ROMANIA

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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)[2] 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	1,154
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,[3] run by the Ministry of Communications and Information Technology. 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

1 <www.sbnet.ro>.

2 <www.apti.ro>.

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

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).[4] 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, Iasi, Tirgu Mures, Cluj, Timisoara and Craiova. Most educational institutions are connected through local nodes at the county level[5] 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.[6]

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.[7]

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.[8] 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.[9]

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,[10] "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).

4 <www.roedu.net>.

5 Romania is divided into 41 *judetes* (counties) and one municipality.

6 See: <euro200.edu.ro>.

7 More information available from: <www.riti-internews.ro> and <www.ro-gateway.org>.

8 See: <wiki.lug.ro/mediawiki/index.php/Pagina_principal_>.

9 See: <www.eliberatica.ro>.

10 <www.eclectictechcarnival.org>.

The **Ministry of Communications and Information Technology** (MCTI) (<www.mcti.ro>) 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) (<www.anrc.ro>) 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) (<www.igcti.ro>) administers the radio frequency spectrum and operates three e-government services: e-guvernare (e-government), e-licitatie (e-procurement) and autorizatiiauto (car authorisations).[11] It has a user-friendly, professional website developed with EU funding.

The **National Institute for Research and Development in Informatics** (ICI) (<www.ici.ro>) 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) (<www.cna.ro>) 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** (<www.posta-romana.ro>) 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) (<www.snr.ro>) 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) (<www.audiovizual.ro>) 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) (<www.atic.ro>) 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) (<www.aitr.ro>) is a membership organisation for the major telecommunications companies in Romania.

The **Romanian Association for the Electronic and Software Industry** (ARIES) (<www.aries.ro>) 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) (<www.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.[12]

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.[13]

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.

11 Respectively: <www.e-guvernare.ro>, <www.e-licitatie.ro>, <www.autorizatiiauto.ro>.

12 See: <www.legi-internet.ro> and <www.legi-internet.ro/blogs>.

13 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.

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[14] 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 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. ■

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14 See: <www.wsis-romania.ro>.