulrich von Weizsäcker (2009) argues that technology can help achieve "factor five" i.e. around 80% improvements in resource and energy productivity and, therefore, will contribute to retool our economic system, massively boosting wealth for billions of people around the world, and help solve the climate change crises. Much in the same way, the Circular Economy, or Cradle to Cradle as it was called in 1992, proposes to replace the current Linear Economic (take, make and throw away) paradigm with closed loop cycles in materials and energy, greatly contributing to recycling and waste reduction.

However, both the green and the circular economy approaches, while reducing waste and improving natural resources productivity, still assume that the current social economic system will continue to grow, either by using technology-fixes and/or by reorganising materials and energy in circular chains. Nonetheless, the gains these approaches will bring will not sustain a much-needed stable relation between earth's natural ecosystems and human socioeconomic development. These approaches and their variants do not account for the true value of natural resources. According to a report done by the environmental consultancy company Trucost (2013) on behalf of the Economics of Ecosystems and Biodiversity (TEEB) programme, sponsored by the United Nations Environmental Program - UNEP, no industry would be profitable if the true costs of "natural capital" were to be properly accounted. For example, if we accounted the costs of green gas emissions, of cleaning contaminated soil and water and of funding the added health services in support of the spread of diseases related to industrial products, etc., no industry would make any profit. Research by the World Economic Forum suggests that \$44 trillion of economic value generation – over half the world's total GDP – is moderately or highly dependent on natural resources⁴.

Nature loss matters for most businesses through impacts on operations, supply chains, and markets. In other words, the current economic paradigm relies on the unassessed value that nature creates and that value is most likely higher than the economic value of

⁴ Cf. <u>https://www.weforum.org/reports/nature-risk-rising-why-the-crisis-engulfing-nature-matters-for-</u> <u>business-and-the-economy</u>

all products and services produced. Nevertheless, the costs and risks of natural capital are still not considered. Traditional economic theory assumes that value is created inside businesses (the 'production function') and ignores natural capital, as well as the value created by other public goods such education or social welfare development. Creation of value involves the activities of the community and of the people as citizens, and not just business activities serving the purpose of generating income, which could be best described as commerce. Current economics needs to come back to the original notion of "common house" i.e. the economic system as a whole including its social, cultural and ecological impact.

Perhaps also because of this deep disconnection with nature (and with other "commons"), the discussion about the COVID-19 pandemic and the opportunity for other diseases to spread among humans usually misses the links between health, the loss of biodiversity and social-economic development. The World Health Organisation (WHO) has already estimated that, globally, 4.2 million people die each year from outdoor air pollution, and that the impacts of climate change are expected to cause 250,000 additional deaths per year between 2030 and 2050. Experts warn that with further severe degradation of ecosystems' functions (a scenario that is to be expected under the current economic model), chances of future and even stronger virus outbreaks are realistic.

Another aspect that appears to be at the root of our main social and economic problems is that the current economic system has not been able to reduce inequality. While the richest 1% of people in the world (adults with incomes over US\$500k) own 40% of the world's wealth, 50% of the world's population owns just 1% of the world's household wealth, resulting in wealth concentration in one part of the society and unmet basic needs in another. The gap between the highest income-earners and the rest continues to grow, while upward social mobility has declined. With the global financial crisis of 2008, people living with less than US\$2.50 a day rose to 2.5 billion and people living in extreme poverty, meaning that they live with less than US\$1.25 a day, increased to 1.3 billion.

The 2018 report on "Living conditions in Europe" ⁵ highlights that:

- 21.7 % of the EU population or some 109 million people was at risk of poverty or social exclusion.
- Almost half (45.8 %) of the EU population lived in single person households with dependent children and was at risk of poverty or social exclusion.

⁵ Cf. <u>https://ec.europa.eu/eurostat/statistics-explained/index.php/Living_conditions_in_Europe_</u> ______<u>poverty_and_social_exclusion#Key_findings</u>

Overall, the deep ecological and social imbalances briefly referred above challenge the current economic paradigm – often named "growth" paradigm – and highlight the need to rethink the economy and reflect on the current general eco-modernist ideas. Relying on technological innovation and global markets to solve humanity's challenges may be a dangerous illusion. For example, meeting global objectives such as those of the 2015 Paris Agreement will only be possible if early-industrialised countries (Western countries in particular) include a de-prioritisation of the economic growth in policy making, as a precondition for re-embedding their economies and societies into the planetary natural resources renewal limits. This will require nothing less than a drastic slowdown in lifestyles. We need a "post-growth" approach based on the assumption that the planet will, under no circumstances, be able to sustain prosperity as we know it today in the developed countries and as it is pursued by the emerging economies. Proponents of a post-growth approach (Corinna et al. 2020) claim that we cannot continue an infinite economic expansion that relies on externalising the costs of natural resources onto the planet and future generations.

However, to be able to slow down, quality of life beyond a certain base level must be decoupled from the increasing consumption of material goods and coupled with immaterial goods, perhaps related with more fundamental human values, such as human relationships, trust, satisfaction at work and a greater sense of shared meaning and purpose. Furthermore, as referred earlier, companies would have to stop externalising their social and environmental costs and start to be accounted for the costs of using natural resources in the generation of value ⁶.

A number of social innovations that we summarise in the following pages appear to be fundamental in enabling a much-needed progressive slowdown.

First, one major social innovation would be to establish as human right the access to a universal basic income. Universal Basic Income - UBI is a government-guaranteed payment that citizens receive. The intention behind the payment is to provide enough income to cover the basic living cost and provide financial security. While there are different approaches regarding who receives the income (every citizen regardless of income, versus only those who are below the poverty line, whether they are working or not), there are already a number of interesting experiments in different parts of the world – Box 1. Opponents to UBI claim that it incentivises idleness and a culture of dependency. However, existing experiences ⁷ point out that the main benefits of UBI appear to involve the following key points:

⁶ See the article on "Include the true value of Nature when rebuilding economies after coronavirus" <u>https://www.nature.com/articles/d41586-020-01390-w</u>

⁷ Econometrics Laboratory University of California, Berkeley. "Universal Basic Income in the U.S. and Advanced Countries." <u>https://eml.berkeley.edu/~jrothst/publications/w25538.pdf</u>

- Unemployed workers can afford to wait longer and search for a better job or better wages.
- Workers are disentangled from paid labour and this helps to enhance creativity and social entrepreneurship.
- It gives adults the possibility to return to school or stay at home to care for their children and their relatives.
- It avoids the usual "poverty traps" created by traditional welfare programmes.
- It allows for a simple straightforward financial assistance that minimises bureaucracy, an obstacle which often penalises people with lower levels of education.
- The government would spend less administrating a universal income programme than what it spends with traditional welfare assistance programmes.
- Young couples have more income to start families, which is particularly relevant for countries with low birth rates.
- The payments could help stabilise the economy during recessionary periods.

Box I - Examples of experiences with universal basic income

Canada

Canada is experimenting with a three-year universal income programme. It's giving 4,000 Ontario residents living in poverty C\$17,000 a year or C\$24,000/couple. The government expects it will cost C\$50 million annually.

Source:

MIT Technology Review. "Basic Income Could Work--If You Do It Canada-Style". <u>https://www.technologyreview.com/2018/06/20/141704/basic-income-could-work-if-you-do-it-canada-style/</u>

Finland

In 2017, Finland gave 2,000 unemployed 560 euros a month for two years, even if they found a job. The recipients said it reduced stress and gave them more incentive to find a good job or start their own business. However, by using a control group of people that did not receive basic income, the Finnish government found that those who received basic income did not have higher average incomes than those from the control group.

Source:

University of Helsinki. "Heikki Hiilamo: 'Disappointing Results From the Finnish Basic Income Experiment,'

CATO Institute. "The Pros and Cons of a Guaranteed National Income." https://www.cato.org/sites/cato.org/files/pubs/pdf/pa773.pdf https://www.helsinki.fi/en/news/nordic-welfare-news/heikki-hiilamo-disappointing-results-from-the-finnish-basic-income-experiment

Scotland

In 2018, the Scottish Government committed \pounds 250,000 of funding for four Local Authority pilot areas to conduct feasibility studies and develop Basic Income pilot actions.

This funding was available for a two-year period and was intended to establish an evidence base, exploring how a Basic Income could be delivered and what the costs and benefits may be. The scheme would guarantee a cash payment of up to ± 150 a week to its citizens for the rest of their lives.

Source:

Independent. "Universal Basic Income May Be Adopted in Scotland Providing a Weekly Cash Payment for Life,"

https://www.independent.co.uk/news/uk/home-news/universal-basic-income-scotland-weekcash-payment-life-nicola-sturgeon-first-minister-snp-a7934131.html

Indonesia

PKH - Program Keluarga Harapan ("Hopeful Family Program") provides quarterly cash transfers to the country's poorest households, roughly meaning those within the bottom 7% of the income distribution. Payments constitute 7-14% of a recipient's income, so they are not meant to cover all of a household's needs. Moreover, the program is directed at families, which are encouraged to use the benefits to invest in their children. Only households with children or a pregnant woman can enrol and a portion of the stipend is made conditional on fulfilling various health and education-related obligations, such as basic immunisation and the completion of at least nine years of schooling.

Source:

WEF – New research busts the myth of welfare dependency https://www.weforum.org/agenda/2019/08/golden-truth-behind-welfare-dependency

Spain

As a result of the COVID-19 outbreak, with many people calling for a basic safety net to support both businesses and households, Spain is also introducing a universal basic income (UBI) to help families through the coronavirus pandemic. The Minister for Economic Affairs Nadia Calvino said that UBI in Spain would be introduced "as soon as possible" to help with the crisis, but also indicated that it could be something that "stays forever, becomes a structural instrument, a permanent instrument."

Source:

The London Economic

https://www.thelondoneconomic.com/news/spain-becomes-first-country-to-provide-a-universalbasic-

income/08/04/?fbclid=IwAR1Jrj7s1bj3cqdBXCkbHdmPknFW7U6yQlLKALbHZHK8X955GsvNb-13Bzs

Second, another much needed social innovation is the adoption of new economic metrics. For example, there are few cases around the world where policy makers acknowledge that Gross Domestic Product (GDP) is a poor way to assess societal well-being. GDP measures mainly market transactions. It ignores public social and

environmental costs, costs of crime, income inequality, amongst other relevant indicators. Moreover, the use of GDP as main indicator does not encourage developing countries to adopt more-sustainable models of development⁸. Alternative measures of progress can be divided into three broad groups. The first group consists in adjusting economic measures for factors such as household work, income distribution, pollution and the depletion of natural capital. The second group of measures relies on perceptual indicators based on surveys of life satisfaction. The most comprehensive of these is the World Values Survey (WVS), which covers about 70 countries and includes questions about how satisfied people are with their lives. Finally, a third way to measure social-economic progress is to use weighted composite measures that combine indicators of health, income and living conditions with perceptual survey indicators. One example is the Happy Planet Index, introduced by the New Economics Foundation in 2006⁹.

Bhutan was the first country to use a Gross National Happiness Index to measure wellbeing – see Box 2. New Zealand has also adopted in 2019 an interesting concept of Well-Being budget – Box 3.

⁸ See Robert Costanza and co-authors in the Comment piece in Nature "Time to leave GDP behind" <u>https://www.nature.com/news/polopoly_fs/1.14499!/menu/main/topColumns/topLeftColumn/pdf/505283</u> <u>a.pdf</u>

⁹ See <u>http://wikiprogress.org/data/organization/nef</u>

Box 2 - Bhutan's Gross National Happiness Index

The term "Gross National Happiness" was first coined by the 4th King of Bhutan, King Jigme Singye Wangchuck, in 1972, when he declared that "Gross National Happiness is more important than Gross Domestic Product." The concept implies a holistic approach to sustainable development, giving equal importance to non-economic aspects of well-being. The GNH Index includes both traditional areas of socioeconomic indicators, such as living standards, health and education, and less traditional aspects of social and psychological well-being. It is a holistic reflection of the general well-being of the Bhutanese population rather than a subjective psychological ranking of 'happiness'. The GNH Index includes nine domains:

- Psychological well-being
- Health
- Education
- Time use
- Cultural diversity and resilience
- Good governance
- Community vitality
- Ecological diversity and resilience
- Living standards

The GNH Index is decomposable by any demographic characteristic, meaning it can be broken down by population group, for instance, to show the composition of GNH among men and among women, or by district and by dimension, as other examples, to show which group is lacking in education. The indicators and domains aim to emphasise different aspects of wellbeing and different ways of meeting underlying human needs.

The Government of Bhutan's Centre for Bhutan Studies revised and released an updated GNH index in 2011. There are 33 indicators in the 9 domains above and the Index seeks to measure the nation's well-being directly departing from each person's achievements in each indicator. The GNH index is based on the Alkire-Foster method of multidimensional measurement, which has been adapted for this purpose. It identifies four groups of people – unhappy, narrowly happy, extensively happy, and deeply happy. The analysis measures the happiness of the population and then focuses on how policies can increase that happiness, especially that of those segments found to be unhappy or narrowly happy.

Source:

https://ophi.org.uk/policy/national-policy/gross-national-happiness-index/

In 2019, the New Zealand Prime Minister Jacinda Ardern announced that the purpose of government spending is to ensure citizens' health and life satisfaction, not wealth or economic growth. In consequence, it was announced that GDP alone does not guarantee the improvement of the country's living standards nor does it take into account who benefits from it and who is left out. The well-being budget introduced in 2019 requires all new spendings to contribute towards five specific well-being goals: bolstering mental health, reducing child poverty, supporting indigenous population, moving to a low-carbon-emission economy and flourishing in a digital age. To measure progress toward these goals, New Zealand will use 61 indicators capable of tracking everything, from loneliness to trust in government institutions, alongside more traditional indicators like water quality.

Source:

https://www.vox.com/future-perfect/2019/6/8/18656710/new-zealand-wellbeing-budgetbhutan-happiness

While surely none of these new composite measures of well-being are perfect, they offer the building blocks for something much better than GDP. However, creating a successor to GDP requires a sustained, transdisciplinary effort to integrate metrics and build consensus. Other approaches such as the GEP - Gross Ecosystem Product, promoted in China, which measures the monetary value of those ecosystem goods and services that benefit people –such as flood protection or clean water – may also be considered – see Box 4.

Box 4 – Gross Ecosystem Product (GEP)

Gross Ecosystem Product (GEP) aims to define specific indicators to measure the total economic value of all ecosystem products and services. GEP is the total value of final ecosystem goods and services annually supplied to human well-being in a region/country and can be measured in terms of biophysical value and monetary value. Ecosystems that can be measured include natural ecosystems such as forests, grassland, wetland, desert, freshwater and ocean, and artificial systems that are based on natural processes like farmland, pastures, aquaculture farms and urban green land, etc.

Source:

https://www.iucn.org/asia/countries/china/gross-ecosystem-product-gep%EF%BC%89

Finally, another direction for the development of social innovation, to complement the previous suggestions, would be any actions capable of diminishing excessive consumerism i.e. help decoupling consumption from materialism. This can take at least two forms. One is to promote the sharing-economy. The sharing economy envisions to maintain the level of products and services that can be consumed by multiplying the number of users per object. The central idea is to reduce material needs by optimising

their usage, and it is characterised by the phrase: "you don't need a drill; you need a hole in the wall". By connecting people and businesses with the resources to those that want them, the sharing economy removes market inefficiencies, empowers consumers and has the potential to impact positively a wide range of sectors.

However, we must go well beyond the sharing economy and enter into the promotion of conscious consumption. For instance, the prioritisation of doing, seeing and feeling over possession is a fundamental change in consumers. Conscious consumers may, for example, trade with friends or shop second hand. Conscious consumers¹⁰ may look for fair trade certificates and/or certificates of "ethically sourced" and "social responsibility" such as the B Corps, or prefer to shop online using websites such as "Good On You" or "Done Good". These sites provide lists of products and services from companies that stand out on issues like labour conditions, material sourcing and waste. Much in the same way, websites providing "time bank" solutions – an alternative currency system in which hours of service take the place of money - are increasingly an option for today's more conscious consumers.

Ultimately, conscious consumption is about new lifestyles for health and sustainability, that privilege spiritual well-being over material products and possessions.

¹⁰ See <u>https://www.nytimes.com/2019/10/01/smarter-living/sustainabile-shopping-conscious-</u> <u>consumer.html</u>



Finance and Banking as if People Mattered

Finance and Banking as if People Mattered

According to the economist Bernard Lietaer (2001), in 1975, roughly 80% of foreign exchange transactions involved the real trading of a product or a service. The remaining 20% were speculative transactions i.e. bets made on the value of stocks or currencies going up or down – buy it before it rises, sell it before it drops. By 1997, the percentage of foreign exchange, which involved transactions in the real economy, changed dramatically to account for only 2.5%. In 2011, according to the Global Policy Forum, the picture is even starker, with only 0.6% of foreign exchange that can be traced back to a genuine international trade of goods and services. Of the rest, a minimum of 80% was directly attributable to speculation ¹¹.

This disconnection between the financial and the real economy produces the financial bubbles at the root of the global economic crisis e.g. the US real estate crisis in 2006, which was followed by the world financial crisis in 2008 and the euro-crisis. Money is a tool for the exchange of goods and services and cannot exist unless there are goods produced and resources to produce them, meaning money has no value without the real economy that it relates to, or, to put it in other words, "Without Main Street there is no Wall Street" (Rubino, 1998).

However, the financial sector treats money as a product. Money itself has become the most traded and profitable product. While the profits of the financial sector have been growing over that last decades of the XX century, does the financial sector really add much more value to the economy than it used to? Surely not. It just got used to consider "money" as a "product" and focus on short-term financial profitability, thus ignoring unintended side effects that damage the long-term health of the whole economic system. Furthermore, because financial institutions have become too large to fail, this situation has proven very difficult to change. With the complicity of central regulating banks, we have a financial system that privatises profits but, when a crisis arises, it socialises losses. Since 2007, more than 30 banks in Europe were bailed out, including, amongst others, the Commerzbank (Germany), Fortis (Netherlands and Belgium), KBC (Belgium), ABN e SNS Reaal (Netherlands), Royal Bank of Scotland (UK), etc. The spectacular fall of one of most prominent banks in Portugal (Banco Espírito Santo), which amounted for a total of 6.4 billion euros of accumulated debt, is also one good example of how bank's losses need to be covered by public funding in order to avoid systemic problems in the whole financial system.

While today we have a more regulated system, the situation has not changed significantly since the bailout interventions from governments around the world following the 2008

¹¹ More at <u>https://www.theguardian.com/commentisfree/2013/nov/20/money-trading-economy-foreign-exchange-markets-economy</u>

financial crisis. We still have a system that accumulates an oversupply of money and capital in areas that produce high financial returns and low environmental and social returns. At the same time, we have a huge financial inclusion problem in third world countries and an undersupply of money and capital in areas that serve important societal and community investment needs, such as the education of children in low-income communities.

This creates opportunities for Social Innovation in finance and banking. There are a number of interesting cases of regenerative banking illustrating that finance and banking can be used not for short-term "extraction of value", but to support projects in all sectors of the economy. Banks, such as Triodos Bank – Box 5 (perhaps the most famous sustainable bank), or BRAC Bank in Bangladesh – see Box 6 - serve as examples that regenerative banking can be profitable. Another example, studied by the Capital Institute¹², is the First Green bank in Florida – Box 7.

¹² The Capital Institute is a non-partisan, transdisciplinary and collaborative institute launched in 2010 https://capitalinstitute.org/

Box 5 - Triodos Bank

Triodos Bank was first institutionalised as a foundation in 1971 in the Netherlands, when a group of people with a background in banking observed that innovative projects had difficulty in obtaining financial support for their activities. The Triodos Foundation started by introducing these projects to people who were prepared to lend them money. The foundation expanded and in 1980 it obtained a banking licence to establish the Triodos Bank in the Netherlands. Belgium followed in 1993, the United Kingdom in 1995 and Spain in 2004. Triodos Finanz GmbH, the Bank's representative office in Frankfurt, opened its doors in 2005, marking the start of Triodos Bank's activities in Germany.

Triodos mission is to "finance companies, institutions and projects that add cultural value and benefit people and the environment, with the support of depositors and investors who want to encourage corporate social responsibility and a sustainable society". The bank's objectives are:

- To help create a society that promotes people's quality of life and that has human dignity at its core.
- To enable individuals, institutions and businesses to use money more consciously in ways that benefit people and the environment, and promote sustainable development.
- To offer to the customers sustainable financial products and high quality service.

Triodos Bank's set of products and services have been developed to support enterprises which add social, environmental and cultural value. They offer depositors and investors a transparent way to channel their savings and investments in support of these enterprises. Profit, or the need for a sustainable financial base, is a condition after an assessment conducted in terms of social, environmental and cultural value. The sectors in which Triodos Bank is active are:

- Nature and environment: renewable energy projects, organic and biodynamic agriculture projects, environmental technology.
- Social business: traders, business centres, innovative business and services with both economic and social goals.
- Culture and welfare: organisations active in education, special needs and health care, as well as individual artists and groups.
- North-South: microfinance institutions in developing countries and fair trade initiatives with the South.

Source: https://www.triodos.com/

BRAC Bank was founded in 2001 as the banking arm of BRAC – Building Resources Across Communities, one of the world's largest non-governmental organization (NGO).

Being founded by an NGO means that it was not launched as a traditional commercial financial institution, but instead it envisioned to provide small ticket loans for entrepreneurs at a time when it was nearly impossible for SMEs to find financing anywhere else. In addition, corporate social responsibility and a philosophy of 'people, planet and prosperity' have always defined BRAC Bank in Bangladesh, which is a country in need of strong private sector institutions to drive financial inclusion and guide a predominantly rural population through a modernising financial system.

The bank started with a primary vision to serve Bangladesh's 'unbanked' SMEs. Over the past two decades, it has become a leader in the country in lending to both the SME and retail sectors and is now a major player in the wholesale banking sector. SME loans accounted for 39% of the bank's total loan portfolio by the end of 2016 and they may rise to 50% by 2020. BRAC Bank has twice been awarded as Best Digital Bank, following the creation of a mobile finance services division in 2011 and investment in bKash – the primary mobile money service in Bangladesh. BRAC Bank is the controlling shareholder of bKash, a subsidiary which also counts China's Ant Financial Services and the Bill and Melinda Gates Foundation among its investors. With bKash, which has around 25 million users, BRAC Bank's customers can pay different kinds of bills, repay loans, move funds to and from accounts, and generally make use of many kinds of banking and digital payment services.

Source: http://www.brac.net/

Box 7 - The First Green Bank

The First Green Bank study by the Capital Institute is presented as a metaphor for all of the finance and banking sectors today. Founded by Ken LaRoe in 2009, First Green Bank seeks to use finance to deliver "sustainable economic, social and environmental value" in the conservative rural community outside Orlando, Florida, where the bank operates. The bank has been lending to enterprises like King Grove Organic Farm, Alfredo Avila's Deland Organic Bakery, and family businesses. However, lending to regenerative businesses like these still makes up only a small portion of the bank's loan portfolio. Balancing the sometimes conflicting shareholder expectations, the regulatory requirements of a new bank and the fulfilment of its values-based mission, has forced the First Green Bank to balance its pure regenerative lending to other loans to strip malls, motels and convenience stores, provided they are aligned with the GABV – Global Alliance of Banks Values requirements.

Source:

http://regenerativebankproject.capitalinstitute.org/backstory.html



Work with Meaning and Purpose

4. Work with Meaning and Purpose

While before the COVID-19 pandemic employment opportunities were already one of the most perplexing problems of our current economic system, today it is clear that the impact of the pandemic on jobs has been worse than expected, in particular in developing countries with no public means to support workers.

However, the problem is much more complex as the quality of work, for those who manage to maintain their paid employment, appears to be downgrading even before the pandemic crisis. In some sectors, value creation spreads over long and global value chains, to the point that work contribution is so diluted that it loses "meaning". Human work needs meaning and cannot be taken as "renting time" or "work for money", as people need to understand and connect (feel) their work (labour) contribution to the whole.

Today, there are clear signs that this dilution of work, together with a tremendous acceleration of life and work, often leads to multitasking, excess of work and to a permanent state of "fight or flight", thus causing exhaustion and loss of meaning. According to a recent report (Schaufeli, 2018), the levels of physical, mental and spiritual "exhaustion-burnout" (around 3.10 on a 1 to 5 scale in Europe) are increasing. This is the same for people suffering from CFS – Chronic Fatigue Syndrome, or from depression and dependence on anti-depressive medications. CFS is different from burnout as it involves prolonged periods of physical and mental exhaustion of at least six months. Depression is also different from burnout and CFS as it tends to involve behaviours of lethargy and detachment.

The use of internet technologies, in particular for those working from home, appears to increase pressure as well as the emotional need to prove one's worth through one's job, thus leading even more to burnout and exhaustion. Synchronous and asynchronous communication tools, always buzzing with life, and this "available 24x7" culture are making difficult to rest at any hour of the day or night. Without clearly defined time boundaries, many people tend to over-stretch themselves and increase the anxiety of underperformance – a sense of not being good enough or of not being able to live up to expectations. Moreover, with so many online offers of new information and learning, FOMO – Fear of Missing Out - is also becoming a serious problem for many people.

However, the obsession with work productivity is one of the major factors contributing to a move away from long-term jobs to short-term contracts, temporary work and the so called "necessity" entrepreneurship. According to The Freelancing in America¹³

¹³ See more at <u>https://www.upwork.com/i/freelancing-in-america/2019/</u>

Survey, in 2019 35% of the American workforce, that is around 57 million people, were independent workers: freelancers, contractors or temporary employees. Apparently, the rise of freelance work is not only the result of a shortage of new jobs for younger people and of corporate downsizing, but also the result of an increasing employee dissatisfaction with traditional work-lifestyles, as most freelancers want to be freelancers in order to regain control of their time. The existence of on-line marketplaces for pairing peoples' talents with business needs is also a facilitator of this increase in independent freelance workers. Rather than engaging a person full-time, with benefits and a salary, a company can find targeted and better-qualified talent to address their needs in this way, typically at lower costs. At the same time, for younger people, entrepreneurship appears to have a new meaning, leading to a higher number of younger freelance-entrepreneurs in jobs that did not existed ten years ago, such as digital business platforms managers, software programmers, graphic facilitators, digital video editors, social media curators, etc.

With the COVID-19 pandemic, while many jobs are being lost or put on hold, there is a further strain placed on some occupations such as those related to healthcare, elderly care, public transport, education, etc., which are now considered "vital professions", despite being areas of public underfunding.

One important aspect that needs to be highlighted is that, in the future, there will be a probable shrinkage in the number of jobs. Even if the economy grows (and it cannot grow since we are already using 1.7 planets to provide the natural resources needed for the economy and to absorb our waste), it would not produce the quantity and the quality of jobs needed. Particularly if we count not just the unemployed but also the welfare-dependent people, people at risk of poverty and social exclusion, the disabled and those reliant on other social benefits, many can be in a difficult situation concerning income.

Following what we suggested in previous sections, if we assume that everyone has access to an income through work and/or through an UBI scheme, social innovation opportunities related to the quality of work would lie on how to find ways to connect work with meaning and purpose i.e. giving everyone a chance to find purpose in what they do and pursue their aspirations and dreams, thus putting their creativity to the service of a larger community.

For example, online trade platforms such as Worldstock, which enable artisans from different parts of the world to display and sell their products, are one good example of how to avoid the loss of meaning and purpose in long global value chains – Box 8.

Also the article in Forbes:

https://www.forbes.com/sites/elainepofeldt/2019/10/05/full-time-freelancing-lures-moreamericans/#13bc93227259

Box 8 – Worldstock

Worldstock seeks to help improve economic sustainability in the less developed countries by providing stable employment and expanding market access to the population. There are many talented artisans across the globe who have trouble reaching buyers for their exquisite products due to poverty, lack of information and the disadvantage of being small-lot producers in an age of advanced technology and mass distribution. They could improve their lives, health, education, and their children's futures if they had access to the markets of more developed countries. Worldstock opens the world to these talented craftspeople and small-business owners while maintaining a business model of sustainability, fairness and transparency.

Source: https://www.overstock.com/

In order to help workers in general and freelancers in particular to find a better worklife balance, one opportunity would be to create new places to work, such as coworking spaces, creative-hubs, quarters, etc. The COVID-19 pandemic is already further accelerating remote work (even for people working in large corporations) and it is likely that a large percentage of workers will not go back to their former work modality inside their employers' premises. However, to avoid feeling isolated, they may join a cowork in their residential area. Coworking spaces are a new type of social innovation, particularly when they are capable of providing more than just an office space with good WI-FI but manage to create a sense of community that comes from working around others. Moreover, in some cases cowork spaces offer a collaborative learning ambient that enhances individual and collective development, hence helping to create work purpose and meaning. As an example, we refer to the programme "Exploring Our Town" supported by the National Endowment for the Arts' in the USA – see Box 9.

Box 9 – Exploring Out Town

The programme supports creative placemaking projects that strategically link communities and local governments with artists, designers and arts organisations to improve the quality of life, create a sense of place and revitalise local economies. It seeks to pursue multidimensional outcomes such as animating public and private spaces to "bring diverse people together". It focuses on creating partnerships between public, private, non-profit and community sectors, in order to "strategically shape the physical and social character of a neighbourhood, town or region around arts and cultural activities.

Source: (Markusen and Gadwa, 2010)



Tech for Good

5. Tech for Good

Creating social and economic value involves not just the use of capital and labour, as we saw in previous sections, but also the use of knowledge and technology. Nevertheless, while technology can and should be used as a tool to reduce social and ecological problems, it also brings new challenges.

Digital technology, and in particular the internet, is creating a new virtual "context" and reducing people as "context-responsive". For example, social media networks, such as YouTube and Facebook, filter out information that does not match each individual's worldview: they keep us in our echo chambers. Hence, people are at risk of being rapidly "decontextualised" to the point where they are so much into their virtual world that they do not notice the real and, in particular, lose the ability to "feel" what is real.

One way to capture this "decontextualisation" is through the new definition of "digital divide". The digital divide used to be about access to the internet and social media, but now that in the more developed countries the majority of the population has access to these technologies, the new digital divide is about limiting access to technology ¹⁴. For example, in education, the real digital divide is not between students that have access to the internet and those who do not, but rather between students whose parents know that they have to restrict screen time and those whose parents believe that more digitalisation and more screen time is the key to success.

Apparently, the COVID-19 pandemic further contributes to this decontextualised society by pushing what Eric Schmidt (former vice president of Google) named the "no-touch society" – a society where the COVID's physical distancing is reinforced by our "personalised digital search" (Pariser, 2012), which keeps us addicted to our information bubble. The danger is that this virtual "screen society" is distracting us from using localised community knowledge obtained from the engagement with local human interactions. As early as 1993, Howard Rheingold (1993) was already calling the attention to the ways online interactions are likely to affect human relationships and change our experience of the real world, as individuals and as communities. There are plenty of examples of how excessive exposure to "screens" and to our "info-bubble" is causing a profound alienation nostalgia. For example, psychologists from the University of Wuerzrburg (Appel at al., 2019) argue that the use of smartphone to access social-media networks while walking (i.e. being a smartphone zombie), that has become a prevalent phenomenon in many cities worldwide, is related to Fear of Missing Out (FOMO) and

¹⁴ See more at: <u>https://www.nytimes.com/2018/02/11/opinion/america-digital-divide.html</u>

that this smartphone use while walking, as a compensation for real-human company, is side-lining the need to traverse safely ¹⁵.

In addition, with the COVID-19 pandemic, social media platforms like YouTube, Facebook, Instagram, TikTok, and communication tools such as Zoom or MSTeams, have moved from mediating our social fabric to become our social fabric. Social media and communication platforms have turned, in just a few months, primary ways of interacting with others and making sense of the crisis, coordinating critical services, receiving support, expressing their pains, etc. Until now, these platforms hid behind the fiction of "neutrality" - that sorting news feeds by what people liked and shared would result in a richer information environment for all. Nonetheless, not only is that fiction wrong, but it is dangerous as well. Platforms such as Facebook, Instagram TikTok and others are creating a race for our attention. More than two billion people - a psychological footprint bigger than Christianity – are registered on social platforms designed with the goal of not just getting our attention, but getting us addicted to receive attention from others. This creates an "extractive attention economy". In some cases, algorithms and games recommend increasingly extreme and outrageous topics and explore human weaknesses – fear, outrage, vanity, to keep us glued to the screen and exposed to online advertising.

Social media platforms also fuel a mass spread of disinformation, polarisation and ultimate breakdown of truth – a breakdown that has made it harder to agree on obvious threats like COVID-19. The "fake news" phenomenon exemplifies the unforeseen consequences of this online social mediation by enabling the unethical mass subversion of public opinion faster than ever before.

One thing we can now see more clearly is that social media platforms are not used to serve the public interest. Instead of focusing their vast reach and existing capabilities to deliver useful information, support mental health and enhance our capacity to find common ground and take collective action, they often amplify our collective sense of feeling helpless. To a large extent, these platforms helped to create what Stephen Bertman (1998) calls the "hyper culture" i.e. a chronic addiction to speed that is affecting value judgments and morals, often resulting in short term choices that do not contribute to a sustainable future. They also enable what Shoshana Zuboff (2015) calls "Big Other" or another form of "Surveillance Capitalism". "Big Other" is constituted by existing online mechanisms of extraction, commodification and control of information that effectively exile persons from their own natural behaviour, while producing new markets of behavioural prediction and modification.

15

https://www.researchgate.net/publication/332320718_Smartphone_Zombies_Pedestrians'_Distracted_ Walking as a Function_of_their_Fear_of_Missing_Out

There is today another heavy trend, deeply entrenched by decades of Science-push policy, that believes that science and technology solve everything. This goes well beyond the effects of digitalisation of society and economy and includes other areas of knowledge such as biotech or nanotech. In particular, there is a general sense that the future lies in the use of science and technology to impose order on nature and on society. One extreme example is that some people believe a giant space umbrella could help cool down our planet i.e. that humans can modify the climate by space-geoengineering ¹⁶. Another example that "technology is often taken as a solution for everything" is the increasing smartification of products/services producing useless gadgets ¹⁷. Again, with the COVID-19 pandemic, the idea that technology can be used to enforce physical distancing or to backtrack human interactions (as it is the case in Portugal with the recently launched StayAway Covid app) is contributing to progresses in "Surveillance Capitalism". One frightening example is how the police in Singapore is already using robot-dogs to patrol public spaces and keep people at a "safe" distance¹⁸.

Furthermore, beyond "digitalisation and "smartification", techno-optimism can also be seen in some form of "transhumanism" i.e. human faults and weaknesses able to be corrected by technology fixes. One example of this is Elon Musk's neural link announced as capable of restoring eyesight, hearing and limb movement, together with its capability of addressing diseases that affect the brain ¹⁹.

The idea that science and technology can solve anything and will ultimately save us is alarming and may be related to the deep disconnection with nature and with ourselves that we referred to earlier. Despite our continuous efforts, technology may not save us and rather than expanding our individual and collective abilities, it may reduce our wisdom and destroy many of our cognitive abilities. What we need is to use technology to solve (real) social and human problems, instead of using it disregarding people's rights or by taking advantage of human weaknesses. Technology must approach innovation and design with an awareness of protecting and preventing possible ways in which we are manipulated as human beings.

There are a few examples of initiatives on how to counteract the effects of internet technologies and social media. One that we would highlight is CHT – The centre for humane technologies – Box 10.

¹⁶ See more at: <u>https://www.bbc.com/future/article/20160425-how-a-giant-space-umbrella-could-stop-global-warming</u>

¹⁷ See more at: <u>https://interestingengineering.com/10-most-useless-gadgets-of-2017</u>

¹⁸ See more at: <u>https://www.businessinsider.com/roaming-robodog-politely-tells-singapore-park-goers-</u> to-keep-apart-2020-5

¹⁹ See more at: <u>https://www.businessinsider.com/elon-musk-neuralink-brain-chip-put-in-human-within-year-2020-5</u>

CHT raises awareness and drives change through high-profile presentations to global leaders, public testimonies to policymakers and heads of state, and mass media campaigns reaching millions. It also mobilises technologists as it advocates and collaborates with top tech leaders through open and closed-door convenings. Working at the intersection between human nature, technology, and systems transformation, its goal is to shift the mind-set from which persuasive technology systems are built and to use that process to support crucial parallel shifts in our larger economic and social systems.

Source: https://humanetech.com/

In Box 11 we identify other examples of good use of technology with great social and/or environmental impact.

Use of AI for Deaf people

The use of AI to make social life accessible to the deaf, such as smartphone apps that transcribe oral conversations into text in real-time, is an example of the use of technology for social impact. In fact, AI enables the translations of 3 million words without human input. The life-changing technology is stored in a cloud, accessible to anyone from any kind of connected device.

Source: https://fr.ava.me/

Digital Vouchers for refugees

Developed by Aid.Tech and based on Blockchain technology, it is a safer way for refugees to store and use money for shopping in camps. Digital vouchers are distributed directly to refugees via digital identity with end-to-end traceability of all transactions. Source: <u>https://www.aid.technology/</u>

Reforestation

Reforestation is in many countries a serious problem. Thailand is therefore using aerial reforestation in the form of small bombs, claiming it can plant faster and more efficiently than ever. The seeds are contained in fully biodegradable "bombs", designed to ensure high germination rates.

Source:

https://www.youtube.com/watch?time_continue=46&v=plfWt7Y4dLQ&feature=emb_logo

Fairphone

Fairphone is a challenge to the mobile phone industry and its consumers to find a better way to make, use and dispose of their phones. Few people know that their phones rely on tiny amounts of precious metal which are often only available from mines in areas of conflict like Congo, where miners work in dangerous conditions, digging makeshift shafts by hand. At the other end of the process, consumers upgrading their phones can dispose of their old ones and the precious metals inside without a second thought. Fairphone's aim is to make the mobile industry rethink how phones could be designed, manufactured and reused. Fairphone is systematically tackling the ethical challenges of manufacturing high-end electronics for smart phones as well as collaborating closely with their customers. Their work is pointing the way to a more just, responsive and sustainable way of doing business.

Source: https://www.fairphone.com/en/

7 Billion Others by The GoodPlanet Foundation

"Today's technology can do more than connect us to information, economic opportunity or even friends and family. It has the power to connect us to our shared humanity. 7 Billion Others is a great example of how digital technology can allow us to have insight into other people's lives and to find the connections between our communities." 7 Billion Others started in 2003 and it brings together a richly textured portrait of people from all over the world. This video platform holds more than 6,000 interviews, subtitled in English, filmed in 84 countries by a team of film directors. Interviewees are asked the same set of 45 questions about their hopes and fears, memories and aspirations, taking them from what they learned from their parents, to how they treat their children. The project has been supported for ten years by BNP Paribas.

Source: https://www.youtube.com/watch?v=PuP653ev3MI



Transformative Learning and Education

6. Transformative Learning and Education

In this section, we turn to the question of how can social innovation help to advance and transform our current education system into a new system that could truly support a more ecological, equal and inclusive society.

In the last decades, the public education system was repackaged to conform to the philosophy of a quasi-market system. To do that, it adopted a utilitarian view and managerial practices taken from the New Public Management – NPM, which translated into multiple certification schemes for conformity and in indexes and rankings of schools. As a result, current education is becoming mostly functional and based upon information learning. While it recognises a narrow part of human ability and focuses on understanding and memorising figures, facts and formulas, it fragments our understanding in knowledge domains such as health, environmental, economic and social sciences, to name a few. The main problem here is the disconnection between what the education system teaches and the increasing complexity, interdependency and systemic perspective of societal and economic phenomena.

In contrast to a standardised certified view of education, we need instead a view that builds from humanistic values by taking advantage of new developments in learning theory and the imperative of building a more equal and sustainable society. This corresponds to the willingness of letting go the instrumental view of education as "knowledge transmission" in favour of an education system that is centred on "transformative learning". Yet, this requires a clearer understanding of a relatively new view of the world concerning humanistic education. The realisation of such a new education system requires a number of considerations. In the paragraphs below, we name a few of them for reference.

First, this new education system requires to see the future of education as learningcentric instead of teaching-centric or student-centric.

Second, it requires a change of context. Traditionally, the class room, as well as being defined as a physical space, it was also a metaphor for embodying assumptions concerning time, length, pace, level, pedagogy, etc. Nevertheless, learning also (and some will argue mostly) happens outside the classroom, in the internet and in the natural world. Therefore, there is a need to create a new context for learning and new metaphors. In other words, there a need to create new learning places outside the traditional classroom.

Third, not just the context needs to change but also the inner place of learning. According to Biester and Mehlmann (2020), we need to educate people that can deal with complex social transformation processes and, in order to do that, people need to develop six key competences: self-knowledge, ability to work with people, envision, the capability of riding complexity, flow and pedagogy. No collective change is possible without individual change and yet education systems do not work on individual change skills. It is particularly important to upgrade skills concerning attention, observation, listening, conversation and dialogue, and combine this with Science, Technology, Engineering and Mathematics (STEM) skills, in order be able to deal with the current dynamic complexities of the world. On the other hand, we also need to progress from "big data" to "deep data" i.e. learn how to go beyond cause-effect association and recognise and interpret patterns so that we enhance our ability to deal with disruptive transformation. In our current society, we need people (in particular leaders, as we will explore in the next section) with skills related to how to see the whole systems (see and sense!) and not just partial views of related variables.

Fourth, to a substantial extent, the most important skill today appears to be "learning to learn". According to a Mackinsey report ²⁰, learning itself has become a fundamental skill. Perhaps heutagogy or self-determined learning (where students determine their own learning trajectory), frequently referred in the domain of e-learning, should span to other areas as a way to stimulate learning to learn (Blaschke and Hase, 2015). In addition, there is today a greater need to promote reflexive learning (double-loop learning). This deep learning is much needed to enable to see things differently and promote an evolution of consciousness at individual and at group level (Senge, 1990). It involves creativity and deep awareness of alternative worldviews. As Einstein suggested, it requires a shift in consciousness that leads to a transformative learning that questions our core values.

Fifth, it requires an explicit concern with systemic thinking rather than linear thinking and with integrative learning rather than fragmentary learning by disciplines. As pointed out by the Brundtland report (WCED, 1987) a long time ago, there are no separate problems of health, environment, economy, etc., they are all interrelated. Hence, there is a need to integrate areas and stop fragmentation in the way we learn. Furthermore, we need to be more concerned with process dynamics rather than with linear causeeffect equations. In other words, learning needs to include the understanding aggregate complex patterns rather than minor associations between variables.

Sixth, it requires seeing school, curricula and community as completely interrelated. Moreover, the whole system approach to learning needs the integration of rational intelligence with human compassion and empathy. It also requires integration of individual and collective creativity. It demands skills in deep listening, dialogic processes, mindfulness, social presence, etc., as well as learning how to connect people around projects and initiatives.

²⁰ Cf. <u>http://www.mckinsey.com/featured-insights/future-of-work/the-most-fundamental-skill-intentional-learning-and-the-career-advantage?cid=eml-web</u>

The new system cannot, however, be mistaken with some current simplistic approaches, that essentially are extensions of the current system and do not address the need for deeper and broader learning. For example, the inclusion of ethical issues in bioeconomy and sustainability finance, or in economics and management teaching, may be an encouraging start, but, because socioeconomic thinking remains associated with mainstream linear thinking, these initiatives are missing the opportunity to use education as a leverage of social innovation and as an instrument for transformation. According to Stephen Sterling (2001), education serves four functions ²¹:

- to replicate society and culture and promote citizenship the socialisation function;
- 2. to train people for employment the vocational function;
- 3. to develop the individual and his/her potential the liberal function;
- 4. to encourage change towards a fairer society and better world the transformative function.

The first two functions tend to stress an instrumental vision fuelled by the current technocratic managerialist view of education. But changing the education system requires reinforcing intrinsic values and not just instrumental values. It needs a view of education not just as a mean to achieve an end but as an end in itself. Changing education would therefore require a new balance in the four roles or functions, with the liberal and the transformative functions needing to be reinforced.

There are different examples and opportunities for social innovation involving education at different levels. Form early childhood education in Box 12, to alternative models of higher education in Box 13 and Box 14, we selected a few to showcase these ideas:

²¹ <u>https://www.sustainableeducation.co.uk/publications/</u>

Box 12 - Reggio Emilia Philosophy

Started by parents in Reggio Emilia, Italy, after World War II, the Reggio Emilia Philosophy is an innovative and inspiring approach to early childhood education, which values the child as central to their own learning. The philosophy rides on the coattails of the innate curiosity of children and aims to assist them through the understanding of their world and who they are in it. Children are able to pursue their own interests and revisit and build upon ideas at their own pace.

Teaching programs based on this philosophy emphasise respect, responsibility and community involvement. Children are allowed to explore and discover in a supportive and rich environment, where the curriculum is created around the children's interests.

See more at https://www.tsc.nsw.edu.au/tscnews/what-is-the-reggio-emilia-philosophy

Box 13 - Bauhaus School

The Bauhaus School operated in Germany between 1919 and 1933. As a school of thought, it advocated a new way of approaching problems in art, architecture and design; but it also existed as a physical school in Weimar and Dessau. In a period of increasing mechanisation, Bauhaus teachers and students challenged the conventions of fine art, architecture and design by advocating a return to individual craftsmanship. The school hosted a succession of prominent teachers included avant-garde artists like Johannes Itten, Paul Klee and Vassily Kandinsky, while Bauhaus students included Josef Albers, Herbert Bayer and Gunta Stölzl.

They all rejected the flowers and frills that dominated the design language of the early twentieth century and, instead, sought solutions that were simple, rational, and functional an approach that remains dominant in design today. After the rise of the National Socialism, who effectively shut down the school for its "degenerate" ideas, many members of Bauhaus travelled to other European countries and the USA to continue their work. As a result, "Bauhaus" became a twentieth-century movement reaching far beyond the Weimar Republic. Education at the Bauhaus School was diverse and hands-on, spanning building theory, carpentry, ceramics, fine art, graphic printing, glass and mural painting, weaving, geometry, mathematics, business administration, metal, photography, printing and advertising, and plastic arts. Even parties and stage performances were part of the curriculum, with students encouraged to experiment in costume and stagecraft. Whereas a conventional education for an artist might focus on brush technique and paint mixing, a Bauhaus teacher would direct the student to study the fundamentals of colour and form, and encourage experimentation across a whole range of materials and disciplines. What set the Bauhaus school apart, though, wasn't so much what they studied, but their new ideas about how to teach and learn. The essence of this philosophy is set out in a brief manifesto by Gropius in 1919:

The art schools [...] must return to the workshop. This world of mere drawing and painting of draughtsmen and applied artists must at long last become a world that builds. When a young person who senses within himself a love for creative endeavour begins his career, as in the past, by learning a trade, the unproductive 'artist' will no longer be condemned to the imperfect practice of art because his skill is now preserved in craftsmanship, where he may achieve excellence. Architects, sculptors, painters – we all must return to craftsmanship!

Source: Ascher (2015).

Box 14 - Alternative University – For the Love of Learning

Together with four other former student activists, Traian Bruma from Budapest, Hungary, set out to build "the university of the students". He started by setting up an NGO with 20 volunteers. Soon, the initiative grew to a community of more than 100 members. Since the beginning, the young students introduced a counselling for self-directed learning programs, a mentorship and coaching program, a yearly camp, workshops, small-group courses and weekly guest speakers. In 2012, they rented and renovated a villa close to Budapest and added a business incubator, learning days, communities of practice, and many other innovations. In 2013, the students named their university "The Alternative University". Their student guide describes the university as built around four principles: self-determined learning, real life projects, communities of practice and nurturing a value-based learning tribe. In 2014, the Alternative University had around 180 students, a core-team of 9 full-time people and 12 parttime volunteers. The Alternative University, although small, is today a worldwide icon of selfdetermined learning. Since 2015, Traian Bruma has left Alternative University's core-team to travel around the world and write a book – "Break/Free from University". The book gathers stories from all continents about individual learning journeys, radical learning architectures, communities, hubs, hackerspaces, rituals and tech tools.

Source: https://ecoversities.org/in-quest-for-ecoversities/



Leadership, Governance and the Need for New Coordination Mechanisms

Leadership, Governance and the Need for New Coordination Mechanisms

Leadership and new governance mechanisms are nowadays key aspects in the transition to a more ecological and inclusive society. In fact, today unforeseen disruptive events are likely to be more frequent and therefore leaders in general, and in particular highlevel leaders, face new challenges but often appear to fail to anticipate change. The increasing frequency of leadership failure suggests that the established ways of decision making in major companies, civil servants or ministerial cabinets are no longer working. To illustrate this concept, let's look at a few examples.

Not only was the financial and economic crisis in 2008 not predicted, but the precipitous 60% fall in oil prices in early 2014 ²², or the rise of the Islamic state with the capacity to seize Mozul in Northern Iraq ²³, are also clear examples of leadership failures. Currently, we have a huge refugee crisis at EU borders, causing massive humanitarian problems, and yet European leaders are failing to find an effective and coordinated response. COVID-19 started an unprecedented global health crisis but world leaders and organisations such as the WHO rejected early signs that the infection in China was going to lead to a global pandemic.

In the private sector, there are also many examples of leadership failure. In their report "Thinking the Unthinkable", Nick Growing and Chris Langdon ²⁴ argue that today's corporate leaders agree that their mind-sets, behaviours and systems are rarely adequate to handle an increasing complex world. Furthermore, the leaders they interviewed claim that the very same organisations created barriers for their leaders to hide behind, thus helping them to defend their position rather than welcoming and understanding disruptive changes and the need to adapt and evolve their companies.

But why do leaderships (both on the private and on the public sectors), despite the use of multiple scenario planning and foresight approaches, fail to anticipate and read the possible future? Leadership failure results from a close mind-set routed in the inability to see the reality. This is further aggravated by leaders' inability to feel what others feel (empathise) i.e. not just understand the system but also not being able to sense and

²² Cf. <u>https://blogs.worldbank.org/developmenttalk/what-triggered-oil-price-plunge-2014-2016-and-why-it-failed-deliver-economic-impetus-eight-charts</u>

²³ Cf. <u>https://www.washingtonpost.com/world/middle_east/insurgents-in-northern-iraq-push-toward-major-oil-installations/2014/06/11/3983dd22-f162-11e3-914c-1fbd0614e2d4_story.html</u>

²⁴ Cf. <u>https://www.thinkunthink.org/perch/resources/documents/thinking-the-unthinkable-report-1.pdf</u>

"feel" the system. As argued by Hans Rosling et al (2018), the inability to see and sense is related to our tendency to worry about everything all the time, instead of embracing a worldview based on facts and on the correct sensing in relation to those facts. Data evidences and signals are often available and yet they are ignored, as if the leaders and those who work for them are in constant denial. Following Rosling's argument, we need not just an adequate focus on "factfulness" but also "mindfulness". Our deficit of insights probably results from our inability to see problems from a different perspective.

Failure to anticipate change is further damaged by social-media mechanisms (that we referred to in previous sections), which amplify our digital eco-chambers. For example, events such as the Notre Dame fire in April 2019 attracted wide media attentions but the heavy rains and strong winds caused by two cyclones, Idai and Kenneth, in March and April 2019 in Mozambique, that led to flooding, hundreds of deaths and massive destruction of property and crops, did not attract the same attention.

We believe leading business and economic transformation towards a more human centred capitalism, towards a socioeconomic system where human and social capital play a central role, requires leaders that are able to broaden their perspective about the whole social and economic system. Opportunities for social innovation may therefore relate to the need to design and implement new approaches towards a leadership training focused on personal development, thus leading oneself towards the improvement of the relations with others and of how the leader relates to the whole system. In Box 15, the case of the Ubuntu academy is shown as a clear interesting step in the right direction. In addition, the ULab Ix online training from the Presencing Institute at MIT (see Box 16) also offers a completely new approach to leadership based on a framework known as "theory U" - a process that enhances human capacity to "presence" and to "pre-sense" an emerging future (Scharmer, 2007).

The Ubuntu Leaders Academy is a non-formal education project geared towards empowering young people with high leadership potential, from vulnerable contexts or who want to work there.

"Ubuntu is a way of being in the world. It is a word that condenses the true essence of what it is to be Human. My humanity is intrinsically linked to yours and, therefore, I am human because I belong, I participate and I share being in community. You and I are made for interdependence and to complement one another".

The Ubuntu method focuses on the development of five core competencies. At the individual level: self-knowledge, self-confidence and resilience and, on a collective level, relational skills such as empathy and service.

While focusing on these five pillars, the Ubuntu Leaders Academy promotes skills such as teamwork, critical and self-reflexive thinking, communication and problem solving encouraging and nurturing participants' self- empowerment.

Source: <u>https://academialideresubuntu.org/en/</u>

Box 16 – Theory U courses, ULab 1x

U.lablx is an online course called 'Leading from the Emerging Future'. The course provides an introduction to a framework called Theory U, developed at the Massachusetts Institute for Technology, capable of leading to a profound social, environmental and personal transformation change in business, government, and civil society worldwide. The course aims to activate and develop our capacity to lean into the emerging future, focusing on selfknowledge, capacities of deep listening, mindfulness, precise observation, and dialogue.

Usually the course runs once every year during 14 weeks from September to December, including a few live sessions.

Source: https://www.edx.org/course/ulab-leading-from-the-emerging-future

Finally, and in relation to the ability to see the whole system (from the edges of the system), a humanised and participatory form of leadership needs to be supported, not just by the traditional multi-stakeholders' consultation processes, and involve dialogic practices (Bevir, 2013). This is particularly important for the corporate world. Social innovation for large corporations is often taken as a set of practices related to "corporate social responsibility". However, social innovation in corporations needs to be related to fundamental changes in how the decision process is organised. For

example, if corporations want to contribute to the 17 SDGs (Sustainable Development Goals defined by the United Nations in 2015), they cannot have the same hierarchical structures. They must progressively strengthen dialogic practices and adopt a new perspective of governance that goes beyond stakeholders' well-being and truly embrace society's well-being. Dialogic practices may however be facilitated by the use of "open space technology" (Harrison, 2008) and practices such as Art of Hosting – AoH, World Café (Brown and Isaacs, 2005). Other frameworks such as Appreciative Inquiry (Coperrider and Whitney, 2005) or even Theory U, referred earlier, may also be useful.

As an illustrative example of social innovation using new forms of participatory decisionmaking, we refer the case of "Save the Bees" in Bavaria – Germany, see Box 17.

Box 17 - Save the Bees

In the face of plummeting insect and bird populations, citizens in the south German state of Bavaria began, in February 2018, campaigning for drastic changes in farming practices. They organised a petition consisting of detailed amendments to Bavaria's nature protection law which, taken together, changed how farming was done in the state. Known as "save the bees" petition, it represented a very long and ever growing list of threatened animal and plant species. One amendment, for example, would require farmers to spare hedges and trees. Another would preserve five-meter-wide stripes of habitat on stream- and river-banks. Perhaps the most important would commit Bavaria to a goal of farming 30 percent of the state's agricultural land organically, without chemical pesticides or fertilisers, by 2030. By February 13, the last day on which voters could line up at town halls around the state to endorse the petition, organisers reported that more than a million people had done so – easily exceeding the threshold of 10 percent of Bavaria's registered voters that are needed to send the petition to the state legislature. Hence, in April 2019, the German state of Bavaria announced it would pass into law the popular 'save the bees' petition, bypassing a referendum.

Source:

https://www.theguardian.com/world/2019/apr/04/bavarian-save-the-bees-success-raises-green-hopes-in-germany



A Final Comment: Disruptive Social Innovation and Opportunities for Social-Economic Transformation

8. A Final Comment: Disruptive Social Innovation and Opportunities for Social-Economic Transformation

In this report, we tried to reflect around a number of problems that we believe create new opportunities for disruptive social innovation – innovation that truly triggers wider processes of social and economic transformation.

We looked first at problems related to our current economic model. The current economic-growth paradigm feeds on the non-accounted value extracted from nature natural capital – and largely reflects the increasing disconnection between humans and nature. Second, another great source of economic and social problems is the disconnection between finance and the real economy. The undersupply of capital to finance "commons" in areas of fundamental societal and community needs creates opportunities for social disruptive innovation. Third, our current socioeconomic system is downgrading human work. There is a need to redefine work-lifestyles so that they contribute to add meaning and purpose. Fourth, another major source of opportunities for social innovation is how we use technology. An harmful use of technology is contributing to a "decontextualised" society and to the so called "extractive attention economy". Fifth, we also looked at education as a domain where social innovation is most needed. There is a very poor fit between what our current education system teaches and the increasing complexity, interdependency and interdisciplinary perspective needed to understand the current multiple social and economic transitions. This creates new opportunities for disruptive innovation in education. Finally, we also looked at how a deficit of leadership contributes to reinforce our current problems and demands for new leaders and new leadership training.

In many cases innovative solutions to these issues are being attempted. While existing institutions are perhaps slower to respond, in some cases, both individuals and (private, public, philanthropic, and non-profit) organisations, dissatisfied with the above dysfunctions, are putting aside self-interests and are coming together to challenge conventional approaches and propose innovative solutions to major world problems. Some believe that these spontaneous reactions correspond to a sort of earth immunity system responding to worldwide challenges (Hawken, 2007).

Still, we need to reinforce these initiatives. There is a need to amplify social innovation activism around economic human rights (such as basic income, access to health, education, entrepreneurial opportunity) in order to enable all people to carry out their full potential for entrepreneurial creativity, which generates wealth and social well-being. In an interesting study on how the creative industries like fashion, art, and music drive the economy of New York, Elizabeth Currid (2009) argues that such activities drive the

economy as much as, if not more, other sectors such finance, real estate and law. The so called "Warhol Economy" is fuelled by the social life that whirls around a certain cultural underground, where creative people meet, network, exchange ideas, pass judgments and set the trends that shape popular culture.

The use of technology and, especially, the accelerating digitalisation of work need to be mediated by a human-values-based approach – a neo-humanistic approach. For example, in a post-COVID world, in which working online is likely to grow significantly, there will be a need to change the patterns of working and living. Different kinds of "work-life spaces" or common "work ecosystems" and cowork spaces are therefore likely to be one of the most important social innovations for the next decades. Another example is that technology in education cannot be used to extend the current system but, instead, it could be used as an enabler of learning environments in ways chosen by learners, teachers or co-created jointly. These new learning contexts are not about technology *per se*. They are about the use of new e-enabled techniques designed for new learning methods.

As already referred, none of the current issues, from ecological, financial, poverty or unemployment, can be solved in isolation. While effective social innovation calls for integrated approaches, we also argue that profound collective changes can only be achieved through individual change i.e., through deep processes of personal transformation, which will allow social innovation opportunities to emerge from this need to help individuals with their inner-self transitions.

References

- Adams D, Hess M. Social Innovation and Why it Has Policy Significance. The Economic and Labour Relations Review. 2010;21(2):139-155. doi:10.1177/103530461002100209
- Appel, M., Nina Krisch, Jan-Philipp Stein, Silvana Weber (2019). Smartphone Zombies! Pedestrians' Distracted Walking as a Function of their Fear of Missing Out. Journal of Environmental Psychology. DOI: 10.1016/j.jenvp.2019.04.003
- Ascher, B. (2015). The Bauhaus: Case Study Experiments in Education. Architectural Design. 85. 10.1002/ad.1873.
- Biester and Mehlmann (Eds) (2020). A Transformative Edge: Knowledge, Inspiration and Experiences for Educators of Adult. Hosts International Publications. ISBN 978-3-9822033-0-0. Available at: <u>http://www.hostingtransformation.eu/wp-content/uploads/2020/06/A-Transformative-Edge-finalv13.pdf</u>
- Bertman, Stephen (1998). Hyperculture: The Human Cost of Speed. Praeger
- Corinna Bukhart, Matthias Schmelzer, Nina Treu (2020). Degrowth in Movement(s): Exploring Pathways for Transformation. John Hunt Publishing
- Blaschke, L.M. and Hase, S. (2015). Heutagogy: A holistic framework for creating 21st century selfdetermined learners. In book: The Future of Ubiquitous Learning: Learning Designs for Emerging Pedagogies (pp.25-40). Chapter: 2 Publisher: Spring Verlag Editors: Begona Gros, Marcelo Maina Kinshuk. DOI: 10.1007/978-3-662-47724-3
- Currid, Elizabeth (2009). The Warhol Economy: How Fashion, Art, and Music Drive New York City - New Edition. Princeton, NJ: Princeton University Press. Paperback ISBN: 9780691138749
- Gowing, Nik, Chris Langdon (2018). Thinking the Unthinkable: A new imperative for leadership in the digital age. John Catt Educational Ltd. ISBN-13 : 978-1911382744
- Hawken, Paul (2007). Blessed Unrest: How the Largest Movement in the World Came into Being and Why No One Saw It Coming. New York: Viking
- Lietaer, B. (2001). The Future of Money: Creating New Wealth, Work and a Wiser World. Arrow Books: London.
- Markusen, A. and Anne Gadwa (2010). Arts and Culture in Urban or Regional Planning: A Review and Research Agenda. Journal of Planning Education and Resarch. Volume: 29 issue: 3, page(s): 379-391 <u>https://doi.org/10.1177/0739456X09354380</u>
- Marques, Pedro, Kevin Morgan and Ranald Richardson (2017). Social innovation in question: The theoretical and practical implications of a contested concept. Environment and Planning C: Politics and Space. 36/03, DOI:10.1177/2399654417717986
- Oldenburg, Ray (1999). The Great Good Place. 3rd edition. De Capo Press
- Periser, Eli (2012). The Filter Bubble: What The Internet Is Hiding From You. Penguin

Polanyi, K. (1957). The great Transformation: The Political and Economic Origins of Our Time. Beacon Press: Boston Massachusetts

https://inctpped.ie.ufrj.br/spiderweb/pdf_4/Great_Transformation.pdf (accessed 28th July 2020)

- Rheingold, Howard (1993). The Virtual Community: Homesteading on the Electronic Frontier. The MIT Press; revised edition (November 1, 2000). Available at: <u>https://rheingold.com/books/</u>
- Rifkin, Jeremy (2011). The Third Industrial Revolution. Palgrave Macmillan
- Rosling, Hans, Anna Rosling Rönnlund, Ola Rosling (2018). Factfulness: Ten Reasons We're Wrong About the World--and Why Things Are Better Than You Think. Flatiron Books. ISBN-13 : 978-1250107817
- Rubino, John (1998). Main Street, Not Wall Street: Investing Close To Home--the Smart Way To Make More Money. William Morrow. ISBN-13 : 978-0688154219
- Schaufeli, W.B. (2018). Burnout in Europe: Relations with National Economy, Governance and Culture. Research Unit Occupational and Organisational Psychology and Professional Learning (internal report) KU Leuven, Belgium Available at: <u>https://www.wilmarschaufeli.nl/new-study-onburnout-across-europe/</u>
- Senge, Peter (1990). The fifth discipline: The art and practice of the learning organization, Doubleday/Currency: New York
- Steffen, Will, Wendy Broadgate, Lisa Deutsch, Owen Gaffney, Cornelia Ludwig (2015). The trajectory of the Anthropocene: The Great Acceleration. The Anthropocene Review 2015, Vol. 2(1) 81 98. Also in http://www.anthropocene.info/great-acceleration.php
- Sterling, Stephen (2001). Sustainable Education Re-visioning learning and change, Schumacher Briefing n° 6. Schumacher Society/Green Books, Dartington. ISBN 1 870098 99 4.
- Trucost (2013). Natural Capital at Risk: The top 100 externalities of Business. Report on behalf of TEEB's The Economics of Ecosystems and Biodiversity in Business and Enterprise and the World Business Council for Sustainable Development's Guide to Corporate Ecosystem Valuation. Available at: <u>http://naturalcapitalcoalition.org/wp-content/uploads/2016/07/Trucost-Nat-Cap-at-Risk-Final-Report-web.pdf</u> (PDF). Can also consult an article on the Trucost report at: <u>https://www.exposingtruth.com/new-un-report-finds-almost-no-industry-profitable-ifenvironmental-costs-were-included/?fbclid=lwAR0dEewrAVxoZMdn-Ly8zsSPraSKof_nzCOqujq16a2TmDP9iiDu4T]qQm4</u>
- von Weizsäcker, Ernst Ulrich; Karlson Charlie Hargroves, Michael H. Smith (2009). Factor Five: The Promise of Resource Productivity. Routledge; 1st Edition
- WCED (1987). Our Common Future, World Commission on Environment and Development. https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf
- Zuboff, S. (2015). Big Other: Surveillance Capitalism and the Prospects of an Information Civilization. Journal of Information Technology (2015) 30, 75–89. doi:10.1057/jit.2015.5