GLOBAL INFORMATION SOCIETY WATCH 2020

Technology, the environment and a sustainable world: Responses from the global South

Association for Progressive Communications (APC)
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Global Information Society Watch 2020
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ROMANIA

RIGHT TO REPAIR FOR SUSTAINABLE ICT USE

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There has been a general apathy towards repair in our never-ending consumerist society.
Louis Rossmann[1]

Introduction

While information and communications technologies (ICTs) are key drivers of innovation, their increasing environmental impact is a reason for concern. The European Green Deal (EGD) has set an ambitious goal for European Union (EU) countries: to be climate neutral in 2050,[2] with no net emissions of greenhouse gases and an economic growth decoupled from resource use.[3] For such a radical shift to happen, encouraging innovation and environmentally friendly solutions in the energy sector, and in housing, transport and industry, must be on the agenda of policy makers. As part of the EGD, a new circular economy action plan was developed, including a sustainable product policy framework. A special chapter of the document is dedicated to ICTs: implementing the forthcoming Ecodesign Directive on energy efficiency, durability, repairability, upgradability, maintenance, reuse and recycling, as well as prioritising the right to repair (R2R) for ICTs – including the right to upgrade obsolete software.[4]

This report focuses on R2R policies and practices in Europe and in Romania. It is based on desk research and empirical analysis. We look at the EU legislation on recycling electrical and electronic waste, its implementation in Romania, followed by a scholarly literature review on sustainable development issues, and on challenges of implementing R2R. The empirical analysis is aimed at contextualising the regional EU-level issues at the national and local level by looking at repair practices in an underprivileged community from Central Romania.

Context

With an ambitious digital agenda, the EU aims at building a fair, open and secure digital environment for its citizens.[5] ICTs are enabling fast and affordable access to knowledge, people and services, but what happens to those left behind? The EU leads the way globally when it comes to digitalisation, with significant differences between the 28 countries: while in Finland 76% of the population has at least basic digital skills,[6] in Romania this figure is only 31%.[7] The difference is even more striking concerning e-banking: 95% of the population is using it in Finland, compared to 11% in Romania.

Infrastructural access to ICTs has improved significantly in Romania, especially mobile broadband access and the take-up of superfast broadband. In December 2019 the mobile broadband penetration rate was 87.4%, compared to 82.8% in December 2017.[8] Access is unequal though: while 75% of urban households use broadband internet, only 49% of rural families have the same privilege.[9] According to a 2019 survey by the Romanian National Statistics Institute,[10] residence, age, education and occupational status are predictors of digital divides: the rural, the elderly, the less educated, the retired and the unemployed are most likely to lack physical, material and conditional access to ICTs – in Van Dijk's terms.[11] Physical access is the opportunity

1 https://www.youtube.com/watch?v=Npd_xDuNi9k

2 European Commission. (2019). *What is the European Green Deal?* https://ec.europa.eu/commission/presscorner/api/files/attachment/859152/What_is_the_European_Green_Deal_en.pdf

3 Rădulescu, D., & Pascu, A. (2020, 6 July). The European Green Deal Investment Plan. *Juridice*. https://rlw.juridice.ro/17374/the-european-green-deal-investment-plan.html

4 European Commission. (2020a). *A New Circular Economy Action Plan: For a Cleaner and More Competitive Europe*. https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN

5 https://www.europarl.europa.eu/factsheets/en/sheet/64/digital-agenda-for-europe

6 European Commission. (2020b). *Digital Economy and Society Index 2020: Finland*. https://ec.europa.eu/digital-single-market/en/scoreboard/finland

7 European Commission (2020c). *Digital Economy and Society Index 2020: Romania*. https://ec.europa.eu/digital-single-market/en/scoreboard/romania

8 Autoritatea Națională pentru Administrare și Reglementare în Comunicații. (2020). *Piața serviciilor de comunicații electronice din România. Raport de date statistice – semestrul II 2019*. https://statistica.ancom.ro/sscpds/public/files/178_ro

9 Ibid.

10 Iagăr, E. M. (Ed.) (2019). *Accesul populației la tehnologia informațiilor și comunicațiilor*. Institutul Național de Statistică.

11 Van Dijk, J. (2020). *The Digital Divide*. Polity Press.

to use digital media in the privacy of our homes or from public places (schools, libraries), while material access encompasses all the necessary means to get this: subscriptions, equipment and software. Conditional access refers to the permissions enabling ICT use, such as payment, or membership in organisations – i.e. access to databases, articles, films, documents.[12]

While physical and material access to ICTs has improved in Romania, be it unequal by regions,[13] age groups and socio-professional categories,[14] conditional access is still problematic, because it requires digital literacy programmes: media education is not yet part of the curriculum. This is why only a third of internet users have basic digital skills, and there is a general lack of awareness about privacy and security issues online.[15]

There is also a lack of awareness about the environmental impact of ICTs among the Romanian population, which partly explains the poor level of collecting and recycling waste from electrical and electronic equipment (EEE): the 45% target imposed by the EU was not reached in 2020 (only 36% was), and in 2021 this target will be increased to 65% – even more difficult to reach, since the stock of EEE in Romanian households grew from 71 kg per person in 2015 to 91 kg per person in 2019, with 80% of the stock consisting of six products: washing machines, frid-ges, flat panel TVs, ovens, freezers and CRT TVs. Out of this, 34% is donated to relatives, 25% is not discarded properly, and 4% of the consumers do not even remember exactly how they disposed of the waste.[16] A growing amount of the disposed EEE consists of mobile phones: 15% in 2019 – by number of devices, not by weight, since small electronic appliances like mobile phones, tablets and laptops are not heavy.[17]

Since Romania is a growing market, most of the electronic equipment acquired is not older than five years, and used or second-hand products represent only an average of 5% to 12% of purchases – with higher percentages for CRT monitors (23%), desktop PCs (19%), flat screen monitors (17%) and laptops (13%), as compared to 9% for mobile phones.[18]

Sustainable development, ICTs and R2R

Apart from the mainstream definitions seeking to balance social, economic and environmental targets, Holden, Linnerud and Bannister state:

> Sustainable development constitutes a set of constraints on human activities, including economic activities. By identifying key themes, headline indicators and thresholds, we claim that the moral imperatives of needs, equity and limits should guide policy-making.[19]

Needs, equity and limits are also moral imperatives expressed by the maker movement of tinkering communities,[20] inspired by "hacker ethics" – a shift from "do-it-yourself" to "do-it-together".[21] Such community spirit is ingrained in The Restart Project's repair events – workshops, parties, and, during the COVID-19 pandemic, online repair advice.[22]

As part of its Circular Economy Action Plan, the European Commission is working on a "Circular Electronics Initiative" to promote longer product lifetimes, including measures for energy efficiency, durability, repairability, universal chargers, better cables, and improving the collection and treatment of EEE, since it is the fastest growing waste stream, with an annual growth rate of 2%.[23]

As the societal demand for repairing electronic equipment is growing, researchers from various fields are increasingly tackling this issue. In the words of Crosby and Adams Stein, "We are surrounded by broken things and environments: designed objects, spaces and systems in need of repair. Repair is a commonsense but partial answer to overconsumption."[24]

Experts have identified several levels of barriers to repair:

- Level 1: Legal and bureaucratic obstacles preventing accessible repair.
- Level 2: The price of repair compared to buying a new product.

12 Ibid.

13 The western and northwestern regions have the most connected citizens, while the southeastern region is the most disconnected. In the central region to be analysed in this report, there are significant disparities between small towns and rural areas, and the urbanised areas.

14 Iagăr, E. M. (Ed.) (2019). Op. cit.

15 Bakó, R. K. (2019). Digital Naïves Go Online. *Acta Universitatis Sapientiae, Communicatio*, *6*, 121-129.

16 Magalini, F., Thiébaud, E., & Kaddouh, S. (2019). *Quantifying WEEE in Romania. 2019 vs 2015*. https://www.ecotic.ro/wp-content/uploads/2019/10/Quantifying-WEEE-in-Romania-2019.pdf

17 Ibid.

18 Ibid.

19 Holden, E., Linnerud, K., & Banister, D. (2017). The Imperatives of Sustainable Development. *Sustainable Development, 25*(3), 213-226. https://doi.org/10.1002/sd.1647

20 Dougherty, D. (2012). The Maker Movement. *Innovations, 7*(3), 11-14. https://www.mitpressjournals.org/doi/pdf/10.1162/INOV_a_00135

21 Cangiano, S., & Romano, Z. (2020). Ease of repair as a design ideal: A reflection on how open source models can support longer lasting ownership of, and care for, technology. *Ephemera*, *19*(2), 441-449. https://repository.supsi.ch/11432/1/19-2cangianoromano.pdf

22 https://therestartproject.org

23 European Commission. (2020a). Op. cit.

24 Crosby, A., & Adams Stein, J. (2020). Repair. *Environmental Humanities, 12*(1), 179-185. https://read.dukeupress.edu/environmental-humanities/article/12/1/179/165250/Repair

- Level 3: Consumer preferences not favouring repair.[25]

They argue that in order to enable R2R, a step-by-step approach should be taken, to create an open repair environment. The first step of this process is to eliminate barriers on level 1: the legal and bureaucratic obstacles preventing accessible repair. What is the difference between open and closed repair? In the case of open repair, consumers have a choice on who will conduct the repair, whereas closed repair systems restrict consumers to repair shops provided by the manufacturer.

Currently we are in a system of closed repair. In order to open the repair market – as advocated by independent repair shops and consumers – it is necessary to grant access to spare parts and the schematics of ICTs. A closed repair environment shortens the lifespan of products due to the restricted access to authorised repair services and their high prices, encouraging consumers to rather buy a new smartphone, tablet or laptop. Authorised repair shops often mislead customers, by telling them the device is either not repairable, or by overpricing – with several examples provided by tech influencers such as Louis Rossmann. A low awareness of consumer rights can also result in opting for buying a new product instead of choosing repair. Premature disposal of products due to planned obsolescence – a predesigned short lifetime – is also a barrier to repair.[26]

Rossmann, an independent repair shop owner from New York City and an advocate for the R2R movement in the United States, explains:

> I produce videos that show people how to work on their own product that everybody else said it's unfixable. [...] The more people we get involved, the less apathy there will be towards repair. Politically I seek to address it by having bills passed in states regarding R2R.[27]

The main arguments against R2R bills that Rossmann has confronted in court hearings were that independent repairers:

- Breach intellectual property law by disclosing information related to the product to other repairers.
- Endanger users' safety by using unauthorised methods and parts during the repair process.
- Curtail consumers' rights because the quality of repair is lower compared to the service of an official, authorised repair shop.

The main counterargument used by R2R advocates is the product owners' right to use and repair their own products in an unrestricted manner, as well as affordability and availability of independent repair shops, from the perspective of consumers' rights.

Experts in constitutional law have developed more sophisticated cases for R2R by attacking the main argument of the big manufacturers, an abusive appeal to intellectual property law:

> The idea that information relating to repair, along with part and tools, would increase intellectual property theft is simply a scare tactic and part of the rhetoric that does not seem to have a basis in reality. While counterfeiting of all kinds of products is a reality, the repair information will not increase what is already happening.[28]

They explain how US constitutional principles are ingrained in the idea of progress, and bring a set of economic, moral and legal arguments supporting the claim that independent repair shops contribute to sustainable development and ensure fair market competition.

Repair practices in a rural community from Central Romania

Central Romania has two big cities, Brașov and Sibiu, with good infrastructure and dynamic economic development, and several poor regions – such as Covasna and Harghita counties – with small towns and villages, inhabited mainly by Hungarian and Roma communities.[29] Access to ICT infrast ructure is limited by geographical conditions: mountains, and many isolated villages.

Our empirical data for this report was partly collected within a broader local research project aimed at mapping new consumer practices among Generation Z in terms of food, fashion, ICTs, services and media.[30] For the ICTs part, we conducted 16 online interviews (11 university students and five teachers), three online focus group discussions with university students, and

25 Svensson, S., Richter, J. L., Maitre-Ekern, E., Pihlajarinne, T., Maigret, A., & Dalhammar, C. (2018). The Emerging 'Right to Repair' legislation in the EU and the U.S. Paper presented at Going Green CARE INNOVATION 2018, Vienna, Austria. https://portal.research.lu.se/portal/files/63585584/Svensson_et_al._Going_Green_CARE_INNOVATION_2018_PREPRINT.pdf

26 Ibid.

27 https://www.youtube.com/watch?v=Npd_xDuNi9k

28 Grinvald, L. C., & Tur-Sinai, O. (2019). Intellectual Property Law and the Right to Repair. *Fordham Law Review*, *88*(1), 63-128. https://ir.lawnet.fordham.edu/flr/vol88/iss1/3

29 Covasna and Harghita counties, and partly Mureș county under study here, are among the poorest in Romania – the historic region called Szeklerland, with a distinctive sense of regional and ethnic identity. See Bakó, R. K. (2007). *European Integration: Managing Change and Identities in Szeklerland*. Presa Universitară Clujeană.

30 Presented at a conference: Bakó, R. K., & Horváth, G. (Eds.) (2020). *Mind the Gap! Proceedings of the Sixth Argumentor Conference Held in Oradea/Nagyvárad, Romania, 11-12 September 2020*. Partium Press and Debrecen University Press.

a digital storytelling exercise with seven university students.[31] For mapping repair practices we also used desk research to scan local repair shops' availability and services, as well as personal repair experiences with mobile phones and laptops. An online survey among university students will follow in October 2020, with data usable for R2R advocacy.

The need for repairing ICTs increased during lockdown and online teaching (from 15 March to 31 May 2020): students and educators reported problems with their devices, especially laptops. Charger and screen repairs, as well as battery replacements, were also mentioned. In Saint George, a small town in Central Romania, two of the three main ICT repair shops offered pick-up and delivery services during lockdown. All the students interviewed reported the use of laptops older than two years, and repair was mentioned as a rational and routine option: environmental concerns were not mentioned at all. Only one of the 11 students mentioned that she would like to buy a smart watch in the near future, while the other 10 students stated that they are satisfied with their mid-range laptops and smartphones.[32] One student mentioned that she bought a Kindle e-reader device for affordable access to novels.

Beyond small repair shops there are also skilled individuals who can repair their own devices, either with a professional background, or self-taught. It is difficult to assess the size, availability and competence of such informal repair resources, but the online survey to be conducted in October 2020 to assess ICT use and repair practices for advocacy and campaign purposes will bring more clarity.

Conclusions

There is a growing interest in R2R opportunities and challenges globally, regionally and locally. Researchers and practitioners, policy makers and activists are equally interested in advocating for more sustainable ICT use.

The European Union's strict regulations will set a high standard for sustainable product and service design: the circular economy action plan, if implemented, will help big players – manufacturers and service providers – as well as governments to align. Civil society organisations should play a catalyst role in this process, by connecting stakeholders and raising awareness on the importance of the right to repair.

Action steps

The following action steps should be taken in Romania:

- Key stakeholders – governmental actors, civil society organisations, experts and businesses – should cooperate in order to implement sustainable ICT use in general, and R2R in particular.
- For developing a local R2R campaign, joint action with local environmental NGOs and ICT policy actors is needed.
- Local campaign results should be replicated in other communities, and expanded on a national level, with a focus on the educational and awareness-raising component.

31 https://netix.home.blog

32 https://argumentor.files.wordpress.com/2020/09/story.png

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Technology, the environment and a sustainable world: Responses from the global South

The world is facing an unprecedented climate and environmental emergency. Scientists have identified human activity as primarily responsible for the climate crisis, which together with rampant environmental pollution, and the unbridled activities of the extractive and agricultural industries, pose a direct threat to the sustainability of life on this planet.

This edition of Global Information Society Watch (GISWatch) seeks to understand the constructive role that technology can play in confronting the crises. It disrupts the normative understanding of technology being an easy panacea to the planet's environmental challenges and suggests that a nuanced and contextual use of technology is necessary for real sustainability to be achieved. A series of thematic reports frame different aspects of the relationship between digital technology and environmental sustainability from a human rights and social justice perspective, while 46 country and regional reports explore the diverse frontiers where technology meets the needs of both the environment and communities, and where technology itself becomes a challenge to a sustainable future.

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