

YOUTH 4 DIGITAL SUSTAINABILITY



BACKGROUND PAPER

FAIR DIGITAL
BUSINESSES



Fair Digital Businesses

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Fair Digital Businesses



The Internet and digital technologies contribute significantly to a variety of global policy issues: CO₂ emissions are on the rise across the world, managing and reducing e-waste is a cross-border challenge, and socioeconomic inequalities are deepening. Digital policy and the climate crisis are two issues that particularly affect young people. In response, the Gesellschaft für Informatik e.V. (GI) has called on young experts from Europe, Africa, Asia, and North and South America to analyze the social, economic, and ecological sustainability effects of digitization through the project Youth4DigitalSustainability. Young experts from diverse global regions came together in four working groups, each focusing on a different aspect of digital sustainability. The members of the working group “Greening the Internet” offer insight into the environmental challenges and opportunities of a digitized world. The working group “Fair Digital Business” raises awareness for sustainable practices by and for the digital private sector. The members of “Internet for Social Cohesion” advocate for an Internet that leaves no one behind. The working group “Sustainable Internet Governance” promotes a holistic approach to governing the Internet and emerging technologies, such as Artificial Intelligence (AI).

Twelve concrete demands emerged from the working process, which lasted several months, in four working groups focusing on the environment, economy, society and governance.

Please find further information about the project here:

yigf.de/news/12-youth-recommendations-for-a-sustainable-internet/

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Recommendations

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4

Businesses should champion diversity and sustainability by (1) hiring C-Suite representatives and/or consulting subject matter experts and (2) strengthening their commitment towards principles of diversity, equity, and inclusion and ecological digital infrastructure.



5

Governments should offer economic incentives to businesses that commit to a circular economy model and Fair Trade standards, in order to re-imagine supply chains that discourage e-waste, and improve the quality of life of those residing in emerging economies.



6

Businesses should create an open data environment to promote transparency. By acquiring user consent and anonymizing personal data, businesses can demonstrate their commitment to carbon neutral and humane practices that encourage behavioral changes in consumption practices.



Transition towards Sustainability: How can companies structure and strategically align themselves to become more sustainable?

Authored by Marcel Krummenauer



Abstract

In recent years (especially in the last decade), the topic of sustainability has been increasingly discussed both in the political context and in the area of corporate governance. [1,2] As early as 2009, Elkington established the so-called “triple bottom line” (TBL) approach. This approach describes that companies cannot be successful in the long term if they only strive to maximize their earnings.

They also have a social responsibility. Accordingly, the actions of all businesses should aim to achieve a balance between economic, environmental and social achievements. [3]

By now, companies[4] are endeavoring to integrate goals for the sustainable orientation of their business model as well as their internal processes into their corporate strategies. [5, 6] It is of particular interest here that the actions taken are not just marketing actions, but are measures that actually make companies more sustainable. [7]

The working group Fair Digital Business raises awareness for sustainable practices by and for the digital private sector and stated that “Businesses should champion diversity and sustainability by (1) hiring C-Suite representatives and/or consulting subject matter experts and (2) strengthening their commitment towards principles of diversity, equality and inclusion and ecological, digital infrastructure.”[8]

However, the question is how to accommodate this demand in the company’s strategy and structure.

Transition towards Sustainability: How can companies structure and strategically align themselves to become more sustainable?

Executive Summary

A total of four factors have been identified, which in them-selves have a positive influence on the long-term orientation of a company towards sustainability. These factors further raise the importance of sustainability towards the center of corporate decision-making, but do not provide an all-encompassing solution. The actual development of sustainable business models, products and processes is done “bottom-up” by the individual operating departments.

Measurement and evaluation. In order to be able to identify the potential for improvement, evaluating and exploiting it, it is essential to monitor and measure one's own processes and structures [9] – this also applies to the ecological sustainability of companies. Therefore, measuring one's own sustainability in the form of Key Performance Indicators (KPIs), for example using Balanced Scorecards, [10] must be the beginning of one's own sustainability initiative. [11, 12,13]

Sustainability Manager. In every company, there should be one person responsible for monitoring the sustainability KPIs and initiating the appropriate actions. Depending on the size of the company, this person should sit on the board or report to it or the managing director or similar. [14, 15, 16]

Culture of sustainability. The aforementioned sustainability manager should, on the one hand, ensure that the company is strategically aligned towards sustainability, that the operational business becomes more sustainable and that the topic of sustainability is anchored in the company's culture. Only if most employees are convinced of the benefits of a sustainable orientation will this change succeed. [17, 18, 19]

Compensation on sustainability. Particularly in medium-sized and larger companies, consideration should be given to the variable remuneration of board members, and in the best case also that of middle management, to be determined by the sustainability KPIs in addition to the existing criteria. This is a further incentive for the management to benefit from the company's sustainable orientation and to focus more strongly on this topic. [20, 21, 22, 23]

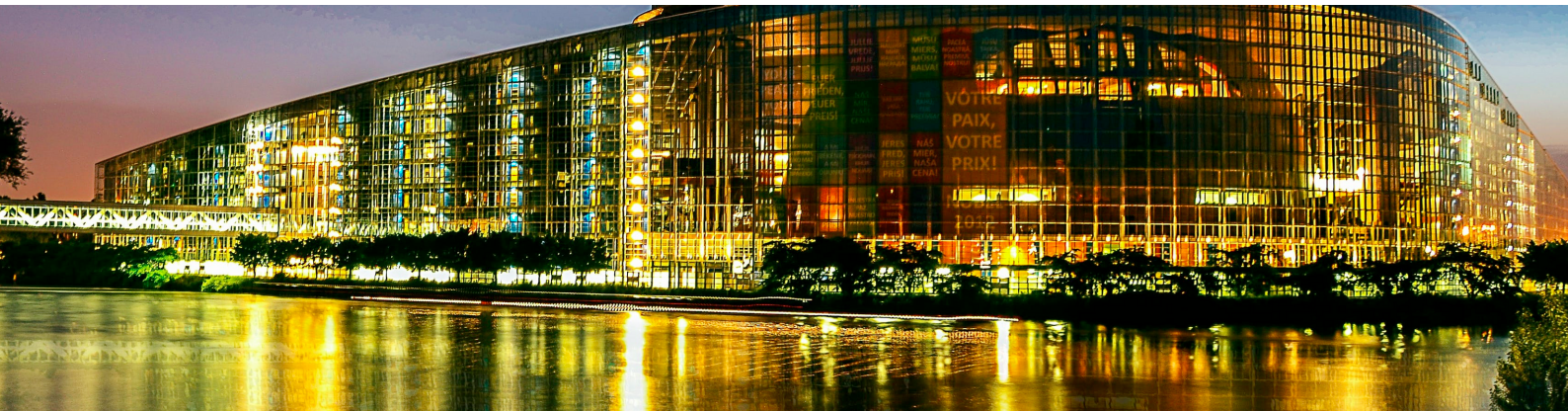
The government's role in engaging sustainable and fair-trade practices

Authored by Juliana Novaes

This paper aims to provide some background on the message elaborated by the working group Fair Digital Businesses, which is the following:

Governments should offer economic incentives to businesses that commit to a circular economy model and Fair Trade standards, in order to re-imagine supply chains that discourage e-waste, and improve the quality of life of those residing in emerging economies.

Having this in mind, it will present the main ideas behind the message and suggest possible forms of government incentives for the suggested purpose.



Sustainability as a practice

The group adopted the connection between fairness and planet-focused sustainability as ground for the formulation of the message.

Sustainability is not merely an abstract idea, but rather a concrete practice that depends on putting into action beliefs and goals that are derived from social and economic beliefs. [24]

There are many factors that have the potential to influence sustainability and practices related to it. [25]

The market, for instance, is one of the most important enablers for sustainability. Sustainability can be incorporated into market orientation and strategies, and it can create a competitive advantage for companies. [26]

There is also a cultural dimension to sustainability, which is highly influenced by the private sector, but also by civil society, governments and academia. [27]

The government's role in engaging sustainable and fair-trade practices

Governments as relevant actors in sustainability

The general perception of sustainability practices traditionally fall under the scope of the private sector. However, governments are entities that consume large amounts of energy and also have the potential to greatly impact the environment. [28]

The message elaborated by the Fair Digital Businesses working group, therefore, aims to convey the idea that transformation should not be seen as a responsibility of the private sector alone, but should also be fostered by governments.

Governments, as entities that manage and control a large number of services and extend their activities towards many sectors of society, can serve as examples for a model of institutional governance that incorporates sustainability.

In the digital sustainability sphere, this could translate into practices of reducing e-waste and assessing measures to reduce public services' carbon footprint.

When it comes to the market dimension of sustainability, governments have the role of market regulators and policymakers.

This allows for the implementation of a series of measures that could benefit good practices in sustainability.

Fiscal incentives attributed to companies that adopt digital sustainable practices, for instance, are an example of how governments can contribute to the modelling of fair digital businesses.

In a similar way, attributing sanctions to companies who do not comply with good practices can discourage the continuation of harmful conducts

Featured Case Study: Measuring and Reducing E-Waste in India

Authored by Mohammad Atif Aleem & Raashi Saxena

According to a report by Associated Chambers of Commerce and Industry of India (ASSOCAHM)- NEC, India is among the top five e-waste generators. The country generates 2 million tonnes of waste per annum and is likely to produce 5.2 million tonnes of e-waste per year by 2020. Among the total waste generated, only 4.3 lakhs (4,38,085) tonnes per annum (TPA) is recycled. Within e-waste generated in India, computer equipment has a major share – it accounts for almost 70 percent of the waste material whereas telecommunication equipment covers 12 per cent, electrical equipment 8 per cent, medical equipment 7 percent and other items make up for the remaining 3 percent.

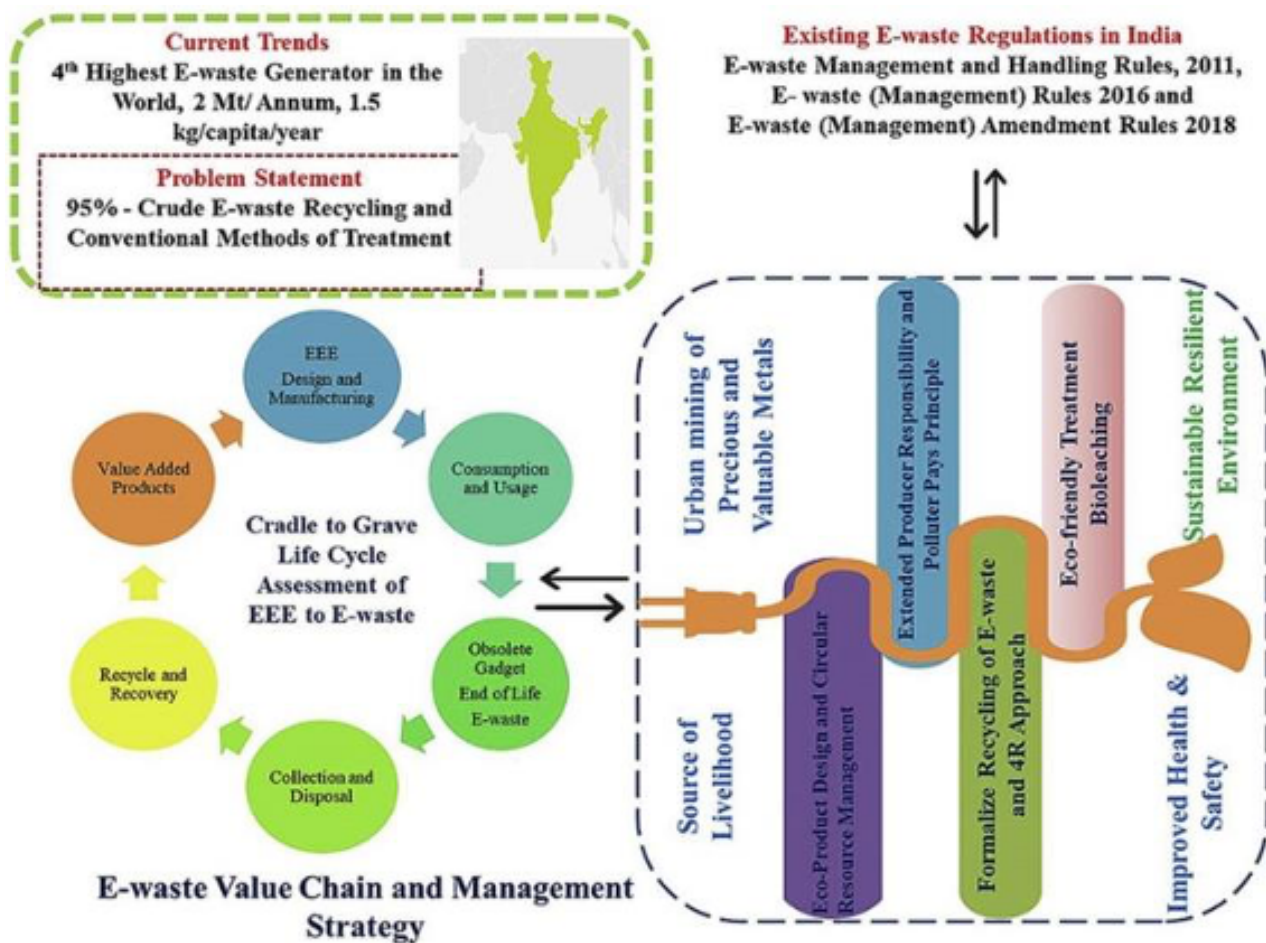




Image: Shashi Arya, Sunil Kumar, "E-waste in India at a glance: Current trends, regulations, challenges and management strategies," Journal of Cleaner Production, Volume 271, 2020.

Featured Case Study: Measuring and Reducing E-Waste in India


As e-waste generation in India continues to rise and pose a threat to human health, more so during the pandemic times, the question that arises is what we, as an individual or group, can do to reduce its effect. Here are some suggested ways for negating the effect of e-waste:



1) Be an informed electronics buyer. Being informed about the electronic items you are buying goes a long way in minimizing e-waste. Whenever you purchase an electronic item or a gadget, do make sure to ask the sellers about their recycling or buyback scheme. Some sellers offer recycling of old gadget and provide a discount on the new product.



2) Up-cycling. Upcycling generally refers to the conversion of waste materials to something useful or valuable and is a useful concept that can be applied not only to the waste design industry but also to waste recycling and resource circulation. In case of e-waste effective use cases can be of CDs and DVDs that can be upcycled into beautiful home décor items like a photo frame, and tea coasters. For tea coasters, either cover the disc with a fabric of your choice or simply paint it. Also, you can break CDs into parts and paste it on planters to add some shine to it.



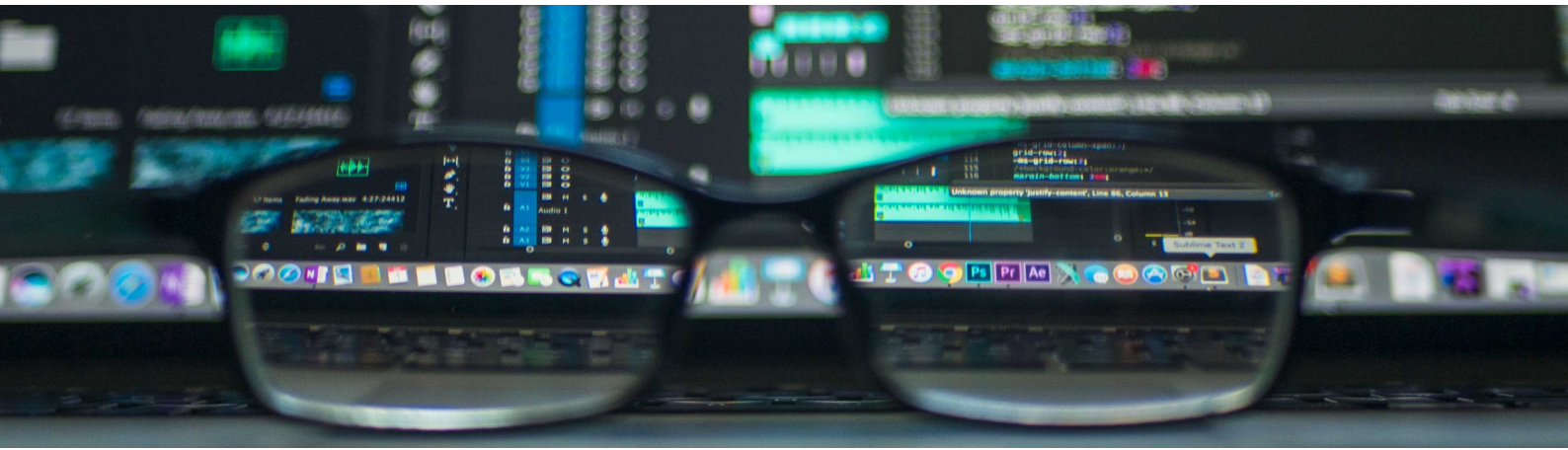
3) E-waste recycling centers. As per the ASSOCHAM-NEC study, India has over 160 units to process e-waste, but only 22 per cent (4.3 TPA or 4,38,085 TPA) of the e-waste is recycled in India. Reason being, lack of infrastructure, legislation and framework. Recycling centers can be a viable way to deal with E-Waste. Instead of giving e-waste to scrap dealer, look out for certified e-waste recycler or nearest collection center authorized with the pollution control board of the State, responsible for safe and responsible recycling of electronics.

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Open Data That We Can Trust

Authored by Daria Bahrami



Introduction

One of the “Fair Digital Businesses” working group’s objectives is to assess the ways in which governments, businesses, and consumers can foster an economy that promotes equitable and sustainable business interactions. This requires transparency through information sharing, trust in humane and equitable operations, and accountability measures that can incorporate consumer and regulator feedback.

In today’s economy, data is currency. As more consumers are becoming familiar with the notion that data collection is a natural byproduct of all digital transactions, government institutions are similarly learning to harness the power of data to thoughtfully drive policy changes and carefully encourage economic growth.

Thus we land on the last suggestion of the Fair Digital Businesses working group:

"Businesses should create an open data environment to promote transparency. By acquiring user consent and anonymizing personal data, businesses can demonstrate their commitment to carbon neutral and humane practices that encourage behavioral changes in consumption practices."

What is open data?

Open data involves making information available to the public, so that “anyone can access, use, and share [29] The International Open Data Charter ,[30] a collaboration between over 100 governments and organizations that began with the Open Government Partnership Summit in 2015, describes six principles to guide data publishing norms:

1. **Open by Default:** Barring any security breaches or data protection violations, data should be default be published and accessible to the public.
2. **Timely and Comprehensive:** Data should be updated as appropriate and published in its “original, unmodified form.”
3. **Accessible and Usable:** This focuses on user experience, so that consumers can easily access data across file formats, free of charge, and under an open license, to name a few parameters.
4. **Comparable and Interoperable:** Data standards must be normalized and agreed upon universally, to increase value across multiple data sets.
5. **For Improved Governance and Citizen Engagement:** Data publication allows for transparency, which can improve public services and hold governments accountable.
6. **For Inclusive Development and Innovation:** Open data also promotes information sharing, which can increase the efficiency of many business operations

Businesses can focus on encouraging data accessibility and setting data quality standards, to optimize engagement with their consumer bases. According to the California Open Data Handbook, data must be “technically” and “legally” open to be fully accessible by the public. This means data should be accessible across various interfaces and data platforms, to reduce the likelihood that users would encounter a technological or software compatibility barrier that would prevent them from accessing said data. Full access also implies universal participation, without licensing restrictions, for example. Unrestricted use allows for interoperability, which “denotes the ability of diverse systems and organizations to work together. In this case, it is the ability to interoperate or intermix different data sets.”[31]

Similarly, data quality control requires measures of accuracy, completeness, and compliance, to build trust between businesses and their consumers. Adopting consistent measures of high quality data will be difficult across open government data, open business data, and open citizen data. Universal privacy and protection standards

Transparency & Trust

To address one of the concerns in the first principle of the Open Data Charter, security and data protection standards must be normalized on an international scale. By minimizing the storage of personally identifiable information (PII) through data de-identification and even anonymization, businesses can still reveal operational proceedings and consumption patterns without exposing personal identities in the process. But research continues to reveal that releasing anonymized consumer data subsets does not guarantee protection from re-identification. [32]

This is the point at which regulators and lawmakers would need to push for stronger, more effective privacy and security measures by promoting encryption standards, granular access control systems, and enforceable privacy-enhancing benchmarks.

Building trust also relies heavily on developing “a single standardized method of verifying the validity of data,” as delineated by data startup X-Mode. [33] Consumers ought to be able to trust the data they are interacting with, especially if brands wish to use that data to market and scale their products or services. Compromised data integrity, privacy violations, and security breaches put businesses in a difficult position to both course correct and regain the trust of their audiences. Brands can avoid the missteps of companies like Facebook by launching open data campaigns that foster trust and transparency. With the rise of data laws around the world, businesses have an opportunity to educate their consumer base, give users control over their data exchange, and optimize their product or service based on any data collection—therein, businesses can set the tone early and communicate that they value their audience’s privacy, trust, and user experience. [34]

Information is power and if managed responsibly, governments, businesses, and consumers alike can harness the potential of open data to drive policy changes, improve government efficiency, allow for deeper analytical insights, increase civic engagement, and steer economic growth.

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