Rozália Klára Bakó

THE PROCESS OF DIGITALIZATION IN ROMANIA

PRESA UNIVERSITARĂ CLUJEANĂ

Rozália Klára Bakó

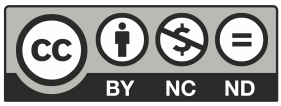
THE PROCESS OF DIGITALIZATION IN ROMANIA

PRESA UNIVERSITARĂ CLUJEANĂ
2023

Referenți științifici:
Conf. univ. dr. Hubbes László Attila
Conf. univ. dr. Kósa István

Imaginea de pe copertă reprezintă o versiune prelucrată a copertei
GLOBAL INFORMATION SOCIETY WATCH 2014.

ISBN 978-606-37-1929-5



Universitatea Babeș-Bolyai
Presa Universitară Clujeană
Director: Codruța Săcelean
Str. Hasdeu nr. 51
400371 Cluj-Napoca, România
Tel./fax: (+40)-264-597.401
E-mail: editura@editura.ubbcluj.ro
http://www.editura.ubbcluj.ro/

TABLE OF CONTENTS

GLOBAL INFORMATION SOCIETY WATCH AND THE ROMANIAN CONTEXT

This volume brings together twelve thematic country reports about Romania and a regional report about Europe, with a focus on the information society development from a civil society perspective. The author has participated twelve times from 2007 to 2020 as a rapporteur for Romania – and once for Europe, in 2010 – in the Global Information Society Watch (GISW) programme, coordinated by the Association for Progressive Communications (www.giswatch.org).

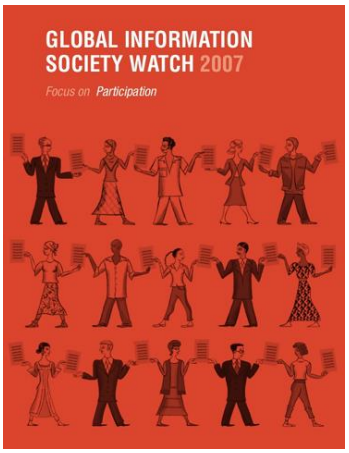
There are numerous global perspectives on the information society and the digitalization process: what makes the GISW different is the civil society perspective, and the multi-stakeholder approach.

Technology in general, and information and communication technologies (ICTs) in particular are strongly driven by economic and political interests. A critical perspective on ICTs and their impact on society is needed for an action-driven research and practice.

Mapping multiple stakeholders and gathering relevant information about ICTs, digitalization and their social impact in Romania is a challenging, yet rewarding task. It gives a comprehensive perspective on the country evolution in a regional and global context.

GLOBAL INFORMATION SOCIETY WATCH 2007

FOCUS ON PARTICIPATION



GLOBAL INFORMATION SOCIETY WATCH in 2007[1] is the first in a series of yearly reports covering the state of the information society from the perspectives of civil society and stakeholders in the global South. GLOBAL INFORMATION SOCIETY WATCH has three interrelated goals:

- survey the state of the field of ICT policy at the local and global levels
- encourage critical debate, and
- strengthen networking and advocacy for a just, inclusive information society.

The report discusses the World Summit on the Information Society (WSIS) process and a range of international institutions, regulatory agencies and monitoring instruments. It also includes a collection of country reports which examine issues of access and participation within a variety of national contexts.

Each year, the report will focus on a particular theme. In 2007 GLOBAL INFORMATION SOCIETY WATCH focuses on participation. GLOBAL INFORMATION SOCIETY WATCH is a joint initiative of the Association for Progressive Communications (APC) and the Third World Institute (ITeM), and follows up on our long-term interest in the impact of civil society on governance processes and our efforts to enhance public participation in national and international forums.

[1] https://giswatch.org/2007-participation

MAPPING KEY ACTORS OF DIGITALIZATION

Introduction

During August and September 2006, the Strawberrynet team identified key ICT policy actors from Romania and mapped their roles and relationships using public information available on government, business and civil society organisation (CSO) websites. We paid particular attention to laws and regulations related to information and communications technologies (ICTs), official statements, statistical data and scientific research. Our empirical research consisted of key informant interviews conducted during October 2006. These aimed at understanding different stakeholders' standpoints on Romanian ICT policy priorities. We found the information provided by the Association for Technology and Internet (APTI)[1] particularly useful for our analysis.

The Country situation section (below) presents the regional context for Romania's ICT policy-making process, highlighting the positive role played by EU accession criteria. We also discuss ICT-based social inclusion policies and programmes concerning the three pillars of strategic ICT use: access, skills and understanding. We conclude that Romania has experienced better access to ICTs and an increase in ICT skills over the past years. This is supported by statistical data on progress made by Romania from 2003 to 2006. However, gender and open source issues are not apparent in official ICT-related public discourse.

The main ICT policy actors and their roles in the policy-making process are presented in the *Participation* section. We find that governmental agencies play a primary role in shaping ICT development, supported by active business organisations. A key finding of this section is that although there have been dynamic and positive changes towards transparent ICT policy-making in Romania, problems remain. These include the administration and management of the country code top-level domain .ro. In terms of participation in the World Summit on the Information Society (WSIS), the government's involvement was significant, but publicly invisible.

Country Situation

Romania's ICT policy landscape has been shaped by the political context, particularly the accession negotiations with the EU from 15 February 2000 to 8 December 2004. The EU considers ICTs a strategic objective, and the European Commission insisted on ICT policy alignment with EU standards. As a result, the Romanian government accelerated legislative processes during the period between 2001 and 2004. Some of the most important regulatory changes contributing to an ICT-enabled environment included the liberalisation of the market from 1 January 2003, and legislation dealing with universal access, e-commerce and online security (such as e-signatures and e-procurement).

This favourable context explains the rapid growth of the ICT market in Romania and the steps taken towards more equitable access and better skills. The ICT sector is the largest investment sector in Romania, accounting for 68% of total investments, and has experienced some of the most dynamic growth in the country: 22% from 2003 to 2004 and up to 25% for the 2004 to 2005 period, according to estimates. The legal framework (free competition, a flat tax rate of 16%, more transparent and participatory decision-making processes) has encouraged ICT investments in infrastructure, service quality improvement and the launching of nationwide educational projects. Market value is estimated to be over USD 1 billion. The sector now boasts 1,800 general service providers. Among the top ten businesses operating in Romania, three operate in the ICT field (Georgescu, 2006).

Internet penetration in June 2006 was 11.7% and 5.5% for broadband access, calculated for the total number of inhabitants (22 million people). The audiovisual retransmission penetration rate, which measures the percentage of households connected to a cable or satellite TV, was 55%, calculated for the total number of Romanian households.

Table 1. ICT service penetration				
	31 Dec. 2003	**31 Dec. 2004**	**31 Dec. 2005**	**30 Jun. 2006**
Fixed telephones	19.98%	20.24%	20.31%	20.46%
Mobile telephones	32.47%	47.12%	61.76%	68.76%
Number of ISPs	233	515	981	1154
Broadband internet access	196,106	382,783	751,060	522,796
Source: National Regulatory Authority for Communications (ANRC) (2006)				

The main social inclusion programmes run by Romanian governmental agencies and international organisations such as the World Bank and the United States Agency for International Development (USAID) have focused on ICT access and skills improvement issues.

Community access to ICTs has been enabled by two ongoing initiatives: the telecentres project, run by the National Regulatory Authority for Communications (ANRC), and the Knowledge Economy project,[2] run by the Ministry of Communications and Information Technology (MCTI). The ANRC's telecentres project provides basic ICT access to disconnected rural communities: two computers enabling internet, a fax machine and two telephone terminals. The project started in December 2004, when five public access points were created through public tendering. In 2005, 33 more villages were connected to the world, and 170 more in 2006. The villages where the ANRC installed telecentres were disadvantaged, as the demand and the consumption potential of their inhabitants did not stimulate investment in infrastructure roll-out. The ANRC, in partnership with the local administrations and with telephony operators, covers the cost of installation and maintenance of the access link for the telecentre. At the end of a three-year period, the obligations of the operator will cease and the local public administration will have to turn the telecentre into a self-sustainable business.

The Knowledge Economy project aims to create 200 community knowledge centres in rural and small town areas, after a pilot phase of developing eight centres in strategic locations across Romania.

The most important digital inclusion programme for education is the Romanian Education Network (RoEduNet).[3] The aim of RoEduNet is to offer universities and cultural and scientific non-profit institutions the means to communicate with each other, as well as to have access to the internet. The network is made up from redundant bandwidth (34-155 Mbps) connecting the main communication nodes in six big cities: Bucharest, Iaşi, Târgu Mureş, Cluj, Timişoara and Craiova. Most educational institutions are connected through local nodes at the county level[4] to the national backbone. The internet connection is provided at the Bucharest node, using a 622 Mbps link from GÉANT (a multi-gigabit pan-European data communications network reserved specifically for research and

educational use) and a 10 Mbps back-up link from the internet service provider (ISP) Romania Data Systems.

At the same time, the Ministry of Communications and Information Technology and the Ministry of Education and Research ran the 200 Euro programme, through which the state provided PC-purchasing aid to students from low-income families. In 2006, 28,005 families benefited from the programme.[5]

International organisations played a positive role in raising awareness on ICT issues and educating local non-governmental organisations (NGOs) and communities about ICTs and ICT-related issues from 2001 to 2005. Issues dealt with included e-government, internet rights, data security and telecentre management. USAID funded and assisted the Romanian Initiative for Information Technology, a know-how transfer project targeting policy-makers, legal system actors and telecentre developers, and the World Bank funded the eRomania Gateway initiative in an effort to stimulate a knowledge society.[6]

In 2005, Romania ranked 44th out of 179 countries in a UN e-readiness report. The report describes five stages of e-government, each involving more citizen participation and more "networked presence". The first stage is "emerging presence", meaning passive online visibility, such as a static website; the second is "enhanced presence", with some interactivity involved; the third is the stage of "interactive presence", where two-way communication between an institutional entity and its client is enabled; the fourth stage is "transactional presence", where financial transactions are possible; and the fifth is the "networked presence" level, where all ICT services are integrated in a user-friendly manner (UN, 2005).

A case study we developed on e-government in environmental issues showed that Romanian environmental agencies are on the second level of e-government – few of them have reached the interactive level.

Nevertheless, e-government initiatives have become part of the mainstream ICT discourse in the country. Paying local taxes (a pilot project in most Romanian municipalities) and accessing public information on institutions' websites are common daily topics for the urban citizen, if not yet daily practices.

In October 2006 the ICT ministry published draft regulations on website standards for local and central governments and their agencies. This is an important regulatory step

towards better usability and accessibility for people with special needs. If implemented, the official sites will be easier to find, use and update.

Public discourse in Romania is marked by a strong tone of "technocratic developmentalism" (Thompson, 2004, p.11). The key message in the public arena is that ICTs enable a better economic, social and cultural environment for individuals and institutions, and that they are a tool for development. But while access- and skills-related issues are explicitly addressed, understanding processes and the power games involved in policy-development are not explicit. This includes debates concerning software alternatives and gender, ICTs and power.

Free and open source software (FOSS) is not part of the mainstream ICT discourse. On a professional programmers' community level there is intense developmental activity, organised into twelve Linux groups.[7] However, no visible initiative promotes FOSS in public administration and community development. In 2006 the Romanian Open Source and Free Software Initiative (ROSI) was founded to promote FOSS and bridge the fragmented Linux communities. ROSI is preparing to organise a conference in Romania in May 2007, and to start up a FOSS advocacy project.[8]

Gender mainstreaming is also absent from public ICT discourse in Romania. Non-profit initiatives aimed at women include events such as the 2006 Eclectic Tech Carnival,[9] "a carnival of exchanging computer-related skills, ideas and art, by women and for women." In 1997 Strawberrynet ran an Association for Progressive Communications (APC) women's networking project in Romania, providing basic emailing and networking skills and distributing modems to women's groups.

The internet is a new space for free expression in Romania, and ICTs are beginning to influence power. The presidential campaign in 2004 had a significant ICT base (e.g. SMS-campaign, blogs, electronic posters) which impacted on the young, urban, connected population (Manolea, 2005).

Participation

The information society is defined as a strategic goal by key governmental actors (MCTI, 2002). We have identified twelve major ICT players in Romania, and they can be divided into three categories: governmental agencies, business interest promoters and general public interest advocates.

Seven of the major ICT players (more than half) belong to the first category. Governmental agencies create, develop and monitor the regulatory framework of ICT activities. The four business interest-promoting associations identified are also strong and visible in the public space. Their websites are linked to the main governmental ICT portals and they are actively involved in the related policy-making processes, at both the national and international level. Although most business interest groups presented themselves as general public interest advocates, we could only identify one genuine public interest association: the Association for Technology and Internet (APTI).

The **Ministry of Communications and Information Technology** (MCTI)[10] is one of the most visible ICT policy actors in Romania. According to its website, the ministry's mission is to "create solid premises that will ensure the transition to the information society in Romania," and it defines its role as implementer of the government's ICT policy. Communications Minister Zsolt Nagy is a visible political personality and is seen as a "young technocrat". Strategic documents and ICT-related laws and regulations are posted on the MCTI website.

The **National Regulatory Authority for Communications** (ANRC)[11] is the institution entrusted with the implementation of the national policy. The ANRC aims to accomplish major objectives for the citizens' benefit, such as promoting competition, protecting the best interests of end-users and encouraging investment in infrastructure. It is responsible for guaranteeing access to universal service, and for protecting users' rights, such as privacy, consumer pricing transparency and special needs.

The **General Inspectorate for Communications and Information Technology** (IGCTI)[12] administers the radio frequency spectrum and operates three e-government services: e-guvernare (e-government), e-licitatie (e-procurement) and autorizatiiauto (car authorisations).[13] It has a user-friendly, professional website developed with EU funding.

The **National Institute for Research and Development in Informatics** (ICI)[14] is the national operator of the Romanian Computer Network for Research and Development (RNC). It has been a research and development unit in ICTs since 1970 and is the administrator, through the RNC, of the top-level domain .ro.

The **National Audiovisual Council** (CNA)[15] is a public, autonomous authority under the control of parliament. The Council was founded in 1992 in order to provide a legal framework for a competitive audiovisual market in Romania. It regulates content on TV and radio in order to protect consumers in general, and children in particular. It has advisory competence, but no right to legislative initiative.

The **Romanian Post**[16] is an important ICT player for rural and remote areas due to its well-rooted network of offices across Romania. The network, which is computerised, was extended to 436 offices in April 2006. Computerised postal offices offer online money transfer services for the general public, as well as traditional postal services.

The **National Radiocommunications Company** (SNR)[17] is shareholder-owned and one of the main providers of networks and electronic communication services in Romania. It is a leader in the broadcasting market. Separated from the state-owned post and telecom company in 1991, SNR owns the main telecommunications infrastructure built in Romania before 1989. This largely accounts for its prosperity as an ICT business. Its website is linked to the main government website, suggesting some level of recognition in its field.

The **Romanian Association for Audiovisual Communications** (ARCA)[18] represents the interests of Romanian broadcasters. ARCA is an extremely active association. It was involved in a working group set up by the CNA that developed a draft proposal for regulations concerning digital broadcasting. It also participated in public consultations on the review of the Television Without Frontiers Directive (TWFD) organised by the European Commission, as well as in a consultation process devoted to the new draft of the Audiovisual Media Services Directive in 2005.

The **Technology and Communications Association** (ATIC)[19] advocates for ICT policy laws and regulations at the national and international level. ATIC is a member of the World Information Technology Software Alliance (WITSA) and the Council of

European Professional Informatics Societies (CEPIS) and has a busy international conference schedule.

The **Romanian Association of Engineers in Telecommunications** (AITR)[20] is a membership organisation for the major telecommunications companies in Romania.

The **Romanian Association for the Electronic and Software Industry** (ARIES)[21] is a strong professional association lobbying for an enabling ICT environment. It is linked to the main government websites.

The **Romanian Association for Technology and Internet** (APTI) promotes internet rights, spam-free internet and progressive ICT regulations for businesses and civil society. Its members were involved in the USAID-funded Romanian Initiative for Technology and Internet (RITI) from 2003 to 2005 and contributed to ICT policy development through capacity-building and training, including a skills transfer programme for the newly-formed ANRC, training judges in cyberfraud and assisting telecentre managers with project management. APTI president Bogdan Manolea is an active promoter of internet rights in Europe and maintains a website and a blog on ICT legislation.[22]

The country's main ICT priorities were established in 2002 and reinforced by the new government in 2004. They highlighted four key areas in Romania: to increase economic competitiveness through ICTs; to consolidate the ICT industry; to increase institutional performance of the public administration through integrated ICT services; and to increase citizens' comfort. In order to achieve these developmental standards, MCTI established a set of strategic objectives to be attained by 2008. These included affordable and high quality telecommunications; access to broadband services; more employment opportunities for highly skilled job seekers in the new economy; better information facilities for citizens to facilitate social integration; and efficient, responsive public administration.[23]

ICT policy-making evolved quickly, pushed by the business community and pulled by the EU accession requirements. Between 2001 and 2005 an avalanche of legislative measures were adopted to comply with the EU legislation (e.g. 2001: e-signature; 2002: communication regulation, audiovisual regulation, e-commerce; 2003: universal access to e-services, e-data collection, e-procurement, e-payment system; 2004: e-data security, e-time stamp; 2005: finalising RomTelecom privatisation and initiating Romanian Mail

privatisation). The year 2006 was mainly dedicated to e-government and knowledge economy initiatives, such as e-tax payment pilot projects and the establishment of knowledge centres, co-funded by the World Bank.

Romanian involvement in the WSIS process was significant, in spite of weak public visibility in terms of an official online presence and the availability of WSIS-related strategic documents (no WSIS documents were found on key government websites and the WSIS-related website[24] did not work). In 2002 Romania hosted the Pan-European Regional Ministerial Conference (November 2002, Bucharest) to prepare for the WSIS Tunis meeting.

Conclusions

One finding of this report is that there have been dynamic and positive changes towards transparent ICT policy-making in Romania. However, there remains work to be done in key areas.

While government and business are actively involved in shaping and developing ICT policy, civil society is poorly represented. Perhaps as a result, a technocratic rather than a developmental discourse prevails. For example, gender and open source issues are totally invisible in official public discourse.

While governmental ICT players' roles and responsibilities were legally redefined and clarified throughout 2002 to 2005 (in line with the EU's directives and requirements), administrative procedures and mechanisms are unclear to the public. Policies and procedures that are clearly defined should theoretically be publicly available on government websites. However, this is not always the case. For instance, the MCTI website has a number of broken links, making key documents unavailable, such as the national strategy on the information society. This amounts to a disempowerment of citizens.

As far as internet governance goes, the administration and management of the top-level domain .ro is also not transparent (several attempts by the authors to clarify the issue failed). This remains a serious concern.

Future ICT policy priorities for Romania should include promoting active civil society involvement and bottom-up consultation in the ICT policy process, and stimulating public awareness on ICT policy issues.

References

Georgescu, D.C. (2006). *Comunicaţiile electronice în România: dinamismul serviciilor e întrecut doar de diversitatea tehnologiilor* [online] . Bucharest: ANRC. www.anrc.ro

Glodeanu, I., Hoffman, O. (2003). *Noii actori sociali în promovarea tehnologiilor informatice şi de coumunicare spre SCI-SI* [online]. Bucharest: Sociology Institute, Romanian Academy. www.acad.ro

Manolea, B. (2005). Libertatea de exprimare şi Internet-ul. Aspecte practice în România 2002-2004 [online]. Blogpost. legi-internet.ro

MCTI (Ministry of Communications and Information Technology) (2002). *National Strategy of the New Economy and the Implementation of the Information Society*. Bucharest: MCTI.

MCTI (2003). Raport de evaluare a stadiului de dezvoltare a Societăţii Informaţionale în România. Bucharest: MCTI.

Meso, P., Checchi, R.M., Sevcik, G.R., Loch, K.D. (2006). "Knowledge Spheres and the Diffusion of IT Policies". Electronic Journal of Information Systems in Developing Countries [online], 23 (3), pp.1-16. www.ejisdc.com

Petac, E., Petac, D. (2003). "An Analysis of ICT Policy and Strategies in Romania in European Context". Roedunet conference [online], June 2003. Available from: 193.226.6.174

Thompson, M. (2004). "ICT, Power and Developmental Discourse: a Critical Analysis". Electronic Journal of Information Systems in Developing Countries [online], 20 (4), pp.1-25. www.ejisdc.org

UN (2005). Global e-Government Readiness Report. From e-Government to e-Inclusion 2005 [online]. New York: UN. www.unpan.org

UN (2006). e-Readiness assessment report for 2005. www.is.gov.ba

Notes

[1] apti.ro

[2] The project documents are available from: www.worldbank.org.ro/external/default/main?menuPK=287326&theSitePK=275154&pagePK=64027221&piPK=64027220&Projectid=P088165

[3] www.roedu.net

[4] Romania is divided into 41 judeţes (counties) and one municipality

[5] euro200.edu.ro

[6] www.riti-internews.ro, www.rogateway.org

[7] wiki.lug.ro/mediawiki/index.php/Pagina_principal_

[8] www.eliberatica.ro

[9] www.eclectictechcarnival.org

[10] www.mcti.ro

[11] www.anrc.ro

[12] www.igti.ro

[13] www.e-guvernare.ro, www.e-licitatie.ro, www.autorizatiiauto.ro

[14] www.ici.ro

[15] www.cna.ro

[16] www.posta-romana.ro

[17] www.snr.ro

[18] www.audiovizual.ro

[19] www.atic.ro

[20] www.aitr.ro

[21] www.aries.ro

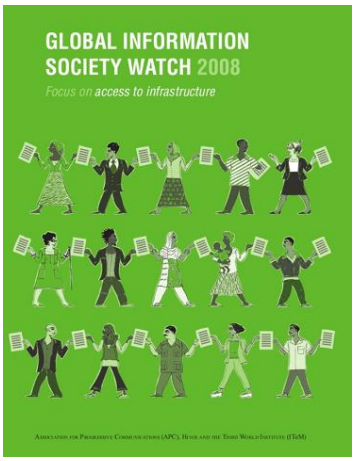
[22] www.legi-internet.ro, www.legi-internet.ro/blogs

[23] While an interministerial task force, the Group for Promoting the Information Technology (GPIT), was established in March 2001 to develop Romania's information society strategy and to coordinate major players' legislative actions, analysts say the task force no longer exists. Some analysts also dismiss the notion that anything like a comprehensive government ICT strategy exists. They say any claim to the contrary amounts to window dressing.

[24] www.wsis-romania.ro

GLOBAL INFORMATION SOCIETY WATCH 2008

ACCESS TO INFRASTRUCTURE



Global Information Society Watch 2008[2] is the second in a series of yearly reports critically covering the state of the information society from the perspectives of civil society organisations across the world. Global Information Society Watch or GISWatch has three interrelated goals:

- Surveying the state of information and communications technology (ICT)
- policy at the local and global levels
- Encouraging critical debate
- Strengthening networking and advocacy for a just, inclusive information society.

Each year the report focuses on a particular theme. GISWatch 2008 focuses on access to infrastructure and includes several thematic reports dealing with key access issues, an analysis of where global institutions stand on the access debate, a report looking at the state of indicators and access, six regional reports and 38 country reports.

GISWatch 2008 is a joint initiative of the Association for Progressive Communications (APC), the Humanist Institute for Cooperation with Developing Countries (Hivos) and the Third World Institute (ITeM).

[2] https://giswatch.org/2008-access-infrastructure

ACCESS TO ICT INFRASTRUCTURE: GAPS AND STEPS

Introduction

This report focuses on two issues: access to information and communications technologies (ICTs) in Romania, and the legal and policy context shaping ICT access. Building on the GISW 2007 country report conclusions,[1] we found these issues the most pressing, and therefore the most useful to assess. A key assumption was that the ICT sector in Romania had improved in terms of dynamic development, increased visibility, and funding opportunities due to European Union (EU) accession. The report was compiled through desk research and empirical analysis (participant observation at major ICT events and interviews with key actors, during May-June 2008).

The Romanian ICT sector registered a market value above EUR 7 billion in 2008, making a 10% contribution to the country's gross domestic product (GDP).[2] The sector has attracted substantial investments, high quality human resources and public prestige (Baltac, 2008).

Romania's EU membership since January 2007 has facilitated access to structural funds for ICT development. Public and private partnerships have strengthened in ICT policy-making processes and infrastructural investments: a well-organised and vocal business advocacy drive acted as a catalyst for ICT development initiatives. At the same time, civil society actors' involvement became more visible: the 2008 eLiberatica Conference[3] on free and open source software attracted more public attention than in 2007, and a well-publicised internet education project was implemented during 2007 and 2008 by the Center for Independent Journalism (CJI)[4] and the Association for Technology and Internet (APTI).[5]

The main factors affecting ICT use negatively, according to interviewed media, law and ICT actors, was the lack of practical education, an unsettled regulatory framework and poor self-regulation when it comes to content, both at the individual and institutional

level.[6] Infrastructural access, and geographic-, gender- and age-divide issues were not part of mainstream ICT discourse in Romania.

ICT Access in Romania

The dynamic ICT development from 2002 to 2007, driven by EU accession requirements and pushed by the business community,[7] had broader benefits for individuals, organisations and society at large. A visible process of digital inclusion took off, funded by public and private actors. Major funders of ICT development projects and programmes in Romania were the EU, the World Bank, the United States Agency for International Development (USAID), the Center for International Private Enterprise (a non-profit affiliate of the US Chamber of Commerce) and the Ministries of ICT and Education. Western organisations acted as role models in Romania, with a louder voice in the business sector (Bakó, 2007).

Infrastructural access to ICT improved substantially: telephony and internet services penetrated even remote communities – this due to the implementation of a universal service directive in 2004 (Manolea, 2008). Under EU accession pressures, the telecommunications market was liberalised from 1 January 2003. In four years, competing fixed-telephony service providers secured a 28.7% market share, as shown in Table 1.

Table 1: Fixed-telephony market structure (2004-2007)

Indicator	31 Dec 2004	31 Dec 2005	31 Dec 2006	31 Dec 2007
Market share of incumbent operator (%)	98.9	90.3	80.6	71.3
Market share of competing providers (%)	1.1	9.7	19.4	28.7

Source: www.anrcti.ro

The fixed-telephony penetration rate was 19.8% on 31 December 2007, according to regulatory authorities (ANRCTI, 2008), compared to a 90.5% penetration rate for mobile telephony (Secmerean, 2008).

Access to internet services experienced constant growth from 2005 to 2007, in terms of an increase in internet service providers (ISPs) and better quality services. In two and a half years, the number of ISPs almost doubled, as shown in Table 2.

Table 2: ISPs in Romania (2005-2007)						
Indicator	30 June 2005	31 Dec 2005	30 June 2006	31 Dec 2006	30 June 2007	31 Dec 2007
No. of ISPs	692	981	1,154	1,412	1,389	1,338
Source: www.anrcti.ro						

The internet penetration rate has increased steadily, from 5.5% in 2005 to 26.9% in 2007. It is still low compared to other EU member states, but the growth rate is substantial, as shown in Table 3.

Table 3: Growth in internet penetration rate in Romania (2005-2007)						
Indicator	30 June 2005	31 Dec 2005	30 June 2006	31 Dec 2006	30 June 2007	31 Dec 2007
Total access (%)	5.5	8.5	11.7	15.3	21.0	26.9
Broadband (%)	2.4	3.5	5.5	8.2	10.8	14.8
Source: www.anrcti.ro						

As for the dedicated broadband internet penetration rate, compared to other EU member states, Romania ranked amongst the lowest third, as shown in Table 4.

Table 4: Dedicated internet broadband penetration rates in the EU, at 31 December 2007				
Country	Denmark (high)	Bulgaria (low)	EU-27	Romania
Indicator %	36.6	7.6	20.0	9.9
Source: www.anrcti.ro				

The most far-reaching digital inclusion programme in Romania is the Knowledge Economy Project. It was started by the Ministry of Communications and Information Technology (MCTI) in partnership with the Ministries of the Interior and Education, and is funded by the World Bank (2006-2010). The total amount of funds allocated to this initiative is USD 70 billion.[8] An important component of the programme is the creation of 200 so-called Knowledge Centres in small, disconnected communities across Romania. The next step in the programme involves targeting small business communities and local

authorities and encouraging them to set up business-to-business (B2B) and business-to-consumer (B2C) relationships.

Another important governmental initiative was presented at the free and open source software (FOSS) conference eLiberatica: the development of open ID in Romania (Teodorescu, 2008). The MCTI is negotiating with major telephony operators and commercial banks to get involved in providing digital identity for Romanian citizens. This would offer easy, safe and affordable access to electronic services provided by governmental agencies and businesses.

ICT businesses in Romania make a well-organised, articulate, and vocal community. The sector attracts expertise, attention, resources and prestige, interviewed experts said. Key ICT business players are organised informally in a lobby group (Tech 21 Coalition), which monitors laws and regulations in the ICT sector and raises its voice for members.

Open source communities have also strengthened their voices. The Romanian Open Source Initiative,[9] a non-governmental organisation (NGO) created in 2007, organised two conferences aimed at mainstreaming FOSS for businesses, government, users and developers. The first eLiberatica Conference (2007) focused on general issues relating to FOSS, with participants from the open source business community (e.g., IBM, Sun Microsystems, eZ, Mozilla Foundation, Gartner) and high-profile developers from the international FOSS scene. The second conference reached a broader audience, including businesses, government officials, media, and international and local developers.

Romania's EU membership (from 1 January 2007) opened up access to structural funds for ICT development. The total amount of money dedicated to strengthening the sector is EUR 559 billion, with an EU contribution of 68.5%, and co-funding from the public and the private sector, as shown in Table 5.

Table 5: EU structural funds for Romanian ICT development (2007-2013)

Total amount (EUR)	EU contribution	Public co-funding	Private co-funding
559 billion	383 billion	86 billion	90 billion

Source: www.mcti.ro

The EU funding is targeted at three main areas: developing ICT use, strengthening electronic services, and sustaining the e-economy, with a more substantial resource allocation to ICT use, as illustrated in Table 6.

Table 6: EU structural funds allocation priorities for Romanian ICT development			
Total amount (EUR)	**ICT use**	**Electronic services**	**E-economy**
383 billion	149 billion	119 billion	115 billion
Source: www.mcti.ro			

The developmental objectives of the structural funds were clearly set for each field, according to specific country needs:

- Projects aimed at better ICT use should facilitate broadband access for small, disconnected communities and for schools.
- Projects aimed at developing electronic services should focus on e-government, improve the interoperability of electronic systems and look at e-learning and e-health applications.
- Projects promoting the e-economy are expected to produce electronic systems for efficient business management and for B2B operations management (e.g. e-payment, e-commerce, e-tenders).

There is increasing public attention on ICTs in education. Education and media experts found ICT-related education too theoretical and knowledge-based, rather than skills-oriented (Baltac, 2008; Avădani, 2008). High schools and universities are focused on developing sophisticated programming skills, whereas the proficient, ethical and data-sensitive use of the internet is not on the "digital immigrant" educators' agenda (Prensky, 2006).

There is a lack of gender and FOSS mainstreaming in official ICT discourse. Government representatives challenged at eLiberatica 2008 on poor FOSS visibility in public discussions declared defensively that the neutrality principle does not allow them to promote either proprietary or free software solutions.

Legal and Regulatory Framework

The strengths and weaknesses of ICT policy in Romania are connected to EU accession pressures, market development trends and regulatory institutions' lack of capacity (Manolea, 2008). The sector's main strengths, according to Manolea, are substantial efforts made to catch up with EU legislation dealing with liberalisation and a simplification of the authorisation processes for ICT businesses. The main weaknesses concern legislative and functional instability. Legislative instability is a result of too quick and unprepared an alignment with EU legislation, which did not consider the specific country regulatory framework. As a result, an avalanche of ICT-related laws were issued by the government, skipping any consultation process (Manolea, 2008). Functional instability refers to an unclear and unsettled regulatory framework which makes it difficult for government stakeholders to do their work.

Personal data protection and right to privacy issues are expected to raise debates and concerns due to the boom in e-commerce (Jugastru, 2008). Although they copy the EU directives on the matter, the laws and regulations adopted in Romania are problematic: those dealing with personal data storage are too weakly justified, others dealing with control mechanisms for safe data storage are not clearly set, and guarantees for protecting personal information are not sufficient.

A World Bank-supported project for South East Europe funded the creation of a CD-ROM on ICT-related public policies in Romania, targeted at the ICT business sector. The state secretary at the MCTI declared at the launch that Romania could become a leader in the ICT field in the region, and a role model to other countries (MCTI, 2008).

Developing responsible communication practices on the internet was an important issue mainstreamed by civil society actors, particularly the Center for Independent Journalism and the Association for Technology and Internet. Education and self-regulation are seen as the best ways to reach this goal, according to one media expert (Avădani, 2008). Governmental authorities should not intervene to limit internet content; instead, individual and institutional actors should be educated towards self-regulatory practices (CJI, 2008).

To conclude, there is an increase in awareness and more frequent discussions on ICT policy issues amongst professional and institutional actors in Romania. The fact that eight

Romanian law and ICT experts recently contributed to a book on the information society in Europe, focusing on ICT policy (Péron, 2008), is significant proof of this.

Action Steps

Two keywords highlight priorities in terms of ICT access and policy: *education* and *participation*. They are interconnected and refer to both issues analysed in this report.

Education is an important catalyst for strategic ICT use: universities have to develop their ICT curricula with a more practical approach that focuses on skills rather than theoretical knowledge (Baltac, 2008). It is also necessary to educate wider audiences (citizens and organisations) so that they can properly benefit from the information society (Brad, 2008).

Civil society actors should get involved in educating young people about the internet in terms of using it more professionally, and issues such as personal data protection (Avădani, 2008).

Strengthening partnerships and adopting a multi-stakeholder approach to ICT development is a must in order to enable inclusive and transparent regulatory processes, ICT policy experts believe (Manolea, 2008; Jugastru, 2008).

More effort should be made to encourage FOSS and gender mainstreaming in Romania, and civil society organisations and governmental actors should be systematically involved in this process.

Finally, ICT policy in Romania needs a more settled regulatory framework, more transparency and more public participation.

References

ANRCTI (Autoritatea Națională pentru Reglementare în Comunicatii și Tehnologia Informației) (2007) *Piața de comunicații electronice din România*.
Available at:www.anrcti.ro

Association for Technology and Internet (APTI): www.apti.ro

Avădani, I. (2008) De la non-reglementare către auto-reglementare pe Internet. Presentation at the CJI workshop *Bune practici în comunicarea pe Internetul românesc*,Bucharest, 19 June.

Bakó, R. (2007) Information Society Discourse in Romania: Role Modeling Western Factors. *Electronic Journal of Radical Organization Theory*.
Available at:
www.mngt.waikato.ac.nz/ejrot/cmsconference/2007/proceedings/criticalviewsacrosscultures/proceedings_criticalviewsacrosscultures.asp

Baltac, V. (2008) Universities and the Information Society. In Péron, F. (ed.), *L'Europe dans la societé de l'information*. Brussels: Larcier, pp.205-214.

Brad, R. (2008) Un seul réseau de communication – un seul monde – un internet. In Péron, F. (ed.), *L'Europe dans la societé de l'information*. Brussels: Larcier, pp.29-36.

CJI (Centrul pentru Jurnalism Independent) (2008) *Bune practici în comunicarea pe Internetul românesc*.www.cji.ro/articol.php?article=440

eLiberatica:www.eliberatica.ro

Finantare.ro:www.finantare.ro

Jugastru, C. (2008) La protection des données personnelles et le commerce électronique – la situation en droit roumain. In Péron, F. (ed.),*L'Europe dans la societé de l'information*. Brussels: Larcier, pp.185-204.

Manolea, B. (2008) Réglementation des communications en Roumanie – peut-on parler d'un succes? In Péron, F. (ed.), *L'Europe dans la societé de l'information*. Brussels: Larcier, pp.37-56.

MCTI (Ministry of Communications and Information Technology) (2008) *Sectorul IT&C romanesc promovat ca exemplu de buna practica în regiunea Europei de Sud-Est*.Available at: www.mcti.ro

Péron, F. (ed.) (2008)*L'Europe dans la societé de l'information*. Brussels: Larcier.

Prensky, M. (2006) Listen to the Natives.*Educational Leadership*,63(4), pp. 8-13.

Secmerean, E. (2008) Rata de penetrare a telefoniei mobile, 108%. *Business Standard*, 11 March.
Available at:www.standard.ro/articol_34059/rata_de_penetrare_a_telefoniei_mobile__108.html

Teodorescu, C. (2008) For the First Time in Europe: Digital ID Providers and OpenID Services for Romania . Presentation at the eLiberatica Conference, Bucharest, 29-31 May.

Notes

[1] www.globaliswatch.org/node/3445

[2] Ministry of Communications and Information Technology (MCTI): www.mcti.ro

[3] www.eliberatica.ro

[4] www.cji.ro

[5] www.apti.ro

[6] User-generated content needs self-regulation rather than institutional intervention, which would limit free speech.

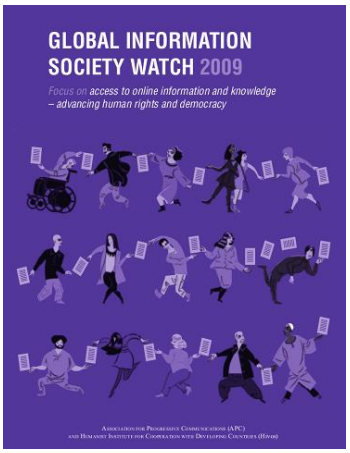
[7] See GISW 2007.

[8] Finantare.ro:www.finantare.ro

[9] www.rosi.ro

GLOBAL INFORMATION SOCIETY WATCH 2009

ACCESS TO ONLINE INFORMATION AND KNOWLEDGE



Global Information Society Watch (GISWatch) 2009[3] is the third in a series of yearly reports critically covering the state of the information society from the perspectives of civil society organisations across the world. GISWatch has three interrelated goals:

- Surveying the state of the field of information and communications technology (ICT) policy at the local and global levels
- Encouraging critical debate
- Strengthening networking and advocacy for a just, inclusive information society.

Each year the report focuses on a particular theme. GISWatch 2009 focuses on access to online information and knowledge – advancing human rights and democracy. It includes several thematic reports dealing with key issues in the field, as well as an institutional overview and a reflection on indicators that track access to information and knowledge. There is also an innovative section on visual mapping of global rights and political crises. In addition, 48 country reports analyse the status of access to online information and knowledge in countries as diverse as the Democratic Republic of Congo, Mexico, Switzerland and Kazakhstan, while six regional overviews offer a bird's eye perspective on regional trends. GISWatch is a joint initiative of the Association for Progressive Communications (APC) and the Humanist Institute for Cooperation with Developing Countries (Hivos).

[3] https://giswatch.org/2009-access-online-information-and-knowledge

ONLINE INFORMATION AND THE KNOWLEDGE ECONOMY

Introduction

European Union (EU) membership since 1 January 2007 has shaped Romanian regulatory practices concerning access to online information. A process of aligning to EU legislation (2000-2007) catalysed country efforts to create a more transparent policy environment for information and communications technologies (ICTs). The four pillars of ICT development have strengthened unevenly during this process: while access to appropriate infrastructure and affordable internet connectivity showed positive trends, the ability to use ICTs and *the availability of useful content* maintained a digital divide[1] among individuals and communities across Romania.

Romania ranked 58th out of 134 countries for networked readiness, according to the latest World Economic Forum report,[2] scoring slightly better in the ICT use (52nd) and ICT readiness (55th) components, but significantly worse in the ICT environment[3] component (66th). Unsettled policy-making practices and poor education expenditure, which were part of the ICT environment indicators, placed Romania in the lower half of the list. The broadband penetration rate at 31 December 2008 was only 11.65 connections per 100 inhabitants,[4] while public discourse highlighted the "six million Romanian internet users" as a success story.

This analysis focuses on national programmes aimed at facilitating access to online information: e-government, a knowledge economy project, an e-learning system and innovative ICT initiatives developed to fight corruption. The report was compiled through desk research and empirical analysis.[5]

Policy Environment

A Romanian think tank reported a "post-accession political hangover"[6] related to dysfunctions of democracy in the region. In Central and Eastern European countries,

populist electoral gains, political radicalisation, weak parliamentary majorities, factional behaviour and misconduct of political elites were the symptoms of a backlash in policy-making processes after EU accession. Power shifts in 2008[7] also brought about institutional changes concerning ICT policy in Romania: the communications ministry was renamed (from the Ministry of Communications and Information Technology to the Ministry of Communications and Information Society, suggesting perhaps a change of vision), and the national authority for regulating communications was re-established and renamed,[8] due to leadership issues and a lack of clarity concerning its mission and attributions.

ICT policy has attracted little public attention[9] in Romania: the complex regulatory framework imposed by EU accession requirements from 2000 to 2007 was considered a matter for ICT specialists and institutional actors directly involved, rather than a broader topic for debate for legal experts, economists and citizens. The avalanche of laws and regulations adopted was aimed at creating a proper market environment for business players and affordable access for end-users, both individuals and organisations.

Strategic goals formulated by the communications ministry[10] were aimed at developing a knowledge-based society through:

- Increased economic competitiveness through the use of the newest ICTs
- ICT industry development
- Increased institutional performance of public administration and easy access for citizens.

Tangible results promised by 2008 in the same policy document were: quality telecommunications at affordable prices; access to broadband services; investments in the "new economy" through better-paid jobs; and a more efficient, responsive public administration. The policy also promised extended information services that allow citizens better interaction and social integration.

The ICT policy environment in Romania has both strengths and weaknesses.[11] Strengths include the fast alignment to EU regulations from 2000 to 2007, simplified

regulations concerning market entry, and the "unusual transparency" of the telecommunications market regulatory authority. Weaknesses of the policy-making framework are related to the general lack of institutional capacity, an unsettled legislative environment and the poor planning practices of regulators.

Civil society is poorly represented and the policy-making process has a strong top-down orientation. Open source software solutions and gender mainstreaming are also completely absent from official public ICT discourse.

Legislative Environment

Romanian ICT-related laws and regulations were adopted under EU pressure to follow its general legislative framework. Advocacy by ICT businesses also helped shape a dynamic business environment, as presented in the Romania country report for GISWatch 2007.[12] Between 2001 and 2005 an avalanche of legislative measures were adopted to comply with EU legislation. These included legislation and regulations dealing with e-signatures (in 2001); general communications, audiovisuals and e-commerce (in 2002); universal access to electronic services, e-data collection, e-procurement and e-payment systems (in 2003); and e-data security and e-time stamps (in 2004). The privatisation of the incumbent RomTelecom, which started in 2003, was also finalised in 2005. These laws enabled a more competitive and transparent playing field for individuals, organisations and communities as ICT stakeholders. They also created the regulatory and infrastructural premises for developing the content side of the information society.

Access to online information has several legal aspects concerning transparency, privacy and accessibility. There are few laws and regulations related directly and explicitly to online content in Romania:

- Law 506/2004 concerning personal data processing in electronic communications prescribes several rights for internet and telephone users. These include the right to confidentiality of their personal data, the right to be informed of risks concerning the processing of their personal data, and the right to refuse to provide personal data to electronic communication service providers.

- Law 102/2005 establishes the Authority for Supervising Personal Data Processing and prescribes the competencies of this independent public entity to ensure the individual's right to privacy.
- Law 298/2008, concerning data retention, prescribes the obligation to store data generated or processed by electronic communication service providers and make it available to enable governmental entities to combat crime. This law has encountered strong criticism and concern from human rights activists and its implementation was still pending in June 2009 due to the lack of preparation of stakeholders to implement it properly.
- In April 2008 the communications ministry launched guidelines concerning web page standards for public authorities[13] for comment. In June 2009, however, we could not retrieve the text of the guide on the ministry's website, nor information concerning the status of the proposal. Instead we consulted the guide (and the rest of the ICT-related legal framework) on a website developed by a dedicated group of ICT policy experts.[14] The guidelines refer to internationally accepted standards for web usability, accessibility and design. If implemented on a national scale, the quality of online content posted on public authorities' websites will increase significantly.

Access to Online Information: Mainstream and Innovative Initiatives

The government is the key player in facilitating and developing access to online information, serving multiple roles: *as a regulator*, it creates the normative framework of rights and responsibilities for electronic service providers and users, as presented in the policy/legislative section above; *as a funder*, the Romanian communications ministry channels World Bank loans and EU funds for e-government, e-learning and e-community building; and it also acts *as an implementer* of these programmes.

E-Government

The Romanian e-government programme is a complex and long-term initiative aimed at developing transparent and easily accessible online access to public services, following the regulatory framework set by European Commission Service Directive

2006/123/CE. Key components of the Romanian programme are the National Electronic System, which offers dedicated and unified access to e-government services, and the Electronic System for Public Procurement,[15] a set of interactive and transactional services established to facilitate 20% of public acquisitions.

According to Law 161/2003 dealing with measures to ensure transparency and prevent corruption, the National Electronic System was established as a common platform for the development of the e-government sector in Romania. The ministry developed a holistic approach to ICT-enabled public sector governance, envisioning public service agencies working across portfolio boundaries, under the supervision of a specially created governmental entity: the Agency for Information Society Services. All e-government services are coordinated from an "electronic point of single contact" through the www.e-guvernare.ro portal, as requested by the EU Service Directive.

We analysed e-government readiness in Romania according to the five-stages framework developed by the United Nations[16] that views e-government as a multi-stakeholder interaction between government, businesses and the citizen:

(1) *Emerging presence* means the information available is limited and basic. The government's online presence comprises a web page. Links to organisations/departments and regional/local government may exist. Some archived information, such as speeches or official documents may also be available online. Most information remains static with few interactive options for citizens.

(2) *Enhanced presence* is the stage in which the government provides greater access to policy and legislative documents. Reports and newsletters, amongst other types of content, are downloadable. The user can search for a document and help features including a site map are provided. Interaction is still primarily unidirectional with information flowing from the government to the citizen.

(3) *Interactive presence* is the stage in which citizens can find downloadable forms for things like tax payments, or applications for licence renewal. Audio and video capability is available for relevant public information. Contact details are online for government officials to be contacted via email, fax, telephone and post. The site is updated to keep the public up to date.

(4) *Transactional presence* is the stage that allows two-way interaction between the citizen and government. It includes options such as paying taxes, applying for identity cards, birth certificates and passports, and renewing licences online. Online payments are possible. Providers of goods and services are also able to bid online for public contracts via secure links.

(5) *Networked presence* is the most advanced level in e-government development. The government encourages participatory decision making in a two-way dialogue. Interactive features such as an online comment form and other online consultation mechanisms enable the government to proactively solicit citizens' views on public policy and law making. In this stage the public sector agencies cooperate in a well-integrated and participatory manner.

We analysed a convenience sample of 40 websites for city halls, county councils and communes across Romania according to the UN framework, specifically looking at the online content provided. As many as 3,896 organisations – mostly governmental entities – were registered by June 2009 in the National Electronic System.[17] They provided contact data and – most of them – links to their websites. There are strong horizontal (geographical) and vertical (hierarchical) disparities among these websites: while municipalities have more content and better design, smaller localities (towns and communes) and, surprisingly, some county councils provide scarce information and poor website architecture in terms of accessibility and usability. Most of the municipalities' websites analysed are in the interactive stage of e-government, in transition to the transactional stage, whereas disconnected communities from poorer areas and smaller localities are in the enhanced web presence stage at best.

Knowledge-Based Economy Project

The Knowledge-based Economy Project is aimed at promoting the digital inclusion of 255 disconnected communities across Romania with a substantial loan of USD 60 million from the World Bank. The project is intended to be part of the national e-government strategy. Beyond infrastructural investments in knowledge centres, the

project implementation unit (part of the communications ministry) facilitates online communication among target communities. As part of this project, the eComunitate portal[18] is a collection of websites offering a range of information and services online, including the ability to interact with other communities. The portal is well designed and user-friendly, providing Web 2.0 tools for enhanced interaction, including blogs, wikis, forums and RSS feeds. Online community content is structured in thematic categories: social, education, culture, history, tourism, traditions, venue, local strategies, projects and businesses.

Advanced E-Learning Educational Project (AEL)

The Advanced e-Learning educational project (AeL) is a public-private partnership developed by the Romanian Ministry for Education and the Siveco IT company.[19] The project has been providing modern online teaching facilities for 4,780 Romanian schools since 2005.[20] Electronic content is structured according to subject, offering more than 500 lessons on literature, mathematics, computer science, physics, chemistry, biology, geography, history, economics, technology and psychology. The project has attracted criticism from the open source community because it is implemented using proprietary software solutions.

Other Initiatives

At a recent free and open source software (FOSS) conference called eLiberatica, the former communications ministry state secretary presented an innovative open source application: a queue register.[21] The purpose of the application is to provide citizens and organisations a simple and transparent technical solution to the online registration of any transaction where the order of registration is important. The benefit of implementation would be stakeholders' access to virtual queue information in order to avoid favouritism.

An important, yet poorly publicised success story is the Jurindex initiative. Launched in spring 2009, it is an official programme of the Superior Council of Magistracy that aims to publish all court decisions in their original form online. Access to these documents will

be free. Beyond contributing to a more transparent judiciary system, Jurindex enables stakeholders to monitor court cases in a reliable and user-friendly manner.[22]

Emerging Trends in Access to Online Information

According to a regulatory authority assessment, we can expect dynamic changes in local content creation given the growth in broadband penetration. "As internet access, data transmission services and content applications increase their share in the operators' revenues, the content providers, including websites, portals and audiovisual programme services will have a significant impact on market dynamics. In turn, the development of local content will boost the growth of broadband penetration."[23]

Open source groups are preparing to create a lobby organisation to advocate for affordable ICT solutions in Romania, according to eLiberatica and ICT activists. A louder voice for the open source community could foster meaningful content creation through promoting more accessible and customised applications.

The social media boom is an ongoing process entailing digital inclusion, citizen participation and civic involvement through bottom-up online content development. A fast-growing blogger community and media convergence trends[24] create a "fifth power" (or "fifth estate"): an accessible space for autonomous voices.[25]

Action Steps

Access to online information follows a top-down dissemination model, as shown in the projects analysed. Few grassroots initiatives have attracted public attention and support. Bottom-up initiatives should be encouraged through funding, skills transfer and networking support in order to enable citizen participation in shaping and developing local content.

Free and open source solutions should be given more attention by government and business stakeholders to encourage sustainable and inclusive access to online information.[26]

Technologies are far more advanced than information dissemination practices in the country. In order to develop a transparent, participatory society, government initiatives and a business community drive have to be backed up by increased civic involvement of opinion leaders, action groups and civil society organisations.

References

[1] Baltac, V. (2008) Universities and the Information Society, in Péron, F. (ed.), *L'Europe dans la société de l'information,* Larcier, Brussels, p. 208.

[2] World Economic Forum (2009) *The Global Information Technology Report 2008-2009*.www.insead.edu/v1/gitr/wef/main/fullreport/index.html

[3] Broadly conceptualised to include a range of social, economic and political factors.

[4] ANCOM (2008) *Raport date statistice comunicaţii electronice,* National Authority for Management and Regulation in Communications, Bucharest, p. 63.

[5] Valuable information was collected at the free and open source software (FOSS) conference eLiberatica. www.eliberatica.ro/2009/index

[6] Romanian Academic Society (2008) *SAR Annual Report 2008,* p. 4. www.sar.org.ro/files/Policy%20memo29-en.pdf

[7] A centre-right coalition (2004-2008) was displaced by a centre-left coalition in December 2008.

[8] The National Authority for Regulating Communications, created in 2002, was later turned into the National Authority for Regulating Communications and Information Technology, then renamed and restructured as the National Authority for Communications in September 2008, and since March 2009, as the National Authority for Management and Regulation in Communications.

[9] Manolea, B. (2008) Réglementation des communications en Roumanie, in Péron, F. (ed.), *L'Europe dans la société de l'information,*Larcier, Brussels, p. 37.

[10] Ministerul Comunicaţiilor şi Tehnologiei Informaţiei (2005) *Politica Guvernului României în domeniul tehnologiei informaţiei şi comunicaţiilor*. www.mcti.ro/index.php?id=55&L=0

[11] Manolea, B. (2008) op. cit., p. 42-51.

[12] www.giswatch.org/files/pdf/GISW_Countries.pdf

[13] www.mcti.ro/index.php?id=28&lege=1440&L=0

[14] www.legi-internet.ro/legislatie-itc.html

[15] Somodi, Z. (2008) *eGovernment Readiness*,Ministry of Communications and Information Technology, Bucharest. www.mcti.ro/index.php?id=48&L=0

[16] United Nations (2005) *Global E-Government Readiness Report,* p. 16.

[17] www.e-guvernare.ro/Default.aspx?LangID=4

[18] www.ecomunitate.ro

[19] The company is considered by the media and competitors to be the subject of favouritism. See: www.capital.ro/articol/link-de-300-mil-euro-la-licitatiile-pentru-it-din-scoli-111522.html

[20] advancedelearning.com/index.php/articles/c3

[21] Teodorescu, C. (2009) National Unique Queue Register can fight against corruption,paper presented at the eLiberatica conference, Bucharest, 23 May. www.eliberatica.ro/2009/conference/schedule

[22] www.jurisprudenta.org/MainSearch.aspx

[23] ANRCTI (2007) *Position Paper on the Regulatory Strategy for the Romanian Electronic Communications Sector for 2007-2010*, p. 39-40.

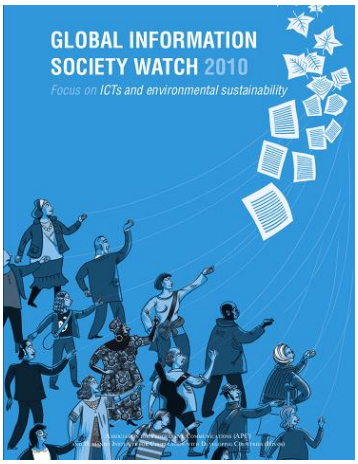
[24] Comănescu, I. (2007) *Presa electronică românească, între producţia de ştiri de tip clasic şi specificităţile de tip Web 2.0,* Centrul pentru Jurnalism Independent, Bucharest. www.cji.ro/categ.php?categ=publicatii

[25] Chiruţă, R. (2007) „Blogul, a cincea putere în stat“, *România Liberă*, 19 April. www.romanialibera.ro/a92821/blogul-a-cincea-putere-in-stat.html

[26] Savluc, L. (2009) My official position – The Romanian government is about to spend millions of euro on proprietary software..., 27 May. www.cianblog.com

GLOBAL INFORMATION SOCIETY WATCH 2010

ICTS AND ENVIRONMENTAL SUSTAINABILITY



Global Information Society Watch 2010[4] investigates the impact that information and communications technologies (ICTs) have on the environment – both good and bad. Written from a civil society perspective, GISWatch 2010 covers some 50 countries and six regions, with the key issues of ICTs and environmental sustainability, including climate change response and electronic waste (e-waste), explored in seven expert thematic reports. It also contains an institutional overview and a consideration of green indicators, as well as a mapping section offering a comparative analysis of "green" media spheres on the web. While supporting the positive role that technology can play in sustaining the environment, many of these reports challenge the perception that ICTs will automatically be a panacea for critical issues such as climate change – and argue that for technology to really benefit everyone, consumption and production patterns have to change. In order to build a sustainable future, it cannot be "business as usual". GISWatch 2010 is a rallying cry to electronics producers and consumers, policy makers and development organisations to pay urgent attention to the sustainability of the environment. It spells out the impact that the production, consumption and disposal of computers, mobile phones and other technology are having on the earth's natural resources, on political conflict and social rights, and the massive global carbon footprint produced. GIsWatch 2010 is the fourth in a series of yearly reports critically

[4] https://giswatch.org/2010-icts-and-environmental-sustainability

covering the state of the information society from the perspectives of civil society organisations across the world. GISWatch is a joint initiative of the Association for Progressive Communications (APC) and the Humanist Institute for Cooperation with Developing Countries (Hivos).

CLIMATE CHANGE AND ICTS: GAPS AND STEPS IN ROMANIA

Introduction

The relationship between information and communication technologies (ICTs) and the environment is a new issue that is emerging in international[1] and European Union (EU)[2] forums as a response to growing concern about climate change. Meanwhile, in Romanian public discourse, debates on information technology and the environment have followed separate threads. This report is an attempt to bridge the gap between the two areas.

Policy and Legislative Context

Romania has taken significant steps since the fall of the Communist regime in terms of aligning to European and international policy-making practices (1989–2009). Accession to the EU in 2007 imposed stricter standards and tighter regulations in all areas, including in fields like environmental protection and ICTs. Key ICT and environmental legislation was adopted during the EU accession process, in the form of national adaptations of EU directives.

According to expert assessment, there is coherent climate change legislation, a strategy and a detailed implementation plan in place in Romania, although it is lagging behind EU standards in terms of implementation. Climate change policy documents do not mention ICTs as tools of mitigation or adaptation, but refer to them implicitly as tools for risk management. Waste management has also been tightly regulated and largely publicised in Romania, but ICT-related electronic waste (ewaste) has attracted little public attention compared to large household appliances, research has shown.[3]

As far as the Romanian ICT legislative environment is concerned, the alignment process to EU regulations has been quick and efficient, due to a strong business drive, and to consistent funding targeted at knowledge transfer (e.g. egovernment, internet rights,

data security and telecentre management issues). The United States Agency for International Development (USAID) funded and assisted the Romanian Initiative for Information Technology, a knowledge transfer project targeting policy makers, legal system actors and telecentre developers, and the World Bank funded the eRomania Gateway initiative in order to empower knowledge society developers.[4]

However, there are several gaps concerning the overall Romanian policy-making process: a lack of legislative stability, misconduct of political elites, poor institutional capacity, a low level of public awareness on policy-making issues, and a low level of public participation in decision-making processes. Power and inequality are culturally embedded in Romanian society: people often take leaders' decisions for granted[5] and consider participation as risk taking.

Climate Change Policy

A climate change and ewaste policy scan completed in September 2009 highlighted the main laws and regulations issued by the Romanian Ministry of Environment after the fall of the Communist regime (1989).[6] In terms of climate change policy, in 1992 Romania signed the UN Framework Convention on Climate Change (UNFCCC) and ratified it in 1994 (Law No. 24/1994). The Kyoto Protocol was adopted by Romania in 2001 (Law No. 3/2001). In 2005 the Romanian government adopted a decision approving the National Strategy on Climate Change for the 2005-2007 period (Government Decision No. 645/2005). Later that year a Strategic Plan for Climate Change 2005-2007 was adopted (Government Decision No. 1877/2005).

After EU accession (2007), a Ministerial Order (1170/2008) adopted the Guide on Adaptation to Climate Change Effects, with action steps and recommendations due to be revised every second year. The Guide has proposed several measures:

- Multi-annual research programme on adaptation to climate change effects
- Creation of a scientific interdisciplinary group in order to post-evaluate the research studies

- Updating of climate change scenarios in Romania by the National Administration of Meteorology
- Organisation of a national information campaign
- Integration of climate change coping strategies into environmental legislation and policy making.

Other national measures related to climate change have been Government Decision No. 780/2006, establishing a scheme for greenhouse gas emission allowance trading, and Emergency Governmental Ordinance No. 152/2005, concerning integrated pollution prevention and control.

Waste Management Policy

Waste management policy in Romania has two major documents: the National Strategy on Waste Management, and the National Plan on Waste Management. The first is a 50-page strategic document analysing policy issues in waste management, while the latter is more detailed and addresses operational issues. Both documents were elaborated in 2003 for the period 2003-2013. Although the Romanian waste management system follows EU standards in terms of policies and targets, it does not meet EU results: for example, the EU target for ewaste is 4 kg/person/year, while Romania collects less than 0.07 kg/person, environmental experts stated.

There are special legal provisions for ewaste and used batteries, but their implementation and enforcement have a long way to go. Good practices are visible though: there is a monthly national campaign for collecting ewaste, encouraging people to put old fridges, TV sets, washing machines and computers outside their houses, which the local waste management company then collects. Due to this campaign, the average amount collected in 2009 was almost 2% of the national target, experts estimated. Ewaste associations (the most visible being Ecotic) had an online media campaign in 2009 to advertise their services. In May-June 2010 a public awareness campaign, funded by ewaste management companies, called for photos and videos of ewaste, which it called "the monsters of your community".[7] The media campaign is backed by the Ministry of Environment and Forests – a good example of cooperation between civil society, business

organisations and the government. Perhaps as a result, research on ewaste-related attitudes and behaviours, conducted in Romanian urban areas, has shown positive trends in terms of a willingness to recycle dysfunctional appliances.[8] At the same time, however, 70% of the Romanian urban population surveyed is not aware of the laws and regulations related to ewaste.

ICT Policy

As far as ICT policy is concerned, from 2000 to 2007 Romanian legislative efforts have been driven both by EU accession requirements and a strong business lobby. As a result, visible efforts have been made concerning digital inclusion (see GISWatch country report 2007),[9] infrastructural investments (GISWatch country report 2008),[10] and modest results concerning the quality of online content provision (GISWatch country report 2009). 11

ICT policy priorities have been set by the Ministry of Communications and Information Society for the medium term in its strategic planning documents.[12] Three key policy areas have been identified: communications, information technologies and EU structural funds. Strategic documents do not address environmental issues. However, a Romanian ICT policy scan resulted in three documents which explicitly referred to environmental issues:

- The Ministry of Communications and Information Society's Strategic Plan for Universal Access states that implementing basic access to ICT services throughout the country will decrease urban agglomerations and serve environmental protection: lower pollution levels, a smaller gap between rural and urban areas and enhanced social cohesion.
- Government Decision No. 175/2004 concerning criteria of ecological labelling for laptops establishes the technical parameters and the information provision needed for a greener, low energy-consuming and more easily recyclable computer.

- Ordinance No. 125/2003 issued by the Ministry of Communications and Information Technology concerning the import and selling of mobile telephones prescribes the technical parameters of electromagnetic radiation in order to protect users' health.

Environmental Divide: What Does It Mean?

The policy scan has shown that key stakeholders in policy making – governmental agencies, business organisations and civil society activists – are not aware of the issues at stake; that is, the link between ICTs and environmental issues. Indicators for the environmental impact of ICTs are not publicly available, and are not even discussed at important public events: the main issues on the agenda of key ICT actors in 2009-2010 were egovernment, the eRomania project, EU funding, and cooperation between the government and IT companies. The lack of visibility of civil society organisations at major governmental ICT events and the dominance of major business players are striking elements of public ICT discourse in Romania, as already signalled in GISWatch country reports 2007, 2008 and 2009.

Key stakeholders for a future green ICT agenda, as assessed in September 2009 for the Romanian GreeningIT research plan,[13] include a wide range of organisations, groups and individuals. Governmental agencies in charge of planning and implementing environmental and ICT policies are the Ministry of Environment and the eight regional Environmental Protection Agencies, key governmental agents shaping and implementing environmental policies; and the Ministry of Communications and Information Society and parliamentary commission for ICTs, key governmental actors involved in ICT policy making. Environmental NGOs are the main actors pioneering, spreading and implementing innovative environmentally friendly models of thinking and acting. Opinion leaders act as role models, innovators, advocates and quick-links between NGOs and decision makers. Their high visibility within civil society and mainstream media enables a stronger outreach of role models in terms of greening ICTs. ICT and environmental experts, who are found across the different sectors, have a key role in providing high-quality, accurate input to the issues at stake.

New Trends

Romanian mainstream discourse does not address ICTs and environmental sustainability as connected issues. However, there are positive trends on both the ICT and environmental protection sides that show an intertwining and interaction of concerns. On the one hand, the environmental impact of ICTs gains visibility through mainstreaming ewaste issues; on the other hand, environmental organisations use ICT tools in order to promote their values and gather supporters.

An environmental index, the Green Business Index (GBI), was launched in 2010 by the Green Revolution Association. The indicator reflects the level of environmental responsibility within the Romanian business sector. The GBI will rank the top companies that demonstrate concern for the environment or natural resources and that invest in clean solutions and technologies.[14] The initiative also plans to produce a report showing the environmental footprint of the companies. The number of companies using environmental responsibility as criteria for self-evaluation shows a new approach to corporate social responsibility.

Action Steps

Environmental and ICT issues still evolve on separate tracks in Romania, though with visible signs of intertwining. In order to develop a green ICT agenda in the country, several steps are necessary:

- Key stakeholders should be educated in order to promote a green approach to ICTs and a clean-tech approach to the environment.
- A set of economic indicators should be publicly available in order to assess the environmental impact of ICT use, as proposed at the 4th Internet Government Forum (IGF).[15] These should include volumes of ICT exports and imports, employment rates in ICT-related industries, income generation in ICT-related industries, and impact of ICTs on efficiency. The IGF also proposes monitoring the availability of environmental content on the internet as a measure of the success of awareness-raising efforts.

- A set of environmental indicators should be developed in order to assess the impact of ICTs on the environment, and made publicly available.
- Primary research on ICTs and the environment should be encouraged through funding.
- Romanian ICT and environmental protection officials should be more actively involved in international discussions taking place at green ICT events.
- Civil society organisations should have a more active role in promoting the green ICT agenda, along with businesses and governmental agencies.

There is room for all: inclusion and participation should be the guiding principles of a responsible, clean, connected society in Romania.

References

[1] Maclean, D. and St. Arnaud, B. (2008) ICTs, Innovation and the Challenge of Climate Change, International Institute for Sustainable Development, p. 3. www.iisd.org/pdf/2008/ict_innovation_climate.pdf

[2] Forge, S., Blackman, C., Bohlin, E. and Cave, M. (2009) A Green Knowledge Society: An ICT policy agenda to 2015 for Europe's future knowledge society, SCF Associates Ltd., p. 2. ec.europa.eu/...society/eeurope/.../green_knowledge_society.pdf

[3] Daedalus, M. B. (2009) Echipamente electronice şi electrice existente în gospodării şi atitudinea populaţiei faţă de echipamentele electronice uzate, Ecotic. www.ecotic.ro

[4] Bakó, R. (2007) Romania, in Finlay, A. (ed.) Global Information Society Watch 2007, p. 195. www.giswatch.org/gisw2007/en/download

[5] Heidrich, B. (2001) Szervezeti kultúra és interkulturális menedzsment, Human Telex Consulting, Budapest, p. 85.

[6] Bakó, R. and Péter, P. (2009) GreeningIT Policy Mapping for Romania, Association for Progressive Communications.

[7] http://www.hotnews.ro/concurs_foto_video_vreau_o_romanie_mai_curata_monstrii_din_comunitatea_ta

[8] Daedalus (2009), op. cit.

[9] www.giswatch.org/gisw2007/countries

[10] www.giswatch.org/gisw2008/GISW2008.html

[11] www.giswatch.org/gisw2009/GISW2009.html

[12] Planul strategic al Ministerului Comunicaţiilor şi Tehnologiei Informaţiei 2007–2009; Programare bugetară 2008–2011. www.mcsi.ro/Minister/Despre-MCSI/Unitatea-de-Politici-Publice/Documente-programatice

[13] Bakó, R. and Sólyom, A. (2009) GreeningIT Research Plan for Romania, Association for Progressive Communications.

[14] www.gbindex.ro

[15] Vetter, T. (2009) Measuring the impact of Internet governance on sustainable development, report presented in Workshop #304 at the 4th Internet Governance Forum, Sharm el Sheikh, Egypt, 15-18 November. www.intgovforum.org/cms/index.php/component/chronocontact/?chronoformname=Workshopsreports2009View&curr=1&wr=48

CLIMATE CHANGE AND ICTS: GOOD PRACTICES FROM EUROPE

Introduction

A new issue is gaining space at international and European forums, as a response to a growing concern about the environment: the relationship between information technology, innovation and climate change.[1] Information and communications technologies (ICTs) have a high priority on the European Union (EU) policy-making agenda, as the Digital Competitiveness Report explains: "Europe remains a global force in advanced information and communication technologies. The World Wide Web, the mobile GSM standard, the MPEG standard for digital content and ADSL technology were all invented in Europe. Maintaining this leadership position and turning it into a competitive advantage is an important policy goal."[2]

The EU, as a supranational organisation, is a leading force in setting policy standards for the 27 member states, as well as non-member European countries. The EU policy framework for the information society and media – i2010 – has promoted the positive contribution that ICTs can make to the economy, society and personal quality of life. Since 2008 a more environmentally aware ICT policy direction[3] has taken off in the region. The green turn is a response both to climate change concerns and to the economic recession. The new ICT policy of the EU, launched in 2010 and called the Digital Agenda, rethinks ICTs as key tools of an environmentally sustainable, innovative Europe. At the same time, environmental policy is a key regulation area for the EU: nature has no political borders and clean technologies would impact on the quality of life of future generations. A tight climate change policy and strict electronic waste (ewaste) regulations set the framework for a clean ICT policy in Europe.

The focus of this report is the relationship between ICTs, climate change and innovation in Europe, as promoted by EU officials and backed up by ICT business stakeholders.

Regional Trends in Policy and Legislation

The EU's ICT policy between 2005 and 2010 (i2010) highlighted einclusion, infrastructural development, interoperability and accessibility issues as top priorities. Between 2005 and 2010, European ICT policy highlights have been infrastructural development for high-speed and broadband internet, einclusion measures aimed at bridging the social and geographical digital divide, and interoperability in order to achieve media convergence goals. The Digital Agenda (2010-2015) has approached ICTs as tools for mitigation of and adaptation to climate change.[4]

The EU has committed to cutting its greenhouse gas (GHG) emissions by at least 20% by 2020 compared to 1990 levels and to improving energy efficiency by 20%. The ICT sector has a key role to play in this challenge:[5]

- ICTs offer potential for a structural shift to less resource-intensive products and services, for energy savings in buildings and electricity networks, as well as for more efficient and less energy-consuming intelligent transport systems.
- The ICT sector should lead the way by reporting its own environmental performance and by adopting a common measurement framework as a basis for setting targets to reduce energy use and GHG emissions of all processes involved in production, distribution, use and disposal of ICT products and delivery of ICT services.

Innovation and ICTs are the driving forces of the new economic strategy proposed by the EU called "Europe 2020". It sets ambitious targets in key economic, social, cultural and environmental areas:[6] 75% of the population aged 20-64 should be employed; 3% of the EU's gross domestic product (GDP) should be invested in research and development; the "20/20/20"[7] climate/energy targets should be met; the share of early school leavers should be under 10% and at least 40% of the younger generation should have a degree or diploma; and 20 million less people should be at risk of poverty. In order to meet these targets, the European Commission proposes joint action in several areas: rethinking innovation policy; enhancing the quality and international attractiveness of Europe's

higher education system by promoting student and young professional mobility; promoting a digital market agenda for Europe – a digital single market based on ultra-fast internet; and supporting the shift towards a resource-efficient and low-carbon economy.[8]

Climate Change and ICTS: Regulations and Good Practices

As a proof of its proactive attitude to tackling climate change, the EU has made a unilateral commitment to cut its emissions in 2020 to at least 20% below 1990 levels, and is offering to scale up this reduction to 30% provided other major emitters in the developed and developing worlds take on their fair share of the mitigation effort under a global agreement.[9]

European countries are at different stages of adaptation to climate change:[10] while many of them have developed complex and well-documented projects and programmes (Denmark, Finland, France, Germany, Hungary, Ireland, Netherlands, Norway, Portugal, Spain, Sweden and the UK), others are still working on their coping strategies (Austria, Bulgaria, Czech Republic, Estonia, Italy, Latvia, Lithuania and Switzerland). Some countries provided scarce or no information to the European Environment Agency concerning their climate change adaptation strategies: Cyprus, Greece, Luxemburg, Poland, Romania, Slovak Republic and Slovenia.

In order to meet their emissions targets, the role of ICTs as enablers of energy efficiency across the European economy needs to be fully explored and exploited.[11] Firstly, it is necessary to foster research into novel ICT-based solutions, in order to reduce the energy intensity of the economy by using smart technologies. Secondly, ICTs should lead by example and manufacturers should reduce their energy consumption, resulting in substantial energy savings. Thirdly, it is crucial to encourage structural changes aimed at realising the enabling role of ICTs in substituting physical products through online services ("dematerialisation") and in moving business to the internet (ebanking, teleworking).

Estonia and the UK are leading the way globally when it comes to smart ICT use for the benefit of urban communities: since 2007 they have ranked among the Top Seven

Intelligent Communities of the Year, serving as role models for best practices in developing competitive local economies and connecting citizens.[12]

A policy study commissioned by the Swedish government under its EU presidency addressed environmental issues as key components of a broad ICT policy agenda for a green knowledge society.[13] Green ICTs should support an eco-efficient economy by achieving three main policy goals by 2015: to create a green ICT products and services market; to understand and exploit substitution mechanisms; and to harness ICT in non-ICT sectors. The report recommends that EU member states explore financial incentives to extend and use government procurement mechanisms, to research household and business behaviour, and to offer research and development support for ICT innovation.

The energy consumption of ICTs rose from 123 billion kilowatt hours (kWh) in 2005 to 246 billion kWh globally in 2010, according to a British Computer Society report.[14] Meanwhile, research by the US think tank Gartner has estimated that the ICT industry accounts for 2% of global CO2 emissions.[15] Gartner has recommended organisations address the negative effects of using ICTs and should:

- Start measuring power consumption
- Buy fewer servers and printers by increasing their usefulness (e.g. using virtual servers)
- Improve capacity and provision planning
- Improve the efficiency of cooling
- Turn power management on, use a low power state or turn equipment off after hours
- Extend the life of assets by reusing within the enterprise and externally
- Use all electronic equipment correctly
- Analyse all waste produced in order to minimise waste, and dispose of it efficiently and environmentally soundly.

For its part, the British Computer Society recommends that since governments account for massive energy consumption through ICTs, they should put pressure on all suppliers to use and provide greener ICT assets and services, along with extending the life

cycles of these devices and enabling active power management (switch-off, low-power standby modes).

A European Commission report[16] identified the dual contribution ICTs have to make for a low-carbon economy. On the one hand, they can enable energy efficiency improvements by monitoring and directly managing energy consumption. They do this by providing the tools for more energy-efficient business models, working practices and lifestyles, such as ecommerce, teleworking and egovernment applications, and by delivering innovative technologies in order to reduce wasteful consumption of energy. On the other hand, ICTs can provide the quantitative basis on which energy-efficient strategies can be implemented and evaluated, by providing energy consumption information to consumers, and by measuring energy performance at a system level: software tools can provide information on how to design a system in order to optimise its overall energy performance in a cost-effective manner.

The British Computer Society[17] summarised the EU clean tech approach: firstly, the ICT sector will be invited to set targets and reach a collective agreement on measurement methods. Secondly, partnerships between the ICT sector and other major energy-using sectors will be encouraged to improve energy efficiency and reduce emissions by using ICTs. Thirdly, EU member states will be called upon to enable smart and clean ICT solutions.

Euractiv estimated[18] that the ICT industry will lead by example and reduce the energy it uses. “In times of recession, reducing (the energy consumption of ICTs) goes hand in hand with environmental initiatives for a low carbon economy.”[19] A number of ICT organisations in developed European countries have launched green ICT marketing campaigns. As an example of good practice, British Telecom “has been recognised as the world number one telecommunications company in the Dow Jones Sustainability Index for the seventh consecutive year and has achieved a 60% reduction in its UK carbon emissions from a 1996 baseline. The company has set a further target to reduce emissions by 80% from the 1996 baseline by 2016.”[20]

There are multiple benefits of greening ICTs at the workplace, the British Computer Society report shows. These include enhanced reputation, reduced energy bills, and a decrease of travel costs, due to ICT-facilitated teleworking and remote meetings. [21] The

report suggests companies take simple actions first, such as "hot rooming" (reducing heating and lighting to a limited area), and improving security so staff feel able to work earlier or later, thereby reducing the office space required if everyone worked at peak time. Good printing practices also contribute to greening ICTs at the workplace: using recycled paper, printing less, setting printers for double-sided or side-by-side printing by default, adopting high-density texts (more text on paper) and maximising print areas.

In a white paper[22] the German company T-Systems recommends the extensive use of ICT-enabled telecommunications solutions in order to decrease business travel: "In 2008, the average duration of business travel remained stable at 2.3 days. Trips without an overnight stay in particular were more frequent – short trips especially offer significant potential for savings when eliminated by telecommunications solutions that enable remote collaboration." Clean-tech solutions apply both to major corporations and to small and medium-sized companies, which account for about 80% of all business travel. Video-conferencing systems enable realistic virtual meetings, independently of the participants' geographical locations.

According to a global green ICT policy evaluation,[23] under the EU codes of conduct for broadband equipment, signatory companies commit to reducing energy consumption of broadband equipment. At the same time, the EU codes of conduct for data centres set energy efficiency goals and measures standards for data centre providers. The relatively small number of signatory companies to the EU codes of conduct for broadband equipment suggests that the codes of conduct have not yet been widely accepted. However, they are still useful for non-signatory companies as they include best practices and standards.

Conclusion

This report focused on the relationship between ICTs, climate change and innovation in Europe, as reflected in EU policies and good practices at governmental and business level. Replacing "dirty ICTs" with "green ICTs" [24] is a high priority for all stakeholders: supranational regulatory bodies, national governments and subnational structures and

organisations. At the same time, using ICTs as smart tools for an environmentally sustainable Europe is being mainstreamed by governments and businesses equally.

References

[1] Maclean, D. and St. Arnaud, B. (2008) ICTs, Innovation and the Challenge of Climate Change, International Institute for Sustainable Development, p. 3. www.iisd.org/pdf/2008/ict_innovation_climate.pdf

[2] Commission of the European Communities (EC) (2009) Europe's Digital Competitiveness Report: Main achievements of the i2010 strategy 2005-2009. eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0390:FIN:EN:HTML

[3] Commission of the European Communities (EC) (2008) Addressing the challenge of energy efficiency through information and communication technology. ec.europa.eu/information_society/activities/sustainable_growth/docs/com_2008_241_1_en.pdf

[4] Ibid., p. 4.

[5] Commission of the European Communities (EC) (2010) A Digital Agenda for Europe. eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:HTML

[6] Commission of the European Communities (EC) (2010) Commission proposes new economic strategy in Europe. europa.eu/rapid/pressReleasesAction.do?reference=IP/10/225&format=HTML&aged=0&language=EN&guiLanguage=en

[7] A 20% cut in emissions of greenhouse gases by 2020, compared with 1990 levels; a 20% increase in the share of renewables in the energy mix; and a 20% cut in energy consumption. BBC (2010) EU climate package explained, BBC, 9 April. news.bbc.co.uk/2/hi/europe/7765094.stm

[8] europa.eu/rapid/pressReleasesAction.do?reference=IP/10/225&format=HTML&aged=0&language=EN&guiLanguage=en

[9] Commission of the European Communities (EC) (2010) Building a post-2012 global climate regime: The EU's contribution. ec.europa.eu/environment/climat/future_action.htm

[10] European Environment Agency (EEA) (2010) National Adaptation Strategies. www.eea.europa.eu/themes/climate/national-adaptation-strategies

[11] Commission of the European Communities (EC) (2008) op. cit., p. 4.

[12] Intelligent Community Forum (2010) Top Seven By Year: Community-based approach to the broadband economy. www.intelligentcommunity.org/index.php?src=gendocs&ref=Top7_by_Year&cat...

[13] Forge, S. et al. (2009) A Green Knowledge Society: An ICT policy agenda to 2015 for Europe's future knowledge society, SCF Associates Ltd., p. 7. ec.europa.eu/information_society/eeurope/i2010/docs/i2010_high_level_group/green_knowledge_society.pdf

[14] Crooks, B. and Ross, M. (2009) Greening your IT Work Space, British Computer Society, p. 5. www.bcs.org/upload/pdf/green-it-mross.pdf

[15] Gartner (2007) Gartner Estimates ICT Industry Accounts for 2 Percent of Global CO2 Emissions. www.gartner.com/it/page.jsp?id=503867

[16] Commission of the European Communities (EC) (2009) Mobilising Information and Communication Technologies to facilitate the transition to an energy-efficient, low-carbon economy, p. 3. ec.europa.eu/information_society/activities/sustainable_growth/docs/com_2009_111/com2009-111-en.pdf

[17] Ibid., p. 9.

[18] EurActiv (2009) Brussels to launch new 'green ICT' plan. http://www.euractiv.com/en/infosociety/brussels-launch-new-green-ict-plan/article-178747

[19] Crooks, B. et al. (2009) Raising Awareness of GreenIT – the BCS Way, British Computer Society, p. 1. www.bcs.org/upload/pdf/sqm2009-raisingawareness.pdf

[20] Commission of the European Communities (EC) (2008) op. cit., p. 3.

[21] Crooks and Ross (2009) op. cit., p. 15.

[22] T-Systems (2009) Green ICT: The Greening of Business, T-Systems White Paper, Bonn, p. 10.

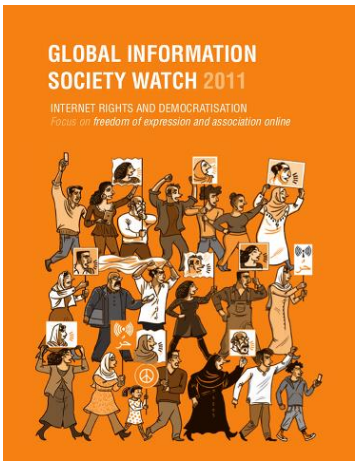
www.ictliteracy.info/rf.pdf/T-SystemsWhitePaper_Green-ICT.pdf

[23] Reimsbach-Kounatze, C. (2009) Towards Green ICT Strategies: Assessing Policies and Programmes on ICT and the Environment, OECD Digital Economy Papers, No. 155, p. 14. www.oecd-ilibrary.org/docserver/download/fulltext/5ksdxhlh5bf2.pdf?expires=1280802562&id=0000&accname=guest&checksum=17C7F3DD959055C9BA33CF4A366A53ED

[24] Organisation for Economic Co-operation and Development (OECD) (2009) ICTs for Development: Improving Policy Coherence, p. 24. www.oecd.org/document/12/0,3343,en_2649_18532957_44585164_1_1_1_1,00.html

GLOBAL INFORMATION SOCIETY WATCH 2011

INTERNET RIGHTS AND DEMOCRATIZATION



The 2011[5] Global Information Society Watch report investigates how governments and internet and mobile phone companies are trying to restrict freedom online - and how citizens are responding to this using the very same technologies.

Everyone is familiar with the stories of Egypt and Tunisia. GISWatch authors tell these and other lesser-known stories from over fifty countries including:

- PRISON CONDITIONS IN ARGENTINA Prisoners are using the internet protest living conditions and demand respect for their rights.
- TORTURE IN INDONESIA The torture of two West Papuan farmers was recorded on a mobile phone and leaked to the internet. The video spread to well-known human rights sites sparking public outrage and a formal investigation by the authorities.
- THE TSUNAMI IN JAPAN Citizens used social media to share actionable information during the devastating tsunami, and in the aftermath online discussions contradicted misleading reports coming from state authorities. Other countries include China, Iran, Lebanon and Pakistan.

[5] https://giswatch.org/2011-internet-rights-and-democratisation

"Written by internationally-renowned experts, the report brings its readers easy-to-read and yet comprehensive articles, many with policy proposals, on the most important challenges protecting human rights on the internet is facing today," says lawyer Matthias C. Kettemann, co-chair of the Internet Rights and Principles Coalition. "The report's country studies –which are in turn saddening, moving, uplifting-- shed light on how the internet can truly be a catalyst for change – and how it can be misused."

In his preface to the report Frank La Rue, UN Special Rapporteur on freedom of opinion and expression says "GISWatch 2011 offers timely commentary on the future of the internet as an open and shared platform that everyone has the right to access."

GISWatch 2011 also includes expert reports from:

- Egyptian blogger Ramy Raoof on the the role of the internet in the wave of recent social resistance in North Africa
- Alex Comninos on revolutions and cyber crackdowns in the Middle East and North Africa
- Ron Deibert (Open Net Initiative) on cyberwarfare and counter-terrorism: implications for an open and free internet
- Joe McNamee (EDRI) on internet intermediaries - the border control guards who get to monitor and censor your content simply because they host your information
- Ben Wagner on Who profits from restricting speech?

Global Information Society Watch 2011 Internet rights and democratisation - Focus on freedom of expression and association online | Published by the Association for Progressive Communications (APC) and Hivos

THE E-ROMANIA PROJECT

Introduction

Information and communications technologies (ICTs) are key tools for economic and social inclusion, but the rural and elderly population have scarce access to advanced ICT infrastructure and few skills to use the technology in Romania (Tufă, 2010). The younger generation's digital skills - in terms of media literacy and digital content creation - are also low, a study has shown (Preoteasa, 2010).

Under these circumstances, it is crucial that the government takes a lead role in reducing the digital divide. Does it meet such an expectation, given that a digital culture accessible to all is critical for promoting human rights? And to what extent is a digital culture critical for human rights? This report[1] considers the case of the eRomania programme, aimed at bringing Romanian citizens online.

The recent economic crisis had a moderate impact on the ICT sector in Romania, with a 5% decrease in its turnover between 2009 and 2010. However, many ICT businesses – mostly small and medium sized – went bankrupt: 3,140 companies in 2009 and 4,870 in 2010 (Ghitulescu, 2011). At the same time, the crisis had a strong impact on the population's quality of life: 38% of Romanians barely reached a minimal income level in 2009.[2] Romania's 21.4 million inhabitants[3] – nearly half of them living in rural areas – are struggling to survive the economic downturn. Public sector salaries were cut by 25% in June 2010.

An overall assessment of Romania's network readiness (World Economic Forum (WEF), 2011, p. 267) for 2010 and 2011 has shown stagnation compared to previous years' evaluations. The country ranked 65th out of 138 after aggregating the three criteria for measurement: environment,[4] readiness[5] and usage[6] of ICTs. While the infrastructure component scored higher (45th of 138), readiness – including quality of education and training, tariffs for ICT services, and governmental visions and attitudes concerning information technology – pulled Romania down to the lower half of the world ranking.[7] It is not a surprisingly poor score if we only look at the apologetic governmental statements on ICTs.

With a 13.7% broadband penetration rate in 2010[8] Romania ranked 27th of 27 among European Union (EU) countries and 41st of 138 countries in the world. (WEF, 2011, p. 371) Meanwhile, a media scandal broke out after USD 120 million (EUR 84 million) in EU funds were blocked by Brussels in June 2010 because Romanian authorities intended to divert them from broadband infrastructural development towards the controversial eRomania project (Vasilache, 2011). In 2010, the EU's ICT strategy (European Commission, 2010) restated the objective of bringing basic broadband to all Europeans by 2013.

Policy and Political Background

Digital inclusion has been a high priority on the Romanian ICT Ministry's agenda since 2004, and is still present in the authorities' official statements (Ministerul Comunicaţiilor şi Societăţii Informaţionale, 2011) and actions. An important step in facilitating equal access to ICT infrastructure is the 200 Euro Programme, launched in 2004 and operational since 2005, in partnership with the Ministry of Education. The programme helps Romania's low-income families purchase computers for school-going children and for university students, assisted by governmental financial aid. A total of 198,248 pupils and students benefited[9] from the 200 Euro Programme between 2005 and 2011.[10]

Tangible results concerning digital inclusion in the country have also been achieved by the Knowledge Economy Project (2006-2010). Romanian authorities contracted a World Bank loan of USD 60 million and, adding USD 9.4 million to the budget, helped disconnected communities get internet access, and supported small business e-development and local content creation.[11] This effort was awarded with the European Commission's e Inclusion medal in 2008 in the Geographical Inclusion section.[12] Other projects, such as Biblionet, are also worth mentioning.

Romania's EU membership since 2007 has opened access to the so-called "structural funds", aimed at resolving structural imbalances between countries, regions and social groups across the EU. As highlighted in the 2008 Global Information Society Watch

(GISWatch) country report, (Bakó, 2008) the Romanian government has declared its commitment to ICT development by planning to allocate USD 550 million of EU funds to stimulating ICT use, electronic services and the e economy. EU funding in general is a controversial issue in Romania due to the poor financial management of the authorities, often attracting criticism from Brussels. As mentioned, in June 2010 the EU blocked the USD 120 million allocated initially for broadband infrastructural development in rural areas because the Romanian Ministry of Communications and Information Society intended to redirect the money towards the eRomania portal.

The Eromania Case: a Portal, a Project or a Strategy?

A media scandal around the eRomania programme[13] was sparked in March 2010 when Romanian authorities announced the intention to spend a total of USD 718 million (EUR 500 million) on the eRomania portal and its implementation strategy. The amount was considered too large for a poorly prepared and presented initiative, with little public consultation involved. Mainstream media and the blogosphere reacted instantly. Former chair of the Parliamentary Commission for ICTs, Varujan Pambuccian, declared his surprise that authorities were tendering a project before planning it properly. "What is eRomania? A site? A portal? A Romanian Wikipedia built from the taxpayers' money?" media representatives asked. (Raileanu, 2010) Public anger was expressed in articles and online videos entitled "More expensive than Avatar" or "eRomania, a governmental site for 500 million Euro". The key question journalists asked was: What do taxpayers get for such an amount of money? As one publication put it: "The short answer, according to the ICT Ministry's plan, is an IBM Blue Gene supercomputer, a unique database and 300 electronic services by the end of 2011." In June 2011 the eRomania portal was still not operational (the site has been "under construction" for two years)[14] and media criticism is continuing.

On 14 April 2010, the Association for Technology and Internet initiated an online petition calling for an open eRomania project – a protest broadly publicised by Romanian open source forums, mainstream media and blogs. The Manifesto for an Open eRomania Project was signed by 200 NGOs, open source activists, bloggers and ICT business leaders.

The petition – an open letter addressed to Minister of Communications and Information Society Gabriel Sandu – pleaded for an open and transparent eRomania project based on open access, open standards and technological neutrality:

MANIFESTO FOR AN OPEN EROMANIA PROJECT [6]

An initiative supporting seven principles of an open eRomania:

1. Open access to all the content created through the project, and making it available on the internet.
2. Publishing all the public data from activities financed with public money in an open content format.
3. Reusing content already existing on the internet (including the content created by public institutions).
4. Use of open formats and open standards for the eRomania project.
5. Publishing all the computer programs created through the project using public money on a specialised website and under free licences.
6. Compliance with accessibility standards.
7. Implementing projects needed for public services and ensuring that they do not compete with the private sector.

Meanwhile, a public meeting was held on 30 April 2010 by the Association for Technology and Internet and the Council of Europe Office in Romania, in partnership with StrawberryNet Foundation, to address the topic of open e government.[15] The State Secretary of the Ministry of Communications and Information Society Andrei Săvulescu was invited to answer questions addressed by ICT stakeholders[16] related to the controversial eRomania initiative. Multiple issues were raised by ICT experts concerning the governmental vision, aims, action plan and technical solutions involved in such a costly programme. The government representative was not prepared to address the wide palette of concrete and targeted questions, but rather tried to temper the discontent and

[6] English translation from: https://giswatch.org/en/country-report/information-and-livelihoods/nicubunu.blogspot.com/2010/03/manifest-pentru-un-proiect-deschis.html

criticism of workshop participants related to the level of transparency and feasibility of the eRomania strategy.

Both the workshop and media inquiries have shown the poor level of communicating this initiative to stakeholders and to the public at large. eRomania's six components have not been clearly presented and explained, but rather simply listed for the benefit of journalists:

eRomania 1: information portal and access point to eRomania platform

eRomania 2: information and local services for 3,300 localities

eRomania 3: standardisation of documents

eRomania 4: ensuring information flow

eRomania 5: Ghiseul.ro tax e payment system

eRomania 6: search engine in a unique database

By June 2011, the eRomania 5 online payment service Ghiseul.ro had been implemented, as a pilot project that had started up in March 2011 – but with major security breaches. Detected and popularised by bloggers, *the security issues were then hyped by the mainstream media* and corrected soon after. As for the initial eRomania web page launched in June 2009, it can only be found in the web archive, in three versions: the *first one was changed very quickly due to criticism* of its dysfunctionality; *the second* and *the third* versions – explaining that the website features serve only to show the portal concept – have also been withdrawn by the Ministry of Communications and Information Society. As mentioned, the web page *www.romania.gov.ro* is "under construction", and has been so since June 2009 and up to the time of writing.[17] However, *the data centre of the eRomania 2 component was already functional in June 2011 – the work of a large Romanian ICT company.*

Under media and civil society pressure, authorities still send unclear messages concerning an initiative meant to bring citizens online. Are the high expenses justified? Is it a properly designed programme and will it impact significantly on the digital divide in the country, with only 36.82% of households (ANCOM, 2010) connected to broadband internet in December 2010? Analysing the eRomania strategy might help to give an answer.

The government's Decision No. 195 on 9 March 2010 concerning the *eRomania strategy* established the key principles, objectives and steps of the programme.[18] The strategy, aimed at developing a fair and efficient e government – according to a United Nations 2010 survey, Romania ranks 47th of 183 countries for e government services. (United Nations, 2010) – and planned to be implemented during 2010-2013, highlights three main components: firstly, e government services, aimed at increasing the quality of interaction between citizens and government; secondly, integration with the broader concept of "Digital Romania" related to enhancing citizen participation and trust; and thirdly, a continuous alignment to innovative technologies. The main services to be implemented are those monitored by the EU, relating to income tax payment, job searches, social security, the renewal of personal documents, car registration, e health and e environment.

What is wrong with the eRomania initiative? Bogdan Manolea, an ICT policy expert, explains:

Although at first sight the programme looks alright, it has two main problems. On the one hand, it reinvents the wheel by paying for services that are already developed; on the other hand, it creates a closed project that seems to be competing with the business sector. For the objective "access to legislative information", there are already four databases created with public funding. (Manolea, 2010)

As for the portal aimed at providing information about Romanian localities (eRomania 2), why pay for a second Wikipedia-like site from the taxpayers' money? Why "a pharaonic digitalisation project that doesn't even work"? (Radescu, 2010) Last, but not least, the programme has been developed and launched with little public consultation involved, and communicated unprofessionally.

Conclusion

Romania is committed to closing the digital gap and the eRomania programme is an ambitious initiative with the intention of bringing citizens online. Its core service provision is in line with the EU's Digital Agenda, and with international e government standards

concerning the transition from an online presence to transactional and connected governance.

However, when it comes to content and financial matters, the eRomania strategy shows that the authorities' approach to designing and implementing ICT policy lacks clarity, fairness and stakeholders' involvement. The result is a largely contested patchwork of overbudgeted projects, poorly managed and communicated.

The Manifesto for an Open e-Romania Project was the first civil society public protest on ICT policy matters. It mobilised 200 NGO leaders, bloggers and open source activists. Even if the governmental machinery is moving on in promoting its own initiatives and interest groups, mainstream media and civil society actors are more and more vocal in advocating for proper information and consultation in public ICT matters.

Action Steps

Lessons learned by ICT activists from the eRomania case are manifold:

- Mobilising small groups in a larger stream makes a protest more visible to the media and to the public at large.
- Civil society actors should be more proactive in participating in ICT policy making and advocating for digital rights.

A connected, fair and inclusive information society for all should be the common goal of government, business and civil society actors. *As Tim Berners-Lee put it, "competitive disclosure" is necessary for an open internet: the public's right to know overwrites the authorities' reflex for secrecy.*

References

ANCOM (2010) Piaţa de comunicaţii electronice din România, Autoritatea Naţională pentru Administrare şi Reglementare în Comunicaţii, Raport de date statistice 1 iulie-31 decembrie 2010, p.57.

Asociaţia pentru Tehnologie şi Internet (2010) Manifest pentru un Proiect Deschis eRomânia, 14 April.

Avocat.net (2010) Strategia Naţională eRomânia.

Bakó, R. (2008) Romania, in Finlay, A. (ed) Global Information Society Watch, Association for Progressive Communications, p. 167.

European Comission (2010) A Digital Agenda for Europe. Brussels, 19 May, p. 19.

Gagyi, J. (2010) Új média: egy erdélyi vizsgálat. Reconect, vol. 2, nr. 2, p. 95.

Ghitulescu, R. (2011) Studiu IT&C: industria TI&C 2009-2010. Bilantul anilor de criza. Marketwatch.ro, 27 May.

Manolea, B. (2010) E-governmentul meu! Sau unde se duce 1/2 miliard de euro? Drept și internet – noutati & opinii. legi-internet.ro/blogs/index.php/2010/03/16/egovernment-romania-eromania1-lipsa-continut-deschis#c14959%29

Ministerul Comunicaţiior şi Societăţii Informaţionale (2011) Combaterea decalajului digital, alfabetizarea digitală şi accesul la serviciile de e Guvernare sunt prioritare pentru MCSI. Comunicat de presa. 17 Mai.

Preoteasa, M., Comanescu, I., Avadani, I. & Vasilache, A. (2010) Mapping Digital Media: Romania. Country Report, Open Society Foundations, p. 11.

Radescu, A. (2010) Guvernul face economii să bage România pe net! Jurnalul National, 22 February www.jurnalul.ro/jurnalul-national/jurnalul-national/guvernul-face-economii-sa-bage-romania-pe-net-536575.html

Raileanu, S. (2010) Ce este eRomânia? Ce vom primi în schimbul a 500 de milioane de euro? Money.ro, 16 April.

Tufa, L. (2010) Diviziunea digitală. Accesul şi utilizarea internetului în România, comparativ cu ţările Uniunii Europene. Calitatea vieţii, vol. 21, nr. 1-2, p. 71-86.

United Nations (2010) E-Government Survey 2010. Leveraging e-government at a time of financial and economic crisis. New York, p.114.

Vasilache, A. (2011) Portalul eRomania şi Programul national de reforma 2011-2013: Haos privind data finalizarii şi scopul acestui proiect. Domeniile de internet eromania.ro şi e-romania.ro sunt in proprietatea unor firme. Hotnews, 3 May,

World Economic Forum (WEF) (2011) The Global Information Technology Report 2010 2011

Notes

[1] Compiled through desk research, key informant interviews and participant observation at: www.eurodig.org/romania

[2] TNS CSOP România (2009) Impactul crizei economice, TNS Social şi politic, August 2009, p. 21.

[3] According to official statistics

[4] Including market environment, political and regulatory environment, and infrastructure environment

[5] Individual, business and governmental level of readiness

[6] Individual, business and governmental level of usage

[7] Ranked 76th of 138 countries. WEF (2011) Op. cit., p. 267.

[8] Eurostat (2010) Broadband penetration rate

[9] Case studies conducted in central Romania's rural regions show the importance of the 200 Euro Programme (Gagyi, 2010).

[10] Calculated from yearly reports

[11] The Knowledge Economy Project was targeted at 255 disconnected rural and small town communities across Romania.

[12] A total of 37 medals have been awarded for the best of 469 projects from 34 European countries.

[13] The tag "programme" is given by this report. Media discourses call eRomania a "project" or a "portal", while government officials tag it a "strategy"

[14] Screenshotted in a blog (www.tashy.ro)

[15] Organised as a workshop, part of the Eurodig 2010 Programme.

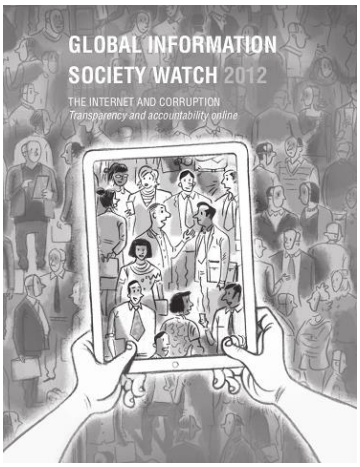
[16] Civil society organisation representatives, open source community members, programmers, ICT business players

[17] *Screenshotted by a blogger on 6 June 2010, in June 2011 it looks the same*

[18] There is no link from the Ministry of Communications and Information Society to the eRomania strategy on 23 June 2011.

GLOBAL INFORMATION SOCIETY WATCH 2012

THE INTERNET AND CORRUPTION



GISWatch 2012[7] explores how the internet is being used to ensure transparency and accountability, the challenges that civil society activists face in fighting corruption, and when the internet fails as an enabler of a transparent and fair society.

The eight thematic reports and 48 country reports published ask provocative questions such as: Is a surveillance society necessarily a bad thing if it fights corruption? and how successful have e-government programmes been in fighting corruption? They explore options for activism by youth and musicians online, as well as the art of using visual evidence to expose delusions of power.

By focusing on individual cases or stories of corruption, the country reports take a practical look at the role of the internet in combating corruption at all levels.

GISWatch is published annually and is a joint initiative by the Association for Progressive Communications (APC) and the Humanist Institute for Cooperation with Developing Countries (Hivos).

[7] https://giswatch.org/2012-internet-and-corruption

MAPPING TRANSPARENCY AND PARTICIPATION ONLINE

Introduction

Information and communications technologies (ICTs) are at the heart of innovation and economic development in Romania and the only industry without job losses since 2008, despite the economic crisis.[1] According to the latest national regulatory authority report,[2] the broadband penetration rate had reached 17.12% of inhabitants in December 2011 (as compared to 14.48% in December 2009) and 41.60% of households (with only 35.10% in December 2009). In spite of the steady growth of access to ICT infrastructure, Romania ranks the lowest in the European Union (EU) when it comes to internet use: [3] while in Sweden 91% of the population was connected to the internet at least once a week in 2011, only 37% of Romanians had this opportunity, far below the 68% EU average.

If roughly one third of the country's population goes regularly online, how much difference does it make to the democratic process in terms of transparency and participation? This report is an attempt to answer this question.

Policy and Political Background: Gaps and Steps

Social change is a slow process: 50 years of dictatorship (1949-1989) cannot be erased by simply pressing the *delete* button. According to a study on democracy, "semi-authoritarian habits, pervasive corruption and the lack of transparency and accountability" are the main problems that governments still have to tackle in post-communist Romania.[4] A thorough analysis[5] of the country's level of transparency has developed five key indicators of corruption: (1) public resources available for discretionary use; (2) profits of Romanian companies with political ties, compared with multinational companies' profits; (3) political allocation of the Reserve Fund, created by the Romanian Finance Ministry in 2002 for crisis situations and misused by all governments ever since; (4) the energy sector – highly profitable for interest groups [6] with strong political ties; and (5) human resource management in the public sector, namely, the high level of politicisation of the public administration.

Gaps

According to the latest Transparency International report, all new members to the EU – including Romania – have encountered a decrease in transparency. This was reflected in a higher Corruption Perceptions Index score between 2009 and 2011, perhaps as an impact of the economic and financial crisis.[7] For example, the Electronic System for Public Procurement, built to raise the level of transparency in public-private partnerships in Romania, deals with only 40% of the total procurement transactions: all the rest lack transparency, according to the Institute for Public Policies' analysis.[8]

Policy-making processes ranked Romania 95th of 142 countries assessed on their political and regulatory environment, according to a Global Information Technology Report.[9] Meanwhile, the recent survey conducted by the United Nations (UN) on e-government across the world has placed Romania 62nd of 190 countries – the lowest within the EU, with a fairly good score for human capital, but poor scores for online services and telecommunication infrastructure.[10]

The UN assessment framework for e-government defines four stages of online services in terms of interaction between public authorities and citizens: (1) emerging presence, (2) interactive presence, (3) transactional presence, and (4) networked presence.[11] The first stage is concerned with providing online information that is limited and basic. In the second stage the government provides current and archived information: policies, laws, reports, newsletters, and downloadable databases. The third stage allows two-way interactions online between citizens and the government, such as paying taxes, applying for ID cards, birth certificates, passports, or licence renewals. The fourth stage is the most sophisticated level of e-government: it integrates government-to-government, government-to-citizen and citizen-to-government services. Web comment forms and other interactive features enable citizens' participation in deliberative processes, such as commenting on laws, policies, strategies and other regulatory processes.

Romania's aggregated result for online service provision measured according to these stages was 45% in 2012, with 100% for the emerging presence stage, 64% for interactive presence, 29% for the transactional stage, and 36% for networked presence. [12]

Reaching higher levels of transactional and networked presence online demands that Romanian governmental agencies invest more in bridging the digital gap, increasing the quality of online services and educating citizens for participation.

Steps

Civil society initiatives have strengthened in the field of ICT policy since 2010, with the Association for Technology and Internet (APTI)[13] taking the lead. In March 2010 APTI brought civil society organisations (CSOs), ICT business representatives and the open source community together: 200 activists signed its Manifesto for an Open e-Romania project, as presented in the GISWatch 2011 country report.[14] Meanwhile, an online watchdog forum[15] dedicated to monitoring Romanian local authorities has reached the highest web traffic for the civil society sector, with 27,000 daily users.[16]

Positive trends are also emerging in the practical use of ICTs in the governmental, civil society and business sectors. A talented young programmer – Octavian "Vivi" Costache – has developed a portal consisting of the contact information and main legislative activities of all Romanian members of parliament (MPs) on a platform called *hartapoliticii.ro*. On his personal webpage, Costache explains: "I've built a map of Romanian politicians because I want to make Romania a better place. Because of that, Forbes Romania thinks I'm one of 30 people under 30 to restart the country ." [17] In February 2012 APTI added a rank of Romanian MPs who voted for digital rights during the 2008-2012 parliamentary cycle to this online political map, on topics like access to online information, privacy on the internet, and open access issues.[18]

In June 2012 the first public debate on network neutrality was held in Bucharest, organised by the Romanian national regulatory authority of communications (ANCOM)[19] and APTI. Beyond the multi-stakeholder approach, the benefit of the meeting was the quality of presentations and the highlighting of good practices from Northern European countries such as Norway and Sweden.

Romanian MPS' Online Presence: Are They Responsive?

An experiment conducted in March 2012 by the Romanian Association for Technology and Internet[20] aimed at assessing the online presence and responsiveness of the Romanian MPs. The results, visualised on a chart (see Figure 1),[21] show a low level of online presence and a total lack of responsiveness of the legislative bodies' members: there were no responses to email inquiries and three responses to snail-mail inquiries.

Figure 1. Romanian Association for Technology and Internet: How responsive are Romanian MPs?

A so-called "reply reaction analysis"[22] was also conducted in 2003 by the eDemocratie.ro initiative, in order to assess the public authorities' transparency in relation to citizens. The report developed five indices to assess MPs' reply reaction: general response rate (the expected percent of MPs who answer an inquiry by email); consistency rate (percentage of MPs who regularly answer an inquiry by email); average response time, relevance of response in relation to the inquiry, and transparency index (assessing the degree of usefulness of the responses to citizens). Back in 2003, only 27% of the Romanian MPs had an email address and only 8% of them responded to citizen inquiry.[23] The transparency index for Romanian MPs had a very low score of 0.25 on a scale from 0 (the lowest) to 5 (the highest).

The 2012 e-democracy experiment has resulted in several action steps. Firstly, APTI looked at the previous results provided by the eDemocratie.ro project and started developing a database with the contact information of Romanian MPs. The online platform hartapoliticii.ro was instrumental in automated data collection, which has been complemented with manually gathered information about MPs' online presence on social networking sites such as Facebook and Twitter, as well as through their blogs and personal websites. This information has been compiled into a database, accessible under a Creative Commons 3.0 licence and downloadable in CSV and JSON formats.[24]

The second step was to send emails to the MPs.[25] A total of 469 MPs have been contacted (137 senators and 332 deputies) through 663 email accounts, with as many as

61 messages bouncing back. Only 33 MPs have even opened the inquiry message, and *no replies have been received.*

In the third stage 322 snail-mails were sent to Chamber of Deputy members to inquire about their opinion on the data retention act.[26] Undelivered letters (21) and the low number of responses received within 30 days[27] (three only) have again proved a lack of responsiveness of Romanian MPs when it comes to accountability and dialogue with citizens.

The inquiry's fourth step – an assessment of the online presence of 463 Romanian MPs (328 deputies and 135 senators) – noted a low number of personal websites, blogs, as well as Twitter and Facebook accounts:[28]

- 55.5% of deputies and 51.1% of senators have neither a personal website, nor a blog.
- 103 MPs have only blogs, 79 only a personal website, seven domain names are not active, and only 29 have both a blog and a website.
- Only 29% (133 MPs) have a blog, 24.41% (113 MPs) a Facebook account, and 9.72% (45 MPs) a Twitter account.
- Only 48.58% of the MPs with a personal webpage had updated them in 2012.
- The rate of personal webpage updates from 2008 to 2012 (both were electoral years) shows similarly poor results: 12.74% in 2008, 4.25 % in 2009, 8.02% in 2010, 25.94% in 2011, and 48.58% in 2012;
- MPs with a Facebook or Twitter account showed slightly better rates of updating them in 2012: 83.19% and 66.67% respectively.

The results of the inquiry have been publicised on the APTI blog,[29] on its online partner's marketing agency blog,[30] on a community journalism website (2,148 views and nine comments as of 17 June 2012), [31] on SlideShare (901 views as of 17 June 2012)[32] and on the independent news portal Hotnews.ro (525 views as of 17 June 2012). [33] Given this relatively low level of interest, APTI's director has declared his disappointment over the scarce public attention that the e-democracy inquiry has received.[34]

Such experiments are mirrors shown to the political elite and send an important message: in the age of the social web, ICTs enable quick and large-scale assessments on

key actors' levels of transparency, accountability and willingness to engage in dialogue. Secrecy is no longer sustainable.

Conclusions

If we look at the numbers on a global scale, Romania's performance in the field of ICTs and democratisation is above the world average – Europe in general is a high-achiever region when it comes to infrastructural development, human capital and policy-making standards. However, when we compare Romania within the EU and – even more relevantly – within Central and Eastern European countries, the results are alarming.

The case presented in this report illustrates the lack of responsiveness of Romanian MPs and a low level of transparency when it comes to informing citizens about public matters. Although the Parliament has been among the first political bodies in Romania to use ICTs for disseminating public information,[35] there is still a long way to go on the road of e-democracy.

Action Steps

In a media release issued on the country's national day, Transparency International Romania has urged the government, business actors, civil society representatives and trade unions to fight against corruption both inside their own institutional structures and on a national scale.[36]

Transparency and accountability through ICTs should be a higher priority on all institutional stakeholders' agendas in Romania:

- Governmental agencies, businesses and civil society organisations should interact more and foster dialogue – both online and offline – in order to reduce corruption at all levels.
- Civil society organisations should be more active in holding the political class accountable to citizens.

- Media actors, both from the mainstream and from community journalism, should take the lead in highlighting the role that citizens can play in turning the tide of corruption.

Promoting good practices when it comes to government integrity is the way forward for a fair, sustainable and free society; ICTs have a key role in this process.

References

[1] Mihai, A.E. (2012) Numărul de joburi in IT a crescut cu 30% în ultimii patru ani, acesta fiind singurul sector in care nu s-au făcut concedieri, *Ziarul Financiar,* 27 January. www.zf.ro/profesii/numarul-de-joburi-in-it-a-crescut-cu-30-in-ultimii-patru-ani-acesta-fiind-singurul-sector-in-care-nu-s-au-facut-concedieri-9181459

[2] ANCOM (Agenţia Naţională pentru Adminstrare şi Reglementare în Comunicaţii) (2012) *Servicii de acces la internet. Servicii de linii închiriate şi transmisiuni de date*, p. 11. www.ancom.org.ro/uploads/links_files/Raport_DS_sem_II_2011_internet.pdf

[3] Eurostat (2012) *Individuals: Frequency of Internet Use*, 15 May. appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_ci_ifp_fu&lang=en

[4] Gross, P. and Tismaneanu, V. (2005) The End of Postcommunism in Romania, *Journal of Democracy* 16(2), p. 146.

[5] SAR (Societatea Academică din România) (2012) *Dincolo de percepţii. A devenit guvernarea României mai integră după 2004?,* p. 13-20. www.sar.org.ro/files/547_Coruptie.pdf

[6] The Romanian mainstream media has tagged them ironically “smart guys from the energy sector”. See: România Liberă (2012) „Băieţii deştepţi” din energie la negocieri, 5 May. www.romanialibera.ro/bani-afaceri/economie/baietii-destepti-din-energie-la-negocieri-263030.html

[7] Transparency International (2011) *Evoluţia statelor membre ale Uniunii Europene în ultimul an de evaluare a Indicelui de Percepţie al Corupţiei (CPI).* www.transparency.org.ro/politici_si_studii/indici/ipc/2011/GraficeCPI2011.pdf

[8] Institutul pentru Politici Publice (2012) *Transparenţă, corectitudine şi competitivitate în sistemul de achiziţii publice din România*, Bucharest, p. 7. www.ipp.ro/pagini/transparen355a-corectitudine-351i.php

[9] World Economic Forum (2012) *Global Information Technology Report,* p. 13. www3.weforum.org/docs/Global_IT_Report_2012.pdf

[10] The 0.6060 final score for Romania was aggregated from the online service component score (0.5163), telecommunication infrastructure component score (0.4232) and human capital component score (0.8783). See United Nations (UN)(2012) *E-Government Survey 2012: E-Government for the People,* p. 126. www.unpan.org/e-government

[11] Ibid., p. 136.

[12] Ibid., p. 128.

[13] apti.ro/apti-english

[14] Bakó, R.K. (2011) Romania: Mobilising for an Open eRomania, in *Global Information Society Watch: Internet rights and democratisation,* p. 222 giswatch.org/en/country-report/social-mobilisation/romania

[15] www.domnuleprimar.ro/

[16] SAR (2012) op.cit., p. 24.

[17] www.vivi.ro/

[18] APTI (Asociaţia pentru Tehnologie şi Internet)(2012) *Clasament: cum votează parlamentarii cu privire la drepturile civile digitale,* February. www.apti.ro/sites/default/files/Cum-voteaza-parlamentarii-cu-privire-la-drepturile-civile-digitale-v-1.1.pdf

[19] ANCOM (2012) *Neutrali-tatea reţelelor şi sustenabilitatea internetului*, 5 June, Bucharest. www.ancom.org.ro/nn-2012_4714

[20] Manolea, B. (2012) *O imagine despre democratia electronica romaneasca în martie 2012,* 23 March. legi-internet.ro/blogs/index.php/2012/03/23/o-imagine-despre-democratia-electronica-romaneasca

[21] APTI (2012) *Parlamentarii români pe internet* , Martie, Standout Facebrands. legi-internet.ro/blogs/media/blogs/a/Infografic-final.jpg

[22] Hera, O., Ailioaie, S. and Kertesz, S. (2004) *Reply Reaction @ Parlament. Analiza reactiei membrilor Parlamentului la e-mailurile trimise de cetateni,* eDemocratie.ro www.edemocratie.ro/R2-RO2003.pdf

[23] Similar studies conducted in Canada and the UK resulted in 43% and 22% response rates respectively. Ibid., p. 3.

[24] agenda.grep.ro

[25] Manolea, B. (2012) *Cum (NU) se poate contacta un parlamentar român?* APTI, 22 March. www.slideshare.net/bmanolea

[26] apti.ro/sites/default/files/Opinie-ong-lege-date-trafic.pdf

[27] As prescribed by law.

[28] legi-internet.ro/blogs/media/blogs/a/Infografic-final.jpg

[29] legi-internet.ro/blogs/index.php/2012/03/23/o-imagine-despre-democratia-electronica-romaneasca

[30] blog.standout.ro/2012/03/prezentari/parlamentarii-romani-pe-internet

[31] www.contributors.ro/administratie/mic-exercitiu-de-democratie-electronica-romaneasca

[32] www.slideshare.net/bmanolea/cum-sa-nu-contactezi-un-parlamentar-roman

[33] Manolea, B. (2012) Mic exercitiu de democratie electronica romaneasca, 23 March. www.hotnews.ro/stiri-opinii-11818557-mic-exercitiu-democratie-electronica-romaneasca.htm

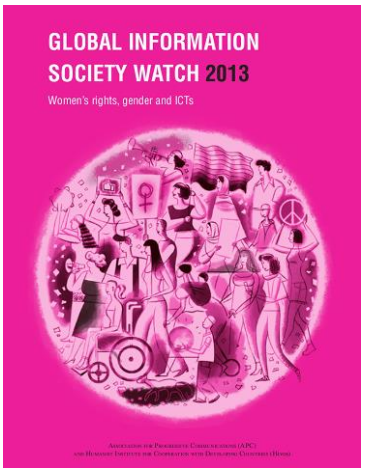
[34] Manolea, B. (2012) Datele publice libere pe agenda guvernului Romaniei, 23 April. legi-internet.ro/blogs/index.php/2012/04/23/datele-publice-libere-pe-agenda-guvernului-romaniei

[35] Hera, Ailioaie and Kertesz (2004) op. cit., p. 5.

[36] Transparency International România (2011) O naţiune împovărată de corupţie, 1 December. www.transparency.org.ro/politici_si_studii/indici/ipc/2011/ComunicatTIROCPI2011.pdf

GLOBAL INFORMATION SOCIETY WATCH 2013

WOMEN'S RIGHTS, GENDER AND ICTS



This edition of GISWatch in 20138 explores women's rights and gender through the lens of information and communications technologies (ICTs). It includes a series of expert thematic reports on issues such as access to infrastructure, participation, online disobedience, and sexuality online, as well as 46 country reports on topics like the rights of domestic workers, trafficking in women, participation in governance, child brides, and the right to abortion.

GISWatch 2013 shows that gains in women's rights made online are not always certain or stable. While access to the internet for women has increased their participation in the social, economic and governance spheres, there is there is another side to these opportunities: online harassment, cyberstalking, and violence against women online all of which are on the increase globally. This GISWatch is a call to action, to the increased participation of women in all forms of technological governance and development, and to a reaffirmation and strengthening of their rights online.

GISWatch is published annually and is a joint initiative by the Association for Progressive Communications (APC) and the Humanist Institute for Development Cooperation (Hivos).

[8] https://giswatch.org/2013-womens-rights-gender-and-icts

GENDER AND ICTS: AN UNTOLD STORY

Introduction

"Give a woman a CD-ROM and she will use it as a mirror": this offensive statement epitomises Romanian media discourses on women in general, and in relation to technology in particular.[1] Either as elitist contempt or sexist humour, gender stereotyping is omnipresent in the Romanian public space. Critical reflection on gender equality remains hidden in the ivory tower of academic discourses and the backstage of civil society initiatives. Mihaela Miroiu, a prominent Romanian feminist scholar, explains: "While men are portrayed on the first pages of media outlets, women are only on the last pages; while men sell head – competence and performance, women sell full body – sexual services, and hands – care services. The best way for a woman to be uninteresting in the Romanian mediascape is to be either a professional, or a student."[2]

At the same time, a new tone in the public discourse is conveyed by businesses targeted at urban professional women: glossy magazines and cosmetic companies' websites portray successful, connected female entrepreneurs. However, even the new wave of media discourse is loaded with gender stereotypes: "digital divas"[3] must be young and attractive.

This report focuses on the ways in which online media from Romania portrays women in relation to information and communications technologies (ICTs).

Policy and Political Background: "Room-Service Feminism"

In a strongly worded article on the status of Romanian women, Miroiu[4] argues that in post-socialist countries a new patriarchy has developed, a "political apartheid" excluding women from key public positions. Meanwhile, European Union (EU) accession has imposed formal, convenience, top-down gender equality policies called "room-service feminism" by the author.[5]

A shadow report submitted in 2000 by 17 Romanian women and human rights NGOs to the United Nation's Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) stated that gender equality issues are marginalised in Romania after the fall of Communism. Poor resource allocation and a lack of interest amongst opinion leaders has resulted in a "serious deficit in defining and approaching the situation of women, and in identifying the causes and formulating the strategies and policies for the improvement of this situation."[6]

The Communist regime in Romania collapsed in 1990, but it took 12 years to regulate sexual harassment in the country (Law 202/2002). Although the legislative framework improved significantly[7] during Romania's accession to the EU from 2000 to 2006, gender mainstreaming remained a low priority on the public agenda. Women's issues "popped up" mainly when high profile personalities were involved.

On 18 June 2013 a media scandal emerged when Romanian President Traian Basescu declared at a meeting with businesswomen, suggesting that they should return to their traditional roles as mothers: "How on earth can Roma women raise five, six children, while Romanian women cannot?"[8] As a result, several NGOs have publicly protested and 12 women together with human rights organisations submitted a petition to the Romanian Council for Combatting Discrimination. [9] The petition expressed concerns related to discriminating against women in general, Roma women in particular, and to perpetuating gender stereotypes.

One of the protesting organisations represented Roma women via its Facebook campaigning platform called eRomnja.[10] Roma women are among the most disadvantaged social groups in Romania, with the highest rate of illiteracy and unemployment, and the lowest level of ICT use.[11] A survey conducted in 2011 found that only 19% of Roma households owned a desktop or a laptop computer,[12] compared to the 52.9% country average.[13] Very few visible projects have tackled the issue of Roma women and ICTs, and those that have been implemented have met with mixed success. For example, an EU-funded initiative aimed at improving access for Roma women to the labour market (2009-2011) succeeded in training only 11 Roma women from two Romanian counties in using computers.[14]

Measuring access to ICTs in a gender-sensitive way using gender indicators is a key issue for the developmental agenda, but gender-aggregated information on a macro level is scarce. Gender and ICT statistics are collected inconsistently across countries and regions.[15] For the gender gap index, the World Economic Forum has developed a composite measurement called the Global Gender Gap Index or GGGI: Romania ranked 67th out of 135 countries in 2012, with better scores for economic participation, education levels and health, but lagging far behind other countries in the field of political empowerment.[16]

From Gender Equality to Digital Inclusion?

At the lower end of the digital opportunities spectrum in Romania stand elderly Roma women, most of them living in rural areas; the higher end is represented by young, urban, connected businesswomen – the "digital divas".

A project website called "Digital Divas" features, at its very centre, a man:[17] no matter how successful one is as a woman, there must be a guardian, a male key figure offering a warranty of quality, reliability and validity of the discourse.

But how connected are digital divas?

The Gender Gap and the Digital Divide: Romania in the European Context

A comparative analysis of 31 European countries using a gender and ICT indicator system called GICTIS, conducted by Spanish researchers in 2011, has resulted in a ranking that combines gender equality and digital inclusion.[18] The authors explain that gender equality has moved forward in recent years, but further research is needed to find out whether the gender gap coincides with the digital divide.

European countries were grouped into five categories:

- High e-inclusion and high e-equality: Iceland, Finland, Norway, Denmark, Sweden, and to a lesser extent France, Slovenia and the Netherlands.
- High e-inclusion and low e-equality: Luxemburg, Germany and the United Kingdom.
- Medium e-inclusion and e-equality: Hungary, Malta, Portugal and Slovakia.
- Low e-inclusion and high e-equality: Romania, the Czech Republic, Bulgaria, and to a lesser extent, Poland and Belgium.
- Low e-inclusion and low e-equality: Greece, Cyprus, Macedonia, Croatia, and to a lesser extent, Italy, Ireland and Spain.[19]

Romania ranked 13th out of 31 on the e-equality scale – measuring gender differences in access to ICTs – but last on the e-inclusion scale, which assesses the level of ICT use in general.

Another study aimed at comparing EU countries in terms of gender equality and digital inclusion has found significant improvements in women's access to ICTs across Europe from 2009 to 2011, but Romania ranked the lowest among the 27 countries assessed.[20] Overall, ICT use in Romania lags behind other EU member states, but there are significant differences between the young and the elderly, the urban and the rural, the educated and the less educated people in the country. The typical Romanian non-ICT user lives in a rural area, is older than 55, has not completed high school, and is more likely to be a woman. The broadband penetration rate measured for Romanian households was 45.2% for fixed and 37.4% for mobile connections in 2012, with significant differences between urban and rural areas.[21]

As suggested, the level of gender mainstreaming in assessing the digital divide is absent from public discourse in Romania. However, there is a growing interest in the business sector in the issue of women and ICTs: a niche market of women as gadget users is developing in the country.

The EU Kids Online Romanian report has raised concerns about the low level of e-literacy among parents, leading to children's vulnerability online. Growing numbers of girls as victims, and – unexpectedly – as e-bullying offenders,[22] have shown that education has a long way to go for the new wave of "digital immigrants".[23]

Women and Technology in Romanian Online Discourses

Access for Romanian women to the public sphere is limited: Romina Surugiu, a media expert, argues that they are more bystanders than active participants. Because of this, political parties do not include women's problems on their agendas. The media tend to follow the public agenda set by political leaders, ignoring most of the topics important to women's lives.[24]

A simple web search with the keywords "women" and "information technology" in the Romanian language shows a wide range of business, media and NGO initiatives tackling the issue of gender and ICTs. Businesses are the key drivers of economic development and innovation in Romania, and therefore it is not surprising that women and technology issues are promoted mainly by the media and ICT companies.

In 2012, *MarketWatch* magazine initiated the "Women in Technology" awards. Five awards have been established for Romanian women: "Successful career in ICTs", with a business and a technical track; "Promoting organisational diversity"; "The best initiative in sustaining women in ICTs"; and "Women entrepreneurship in ICTs".[25] The award winners were women managers from branches of multinational companies set up in Romania, and from an organisation founded in 2012 called Girls in Tech Romania, a branch of an international network established in San Francisco in 2007.[26]

An NGO – Institute for Sustainable Development – has featured as topic of the month "Women and Technology", highlighting the role women managers play in international corporations in general, and in ICT businesses in particular. High-profile CEOs like Virginia Rometty (IBM), Marissa Mayer (Yahoo), or Meg Whitman (HP) are set as role models for Romanian businesswomen.[27]

Glossy women's magazines encourage readers to use gadgets customised for women,[28] while others promote young and successful women in technology,[29] highlighting those who are "sexy and bright".[30] Technology and attractive women sell – at least according to the mindset of a patriarchal society, even if disguised in "room-service feminist" discourses.[31]

The "E-lady" online discussion forum has a more pragmatic approach, and an educational purpose: to share ICT information among women. Topics vary from general computer use issues to blogging, phishing and internet safety. [32]

Two academic initiatives worth mentioning in changing the tone of the mainstream discourse on women and ICTs are the DigiTales project and the Catalogue of Ads Offending Women. Both have been coordinated by universities, but targeted at civil society actors at large; these are presented in the next section of this report.

Empowering Women Through ICTS: Good Practices

The DigiTales project, initiated in 2012 and coordinated by Goldsmiths, University of London, involved civil society organisations from Romania, Slovenia and Finland, and was aimed at extending the creative practices of elderly people through digital storytelling.[33] In Romania, 14 librarians from 12 county libraries have been trained to teach digital storytelling. As a result, 105 elderly people have learned to use a computer, most of them women. The tangible output was a series of 99 "DigiTales" created by trainees, and facilitated by trainers.[34]

Another empowering project was the online campaign organised by the feminist centre Filia, from the National School of Political Science and Public Administration, Bucharest: "Say No to Offensive Advertising". [35] In 2012 the group published a catalogue of ads considered offensive towards women; the booklet is available online.[36]

No doubt there are many more civil society initiatives in Romania aimed at empowering women in general, and in relation to ICTs in particular. However, these projects and actions are not vocal enough and do not reach large audiences.

Conclusions

Romania's level of access to ICTs is improving rapidly, but it is still lagging behind other European countries. The typical digitally excluded person in the country is older than 55, lives in a rural area, has not completed high school, and is more likely to be a woman.

As the 2000 CEDAW report put it, "Media is not gender-sensitive; therefore it has no contribution to the definition of the general problems of women in Romanian contemporary society or to the formulation of possible measures and actions for improving their status."[37] Women and ICTs are still an untold story.

Online media discourses in Romania are loaded with gender stereotypes, even when hidden between glossy covers for urban, connected digital divas. Behind "room-service feminism" rests a patriarchal society, but ICTs offer spaces and tools for change.

Action Steps

According to the Gender Evaluation Methodology (GEM) principles[38] developed by the Association for Progressive Communications (APC), participatory critical reflection and a methodologically sound, context- and gender-sensitive approach to women and ICTs are necessary.

In Romania, projects like DigiTales and Say No to Offensive Advertising should be promoted more broadly and replicated in order to empower women through ICTs.

Civil society organisations should stand up more often and more consistently against gender stereotyping and discrimination against women, with a special regard to vulnerable groups like Roma women.

Local, national and international projects on gender and ICTs should connect through the platforms and tools of the interactive web. New media can carry a new, inclusive discourse: bridges are there.

References

[1] www.thesexist.ro/femeile-si-tehnologia-386.html

[2] Miroiu, M. (2005) Sex şi maini şi cap şi muschi, Revista 22. www.revista22.ro/sex-si-maini-cap-si-muschi-1594.html

[3] www.digitaldivas.ro/2013

[4] Miroiu, M. (2004) State men, market women: The effects of left conservatism on gender politics in Romanian transition, Feminismo/s, 3, p. 207-234. rua.ua.es/dspace/bitstream/10045/3243/1/Feminismos_3_14.pdf

[5] Ibid., p. 215.

[6] www.legislationline.org/documents/id/7703

[7] As shown in the Romanian CEDAW report submitted in 2006: www.un.org/womenwatch/daw/cedaw/35sess.htm

[8] http://www.wall-street.ro/articol/Social/150548/mai-multe-ong-uri-cer-sanctionarea-lui-basescu-pentru-declaratii-discriminatorii-despre-femei.html

[9] On 3 July 2013 the Romanian Council for Combatting Discrimination ruled that no discrimination had been committed.

[10] www.facebook.com/pages/E-Romnja/488288607894622

[11] Nagy, E. (2010) Esetbemutatás: egy roma család számítógép- és internet-használati szokásai, Reconect, 2(2), p. 138-141.

[12] http://www.feminism-romania.ro/publicatii/rapoarte/672-studiu-sociologic-privind-situaia-femeilor-rome-din-romania.html

[13] International Telecommunication Union (2012) Measuring the Information Society, p. 209.

[14] www.fonduri-structurale.ro/detaliu.aspx?eID=5445&t=Stiri

[15] Hafkin, N. J. and Huyer, S. (2007) Women and Gender in ICT: Statistics and Indicators for Development, Information Technologies and International Development, 4(2), p. 27.

[16] Hausmann R., Tyson, L. and Zahidi, S. (2012) The Global Gender Gap Report 2012, World Economic Forum, p. 9-10.

[17] comunic.files.wordpress.com/2013/07/digital-divas-screenshot.png

[18] Castano Collado, C., Fernández, J. M. and Martínez, J. L. (2011) The digital divide from a gender perspective in Spain and Europe: Measuring with composite indicators, Reis, 136, p. 127-140.

[19] Ibid., p. 136.

[20] Guerrieri, P. and Bentivegna, S. (2011) Digital Inequalities in Europe, in Guerrieri, P. and Bentivegna, S. (eds.) The Economic Impact of Digital Technologies: Measuring Inclusion and Diffusion in Europe, Edward Elgar Publishing, Cheltenham, p. 115.

[21] Autoritatea Naţională pentru Administrare şi Reglementare în Comunicaţii (2013) Piaţa serviciilor de comunicaţii electronice din România. Raport de date statistice pentru perioada 1 iulie – 31 decembrie 2012, p. 41.

[22] Outnumbering boys.

[23] Velicu, A. (2013) Violence on the internet: Victims versus bullies, paper presented at the New Media Conference, Targu Mures, Romania, 12-13 April.

[24] Surugiu, R. (2012) "Glossy" politicians: Portraying women politicians in Romanian consumer magazines, in Challenges of the Knowledge Society: Conference Proceedings, Pro Universitaria, Bucharest, p. 1930.

[25] www.computerblog.ro/dan/romania/premiile-femei-tehnologie.html

[26] gitromania.com/about

[27] www.imdd.ro/media/subiectul-lunii/femei-tehnologie-547

[28] www.unica.ro/detalii-articole/articole/it-gadgeturi-aplicatii-mobile-smartphone-special-femei-32570.html

[29] gadgetrends.ro/2013/04/29/cele-mai-importante-30-de-femei-sub-30-de-ani-din-tehnologie

[30] www.yoda.ro/hardware/sunt-sexy-si-geniale-13-femei-fatale-care-au-cucerit-lumea-sutelor-de-miliarde-de-dolari-din-tehnologie.html

[31] incomemagazine.ro/articles/tehnologie-performanta-si-femei-frumoase-intr-un-spatiu-depasit

[32] www.elady.ro/forums/index.php?act=SF&s=&f=44

[33] Rooke, A. and Slater, I. (2012) Extending Creative Practice. Final Evaluation Report, Goldsmiths, University of London, p. 11-13. www.gold.ac.uk/media/Extending Creative Practice Evaluation Report.pdf

[34] www.progressfoundation.ro/index.php?option=com_content&view=article&id=95&Itemid=227

[35] nupublicitatiiofensatoare.blogspot.ro

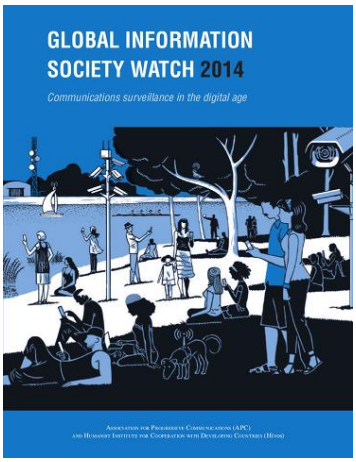
[36] www.scribd.com/doc/134511271/Catalogul-reclamelor-ofensatoare

[37] www.legislationline.org/documents/id/7703

[38] www.genderevaluation.net/sites/default/files/sites/dev.genderevaluation.net/files/GEMEnglish_0.pdf

GLOBAL INFORMATION SOCIETY WATCH 2014

COMMUNICATIONS SURVEILLANCE IN THE DIGITAL AGE



Online surveillance, security and privacy are concerns that have been central to human rights activists for years – but with the recent revelations by former National Security Agency (NSA) contractor Edward Snowden of United States (US) government spying on citizens, the issues have reached global attention.

This Global Information Society Watch in 2014[9] tracks the state of communications surveillance in 57 countries across the world – countries as diverse as Hungary, India, Argentina, The Gambia, Lebanon and the United Kingdom. Each country report approaches the issue from a different perspective. Some analyse legal frameworks that allow surveillance, others the role of businesses in collecting data (including marketing data on children), the potential of biometrics to violate rights, or the privacy challenges when implementing a centralised universal health system. The perspectives from long-time internet activists on surveillance are also recorded.

Using the 13 International Principles on the Application of Human Rights to Communications Surveillance as a starting point, eight thematic reports frame the key issues at stake. These include discussions on what we mean by digital surveillance, the implications for a human rights agenda

[9] https://giswatch.org/2014-communications-surveillance-digital-age

on surveillance, the "Five Eyes" inter-government surveillance network led by the US, cyber security, and the role of intermediaries.

These reports are published at a critical time: they show how rampant government surveillance is across the world, and how business is often complicit in this. They suggest action steps that civil society can take to push for a human rights framework for internet governance – and to expose what until now has remained hidden.

GISWatch is published annually and is a joint initiative by the Association for Progressive Communications (APC) and the Humanist Institute for Development Cooperation (Hivos).

BACK TO THE DIGITAL CAGE

Introduction

Romania joined the European Union (EU) in 2007 – an important step towards integrating its policies into the EU framework, but with several gaps when it comes to information and communications technologies (ICTs).

While the European Court of Justice (ECJ) has rejected the EU Data Retention Directive[1] as invalid,[2] Romanian legislators were preparing two laws which, if adopted, would throw the country into a "digital cage": Draft Law 263/2014 on cyber security, and Draft Law 277/2014 on the registration of prepaid mobile SIM cards and public Wi-Fi users.[3] Back in 2011, Romania was at the forefront of rejecting the EU Data Retention Directive,[4] risking sanction from the European authorities. In this context, adopting laws that violate users' right to privacy in 2014 would be a step back for the ICT policy-making standards in the country.

"Romania is currently undergoing rapid and major technological development, but we need to make sure the new technology respects users' rights. Under Ceausescu,[5] Romanians were forced to register all typewriters with the Militia. Today, the government wants all Romanians to register all prepaid SIM cards and record all traffic going through free public Wi-Fi hotspots," states an online petition launched on 8 June 2014.[6] This report focuses on two civil society protests against data retention laws in Romania that occurred in June and July 2014.

Policy and Political Background: Romania in the European Context

The process of ICT policy alignment started during Romania's accession to the EU (2001-2004). Milestones of regulatory changes contributing to an ICT-enabled environment included the liberalisation of the telecommunication market (2003), and legislation dealing with universal access, e-commerce and online security, as detailed in the Romania country report in GISWatch 2007.[7]

While the EU regulatory framework acted as a pulling force, ICT businesses have also pushed Romanian governmental agencies to keep up with regional and global communication trends. Infrastructural development has enabled access to mobile telephony and internet across the country, with narrowing gaps between urban and rural areas, the young and the elderly, the rich and the poor. The mobile broadband penetration rate rose significantly between 2011 and 2013, with 47.6% of the population connected to the internet via mobile devices in December 2013, compared to 21% in December 2011.[8]

Digital Literacy Gap: Low or no Skills

According to the Digital Agenda Scoreboard 2014 for Romania,[9] which assesses the country's digital performance based on data available for 2013, the widest gap between Romania and the EU average scores concerns rural fixed-broadband coverage (78% vs 90%), mobile broadband take-up (41% vs 62%), and 4G mobile broadband coverage (27% vs 59%). Partly due to this infrastructural gap,[10] 42% of the Romanian population has never used the internet, compared to the 20% EU average, and only 45% is using the internet on a weekly basis, while the EU average is 72%. Meanwhile, individuals with low or no digital skills represent 85% of the population, significantly higher than the 47% EU average.[11] An alarming ratio of 94% of "disadvantaged" people – individuals who are aged 55-74, have low levels of education and/or are unemployed, retired or inactive – have low or no digital skills, compared to the 64% EU average. Online safety and privacy issues are among the most critical digital skills gaps of Romanian internet users.

A report on EU digital skills issued in May 2014[12] placed Romania at the lowest end of the performance scale for every indicator: general ICT skills, safety, content creation and problem solving online. Even the so-called connected generation Z in Romania lags behind the digital literacy of youth in other countries, as shown in the EU Kids Online

project findings,[13] and the Net Children Go Mobile report.[14] These alarming results show the heightened responsibility for policy makers and society at large, including businesses and civil society organisations, to protect the digital rights of a vulnerable, unskilled population.

Stop Surveillance Activities in Romania! A Civil Society Campaign

ICT policy experts from Romania[15] have warned of the threats to privacy if data retention laws[16] are adopted. After draft laws were published in April 2014, civil society organisations have closely monitored the legislative process and informed the public, taking positions against both the content and the policy-making process.

"INVADING PEOPLE'S PRIVACY IS LIKE RAPE"

When commenting on the draft laws on data retention, the head of the ICT committee for the Romanian Chamber of Deputies put it bluntly: intruding into people's computers without their consent is like rape.[17]

Civil society and its partners[18] began to mobilise in June 2014 at the Coliberator conference,[19] organised by the Ceaţa Foundation. On 7-8 June 2014, a digital rights conference called Coliberator took place in Bucharest, featuring topics like "Reimagining the Digital Revolution after Snowden", "A Free Digital Society", and "Surveillance, capabilities, social consequences and responses". Conference participants published an online petition, asking the Romanian authorities to withdraw the draft laws on data retention. The petition, called "Stop surveillance activities in Romania!", received 1786 signatures[20] from people with various backgrounds: digital rights activists like Richard Stallman (the president of the Free Software Foundation), Jillian York (director at Electronic Frontier Foundation), Bardhyl Jashari (Metamorphosis Foundation),[21] mainstream media representatives, bloggers, software developers and students.

Online petition appeal launched at the Coliberator conference on 8 June 2014

Stop surveillance activities in Romania!

Romania is currently undergoing rapid and major technological development, but we have to make sure the new technology respects users' rights. Under Ceaușescu, Romanians were forced to register all typrewriters to the Militia. Today, the government wants all Romanians to register all pre-paid SIM cards and record all traffic going through free public WiFi hotspots.

Preamble

Just one month after the ECJ decision declaring the Data Retention Directive invalid, the Romanian Government made three decisions to continue and even extend mass surveillance by:

- ignoring the ECJ decision and keeping the law 82/2012 regarding the data retention to be enforced anyway.
- adopting, without any kind of public consultation, a law requiring registration of all prepaied sim card users (including forcing the current 12 million users to submit their personal data during the next 6 months or face disconnection). This is all the more egregious given that this is the 4th such attempt since 2011.
- planning to require providers of free public WiFi hotspots to identify their users.
- adopting, without any kind of public consultation, a new law giving agents of the state the power to examine data in any computer system whatsoever without a court order, including your computer, in order to "have access to the data being held".

The signatories, participants of *Fundația Ceata*'s *Coliberator* conference, as well as other people and organizations supporting this protest, are demanding the Romanian government and the Romanian public institutions to respect the citizens' privacy rights.

Thus, the signatories:

1. Remind that privacy is a fundamental human right, and that it is central to the existence and survival of democratic societies. It is essential to human dignity and it reinforces other rights, such as freedom of expression and information, and freedom of association, and is recognised under international human rights law. Activities that restrict the right to privacy, including communications surveillance, can only be justified when they are prescribed by law, when they are necessary to achieve a legitimate aim, and when they are proportionate to the aim pursued. (*International Principles on the Application of Human Rights to Communications Surveillance*)
2. Demand the immediate rejection by Parliament and withdrawal by the Government of the above mentioned draft laws that are infringing the right of privacy of the Romanian citizens.
3. Ask for an rapid annulment of the data retention law in order to respect the ECJ decision.
4. Underscore that any future action of the government that could affect the right of privacy or any other fundamental rights must be drafted and adopted only after meeting the transparency requirements made by Law 52/2003, with a full human rights impact assessment and with a mandatory opinion from the Romanian Data Protection Authority.

Note: English translation by the petition organisers. Source: *http://coliberator.ro/petition/*

Targeted Protests Against the "Big Brother Law"

At the same time, the Association for Technology and Internet, the Association for Defence of Human Rights in Romania, the Helsinki Committee, ActiveWatch, the Centre for Independent Journalism, the Romanian Centre for Investigative Journalism, Geo-spatial.org and the Ceata Foundation launched a joint statement [22] expressing their strong disapproval of Law 277/2014 on registering prepaid SIM cards and monitoring public Wi-Fi users. This law was passed in the Romanian Senate on 2 June 2014, with only one day allowed for amendments and comments. The signatory organisations highlighted the disproportionate and unclear character of the law:

- All free Wi-Fi users will need to be identified.
- All prepaid mobile phone users will have to be registered within six months after the law comes into force, otherwise their services will be deactivated.
- Users' registration will be done under uncertain conditions, with no clear provisions on who will be accessing their personal data.

On 2 July 2014, the law was rushed through parliament by the Chamber of Deputies. It was the fourth attempt to adopt a "Big Brother Law" in three years, all opposed by civil society organisations and industry – three times successfully.[23] On 3 July 2014, civil society organisations issued a statement highlighting the lack of real consultation during the legislative process, and asking that the Romanian Constitutional Court take note of the unconstitutional character of the law.[24] On 7 July 2014, nine Romanian civil society organisations issued a request to the presidency, asking it to notify the Constitutional Court on the unconstitutional character of the surveillance law.[25]

Conclusions

Steady technological development has connected many Romanians to the global digital culture, but when it comes to skills, awareness and participation, there is a long way to go: 85% of the population has low or no digital skills, and 45% has never used the internet. Governmental machineries and interests are still dominating the public arena,

but civil society organisations have strong capacity to channel energies and to protect vulnerable users' right to privacy. Romanian organisations were able to mobilise, and in one-month 1786 signatures were gathered protesting against an abusive surveillance law.

Two draft laws were issued in April 2014: one on cyber security, with a pending status in July 2014, and the other on monitoring prepaid SIM card holders and public Wi-Fi users – the latter was pushed through the legislative apparatus in one month, from 2 June to 2 July 2014. The future remains uncertain: it is more likely that a top-down authoritative voice from the EU would be able to prevent Romanian authorities from invading citizens' privacy.

Ironically, while the ECJ has rejected the EU surveillance directive, Romanian authorities still adopted an abusive law that throws the country into a "digital cage".

Action Steps

- A multi-stakeholder approach to ICT issues, including digital rights, should be promoted and implemented at a national level in Romania. Civil society organisations should act as barometers of freedom and watchdogs of democracy by:Building stronger coalitions with local and international digital rights activists.
- Developing common platforms and strategies with businesses and international governmental organisations, such as EU organs.
- Initiating and implementing ICT educational programmes in order to raise the level of digital literacy in Romania.

References

[1] Directive 2006/24/CE of the European Parliament.

[2] O'Brien, D. (2014, April 8). Data Retention Directive invalid, says EU's highest court. *Electronic Frontier Foundation*. https://www.eff.org/deeplinks/2014/04/data-retention-violates-human-rights-says-eus-highest-court

[3] www.apti.ro/noutati-cybersecurity-si-prepay-cdep

[4] legi-internet.ro/blogs/index.php/legea-pastrarii-datelor-de-trafic-a-fost-respinsa-de-senat

[5] Nicolae Ceausescu, Romanian dictator (1965-1989) under the Communist regime (1949-1989)

[6] coliberator.ro/petition

[7] giswatch.org/en/country-report/civil-society-participation/romania

[8] Autoritatea Naţională pentru Administrare şi Reglementare în Comunicaţii (ANCOM). (2014). *Piata serviciilor de comunicaţii electronice din România. Raport de date statistice pentru perioada 1 iulie – 31 decembrie 2013*, p. 39.

[9] https://ec.europa.eu/digital-agenda/en/scoreboard/romania

[10] And partly due to low ICT skills.

[11] Data available for 2012.

[12] European Commission. (2014). *Measuring Digital Skills across the EU: EU wide indicators of Digital Competence*. ec.europa.eu/digital-agenda/en/news/measuring-digital-skills-across-eu-eu-wide-indicators-digital-competence

[13] Helsper, E. J., Kalmus, V., Hasebrink, U., Sagvari, B., & de Haan, J. (2013). *Country Classification: Opportunities, risks, harm and parental mediation*. LSE, London: EU Kids Online.

[14] Mascheroni, G., & Ólafsson, K. (2014). Net Children Go Mobile: Risks and opportunities. Second edition. Milan: Educatt, p.39. www.netchildrengomobile.eu/reports

[15] apti.ro/pozitia-apti-comisia-ITC-prepay-securitate-cibernetica

[16] Draft Law 263/2014 on cyber security, and Draft Law 277/2014 on registering prepaid mobile SIM cards and public Wi-Fi users (issued in April 2014 for public consultation).

[17] www.avocatnet.ro/content/articles/id_37763/Boc-Boc-Cine-e-Nu-conteaza-da-mi-telefonul-sa-caut-in-el.html

[18] Centre for Research in Applied Ethics, Friedrich Ebert Stiftung Office Romania, The Sponge Media Innovation Lab, Knight-Mozilla Open News, and Coalition for Open Data.

[19] coliberator.ro/index.en.html

[20] As of 7 July 2014

[21] Macedonian member organisation of the Association for Progressive Communications.

[22] www.apador.org/en/parlamentul-aproba-proiect-lege-cartele-prepay

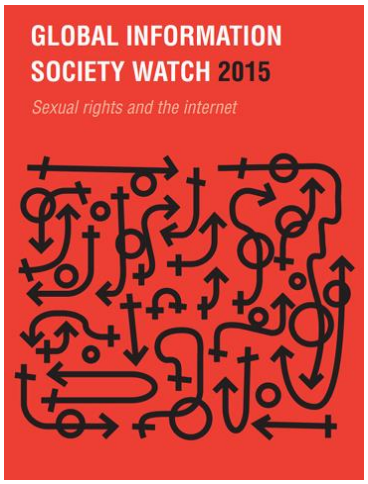
[23] apti.ro/Ini%C5%A3iativ%C4%83-legislativ%C4%83-privind-%C3%AEnregistrarea-utilizatorilor-serviciilor-de-comunica%C5%A3ii-electronice-tip-Prepay

[24] apti.ro/solicitare-sesizare-CCR

[25] apti.ro/apel-catre-presedentie-impotriva-inregistrare-prepay

GLOBAL INFORMATION SOCIETY WATCH 2015

SEXUAL RIGHTS AND THE INTERNET



This edition of GISWatch in 2015[10] presents stories from around the world on how the politics of sex and sexual rights activism takes place online. We want to research how generally accepted sexual identities, as well as marginalised sexualities, are expressed, regulated and moralised on the internet. We also want to show how this relates to the threats of surveillance, censorship and online violence.

The eight thematic reports introduce the theme from different perspectives, including the global policy landscape for sexual rights and the internet, the privatisation of spaces for free expression and engagement, the need to create a feminist internet, how to think about children and their vulnerabilities online, and consent and pornography online.

These thematic reports frame the 57 country reports that follow. The topics of the country reports are diverse, ranging from the challenges and possibilities that the internet offers lesbian, gay, bisexual, transgender and intersex (LBGTI communities, to the active role of religious, cultural and patriarchal establishments in suppressing sexual rights, including same-sex marriage, to the rights of sex workers, violence against women online, and sex education in schools. Each country report includes a list of action steps for future advocacy.

[10] https://giswatch.org/2015-sexual-rights-and-internet

The timing of this publication is critical: many across the globe are denied their sexual rights, some facing direct persecution for their sexuality (in several countries, homosexuality is a crime). While these reports seem to indicate that the internet does help in the expression and defence of sexual rights, they also show that in some contexts this potential is under threat – whether through the active use of the internet by conservative and reactionary groups, or through threats of harassment and violence. The reports suggest that a radical revisiting of policy, legislation and practice is needed in many contexts to ensure that the possibilities of the internet for guaranteeing sexual rights are realised all over the world.

CYBER HARASSMENT: BRINGING GENDER-BASED VIOLENCE ONTO THE PUBLIC AGENDA

Introduction

With the rise of the networked society in the information age, patriarchy has moved online. Cyberspace – although developing a culture of its own – is not emerging in a social vacuum. Instead it reflects the fragmented and contradictory character of the "offline" world.

In this report, we provide a snapshot of a Romanian initiative aimed at bringing gender-based violence onto the public agenda through educational tools, with a focus on cyber harassment.

Gender-based violence affects both men and women, but women are more at risk. As a European Union (EU)-wide report has argued:

Women can perpetrate violence, and men and boys can be victims of violence at the hands of both sexes, but the results of this survey, together with other data collection, show that violence against women is predominantly perpetrated by men. This is overwhelmingly the case when it comes to sexual violence and sexual harassment. With this in mind, the majority of violence against women can be understood as gender-based violence . [1]

According to the 2014 Gender Gap Report, Romania ranked 72nd out of 142 countries, with better scores for the health and survival index, and worse for political participation.[2] There is more food than freedom, one might say. Although gender equality and civic participation have a long way to go in the country, there are local projects that connect different age groups, ideas and actions towards a freer and fairer society. A project called "Gender-based Urban Discrimination"[3] initiated by two Romanian NGOs – *Societatea de Analize Feministe* and *Asociatia Front* – has called for a series of civic actions in the capital Bucharest, which include the creation of an online map of the spaces and places where women have encountered harassment; the development of a guide to

gender-based violence in urban spaces; the organisation of street activism; and an exhibition of photographs and videos on the topic. Another important and visible initiative was a coalition of 12 women's rights organisations that formed a network for preventing and combating violence against women,[4] connecting local and national advocacy actions. Last, but not least, the LOG IN Romania educational project by the ALEG Association, which is discussed below, is part of a broader initiative to bring gender-based violence onto the public agenda.

Policy and Political Background

Romania joined the EU, a community of cultures, values and policies, in 2007. After 50 years of communist dictatorship (1949-1989), the country is still struggling to fight corruption, advance human rights and build democratic institutions. As presented in the Global Information Society Watch (GISWatch) 2013 report, [5] Romanian society has encountered a new patriarchy and a "room-service feminism" [6] – meaning top-down gender equality policies that are imposed, but lack real substance.

Research has shown that a gender-based hierarchy is a predictor for gender-based discrimination, and a basis for sexual harassment: "The more an organization differentiates the status of men and women, the stronger the incentives will be to meet sex-based ideals[7] in that organisation."[8] The "new patriarchy"[9] that emerged in post-communist Romania has risen both in offline and online contexts. Traditional environments for gender-based violence – the family and the workplace – are increasingly complemented by violence against women online.

A survey conducted among citizens of EU member states has shown marked differences in the level of violence against women in online environments, with Denmark and Sweden at the higher end of the cyber harassment scale (18% of the respondents above 15 years old have experienced some sort of online harassment) and Romania at the lower end (5%). However, the difference might also be due to the digital divide between EU countries. The report stated: "It is possible to exclude from the calculations those respondents who do not use or have no access to such tools as email, SMS and social

networking sites. The variation, however, appears to reflect the use of the internet as a communication tool for both victims and perpetrators in the different Member States."[10]

The digital divide is still deep in the EU: while 92% of Danish citizens used the internet at least once a week in 2014,[11] only 48% of Romanians did so.[12] However, this situation seems to be changing rapidly with the expansion of 3G and 4G telephone networks – the mobile broadband penetration rate is rising exponentially in Romania, from 35.4% in 2012 to 60.2% in 2014.[13] This means cyber harassment should be on the agenda of developers and policy makers. A gang rape case and the hate speech it generated online shows how important this issue is in the country.

Patriarchy and Revenge Culture: the Case of a Gang Rape

On 10 November 2014 an 18-year-old girl from a Romanian village was gang raped by seven men aged between 18 and 28. The court case focused mainstream media attention on the incident and exposed the rapists, the victim and the local community where the sexual assault took place. "The girl is to blame," local community representatives declared.[14] An online media campaign was launched in July 2015 by the mainstream media portal adevarul.ro to support the victim, who had been blamed by the rapists' families and the local community. Meanwhile, an aggressive online counter-campaign was launched on Facebook by the rapists' mothers, and the rape victim became the target of cyber bullying by a friend of the perpetrators. Mainstream online media named and shamed the seven rapists under investigation, while social media gave space for inflamed comments and online clashes between the patriarchal establishment and human rights defenders, between rural community representatives and younger urban netizens. The outburst of hate speech online on both sides shows a lack of dialogue in our cyber culture, and the need for more civic action towards gender equality in online and offline contexts.

Log In: A Civic Initiative Against Gender-Based Violence Online

A local Romanian association called the Association for Freedom and Gender Equality (ALEG) [15] developed a project[16] aimed at combating and preventing online gender-based violence among teenagers. The initiative, suggestively called "LOG IN", consisted of workshops based on a peer-to-peer education methodology and organised in schools and other public spaces used by teenagers. The project consisted of four key activities:

Developing two training modules: one targeted at youngsters aged 14-18, and the other at parents and educators.Testing training activities on 250 high-school students, with the support of project personnel, and then on 750 high-school students through peer-to-peer education. Meanwhile, 400 parents and educators were targeted by the project team in order to raise awareness on the topic of cyber harassment. A series of creative and interactive methods were used such as developing a project slogan collectively, creating short videos, and designing content for online social platforms such as Facebook and Twitter. Evaluating the pilot activities via questionnaires before and after key events. Dissemination: students' public performance.

The project has been implemented in the central Romanian city of Sibiu, with EU funding of EUR 44,647.08 (USD 49,608.04),[17] and the partnership of local authorities and multistakeholder support from three countries: Cyprus, Italy and Lithuania.

The main tangible result of the project was the high participation of teenagers in training activities and in the creation of videos on the topic of gender-based violence online. In addition, youngsters from the Romanian city of Sibiu got involved in a global campaign against sexual violence called One Billion Rising, organised on 14 February 2014. [18] Meanwhile, parents and educators were acquainted with the opportunities and challenges of social media environments and given tips and tools on how to initiate a conversation, give support and be there for their children or students. A comprehensive booklet – dealing with gender-based violence and the responsible use of social media – was designed for them.[19] The educational material developed for the project contains short and practical advice on how to tackle cyber bullying, how to protect personal data, how to talk with children and youngsters on cyber security, and on cyber bullying issues.

Gender-based violence and responsible use of social media. Cover of a brochure for the LOG IN project. Source: ALEG Association.[20]

Although taking a somewhat moralising tone, the ALEG initiative was timely and practical, with a highlight on trending issues such as online dating, privacy protection, cyber harassment and gender-based violence. For example, the project material recommends: "When posting and tagging photos with friends and acquaintances, ask yourself whether you or not you are intruding on their privacy."[21] Several myths related to bullying in general, and cyber bullying in particular, are busted: "Myth: Victims of bullying are usually weak persons… Myth: Bullying someone on Facebook is not so serious as doing it face-to-face…"[22] Meanwhile, important data is presented on the impact of the internet on children and teenagers in Romania: "Statistics show that 81% of children aged 12-15 use the internet to do their homework, and nearly 50% of them for online gaming."[23]

The video-contest "Respect, not only likes!" was perhaps the most creative part of the LOG IN Romania educational project. Students worked in teams and created short films presenting stories of gender-based violence in online and offline contexts. The most creative videos were celebrated and posted online. An example can be seen in the screenshot included here.

Gender-based violence storified. Screenshot of an award-winning video from the LOG IN project. Source: ALEG Association.[24]

Conclusions

Romanian post-totalitarian society is patriarchal, both online and offline. Gender-based violence is not consistently discussed and debated in public spaces. However, EU norms and policies on one hand, and local civil society initiatives on the other hand, offer opportunities for bringing the issue to the forefront of public discourse.

The LOG IN project is a positive example of mobilising local resources using EU funds and international connections in order to educate key stakeholders – teenagers, educators and parents – on the topic of gender-based violence in general, and cyber harassment in particular. The implementing NGO, an active advocate of gender equality and freedom of expression, is developing further projects on the topic of gender-based violence, connecting local and global, and online and offline contexts. It is the result of a new generation of activists socialised in a free society.

Meanwhile, the 2014 gang rape case and the cyberstorm it generated shows the need for more educational civic actions targeted at the young generation in Romania.

Action Steps

Projects such as LOG IN should be promoted in the mainstream media, and replicated by other local, regional and national organisations concerned with tackling gender-based violence in general, and cyber harassment in particular.

Civil society organisations, governmental agencies and businesses should act in partnership to promote a safe, harassment-free society. Education and civic action that use art and other creative outputs are useful tools to reach this goal.

With the disseminating power of the interactive web, the social impact of civic action can be enhanced significantly.

References

[1] European Union Agency for Fundamental Rights. (2014). *Violence against women: an EU-wide survey*. Luxembourg: Publication Office of the European Union. fra.europa.eu/en/publication/2014/violence-against-women-eu-wide-survey-main-results-report

[2] Schwab, K. et al. (2014). *The Global Gender Gap Report*. Geneva: World Economic Forum.

[3] discriminari-urbane.ro/index.php/despre-noi/despre-proiect

[4] violentaimpotrivafemeilor.ro/membri-actuali

[5] giswatch.org/en/country-report/womens-rights-gender/romania

[6] Miroiu, M. (2004). State men, market women: The effects of left conservatism on gender politics in Romanian transition. *Feminismo/s*, *3*, 207-234. rua.ua.es/dspace/bitstream/10045/3243/1/Feminismos_3_14.pdf

[7] Refers to gender-based norms of behaviour in organisations.

[8] Berdahl, L. J. (2007). Harassment Based on Sex: Protecting Social Status in the Context of Gender Hierarchy. *The Academy of Management Review, 32*(2), p. 646.

[9] A term that Romanian feminist organisations use to describe a return to the pre-Communist age of gender inequality.

[10] European Union Agency for Fundamental Rights. (2014). Op. cit.

[11] https://joinup.ec.europa.eu/sites/default/files/ckeditor_files/files/eGov%20in%20Denmark%20-%20January%202015%20-%20v_17_0_Final.pdf

[12] https://joinup.ec.europa.eu/sites/default/files/ckeditor_files/files/eGov%20in%20Romania%20-%20January%202015%20-%20v_12_0_Final(1).pdf

[13] https://statistica.ancom.org.ro:8000/sscpds/public/files/89

[14] adevarul.ro/locale/vaslui/acasa-cele-sapte-brute-violat-lesin-eleva-asa-i-trebuie-plans-i-au-arestat-fata-e-vina-poveste-terifianta-satul-depravatilor-1_55a6839ef5eaafab2c99889b/index.html

[15] Asociatia pentru Libertate şi Egalitate de Gen (ALEG), an NGO from the central Romanian city of Sibiu. The word “aleg” also means “I choose”.

[16] aleg-romania.eu/wp-content/themes/Aleg/login.html

[17] Though the European Comission’s Daphne Funding Programme, January 2013-December 2014.

[18] www.onebillionrising.org/about/campaign

[19] aleg-romania.eu/wp-content/themes/Aleg/documents/Brosura%20pentru%20parinti%20si%20cadre%20didactice_RO.pdf

[20] aleg-romania.eu/wp-content/themes/Aleg/documents/Brosura%20pentru%20parinti%20si%20cadre%20didactice_RO.pdf

[21] Ibid., p. 9.

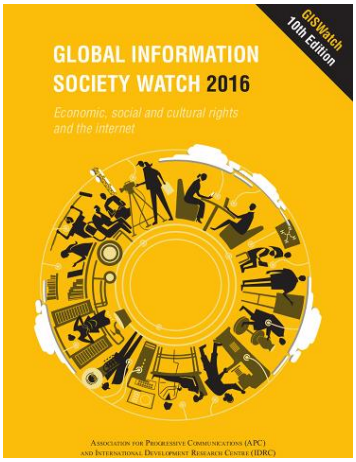
[22] Ibid., p.19.

[23] Ibid., p.24.

[24] Video contest for teens: Respect, not only likes! https://www.youtube.com/watch?t=90&v=1IByNCf8zr8

GLOBAL INFORMATION SOCIETY WATCH 2016

ECONOMIC, SOCIAL AND CULTURAL RIGHTS AND THE INTERNET



The 47 country reports gathered here in 2016[11] illustrate the link between the internet and economic, social and cultural rights (ESCRs). Some of the topics will be familiar to information and communications technology for development (ICT4D) activists: the right to health, education and culture; the socioeconomic empowerment of women using the internet; the inclusion of rural and indigenous communities in the information society; and the use of ICT to combat the marginalisation of local languages. Others deal with relatively new areas of exploration, such as using 3D printing technology to preserve cultural heritage, creating participatory community networks to capture an "inventory of things" that enables socioeconomic rights, crowdfunding to realise rights, or the negative impact of algorithms on calculating social benefits. Workers' rights receive some attention, as does the use of the internet during natural disasters.

Ten thematic reports frame the country reports. These deal both with overarching concerns when it comes to ESCRs and the internet – such as institutional frameworks and policy considerations – as well as more specific issues that impact on our rights: the legal justification for online education resources, the plight of migrant domestic workers, the use of digital databases to protect traditional

[11] https://giswatch.org/2016-economic-social-and-cultural-rights-escrs-and-internet

knowledge from biopiracy, digital archiving, and the impact of multilateral trade deals on the international human rights framework.

The reports highlight the institutional and country-level possibilities and challenges that civil society faces in using the internet to enable ESCRs. They also suggest that in a number of instances, individuals, groups and communities are using the internet to enact their socioeconomic and cultural rights in the face of disinterest, inaction or censure by the state.

PARTICIPATORY CULTURE AND THE INTERNET

Introduction

With the information and communications technology (ICT) sector accounting for 6% of the Romanian GDP in 2016, the country ranks fourth among 28 European Union (EU) countries with regard to the ICT sector's share of GDP.[1] However, according to the European Commission's annual Digital Economy and Society Index (DESI), Romania ranks among the last in the EU in online engagement, due to the poor integration of online services.[2] Has the internet levelled the playing field in the country? Has access to online spaces brought more fairness, resources and freedom to people? This report considers those left behind: Romania's digital immigrants who have a low level of digital literacy. In particular we focus on the Roma community.

Jenkins has noted that the interactive internet gives space for a participatory culture.[3] Recent studies on Romanian people's digital literacy have indicated that while infrastructural access to smart devices has doubled since 2013,[4] the quality of participation has not: the high DESI scores on connectivity for Romania are mainly due to social media use.[5] The "digital turn"[6] did not happen in every community. The rural, the poor, and the less educated have little access to quality content and are less keen to participate in the process of shaping the internet. While looking at the darker side of the digital divide, we highlight initiatives aimed at bridging the gap between digital natives and digital immigrants. Can participatory culture of the few bring benefits for those left behind?

Political and Policy Background

Despite significant progress in fighting corruption and creating transparent public institutions, Romania is still one of the most corrupt European countries.[7] Instead of punitive measures, experts recommend more transparency and mechanisms to prevent

abuse.[8] Transparency International's Corruption Perceptions Index ranked Romania 58th out of 168 countries in 2015.[9]

According to an Amnesty International report on Romania (2015-2016), "Roma continued to experience discrimination, forced evictions and other human rights violations. Following the release of the US Senate report on the CIA secret detention programme, a new investigation into Romania's co-operation was opened. In April, the UN Committee against Torture reviewed Romania for the first time in 18 years."[10] Meanwhile, a new Strategy for the Inclusion of Romanian Citizens of Roma Ethnicity for 2015-2020 was adopted, highlighting infrastructural development, equal access to the labour market and education.[11]

Roma communities are still discriminated against by the majority and living in striking conditions of poverty. According to a National Council for Combating Discrimination document sanctioning an internet café for not letting Roma people in, 82% of the Romanian population consider Roma criminals, 70.7% would segregate them from the majority of the population, 41.1% would not accept them as neighbours, and 48.6% would limit Roma population growth.[12] Roma people are constantly ridiculed[13] and stereotyped as criminals by the mainstream media: the most likely media report of a Roma person with a smartphone is that they stole it.[14]

Romania signed the International Covenant on Economic, Social and Cultural Rights (ICESCR) in 1968, and ratified it in 1976. In relation to the Roma people's status in Romania, Article 7 (just and favourable conditions of work), Article 11 (decent living conditions), Article 12 (physical/mental health) and Article 13 (proper education) have particular relevance.[15] In its recommendations on the social exclusion and discrimination against the Roma, the Committee on Economic, Social and Cultural Rights has recommended[16] that Romania:

Collect disaggregated statistical data on the number of Roma living in the country and on their access to employment, social security, housing, health care and education, in order to improve their socioeconomic situation.

Provide the Roma with personal documents, including birth certificates, which are necessary for the enjoyment of their rights.

Address the problems faced by the Roma in accessing employment, social security, housing, health care and education.

Address negative prejudices and stereotypes, which are among the underlying causes of the systemic discrimination and social exclusion experienced by the Roma.

Using the Internet to Bridge the Economic, Social and Cultural Divide

The national strategy for the socioeconomic inclusion of Roma people does not even contain the word "internet". However, there are some initiatives aimed at bridging the digital divides between the connected and those left behind, such as the TechCamp (December 2011). The Romanian Ministry of Foreign Affairs, the US Embassy in Romania and the Romanian National Library organised a two-day workshop focused on NGOs helping disadvantaged groups through improved digital literacy.[17] ICT experts and NGO representatives have mapped key areas of the digital divide that need attention and have planned a series of actions for bridging them:[18]

- How can we create an online platform for disabled persons focusing on employment opportunities?
- *How do we engage with teachers to promote creativity and critical thinking in the education system (e.g., social media literacy skills)?*
- *How can we use new technologies to* reduce the school dropout rate?
- How can we solve the lack of specialist IT teachers?
- How can we change the negative image of Roman people perpetuated in traditional and new media, including promoting good role models?
- *How do we collect valid data on the Roma?*
- *How can we reach isolated communities (with no access to technology)?*
- How to (prepare to) engage people in response to emergency situations (such as earthquakes and floods) and increase the efficiency of emergency responses.

We could retrieve no information on the implementation of these ideas. Current projects funded by the National Agency for the Roma Community – called "2016: The year

of citizen participation and responsibility" – were mainly concerned with general educational issues in rural communities.[19]

Meanwhile, an ongoing international research project – "The Untold Story: An Oral History of the Roma People in Romania" – is being conducted by the Babeș-Bolyai University Cluj-Napoca in partnership with the University of Iceland, with funding from the governments of Iceland, Lichtenstein and Norway. It is aimed at recovering and reconstructing the histories of the Roma in Romania by collecting, preserving and interpreting their oral testimonies. As part of disseminating the research results, the project team plans to create a virtual museum in Romani, Romanian and English, build a database of testimonies, and develop educational materials. This is a good example of using ICTs for the benefit of a marginalised community.[20]

How Connected is Romania to the EU and to the World?

Statistical data for ICT access and use in Romania from 2015[21] show a marked divide between urban and rural areas according to EU standards. While more than half of Romanian households had a computer at home, the percentage in rural areas was 61.9%, compared to 72.2% in urban areas. Overall, 61% of Romanians had internet access, but the percentage rises to 66.9% in urban areas. The report also states that 71.1% of Romanian people aged 16-74 had used a computer, with the percentage of men using a computer slightly higher than that of women: 72.1% versus 68.1%. If we look at the age groups, the most vulnerable category is the elderly: 73.9% of people aged 65-74 have never used a computer, compared to 8.2% for the 16-24 year olds and 29.4% for 45-54 year olds.

Roma people are the most disconnected group in Romania when it comes to benefitting from the advantages of the information society. According to a United Nations e-government survey, only 16.5% of the Roma population could use the internet.[22] Meanwhile, another report states that 25% could neither read nor write.[23] Illiteracy in general, and computer illiteracy in particular, are major obstacles in accessing the labour market for better paid and more stable jobs. The national strategy for implementing the

EU digital agenda in Romania is focused on economic and cultural e-inclusion generally, and does not deal with the social marginalisation of the Roma community.[24]

According to the DESI, when it comes to e-government performance, Romania is lagging behind Western European countries such as frontrunner Denmark, or former Communist countries that have been able to catch up with highly developed countries, such as Estonia (see Table 1).

Table 1.

Romanian e-government performance assessment across EU policy priorities[25]

Scores for 2014		**EU 28+** [26]	**Denmark**	**Estonia**	**Romania**
User centricity	*Overall scores*	73	84	89	48
	Online availability	75	87	94	51
	Usability	80	85	90	43
	Easy of use	60	69	72	41
	Speed of use	56	66	73	36
Transparent Government	Overall scores	51	65	77	19
	Service delivery	41	56	78	9
	Public organisations	60	51	88	37
	Personal data	52	89	67	11
Key enablers	Overall scores	50	82	91	12
	eID	63	100	100	48
	eDocuments	57	71	94	24
	Authentic sources	46	77	93	8
	eSafe	39	71	86	0
	Single sign-on	58	100	86	14

Benchmarks: Insufficient (0–25), Moderate (26–50), Fair (51–75), Good (76–100).
* EU 28+ stands for the 28 EU countries plus Norway.

Source: Table compiled based on data from: European Commission. (2015). Romania. E-government state of play. Country Factsheets – eGovernment Benchmark Report 2015. Brussels: Digital Single Market. Digital Economy and Society.

The UN e-government survey confirms the statistics in Table 1: despite significant progress made in online service delivery, Romania belongs to the group of countries striving to catch up with the developed world, with an e-government development index (EGDI) of 0.5611 (on a scale of 0.0270 to 0.9193), ranking it 75th out of 193 countries.[27]

The report states: "As a composite indicator, the EGDI is used to measure the readiness and the capacity of national administrations to use ICT to deliver public services."[28]

If we consider this result in a global context, it is fairly good, and above the world average score of 0.4922. If we look in more detail, however, the result is more nuanced. Romania was scored 0.4565 for online services (below the world average of 0.4623), 0.4533 for telecommunication infrastructure (above the world average of 0.3711), and achieved a significantly better result for the human capital component: 0.7736, above all regional and world averages (see Table 2). The online service component was evaluated through a global survey measuring online presence of national governmental organisations, whereas telecommunication infrastructure data were provided by the International Telecommunication Union (ITU). The human capital index was calculated based on data provided by the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Table 2: Regional EGDI averages [29]

Region	EGDI	Online service component	Telecom infrastructure	Human capital component
Africa	0.2882	0.2567	0.1724	0.4355
Americas	0.5245	0.4959	0.3844	0.6933
Asia	0.5132	0.5120	0.3730	0.6545
Europe	0.7241	0.6926	0.6438	0.8360
Oceania	0.4154	0.2966	0.2599	0.6897
World	0.4922	0.4623	0.3711	0.6433

The data presented in Table 2 reflect Romanian governmental efforts to align itself with best practices regarding the use of ICTs for development. But to what extent can ICTs be put to work for development? The socioeconomic and cultural gap between the haves and have-nots is enormous. Disadvantaged groups like the Roma, the elderly, and those living in rural areas can hardly have their fundamental human rights to decent work, to proper living conditions and to education realised unless they are brought into the information society. An important part of social inclusion is the participation in global culture enabled by the internet.

Conclusions

Participation is the key enabler of advancing human rights in a democratic society. The EU gives a strong normative framework for developing a participatory culture in its member states, both in offline and online contexts, but the implementation is the task of national and sub-national governmental entities, businesses and civil society organisations.

With the rise of the network society and the ubiquity of the internet, citizen participation can be raised to the next level. Are the economic and cultural dimensions enough to provide a participatory culture through the internet? We believe they are not. The political and the social dimensions are indispensable for building a fair and just society. Political will and proportionate measures are necessary to bridge the digital gap, whereas social measures are necessary to bring marginalised groups back from the fringes of society. Should we leave the word "internet" out of a Roma inclusion strategy? We should not. Dire poverty and discrimination are indeed painful problems for marginalised communities – and need focused attention – but ICTs can empower those left behind, and open up possibilities for employment, for citizen involvement in the world of work, and simply for entertainment and fun. Should we give food first and then computers? Yes. Meanwhile, the condescending discourse of "helping them" should be replaced with dialogue involving all stakeholders in the process of bridging economic, social and digital divides.

Action Steps

Action steps in Romania should include the following:

- Governmental and civil society organisations should be more active in providing digital literacy services for marginalised groups, such as the Roma and the elderly.
- Businesses should include a strong digital inclusion component in their corporate social responsibility programmes, targeted at digital immigrants and at Roma people in particular.

- Media representatives should raise the ethical standards of their discourse on marginalised groups, especially the Roma population.
- Good practices in the creative and enabling use of ICTs for marginalised groups should be encouraged generally.

References

[1] European Commission. (2016). Country Report Romania 2016. ec.europa.eu/europe2020/pdf/csr2016/cr2016_romania_en.pdf

[2] Ibid.

[3] Jenkins, H. (2009). Confronting the Challenges of Participatory Culture: Media Education for the 21st Century . Cambridge MA and London: The MIT Press. https://selectra.co.uk/sites/selectra.co.uk/files/pdf/9780262513623_Confronting_the_Challenges.pdf

[4] Bakó, R. K. (2016). Digital Transition: Children in a Multimodal World. Acta Universitatis Sapientiae, Social Analysis, 6 (1), 145-154. https://www.researchgate.net/publication/307638942_Digital_Transition_Children_in_a_Multimodal_World

[5] European Commission. (2016). Digital Single Market. Digital Economy and Society. Romania. https://ec.europa.eu/digital-single-market/en/scoreboard/romania

[6] Westera, W. (2015). The Digital Turn: How the Internet Transforms Our Existence. www.thedigitalturn.co.uk/TheDigitalTurn.pdf

[7] Societatea Academică din România. (2016). Raportul anual de analiză şi prognoză – România 2016. sar.org.ro/raportul-anual-de-analiza-si-prognoza-romania-2016

[8] Ibid.

[9] Transparency International. (2015). Indicele de percepţie a corupţiei. România 2015. https://www.transparency.org.ro/politici_si_studii/indici/ipc/2015/IPC2015_Prezentare_RO.pdf

[10] Amnesty International (2016). Annual Report: Romania 2015/2016. https://www.amnesty.org/en/countries/europe-and-central-asia/romania/report-romania

[11] Agenţia Naţională pentru Romi. (2014). Strategia Guvernului României de incluziune a cetţenilor aparţinând minorităţii rome pentru perioada 2014-2020. www.anr.gov.ro/docs/Site2014/Strategie/Strategie_final_18-11-2014.pdf

[12] Consiliul Naţional pentru Combaterea Discriminării. (2008). Hotărârea nr. 180 din 18 februarie 2008. nediscriminare.ro/uploads_ro/docManager/1386/180.pdf

[13] Ceaușescu, V. (2016, 9 March). România, tot la coada Europei/ Primim iar un raport cutremurător din partea „lumii civilizate". Cuvântul Libertății. www.cvlpress.ro/09.03.2016/romania-tot-la-coada-europei-primim-iar-un-raport-cutremurator-din-partea-%E2%80%9Elumii-civilizate

[14] Dan. (2011, 3 June). Un ţigan cu telefonul descărcat, prins în timp ce încerca să fure curent dintr-un bar .Times New Roman (news satire site). www.timesnewroman.ro/26528

[15] International Covenant on Economic, Social and Cultural Rights. www.ohchr.org/EN/ProfessionalInterest/Pages/CESCR.aspx

[16] Committee on Economic, Social and Cultural Rights. (2014). Concluding Observations. E/C.12/ROU/CO/3-5. tbinternet.ohchr.org/_layouts/treatybodyexternal/Download.aspx?symbolno=E/C.12/ROU/CO/3-5&Lang=En , pp. 3-4.

[17] Storify.com (2011). TechCamp Goes to Bucharest, Romania! https://storify.com/techcampglobal/techcamp-goes-to-bucharest-romania

[18] TechCamp Wiki. (n.d.). TechCamp Bucharest Folder. wiki.techcampglobal.org/index.php?title=TechCamp_Bucharest_Folder

[19] Agenţia Naţională pentru Romi (2016). Lista proiecte admise. „Anul Participării şi Responsabilizării Cetăţenilor III" 2016. www.anr.gov.ro/docs/Site2016/Proiecte/Finantari2016/Sesiunea2/Lista%20proiecte%20admise%20Sesiunea%20II%202016.pdf

[20] EEA Grants. (2016, 20 September). Telling the Stories of Roma . eeagrants.org/News/2016/Telling-the-stories-of-Roma

[21] Institutul Naţional de Statistică. (2015, 27 November). În anul 2015, ponderea gospodăriilor care au calculator acasă a fost de 61,9%, iar a celor care au acces la reţeaua de internet acasă a fost de 61,0%. Comunicat de presă, 295. www.insse.ro/cms/files/statistici/comunicate/com_anuale/tic/a15/tic_r2015.pdf

[22] As compared to 54.08% for the overall population. United Nations. (2016). United Nations e-Government Survey 2016: E-government in Support of Sustainable Development. https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2016

[23] Neagu, G. (2012). Şanse de acces la educaţie în societatea românească contemporană. Iaşi: Editura Lumen.

[24] Guvernul României. (2015). Strategia Naţională privind Agenda Digitală pentru România 2020. www.ancom.org.ro/uploads/links_files/Strategia_nationala_privind_Agenda_Digitala_pentru_Romania_2020.pdf

[25] Table compiled based on data from: European Commission. (2015). Romania. E-government state of play. Country Factsheets – eGovernment Benchmark Report 2015. Brussels: Digital Single Market. Digital Economy and Society.

[26] EU 28+ stands for the 28 EU countries plus Norway.

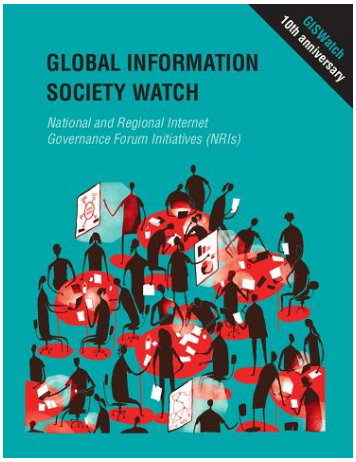
[27] United Nations. (2016). Op. cit.

[28] Ibid.

[29] Ibid.

GLOBAL INFORMATION SOCIETY WATCH 2017

NATIONAL AND REGIONAL INTERNET GOVERNANCE FORUM INITIATIVES (NRIS)



National and Regional Internet Governance Forum Initiatives (NRIs) are now widely recognised as a vital element of the Internet Governance Forum (IGF) process. In fact, they are seen to be the key to the sustainability and ongoing evolution of collaborative, inclusive and multistakeholder approaches to internet policy development and implementation.

A total of 54 reports on NRIs are gathered in this Global Information Society Watch of 2017[12] (GISWatch). These include 40 country reports from contexts as diverse as the United States, the Democratic Republic of Congo, Bosnia and Herzegovina, Italy, Pakistan, the Republic of Korea and Colombia.

The country reports are rich in approach and style and highlight several challenges faced by activists organising and participating in national IGFs, including broadening stakeholder participation, capacity building, the unsettled role of governments, and impact.

Seven regional reports analyse the impact of regional IGFs, their evolution and challenges, and the risks they still need to take to shift governance to the next level, while seven thematic reports offer critical perspectives on NRIs as well as mapping initiatives globally.

[12] https://giswatch.org/2017-national-and-regional-internet-governance-forum-initiatives-nris

AN INTERNET GOVERNANCE FORUM IN ROMANIA: FROM PLANNING TO ACTION

Introduction

The aim of this report is to provide a brief overview of progress made in Romania on the road to establishing a national internet governance forum (IGF). Although civil society organisations and internet freedom activists are present at major regional and international internet governance events, a national IGF has still not been established in Romania, in contrast with neighbouring countries like Serbia, Bulgaria or Ukraine. As a participant at the Internet Governance Cocktail organised in Bucharest on 18 November 2016,[1] my key question is: how can the Romanian IGF project be moved forward?

Policy and Political Background

Romania has made significant efforts to ensure fair access to information and communications technologies (ICTs) across the country, but has this been enough to reach the high standards of connectivity, inclusiveness and transparency set by the European Union (EU) Digital Agenda?[2] A monitoring and evaluation framework for the implementation of the Digital Agenda in Romania has summarised key tasks, indicators and responsible institutions for data collection in order to reach the 2020 targets for e-governance, digital literacy, innovation and next-generation infrastructure in the country. [3] Ranked last among member states in the Digital Economy and Society Index, [4] Romania has a long way to go when it comes to human capital,[5] use of the internet, [6] integration of digital technology,[7] and digital public services.[8] The report states:

Romania ranks 28th out of the 28 EU Member States. [···] In recent years, Romania has not made much progress relative to other EU Member States. On the positive side, Romanians benefit from coverage of fast broadband connections in urban areas, which translates into the highest share of subscriptions in the EU. The take-up of mobile

broadband is also accelerating. However, the rate of digitisation of the economy, including for public services, and digital skill levels are still low.[9]

According to the 2017 Freedom House report, Romania – with its 19.8 million inhabitants and a gross domestic product (GDP) of USD 8,973 per capita – is assessed as a free country, with a partly free press controlled by businessmen with political interests.[10] Ten years after joining the EU, its civil society has strengthened, with a real potential to impact on development. Meanwhile, the regional and international context hinders pluralism and an open society in the region.[11] In a nutshell:

Romania is relatively stable politically and economically, with the ICT sector accounting for a 6% share of the country's GDP in 2016, the fourth highest in the EU.[12] With a dynamic ICT sector and an agile business community, mainstream internet-related discourses are more concerned with e-commerce than internet governance.

- Internet policy discussions are not transparent enough and inclusive of all relevant stakeholders: civil society organisations and stakeholders outside the capital Bucharest are often excluded from the discussion table, although the formal requirements set by the EU on posting legislative initiatives for public consultation are formally respected.
- The ICT sector and government offices have been shaken by corruption scandals related to Microsoft licence attribution,[13] and the theft of EU funds meant for broadband expansion in rural areas.[14] In 2016, the former minister of communications and information society, Gabriel Sandu, was jailed for three years.[15]

IGF Topics Across Europe

Table 1 summarises a topic analysis of the main issues discussed at the national, regional and sub-regional IGFs held across Europe in 2015. The topic analysis was done by the organisers of the European Dialogue on Internet Governance (EuroDIG) meeting held in Sofia in 2015. It shows that a wide variety of issues were discussed at the 22 events. Participation in internet policy making was the leading topic in 2015 (13 events), followed by privacy (11 events), innovation and development (9 events), and security issues (8 events).

TABLE 1.

Leading topics discussed at IGF events across Europe in 2015

Topic	No. of events
Participation in internet governance policy making	13
Privacy	11
Innovation and development	9
Security	8
Human rights	6
Media in the digital age	4
Domain names	3
Copyright	3
Accessibility and equality	2

Source: Table compiled based on data from EuroDIG 2015 held in Sofia.[16]

Source: Table compiled based on data from EuroDIG 2015 held in Sofia.[16]

Setting Up a Local IGF

On 2 June 2016, a meeting of the Romanian IGF Coordinating Committee took place at the Ministry of Communications and Information Society,[17] aimed at creating a national IGF in Romania. Participants declared that their intention was to create an annual national forum on internet governance, by involving governmental and non-governmental organisations, the ICT industry, academics and any individuals interested in internet issues as equal partners. The meeting also tackled the issue of funding and the need for a permanent national IGF secretariat. Representatives of the group agreed to meet on 30 June 2016 to consolidate their ideas on these matters.

The participants at the meeting were representatives of the government (Ministry of Communications and Information Society,[18] National Authority for Management and Regulation in Communications of Romania,[19] Ministry of Foreign Affairs Romania);[20] civil society (DiploFoundation,[21] Internet Society Romania,[22] Association for Technology and Internet – APTI); [23] the ICT industry (National Association of Internet Service Providers,[24] Association of ICT Equipment Producers and Distributors);[25] as well as research and development organisations (National Institute for Research and Development in Informatics,[26] National Foundation of Young Managers,[27] CyberInt,[28] and Romanian Open Source Education).[29]

Photo: Romanian IGF Coordinating Committee meeting in Bucharest on 2 June 2016. *Source: www.igf.ro*

The next publicised IGF.ro event was the Internet Governance Cocktail held in November in 2016, organised by APTI. It was an opportunity for civil society representatives to get together and discuss what internet governance means, why it is important to have a policy perspective on internet-related issues, and why multistakeholderism is important for an IGF process.

As of September 2017, a Romanian IGF had not yet been held. According to an ICT policy expert interviewed for this overview, there is still a lack of awareness of the participatory approach among ICT stakeholders, especially governmental actors, who lack the experience and expertise needed for multistakeholder dialogue. Meanwhile, a newly formed community of ICT business and policy experts, called Digital Citizens of Romania, is actively promoting regional dialogue on ICT policy issues, including internet governance dialogue-related actions. The group calls itself "the first Romanian think tank in the digital field".[30]

Regional Reflection

Romanian ICT stakeholders are increasingly interested in participating in shaping the internet locally and globally. Civil society organisations – APTI and DiploFoundation – are the most engaged in moving the IGF agenda forward, supported by young entrepreneurs. Meanwhile, positive regional processes offer a good frame for such initiatives:

- South Eastern European Dialogue on Internet Governance (SEEDIG) and EuroDIG are good learning spaces for creating a national IGF in Romania. APTI and DiploFoundation representatives have been present at all events since 2010.
- Since 2010, Romania has been present with a local remote hub set up by APTI at global IGFs, and Romanian participants engage actively in the discussions.
- A very vibrant community of experts and internet freedom activists, as well as monthly webinars and newsletters, have been set up by SEEDIG.

Conclusions

In Romania the ICT sector is considered a success story, despite its ups and downs and corruption scandals. Based on this momentum, several positive processes have enabled an internet governance agenda in Romania:

- The EU regulatory framework acts as a driving force, with ambitious targets set by the Digital Agenda for Europe in terms of inclusion, transparency and participation.
- Positive regional developments such as SEEDIG and EuroDIG encourage individual and institutional actors to take steps towards a national IGF in Romania.
- The first step has been taken by setting up an organising committee to prepare a national IGF in the country.

Action Steps

In order to the IGF plans to translate into actions, some steps are needed:

- Government actors responsible for creating the IGF.ro as a national yearly forum should take action, especially the Ministry of Communications and Information Society, which should mainstream the event as part of its official discourse.
- Civil society organisations should act as catalysers and knowledge pools based on their experience with regional and global IGFs, to encourage the participation of other local actors.
- Last, but not least, internet governance initiatives should be mainstreamed by key media channels and academic forums to make them visible, relevant and open to the public.

References

[1] An informal meeting aimed at educating civil society organisation representatives, technical community members and media representatives on IGF issues. igf.ro/2016/11/08/invitatie-intalnire-informala-internet-governance-18-noiembrie-2016-ora-1600

[2] European Commission. (2014). Digital Agenda for Europe. www.europa.eu/european-union/file/1497

[3] Ministerul Comunicațiilor și pentru Societatea Informațională. (2016). Manualul de monitorizare și evaluare al strategiei nationale privind Agenda Digitala pentru Romania. https://www.comunicatii.gov.ro//wp-content/uploads/2016/02/Manual_Monitorizare_Evaluare_v2.0-BM.pdf

[4] European Commission. (2017). Digital Economy and Society Index 2017 – Romania. www.ec.europa.eu/newsroom/document.cfm?doc_id=43038

[5] Internet use, basic and advanced digital skills.

[6] Use of content and online transactions.

[7] Business digitisation and e-commerce.

[8] E-government.

[9] European Commission. (2017). Op. cit.

[10] Freedom House. (2017). Freedom in the World 2017. Romania Profile. www.freedomhouse.org/report/freedom-world/2017/romania

[11] Kivu, M. (ed). Romania 2017: Sectorul neguvernamental. Profil, tendinte, provocari. Bucharest: Fundatia pentru Dezvoltarea Societatii Civile.

[12] Bakó, R. (2016). Romania: Participatory culture and the internet. In A. Finlay (Ed.), Global Information Society Watch 2016. www.giswatch.org/en/country-report/economic-social-and-cultural-rights-escrs/romania

[13] www.digi24.ro/stiri/actualitate/justitie/dosarul-microsoft-2-dan-nica-si-adriana-ticau-la-dna-630583

[14] www.digi24.ro/stiri/economie/proiectul-internet-la-sate-blocat-total-745781

[15] www.digi24.ro/stiri/actualitate/evenimente/gabriel-sandu-a-fost-adus-la-dna-709410

[16] Details at www.eurodig.org/fileadmin/user_upload/eurodig_Sofia/IGF15_Open_Forum_Hot_topics_across_Europe.pdf

[17] igf.ro/2016/06/02/intalnire-a-comitetului-de-coordonare-a-forumului-pentru-guvernanta-internetului-din-romania

[18] www.comunicatii.gov.ro

[19] www.ancom.org.ro/en

[20] www.mae.ro

[21] www.diplomacy.edu

[22] www.isoc.ro

[23] apti.ro/apti-english

[24] www.anisp.ro

[25] asociatiait.ro

[26] https://www.ici.ro/?lang=en

[27] www.fntm.ro

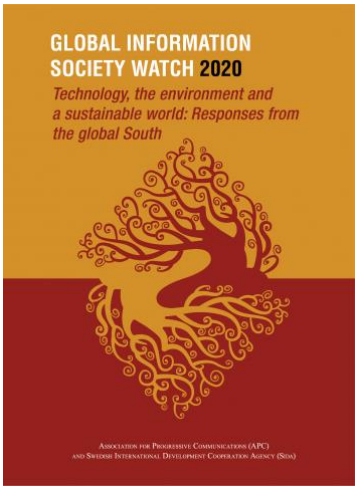
[28] https://www.facebook.com/Cyberint

[29] www.rosedu.org

[30] https://www.digitalcitizens.ro

GLOBAL INFORMATION SOCIETY WATCH 2020

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) in 2020[13] 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.

[13] https://giswatch.org/2020

RIGHT TO REPAIR FOR SUSTAINABLE ICT USE

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 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, fridges, 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

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 infrastructure 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 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.

References

[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 Naţională pentru Administrare şi Reglementare în Comunicaţii. (2020). Piaţa serviciilor de comunicaţii 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 populaţiei la tehnologia informaţiilor şi comunicaţiilor. Institutul Naţional de Statistică.

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

[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

[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 Mureş 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.

[31] https://netix.home.blog

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

ISBN: 978-606-37-1929-5