# From Transmission to the Public Good: Media Policy for the Digital Age in Croatia

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## 1. Executive Summary

Public policy for digital television is arriving very late to Croatia, and without much consideration of public service content. The predominant policy thrust concerns "transmission," i.e. the government seems not to understand (or want to tackle) the issues of content in future digital media and new platforms. The result will probably be that economic and technological interests will dominate future policy decisions, and the interest of society in obtaining balanced, impartial and diverse public service content will take second place.

Public policy regarding the new digital media environment emerged late in Croatia, with the first activities beginning only after 2000, and the first public debates in 2005. Policy has since then developed mostly in the area of digital television and radio broadcasting, while in the area of telecommunications the policy is still very much oriented toward transmission, without much understanding of the media.

The terrestrial television broadcasters, operating at the national level in Croatia, include the public service *Croatian Radio Television* (*HRT*) with two channels, *HTV 1* and *HTV 2*, and two commercial television broadcasters: *RTL Television* and *Nova TV*. *HRT* has the highest audience share (54.2 per cent), followed by *RTL TV* (24.4 per cent) and *Nova TV* (13.6 per cent).

Advertising revenues show that television is still in the lead, and public service television is still the leader in advertising income in the television sector, which is still the largest attractor of advertising among all media. There is an ongoing restructuring of advertising expenditures as a result of audience fragmentation: advertising revenue is growing, but its revenues have diminished for individual media companies.

*HRT* broadcasts their programs through a terrestrial analogue network, satellite, and also through an experimental DVB-T network. By the end of 2005, the *HTV* had finished digitalizing its equipment, while the digitalization of full production is an ongoing process, and the archives have yet to be digitalized. *HRT* is the only terrestrial television that has announced plans for new digital thematic channels. In both technology and public service content, the Croatian public service television *HTV* is the leader in the process of digitalization.

The multi-channel environment is developing in Croatia. Digital television is present as IPTV (Max TV by T-Com) and all four television channels at the national level are available in some regions in experimental digital transmission DTT. Both the IPTV and DTT platforms will further develop to include new channels and services.

Cable has a low penetration rate: only 18 per cent of households in 2002. Traditional analogue television is still the main media for Croatian citizens. 87 per cent of viewers between ten and 74 watch television every day, while 38 per cent of the population are Internet users, of which 19 per cent use the Internet every day.

The liberalization of the telecommunication market occurred in 2005, with new operators in fixed and mobile telephony entering the market, which resulted in a decrease in telephone prices. The SMP operators in Croatia are T-Com with Iskon (fixed telephone), T-Mobile and VIPnet (mobile telephone). T-com introduced the first commercial IPTV (MaxTV) in Croatia (2006), which makes them competitors to cable and terrestrial television. Croatian telecommunications and cable television are predominantly under foreign ownership, as is terrestrial commercial television at the national level.

The new media platforms in Croatia are generally only seen as data transmitters, thus the choice of their programs and services derives from what they consider in their best business interest. None of the new service providers have yet started their editorial channels. Public policy will need to ensure that the future digital media fulfill required public service needs. At this moment it does not seem like the policy makers have understood the importance of internet, cable, and other new media platforms for the delivery and development of "traditional" media like television, or their importance for society as a whole.

The main concern is that digitally driven audience fragmentation is bringing lesser profits to individual media institutions even though total advertising spending is growing. Future quality program productions in commercially based media are uncertain with diminished advertising revenues. Public service content is already rare within analog Croatian television (Peruško 2007), and unless public policy firmly requires such content of commercial television networks as well its future in the digital world is precarious.

IPTV, which will, according to industry estimates, be the main delivery platform for digital television, is in competition with cable for viewers. Curiously, this is not acknowledged in Croatia, showing again the emphasis on «transmission» in understanding new media platforms and relevant policies in the country.

As the Croatian telecommunications and cable television industries are almost completely foreign owned, in addition to terrestrial commercial television at the national level, public policy will have to be quick and careful to introduce firm public service requirements for future digital media. It does not seem that policy makers have understood the importance of new media platforms for the delivery and development of "traditional" media like television. Perhaps this is the reason why (party) politics seems to be absent from the discussion, and why the digital media policy is not at all an issue in the public sphere.

At present, the public service broadcaster *HTV* seems to be the only player seriously involved in the development of public service audiovisual digital content. Mobile and internet use is becoming a standard practice for young people, and interactivity is something they are used to and expect. Future digital television will have a better chance of serving the interests of young users if interactivity is present. *HTV* is a market leader in public service television offerings, but the data seem to show that younger audiences are not very interested in this type of content. This presents a paradox, which we don't fully understand as yet: the audience that has the opportunity to use the public service content in a digitalized media environment might not have a motive to.

## 2. Introduction

The changes in the media systems of the post-communist countries of Central and Eastern Europe have been shaped by several forces, most of which also influence the media in other parts of the world. The first of these at the beginning of the 1990's was the democratization of these countries, including changes in media regulation. [1] The second was the introduction of new economic forces that came to

[1] Extensive literature exists on the process of transition in general, including the media. For comprehensive analyses of these changes see D. L. Paletz and K.Jakubowicz, *Business as usual: continuity and change in Central and Eastern European media.* Cresskill, N.J.: Hampton Press, 2002; D L. Paletz K. Jakubowicz, P. Novosel. (eds.) *Glasnost and After Media and Change in Central and Eastern Europe,* Cresskill, New Jersey: Hampton Press, 1995; and M. Sükösd and P. Bajomi-Lázár, (eds.) *Reinventing Media. Media Policy Reform in East Central Europe.* Budapest: CEU Press, 2003, for an account of the newer media policy developments in East Central Europe.

influence the new media markets. The global trend of economic liberalization began to be felt in the media-space.[2] Foreign capital and companies entered developing media markets, and brought new practices, integration, as well as old problems already felt in the western media markets: concentration, conglomeration, and hyper-commercialization. The last of the forces was technology. The media have always been an industry based on technological innovation, and technology is today again challenging media-scapes. Digital converged media is now in the first phase of increase in terms of McLuhan's phases of media development (Horrocks 2001[3]), or the second phase of penetration and growth of new applications of the technological innovation (in terms of a 5 life cycle metaphor including innovation, penetration, peak, decline and adaptation, (Potter 1998:179[4]) Although the rapid process of digital media development seems to be driven by economic interests alone, especially in the conditions of a liberalized and connected global economy, public policy is always part of the equation. If we understand public policy as an expression of the interests of society and its values, which in the final analysis determine which innovations will be accepted and which discarded by society, we come to the main question of this chapter: what policies will ensure that public service content remains part of the new media that is being planned and implemented in Croatia, one of the new democracies of Central and Eastern Europe? And as a corollary: what public values and social interests constitute public service content? These questions of course arise from and apply to a much wider concern, not only in geographical terms. This concern is over the future of the media's social role as we know it.

Attention of public policy to issues of digital media convergence came very late in Croatia; perhaps not surprisingly, only after the more pressing issues of the freedom of expression and the media were firmly entrenched, and after the economic issues (with of course serious social implications) of media concentration and merger regulation, foreign capital, etc., were noticed. During the 1990s in the development of the public service broadcasting political battles were fought for and pressure was put by the government on the media they controlled and their editorial policies as well as about the structure and shape of public service broadcasting. However, in this period, in relation to issues of digitalization the political interest and debate is absent. The issues of impartiality and objectivity of news presentation is still a topic (always amplified in times of elections) of concern to the politicians, especially in relation to control and possible influence on the editorial practices of the public service broadcaster. [5]

The first public discussions on digital video broadcasting (DVB) technology and media convergence in Croatia took place in 2005. Two actions took place in this respect. One, initiated by the policy research community, was a roundtable on "Media and Digital Convergence: Policy and Developments in Europe and Croatia" organized by the authors of this paper, then working at the Department for

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[2] The literature on the CEE media markets is still not abundant. See for instance *The Economics of the Media: the Convergence of the Transition Countries with EU Member States,* Hruby et. al., which deals with the ownership in new democracies of CEE, with a special emphasis on broadcasting markets in the nineties. See also *Droupa, V. and Smid, M, 1998; Gulyáes, A, 1999; Hrvatin, S. and Kerševan, T, 1999.* For a recent account see Zrinjka Peruško & Helena Popović, Media Concentration Trends in Central and Eastern Europe, Jakubowicz and Sukosd, *Finding the Right Place on the Map: Central and Eastern European Media Change in Global Perspective*, ECREA Book Series, Intellect Books, 2007, Bristol, forthcoming).

[3] C. Horrocks, *Marshall McLuhan i virtualnost*. Naklada Jesenski Turk: Zagreb, 2001. (C. Horrocks, *Marshall McLuhan and Virtuality*. Naklada Jesenski Turk: Zagreb, 2001).

[4] W J.Potter, *Media Literacy*. Sage: Thousand Oaks, 1998.

[5] For more information on the development of the Croatian media system and policy in the 90's see Z. Peruško, *Demokracija i mediji*, Barbat: Zagreb, 1999. (Z. Peruško, *Democracy and the Media*, Barbat: Zagreb), and Z. Peruško, "Croatia: The First Ten Years," in Paletz & Jakubowitz, eds., *Business as Usual*, Hampton Press, 2003. p. 111-145. For a detailed account of the television policy and sector in contemporary Croatia see Z. Peruško "Croatia". In *Television Across Europe: Regulation, Policy and Independence*. EUMAP & NMP: Budapest, 2005. Also see S. Malović, "Report on Croatia" in B.Petković (ed.) *Media Ownership and its Impact on Media Independence and Pluralism,* Ljubljana, Peace Institute and SEENpM, 2004, Z. Peruško, *Media. Openness of Society Croatia 2005* (ed.) S. Goldstein, Open Society Institute Croatia, 2005, and Z. Peruško, *Media, Openness of Society Croatia 2006*, (ed.) S. Goldstein, iDemo, 2006., Z. Peruško "Media and Civic Values" in S. Ramet and D. Matić, (eds.) *Democratic transition in Croatia*. Texas A&M University Press 2007.

Culture and Communication of the Institute for International Relations (IMO) - a public, scientific policy research organization based in Zagreb - in cooperation with the Media Division of the Council of Europe.[6]

The aim of the IMO round table was to raise public awareness and attention to the media convergence trends that ask for new approaches. Problems such as the licensing of new audiovisual services, the distribution of a new multiplex system, the future character of media in a digital world, and the formation and implementation of new regulations were raised. The latter was specifically pointed out, as the lack of policy makes it difficult to form new strategies and implement them successfully. The public strategy on new media (as content producing editorial institutions) has since then moved only in the digital video broadcasting area, with no thought to other delivery platforms, especially cable, internet, or mobile delivery. Both of these platforms are developing in Croatia without a coherent public policy in terms of public service content.

The second step towards creating a regular meeting space for focused expert discussions was the establishment of the DVB forum initiated by the Croatian Telecommunication Agency (CTA), in the fall of 2005. The DVB forum was initiated with an aim to create a public strategy in the transition from analogue to digital television, and, more specifically, to prepare institutions and citizens in Croatia for the implementation of DVB technology, based on the trends in the EU, as well as the previous actions taken by the CTA in the digitalization processes. The initiators of the DVB forum gathered representatives from the following institutions: Transmitters and Communications Ltd, Council for Electronic Media, CROATEL[7], Faculty of Electrical Engineering (FER), Council for Electronic Media, *Croatian Radio-Television*, The national association of televisions (NUT), The Croatian Chamber of Commerce (HGK), Ministry of Culture, Institute for International Relations, *RTL Television*, *Nova TV*, The Ministry of See, Tourism, Transportation and Development, Portus d.o.o., and HGK Association for Telecommunication.

The CTA started to prepare for the coming trends in 2003, through the monitoring of new technologies and the planning of frequencies for the new digital broadcasting platform. During this time, they made a plan of frequency distribution for digital television, and worked on frequency compatibility with neighboring countries.

The recently adopted change to the Law on electronic media (*Official Gazette* no. 79, 30 July 2007) does not attempt to deal with non linear media services and new digital media in general (except to extend the license-granting procedure to the digital multiplexes in the same manner as to the present analog TV). The government is, in this respect, set to wait for the new Audio-visual services directive to come into force before planning or implementing any new-media policies.

## 3. The Multi-channel and Digital Media Landscape

### 3.1 Media Landscapes – Shape and trends

**3. 1. 1 Terrestrial television – still the market leader**

In terms of advertising revenue, broadcast television is still in the lead, and industry assessment for 2007 indicates that it accounts for some 60 percent of total spending in the traditional media[8] (daily

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[6] The event gathered experts from European as well as Croatian institutions engaged in new trends in the media landscape. Representatives from institutions such as the Media Division of the Council of Europe, the Committee on Information, Computerization and the Media of the Croatian Parliament, the Central State Bureau for e-Croatia, Croatian Telecommunication Agency, Transmitters and Communications Ltd, Council for Electronic Media, *Croatian Radio-television* (*HRT*) were invited to discuss these new challenges (http://www.imo.hr/culture/conf/medconf03/index.html).

[7] A private telecommunication firm in Croatia, which owns a DVB-T multiplex operating in the Zagreb area.

[8] Tibor Gojun, CEO of the Croatian Advertising Association, in an interview in *Privredni Vjesnik*, No. 3465, 21 May 2007.

and weekly press, radio, television, outdoor). It is estimated that the gross value of traditional media advertising was around €600 million (industry estimates are that net values representing real spending, and not the listed prices, are some 50 per cent lower[9]).

In the television market, it is noteworthy that the public service *HRT* in 2005 was still the leader in advertising income (as well as in audiences): *HTV 1* had a share of 30.6 per cent, *HTV 2* had 8.6 per cent, followed by *RTL TV* with 30.7 per cent and *Nova TV* with 30.1 per cent.[10] The industry has noticed a restructuring in advertising spending in the media, wherein spending for internet and digital media has grown, but the main concern is that the digitally driven audience fragmentation is bringing lesser profits even though the total advertising spending is growing. A comprehensive analysis of these trends based on systematic data is not available in the public domain.

If we accept this prognosis, and know that commercial media depend on advertising revenue for program production, the possibility for future quality program productions in commercially based media with diminished advertising revenues seems tenuous.

**Table 1. Share of Advertising Revenue within the Media Sector in Croatia**

| Year | Television /market share in % | Press /market share in % (dailies and magazines | Internet /market share in % | Outdoor/ market share in % |
|---|---|---|---|---|
| **2006** | 66% | 27,8% | 0,3% | 5,3% |

**Source**: MEDIApuls AdEx, quoted in *Lider*, special edition Media market, 23.2.2007., p. 12.[11]

Tibor Gojan, CEO of the Croatian Advertising Association, asserts that the audiovisual media in Croatia has the greatest development potential, as the number of delivery channels is still low, and expects the advertising revenues in this sector to double in the next years with the development of internet and cable delivery platforms for digital television.[12]

The terrestrial television landscape in Croatia is, at the national level, divided between the public service *HRT* (*Croatian Radio-Television*) with two channels (*HTV 1* and *HTV 2*) and two commercial broadcasters: *RTL Television* and *Nova TV*. In addition, 12 television broadcasters operating on the local level and eight on the regional[13] have a joint national audience share of 7.8 per cent, which also includes satellite and cable television available in Croatia. The *HTV* operates two national terrestrial television channels and has the highest audience share: 54.2 (channel *HTV 1* – 38.6, channel *HTV 2* – 15.6), as well as a satellite channel *HRT Plus*. The commercial television *RTL TV*, owned by the RTL Group, was launched in 2004, after the third public TV channel of *Croatian television* was offered for a private concession. It holds 24.4 per cent of the audience share. *Nova TV*, the second commercial television operating on a national level, was launched in 2000 (bought in 2004 by CME), and holds 13.6 per cent of the audience share.[14] All four national television channels have been available through

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[9] Tibor Gojun, *Privredni Vjesnik,* No. 3465, 21 May 2007.

[10] Darja Kupinić Guščić, Media net, “Preskočena crta od 600 mil. eura” *Lider*, 29 September 2006. 12 p. (Darja Kupinić Guščić, Media net, “A 600 mil. Euro Jump” *Lider*, 29 September 2006. 12 p.) in appendix.

[11] J. Jurišić, et al. “Manipulacija čitateljima – prikriveno oglašavanje u hrvatskim novinama”. *Politička misao*, Vol. 44, No. 1, 2007. p. 117-135 (J. Jurišić, et al. “Manipulating Readers: Disguised Advertising In Croatian Newspapers”. Political thought, Vol. 44., No. 1, 2007. p. 117-135).

[12] Tibor Gojun, *Privredn Vjesnik,* No. 3465, 21 May 2007.

[13] The web page of the Council for Electronic Media http://www.vem-mediji.hr/PDFs/2006-12-06/TVNakladnici.pdf.

[14] Source: AGB Puls, in *Hrvatsko medijsko tržište: regulacija i trendovi koncentracije*, Z. Peruško, K. Jurlin, 2006 (Source AGB Puls, in *The Croatian Media Market: Regulation and Concentration Trends*, 2006), unpublished study for the Media Division of the Council of Europe.

digital transmission in the Zagreb area since 2002, in Učka, Josipovac, Labinštica, and Srđ since 2005, and Ugljan, Rovinj and Brač since 2006, as a part of the experimental DTT broadcasting for anyone with a set-top-.box or digital receiver TV.

There are 152 radio broadcasters, of which six broadcast on the national level: three radio programs of the public service *Croatian Radio-television* (*HR 1*, *HR 2* and *HR 3*) and three commercial stations (*Hrvatski katolički radio*, *Narodni radio*, *Otvoreni radio*); 149 radio broadcasters operate on a regional or local level, with additional eight regional programs of Croatian Radio (Sljeme, Dubrovnik, Knin, Osijek, Pula, Rijeka, Split, and Zadar). Croatian Radio also broadcasts the program Glas Hrvatske, for listeners abroad. [15]

The Croatian radio market is strongly segmented. National private stations and strong regional stations are present in some counties, but the main basis for the diversity and competition in the radio market comes from numerous local stations geared towards the needs of local audiences. On average, in each county, there are two or more strong radio competitors (Peruško & Jurlin 2006).

Unlike the telephone infrastructure, which is available in all of Croatia, cable has a low penetration rate, and is developed only in some of the larger cities. In 2002 cable was present in only 18 per cent of households, while satellite dishes were in 30 per cent. [16] The Council for Telecommunications granted 25 concessions for cable until mid 2003. Two of the largest operators at the national level – Adriatic Kabel and Digital City Media (DCM), which hold three quarters of the market, have recently been bought by BEWAG, an Austrian consortium (Burgenländische Elektrizitätswirtschafts-AG) that mainly deals with production and distribution of electricity and information and communication technology. Its new cable company, which occupies a central position in the Croatian cable market, is called B.net Croatia and started operating September 2007. In addition to digital and analog cable TV, and offering voice telephony, it also will expand the existing offer of broadband internet and services aimed at the business community. According to the company's press release, the two companies presently have a total of 92.000 subscribers, representing 72 per cent of the market. The company expects growth in 2007 from €10.5 million to €14 million, and the number of subscribers to 100,000.[17]

Satellite broadcasting is mainly used by *HRT*, which broadcasts three digital television channels (two free-to-air channels are retransmitted, and the third, *HTV Plus*, was established in 2004), and three digital radio channels on Hot Bird 6. *OTV*, local television broadcasting in Zagreb, also transmits via satellite. The usual satellite channels available in Europe can be received in Croatia.

### 3. 1. 2 Broadband – Up and Coming

**Table 2. Telecommunication Infrastructure**

| | No. of fixed telephone connections | No. of mobile phone users | No. of internet users |
|---|---|---|---|
| 2002* | 1,825,157 | 2,339,624 | 370,390 |
| 2007** | 1,821,600 | 4,655,290 | 1,762,000 |

**Source**: *State Statistical Bureau, 2003.
**Croatian Telecommunication Agency, CTA, 2007.

[15] See: http://www.hrt.hr/hrt/hr_hrv.php.
[16] *Hrvatski medijski prostor 2002. Izvodi iz istraživanja GfK Centra za istraživanje tržišta,* 2003. (*The Croatian Media Landscape 2002. Excerpt from Research by GfK Centre for market research,* 2003.). Retreived: 17 March 2006. (http://www.gfk.hr/press/mediji.htm).
[17] http://www.dcm.hr/news4.htm (July 31, 2007.).

In a country of some 4.5 million inhabitants, there are 41 internet service providers, and 39 providers of VOIP[18]. The dominant ISP for private users is T-Com, followed by CARNet, Iskon and VIPonline. The number of broadband users is rapidly increasing: from 4,400 in 2003[19], the users have now reached 330,750 (7.5 per cent of the population) and of which 52,920 have a wireless connection through technologies such as mobile phones, Homebox or Wimax (data for 2007).[20] The potential for the expansion of broadband is high, bearing in mind that of 1,762,000 internet users (39.7 per cent of the population), 1,430,000 still use a dial up connection[21]. The internet service providers (ISP) market is dominated by the fixed-line incumbent Croatian Telecommunications (T-Com) owned by Deutche Telecom. Broadband penetration is rising, driven mostly by the incumbent, and introduced in order to use the platform to offer triple play services.[22] Broadband services are also available from wireless ISPs and a mobile operator targeting the fixed-line broadband market, as well as from a FttH operator (Ftth—Fiber to the Home, i.e., fiber optic service to a node located inside a home). Convergence services are becoming more visible, with commercial DTTV services to commence in 2007 and broadband TV (IPTV) services.[23]

T-com introduced the first commercial IPTV (*MaxTV*) in Croatia in September 2006. *MaxTV* is offered to their ADSL users, and in addition to some 50 television channels and *HBO* as a premium channel (also offered by the largest cable operators) includes video-on-demand. The number of users was 16,000 as of January 2007.[24]

According to an interview given by the executive director, T-com doesn't see itself as being in the media business and as a competitor to cable or terrestrial television.[25] Similar estimations have been given by the CTA: that because of its low market shares, at present IP television is not challenging cable tv operators.[26] Both of these statements seem either misinformed or shortsighted, as it is quite clear that in terms of the content offerings of IPTV and cable are in competition for viewers. The fact that this is not seen (or would not be acknowledged) shows the «transmission» understanding of new media platforms and relevant policies in Croatia.

Since the Croatian legal framework also sees them as a data transmitter only, and not editorially responsible, their choice of programs and services remains related to what they see as their best business interest, without regard to public service concerns or interest. The cable operators as well as Max-TV include public service television, as well as many other terrestrial television channels in Croatia in their offerings, all in spite of the fact that they are not yet legally bound to do so (there is no "must-carry" rule yet in the country). None of the new service providers in IPTV and cable so far have started their editorial channels.

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[18] M. Petković in *Vjesnik*, Thursday, 19 April 2007. http://www.vjesnik.hr/Html/2007/04/19/Clanak.asp?r=gos&c=1.

[19] *The Internet Access Market in Croatia 2003-2008* http://www.idccroatia.hr/press/2004-07-15.pdf.

[20] http://www.gfk.hr/press1/internet2.htm.

[21] B. Ivezić, *Poslovni dnevnik*, 04 July 2007. http://www.poslovni.hr/47409.aspx. According to this calculation, there are 39.7 % internet users in Croatia, which is a bit higher then the estimations made by CATI & Prizma and GfK (see data below).

[22] "Triple play services" describes a marketing strategy which includes the provision of high speed internet access, digital television and telephone services over a broadband connection.

[23] http://www.internetworldstats.com/eu/hr.htm.

[24] R. Gelo, *Privredni vjesnik*, No. 3452, 26 February 2007. http://www.privredni-vjesnik.hr/index.cgi?A=I&SIF=00001&BR=003452&DA=20070226.

[25] I. Šoljan quoted in "Digitalna televizija" ("Digital Television") by R. Gelo, *Privredni vjesnik*, No. 3436, 23 October 2006.

[26] Robert Gelo, *Privredni vjesnik*, No. 3436, 23 October 2006.

The public service broadcaster *HRT* has announced its interest in starting IPTV, and is said to be investigating its possibilities at the moment.[27] Industry expectations are that the IPTV will in the future be the main delivery platform for digital television.

The Croatian government is supporting the development of broadband infrastructure in areas where commercial investments are insufficient (war destroyed areas, areas with a low population rate), in accordance with the Action plan for the implementation of the Strategy of Internet broadband development in 2007.[28] The amount provided for this is app. €500 million for 2007[29].

The president of the CTA Council, Gašpar Gaćina, recently announced expectations of the rapid growth of the telecommunications market, especially as its liberalization in 2005 brought new operators in fixed and mobile telephony. The result of the competition was the reduction in fixed telephone prices between seven and 39 per cent and up to 22 for mobile. In broadband, however, the prices in Croatia are still some 50 per cent higher that in the western European markets. The number of broadband users is expected to reach 500,000 in 2008. [30]

According to the Croatian Telecommunication Agency[31] (CTA), the overall income from telecommunication activities shows a steady increase: €1,879,362,684 in 2006. The comparison of the data from the first quarter of 2006 and the first quarter of 2007 show that the overall telecommunications market revenue increased 3.5 per cent; the overall income of the fixed network market increased 3.1 per cent, while the overall income of the mobile network market increased 4.5 per cent.

**3. 1. 3 Mobile Services**

The main telecommunication operators, Croatian Telecommunication (T-HT, which also includes the mobile division T-mobile and the internet division T-com) - since 2001 have been owned by Deutsche Telekom (with 51 per cent, while the Croatian government retains 42 per cent and the Fund of the Croatian War Veterans seven per cent). VIPnet – the first privately owned GSM operator in Croatia – is 99 per cent owned by Mobilkom Austria. As defined by the CTA, the mobile operators in Croatia are T-Com with Iskon (fixed), T-Mobile and VIPnet (mobile).

The exclusive rights of the Croatian Telecommunications expired in 2002[32], which marked the opening of the fixed network operator market competition. From early 2005, HT was obliged to provide access to other operators through a separate local loop of HT; in addition, the law ensured transferable numbers as well as the pre-selection of the operator.

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[27] " IP televizija u Hrvatskoj je budućnost". ("IP Television in Croatia is the Future") *Jutarnji list*, 16 May 2007. p. 32.

[28] *Akcijski plan provedbe Strategije razvoja širokopojasnog pristupa internetu za 2007*. (*Action plan for the Implementation of the Development Strategy of Broadband internet Access in Croatia in 2007*).

[29] Ž. Mihoković, Hrvatska agencija za telekomunikacije (CTA), *Pregled telekomunikacijskog tržišta Republike Hrvatske* (The Croatian Telecommunication Agency - CTA, *An Overview of the Telecommunication Market in Croatia*), 24 May 2007. available at www.telekom.hr

[30] G. Gaćina u članku "Cijene u telefoniji pale za 39 posto", od S. Španovic, "Telekomunikacije". *Jutarnji list,* 16 svibanj 2007. p.31. (G. Gaćina in "39 Per Cent Price Reduction of Telephony", by S. Španovic, "Telecommunications", *Jutarnji list*, 16 May 2007. p.31).

[31] Ž. Mihoković, Hrvatska agencija za telekomunikacije (CTA), *Pregled telekomunikacijskog tržišta Republike Hrvatske*, 24 svibanj 2007. (The Croatian Telecommunication Agency-CTA, *An Overview of the Telecommunication Market in Croatia*), 24 May 2007.) available at www.telekom.hr

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[32] Based on Article 98, Section 4, of the previous Law on Telecommunications (*Official Gazette No*. 76/99, 128/99, 68/01 and 109/01).

There are ten commercial operators in the fixed network, with 1,821,600 users (and 240,700 CPS users).[33] According to the data of the operators, T-HT has the highest number of fixed telephone users, 1,600,000, followed by Optima, 170,000, and H1, with 60,000 users. The number of users who used the possibility of the pre-selection of operator was 219,895 at the end of 2006. The average monthly income of the mobile operators in 2006 was €22.3 per user.[34]

There are three commercial mobile network operators and 4,655,290[35] registered users.

The leading mobile operators are T-Mobile Croatia (part of T-HT), VIPnet, the first privately owned GSM operator in Croatia, owned by Mobilkom Austria (99 per cent), and Tele2, owned by Tele2 AB (51 per cent).[36] T-Mobile claims to have 46.18 per cent of users (2.15 million), Vipnet 42.96 per cent (2 million), and the third operator, Tele2, approximately 8.59 per cent of users (400.000).[37]

The average number of sent SMS per day is 5.4 SMS, with 1.2 MMS messages. Close to three million users (2.99 million) possess one mobile phone, while 352,000 users are in the possession of more than one mobile phone[38]. GfK research[39] showed an increase in post-paid users, reaching some 20 per cent of all users. Policy estimates are that the expansion of mobile phones reached its peak in 2006, and that the market is now saturated, with lower growth expectations. [40]

The development of the mobile market will in the future require new content and services development to spur further growth. The first services that included payment via mobile operating networks were offered in spring 2001, from the mobile operator VIPnet. This service, called VIP shopping, included the purchase of theatre tickets and flowers through WAP pages, charging the user's account. This was followed by SMS parking (VIP parking) also introduced by VIP net and later followed by HTmobile. The next new service introduced to the users was VIP navigator, combining location services with movie ticket purchase services. The next step was the offer of download multimedia content, like games and tunes for mobile phones. All these services were charged through micro payment, i.e., through the mobile phone account. The next step regarding the payment mode was introduced by HTmobile, with their mPay service, launched in cooperation with Privredna banka Zagreb. This service ensured a payment through the mobile phone, with the funds being withdrawn from the credit card account of the user (macro payment).[41]

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[33] Ž. Mihoković, Hrvatska agencija za telekomunikacije – CTA, *Pregled telekomunikacijskog tržišta RH,* (Ž. Mihoković, *The Croatian Telecommunication Agency – CTA, An Overview of the Telecommunication Market in Croatia)*, presentation given within the round table "The Development of the Telecommunication Market in Croatia," organized by the Croatian Telecommunication Agency (CTA) on 24 May 2007.

[34] M.Petković, "Veća zarada u Hrvatskoj nego u Njemačkoj", *Vjesnik*, 19 travanj 2007. ( M.Petković, "Higher Profit in Croatia than in Germany", *Vjesnik*, Thursday, 19 April 2007). http://www.vjesnik.hr/Html/2007/04/19/Clanak.asp?r=gos&c=1

[35] This number includes the SIM and USIM cards that are in active use; the SIM and USIM cards that have an inactive status that does not exceed the period of 6 months are also counted as users (CTA). Data from the research agency GfK showed that the number of mobile phone users is lower than the one given by CTA. Their research showed that 76 % of the population uses mobile phones in Croatia (app. 3,340 000).

[36] T-Mobile, Vipnet and Tele2 will get new competition with the Telcro group, which will enter the market as the first virtual mobile operator (MVNO) in Croatia. (B. Ivezić, "Telcro će biti prvi virtualni mobilni operator u RH", *Poslovni dnevnik*, 27 lipanj 2007. ("Telcro will be the First Mobile Operator in Croatia", *Poslovni dnevnik*, 27 June 2007) http://www.poslovni.hr/46649.aspx.

[37] B. Ivezić, *Poslovni dnevnik*, 13 July 2007. http://www.poslovni.hr/48330.aspx

[38] B. Ivezić, *Poslovni dnevnik*, 13 July 2007. http://www.poslovni.hr/48330.aspx

[39] The research was presented by I. Matutinović at the 2.SEE Telecom Arena, held on 5-6 April 2006., "Nove snage na tržištu telekomunikacija" ("New Forces in the Telcommunication Market").

[40] D. Breglec, State secretary in the Ministry of see, transport, tourism and development, quoted in "Cijene u telefoniji pale za 39 posto" by S. Španovic, "Telekomunikacije". *Jutarnji list*. 16 svibanj 2007. p. 31 ("39 Per Cent Price Reduction of Telephony", by S. Španovic, "Telecommunications", *Jutarnji list*, 16 May 2007. p.31).

[41] R. Gelo, in *Privredni vjesnik*, No. 3365, 20 September 2004,

VIPnet offered the Vodafone Homebox service in September, 2006 as a replacement for the fixed telephone line, realized through the GSM/UMTS network. This was a further step in the harmonization of Croatian regulation with the majority of EU states.

In addition to the large players, small, specialized firms deal with the production of additional content for mobile operators, like ringing tones, SMS prize competitions, video games, etc. This also includes the organization of marketing activities through mobile phones, and content such as logo, tunes, and pictures. There is an increase of competition in the provision of 3rd party service providers, who use the infrastructure of the operators in order to sell content, as well as the content providers who also produce the content.[42]

At this point in time, the public service broadcaster *HTV* seems to be the only player seriously involved in the development of public service audiovisual digital content. It is expected that the biggest competition in the future will come from broadband internet providers. Internet protocol (IP) television is thus seen to be the best bet for the development of digital television in Croatia. Thus the largest competitor to the public service *HTV* is *Max TV*, operated by T-com, a foreign owned telecommunications company. Even though they don't have an editorialized television channel yet, it will probably arrive in the future. As the Croatian telecommunications and cable television is almost completely foreign owned (as is the terrestrial commercial television at the national level), public policy will have to be quick and careful to introduce firm public service requirements for the future digital media. At this moment it does not seem that the policy makers have understood the importance of internet, cable, and other new media platforms for the delivery and development of "traditional" media like television. Perhaps this is the reason why (party) politics seems to be absent from the discussion, and why the digital media policy is not at all an issue in the public sphere.

### 3.2 Audience Share and Changing Audience/ User Behaviors

In spite of the rapid growth of new media and delivery platforms, traditional analogue television is still the main media for Croatian citizens: 87 per cent of viewers between ten and 74 watch television every day, compared to some 19 per cent who use the internet every day. Although some 50 per cent of the population over 15 has internet access, only 38 per cent (or 1.32 mil. citizens) actually use it on a daily or weekly basis.[43]

The television audience market in Croatia is highly concentrated: the C3[44] for audience shares of the first three television channels in Croatia in 2004 was 78 (Ward 2006). The number of channels of television with national coverage (four channels and three companies: the public channels *HTV1* and *HTV 2, RTL Televizija, Nova TV*) is the same in Croatia and European countries of a similar size, while this is much lower then the Western European average (14) (Peruško & Jurlin 2006).

Croatian public television still has the leading market share of television audiences in Croatia, which, in spite of a decline brought about by commercial competitors, remained the highest among countries comparable by size. Due to the different history of Croatia (and the former Yugoslavia), in which

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http://www.privredni-vjesnik.hr/index.cgi?A=I&SIF=00003&BR=003365&DA=20040920 (retrieved 15 July 2007).

[42] R. Gelo, in *Privredni vjesnik*, No. 3365, 20 September 2004, http://www.privredni-vjesnik.hr/index.cgi?A=I&SIF=00003&BR=003365&DA=20040920 (retrieved 15 July 2007)

[43] *Pogled na građane ON-LINE – množe se NETOVCI*! GfK research, 05 srpanj 2007. (*A View on the Citizens Online – NETUSERS Multiplies*, GfK research, 05 July 2007.).

[44] C3 is an indicator of concentration measured as the sum of the percentages of market shares of the three strongest players in the market, by which 0-35 represents a low level of concentration, 36-55 a moderate level of concentration, and above 56 a high level of concentration.

western television programming, including films and soap-operas, was available from the public service broadcaster to Croatian audiences already in the late 1960's. Commercial competitors of HTV had a much harder time than in countries which emerged from the soviet-controlled eastern bloc, where none of these programs were seen before 1990 and where cheap programming brought new commercial televisions success (Peruško 2007).[45] Adult audiences (over 34) predominantly watch two public television channels (*HTV 1* and *HTV 2*) (59 per cent). Young adults prefer *RTL Televizija*, followed by *HTV 1*, *HTV 2*, and *Nova TV*. Children are true fans of *RTL* (34.7 per cent), followed by *HTV 1*, *Nova TV* and *HTV 2*.

According to AGB Nielsen Media Research, the top 20[46] television broadcasts in 2006, on the four programs with national reach, were predominantly broadcasts of sport events: 11 out of 20. The football game Croatia – Brazil, played in the FIFA World Cup in Germany in 2006, was in first place, with 46.20 per cent viewership. Other broadcasts included in this list were *HTV news*, *Eurosong*, *Big Brother*, *Who Wants to be a Millionaire*, *Take a Break*, *You Deserve It* (Odomori se, zasluzio si) - a Croatian humor show, *Love in the Off-side* (Ljubav u zaleđu) – a Croatian soap, and *Dora 2006* – the national song contest for the Eurosong festival). These are all broadcast on *HTV 1* and *HTV2*, except for Big Brother, aired on *RTL TV*.

The market is regionally structured in radio broadcasting (a recent study on media markets in Croatia identified 21 regional markets) (Peruško & Jurlin, 2006). Based on the Croatian average, 47 per cent of radio audiences are held by a local station, 18 per cent by a regional station, and 24 per cent by national commercial stations. Three national public channels have a joint share of ten per cent of radio audiences. On average, in each county there are two or more strong radio competitors.[47]

According to data from 2005 and 2006, 30 per cent of the population consists of regular Internet users, while six per cent use the Internet occasionally. [48] There exist large regional, gender, and other social inequalities in Internet use. Zagreb has the highest number of Internet users (46 per cent), followed by Primorsko-goranska county (37 per cent), Istrian county (33 per cent), and Splitsko-dalmatinska county. The counties with the lowest number of Internet users are Virovitičko-podravska county (12 per cent), Požeško-slavonska county (13 per cent), Vukovarsko-srijemska county (15 per cent), Bjelovarsko-bilogorska county (15 per cent), Ličko-senjska county (16 per cent), Koprivničko – križevačka county (17 per cent), and Brodsko-posavska county (18 per cent). Men are more likely to use the Internet (39 per cent regular and occasional users) than women (30 per cent regular and occasional users). The Internet is more used in urban areas with more than 25 000 inhabitants by the younger, educated population with higher incomes.

Data from 2007, gathered by the research agency GfK,[49] showed a steady increase in the use of the Internet[50]. The results showed that 38 per cent of the population are Internet users (which is a significant increase compared to year 2001 when – according to GfK - only 12 per cent of the population used the Internet[51]. As confirmed in the previous research, the younger generations are more likely to use the Internet: 56 per cent of the respondents using the Internet are between 15 and 34

[45] Z. Peruško. "Media and civic values". in *Democratic Transition in Croatia. Transformation of Values, Education, Media*. S. Ramet and D. Matić (eds.) Texas University Press, 2007.
[46] Measured as the average number of individuals present in each minute of broadcasting (AMR), using a sample of 1.839 cases, in the period from 01 January 2006 until 31 December 2007.
[47] Z. Peruško and K. Jurlin, *Hrvatsko medijsko tržište*. Studija. IMO, Zagreb, 2006. (Z. Peruško and K. Jurlin, . *Croatian Media Markets: Regulation and Concentration Trends*, a Study, IMO, Zagreb 2006.).
[48] Source: research agency CATI&Prizma, The sample included 54.000 respondents, aged 12 and above. "Regular" users are defined as those who use internet at least once a week.
[49] In the newsletter «Pogled na građane ON-LINE – množe se NETOVCI», 05 srpanj 2007. ("A View on the Citizens Online – NETUSERS Multiplies", 05 July 2007.) GfK research.
[50] It has to be taken into account that the sample of this research was different from that of CATI/Prizma: GfK included a population aged 15 and above in the research.
[51] http://www.gfk.hr/press1/internet2.htm

years old. Most users connect to the Internet at home - 70 per cent; the workplace is used by 23 per cent to connect to the Internet, while four per cent connect at their school or university (three per cent used «other» means). In the measurement of the frequency of online practices, 49 per cent of the Internet users are online every day; 26 per cent several times a week; ten per cent once a week; ten per cent a few times per month; and five per cent are online once a month or less then that.

Users go online for different reasons; sending and receiving emails (67 per cent), browsing (65 per cent), reading the news/daily information (53 per cent), searching for literature (36 per cent), downloading music (27 per cent), gaming (19 per cent), Internet banking (14 per cent). Internet shopping is not yet a common online practice in Croatia.

The average time the Internet users spend online is 9.9 hours per week. More specifically, 20 per cent of the users spend one to two hours/weekly online, 28 per cent spend three to five hours per week, 27 per cent spend six to ten hours per week, 13 per cent spend 11-20 hours per week, 11 per cent spend 21-50 hours per week, and one per cent more than 50 hours per week. The Internet usage is still bellow that for television viewing, which is according to some sources around four hours per day.[52] No comprehensive study is available showing the overall trends of media usage in Croatia, so we don’t know if the new Internet users detract from television viewing or add to it, increasing the overall time spent on media use.

To sum up, the use of new media platforms and services is definitely growing. Mobile and Internet use is becoming a standard practice for young people, and interactivity is something they are used to and expect. The future digital television will have a better chance of serving the interest of young users if interactivity is present. The public service *HTV* is a market leader in public-service television offerings, but the data seem to show that younger audiences are not very interested in this type of content.

## 4. Regulatory Framework and State Policies

New media and telecommunications are within the purview of the Ministry of Sea, Tourism, Transport and Development. This area is regulated by the Law on Telecommunications, with the Croatian Telecommunications Agency (CTA) as a regulatory body. CTA was enacted in the Law on Telecommunication in 2003. This independent national regulatory body was founded in the fall of 2004, for the purpose of the further development of a liberalized and de-monopolized telecommunications market. The traditional media are within the purview of the Ministry of Culture. Perhaps this is the reason why the new technology policies being developed for new media often lack an insight into the issues of content, especially in terms of public service values.

In order to protect the users of TC networks and services, in accordance with the Law of Telecommunications, a Council for TC Service Users was established at the end of 2005. The User Council is an advisory body for the Council of the Croatian Telecommunication Agency, created in order to improve the protection of user rights in this area.

The government “Strategy for the Development of Information and Communication Technologies” was launched in 2000, and upgraded in 2003 with the program “e-Croatia” as a multi-faceted program for the development of different aspects of information society. The program focuses on Internet and computer technology, and doesn’t include other media technologies and services. Croatia has no public policy regarding satellite broadcasting

The CTA contributed in the working groups CEE (Central East European Group) and the Adriatic Group with the provision of technical help for the frequencies plans. They participated in the Geneva Regional Radio Communication Conference (RRC-06, Geneva 2006), organized in order to create a

[52] EUMAP Television Across Europe. 2005.

new frequency plan for Bands lll, lV and V. The conference resulted in an agreement on the use of frequencies for digital media services for the ITU region, based exclusively on DVB-T, which replaced the agreement and frequency plan from Stockholm 1961. According to the new agreement, negotiated by the CTA, the plan for Croatia consists of eight national coverage for digital television, (with additional local and regional coverage), and three national coverage for digital radio.[53] Since one digital coverage can include more channels (depending on the standard chosen, for instance, if an interactive standard is picked a smaller number of channels can be placed in the same "holder", but with more activity). This means that eight DVB-T multiplexes will be introduced, with a minimum of 32 television channels, and three T-DAB radio multiplexes with approximately 27 radio stations.[54]

Three meetings[55] of the DVB forum have been held so far. Representatives invited from the following institutions were present: Croatian Telecommunication Agency, Transmitters and Communications Ltd, Council for Electronic Media, CROATEL, Faculty of Electrical engineering (FER), Council for Electronic Media, *Croatian Radiotelevision*, the National Association of Televisions (NUT), Croatian Croatian Chamber of Economy (HGK), the Ministry of Culture, the Institute for International Relations, *RTL television*, *Nova TV*, representatives from the Ministry of Sea, Tourism, Transportation and Development, Portus d.o.o., and the HGK association for telecommunication. In the first period more general questions were asked, such as how to regulate the electronic media market in a new digital environment; how to regulate the relationships between the main stakeholders (producers of content, additional service providers and network distributors); and how to inform and educate the public.

This was followed by more specific discussions on the simulcast period. As pointed out by CTA, the Law on Electronic Media (Article 35) - in which it is stated that 60 per cent of the population has to be covered by the national concession, and 70 per cent of the population has to be covered on a regional level - has to be taken into consideration in the period of the implementation of multiplexes in the multicast period. In addition, the strategy has to be harmonized with the international coordination of frequencies of neighboring countries. According to CTA, only two DVB-T multiplexes will be able to work along with the analog transmitters.

The discussion then focused on the switch off period and the issues that have to be decided concerning the number of channels, the positioning of multiplexes, type of programs, protection of author rights, and the offer of free-to-air or pay TV. The selection of coding standards was also part of the debate, the main difference being in the level of interactivity offered by different standards.[56]

Passing new legislation was highlighted as one of the priorities. There is an urgent need for a new legislative framework in accordance with the new strategies and the EU legislative framework, which

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[53] http://www.telekom.hr/Default.aspx?art=168&sec=2.

[54] The exact number of television channels and radio stations will be known when the final decisions on the technology use will be made.

[55] The first meeting was held in fall 2005, the second in summer 2006 and the third in spring 2007. The information that follows was gathered from the minutes of the meetings as well as the presentations given at the forums.

[56] The comparison of MPEG-2 and MPEG-4 (H 264/AVC) showed the following: the MPEG-2 (suitable for SDTV-standard-definition television), is more frequently used on a broad scale, it is cheap to implement, and easy to purchase for a low price. MPEG-4 (H 264/AVC (more suitable for HDTV) is not so frequently used for public service broadcasters, is more expensive, but enables one multiplex to broadcast more channels than the MPEG-2. No consensus has been reached between the main players in this respect: some advocated for the MPEG-4 H 264/AVC which would enable the avoidance of the expenses of a two-phased transitions – from the current state to MPEG-2 and then, in the future, to the MPEG-4 H 264/AVC . In addition, the selection of MPEG-4 would enable the slowing down of the whole process of DTV implementation in Croatia. The opponents claimed that the MPEG-4 H 264/AVC is not yet fully adjusted to HDTV and is not standardized. In addition, it is also expensive, which is why the selection of MPEG-2 is thought to be more suitable.

means that the Law on Electronic media, the Law on *Croatian Radio-television* and the Law on Telecommunication need to be amended or replaced.

The DVB forum also discussed the dynamics of new services that will be offered in DTT. Questions included the kind of content that will attract audiences (satellite TV programs: free-to-air, or cable programs – Pay TV): should additional services be regulated? Should interactive TV be introduced? What is the absorption capacity of the market? This issue touches on users as well. The viewers will need to purchase set top boxes, and the role of the state in providing subsidies for the citizens was explored.

The CTA suggested that the transition should take place in three phases:

- the test phase (lasting until 2008)
- the simulcast phase in which 2 DVB-T MUX will be implemented as well as the existing analog TV (until 2009): This phase has two scenarios:
    - one multiplex reserved for the public service *HTV* and the other for commercial televisions, or:
    - one multiplex shared between PSB and commercial televisions (in the beginning) and then - at a later stage - the implementation of the second multiplex which would be used by commercial television while the first will be taken over by *HTV*.
- The implementation of new DVB-T multiplexes and the switch off starting from 2009, with an undefined timeline of finalization.

Until now, none of the mentioned questions has yet been decided upon. However, the process of new policy regulation is in formation. The Ministry of Sea, Tourism, Transport and Development have initiated a public discussion on the new Law on Electronic Communications, which will replace the Law on Telecommunication (enacted in 2003. and amended in 2003 (*Official Gazette No. 177/03*), 2004 (*Official Gazette No. 60/04*), and 2005 (*Official Gazette No. 70/05*)[57] The guidelines for the new law were defined through the CARDS[58] 2004 project, in which foreign and domestic experts cooperated. These directives have been accepted by the Croatian Government (on 9 May 2007)[59]. According to the Guidelines the main areas that have to be regulated are the following: «electronic communication networks and services, universal services, the rights of users and consumer protection, radiofrequency spectrum, digital radio and television diffusion, data protection and safety in electronic communication." [60]

Public policy for digital television is coming very late in Croatia, and without very much thought given to public service content. The predominant policy thrust is that of the "transmission", i.e. the government seems not to understand (or want to tackle) the issues of content in future digital media and new platforms. The result will probably be that economic and technological interests will dominate future policy decisions, and the interests of society in obtaining balanced, impartial and diverse public service content will be relegated to second place. Fortunately, *HTV* is already making plans for new digital content, so that they will not likely be left out of the digitalized media world.

[57] http://www.mmtpr.hr/UserDocsImages/Smjernice-ZEKom.pdf.
[58] CARDS - *Community Assistance for Reconstruction, Development and Stabilization* is a program of technical and financial assistance to the EU candidate countries.
[59] http://www.mmtpr.hr/default.asp?id=409.
[60] *Smjernice za izradu novoga zakona o elektroničkim komunikacijama*, 2007. p..2. (*Guidelines for the new Law on Electronic Communications,* 2007. p. 2).

**Table 3. Key Policy Documents (approved and expected) Relevant to Digitalization**

| Year | Institution | Document | Author | Status |
|---|---|---|---|---|
| 2003 | Ministry of Culture | *The Law on Croatian Radio-Television* | Ministry of Culture | Adopted by Parliament and in force |
| 2003 | Ministry of Culture | *The Law on Electronic Media* | Ministry of Culture | Adopted by Parliament and amended in 2007. |
| 2007 | Ministry of Culture | *Amendments on the Law on Electronic Media* | Ministry of Culture | Adopted by Parliament and in force since July, 2007. |
| 2003 | Ministry of Sea, Tourism, Transport and Development | *The Law on Telecommunications* | Ministry of Sea, Tourism, Transport and Development | Adopted by Parliament in August, 2003 and amended in November, 2003, May, 2004, and July, 2005. |
| 2007 | Ministry of Sea, Tourism, Transport and Development | *Guidelines for the new Law on Electronic Communications* | Ministry of Sea, Tourism, Transport and Development | Accepted by Government in May, 2007 with an aim to initiate a public debate in order to create a new law: *The Law on Electronic Communication*s expected to be adopted during 2008. |

# 5. Public Service Television Programming in the Digital Context

## 5.1. Public Service in the Media Policy

In Croatia, both commercial and public service television in the analogue world are seen by policy makers (Peruško Čulek 1999) as serving a public interest, hence they have been given cheap access to the public good – radio frequencies.[61] In order to fulfill this public interest, electronic media (radio and television) are legally obliged to provide broadcast news and information, including those covering and of interest to national minorities. The public interest is also expressed in the obligation of commercial radio and television stations to broadcast content that is supportive of human rights, political rights, the rule of law, and the development of civil society. They are also legally bound to contribute to the protection of Croatian national and cultural identity, promotion of creative culture, culture of public dialogue, education, art, protection of nature, and health. Broadcasting has to be in

[61] Z. Peruško, *Demokracija i mediji*, Zagreb: Barbat, 1999. (Z. Peruško, *Democracy and the Media*, Zagreb: Barbat, 1999).

the Croatian language, except for imported programs, programs for national minorities and programs in the dialects of the Croatian language.

Diversity of content in the media, as well as in the types of media and media owners, is also considered to be in the public interest. *The Law on the Media (LoM)* (2004) applies to all media. The state is obliged to initiate pluralism and diversity through subsidies for the production and publication of content as well as through the regulation of media ownership that must be transparent in order to ensure the protection of market competition.

In the *LoM*, diversity and pluralism are connected with specific groups (national minorities, gender, disabled persons), type of media (local, non-profit media, and NGO media) and public service content: culture and art, education, science, protection of the environment and human health, human rights as well as the Croatian national and cultural identity (Article 5(2)).

*The Law on Electronic Media* regulates the rights and duties of electronic media that produce and broadcast program content and services. It applies to commercial television and radio broadcasting as well as to the public service broadcaster. Diversity and pluralism is ensured through the program content, which has to provide a broad range of diverse ideas so that "different approaches and ideas are adequately represented", as well as impartial. Other, more specific regulations to ensure pluralism and diversity refer to the amount of news in the program (Article 22), percentage of domestic production (Article 24), and the percentage of program broadcast in Croatian (Article 27). Regulations are made on the amount of audiovisual works made by independent producers and the percentage of the program of European audiovisual work (Article 29). However, if the commercial broadcasters do not reach these percentages they have to increase the shares every year, but there is no official information on whether the broadcasters act in accordance with these requirements. Our own research (presented below) shows, however, that even the public service HRT falls somewhat short of meeting these standards. The section dealing with the protection of pluralism and diversity of electronic media also regulates ownership concentration.[62]

*The Law on Croatian Radio-Television (LoCRT)* (2003) regulates the public service broadcaster HRT. Here too, the importance of balanced broadcasting of information, culture, education and entertainment is emphasized. Pluralism appears in the context of a pluralism of ideas, i.e. pluralism of worldviews, political and religious ideas and interests that has to be presented to the public in an unbiased and respectful way. The Law also stresses the special attention that has to be given to specific groups, such as Croatians living outside the state, national minorities within the state (Article 5), children and youth, and people with disabilities. In addition to these general statements the insurance of diversity is enabled through a defined percentage of domestic production, program output in Croatian language and specific genres that have to be produced in Croatian (particularly stressing movies, documentaries, cartoons and entertainment). The public service broadcaster is funded by license fees and advertising. Total revenues of the *HRT* (television and radio) amounted in 2005 to €199,968,000, with the license fee contributing 61.2 per cent and advertising 26.1 per cent.

The commercial broadcasters are allowed to advertise a maximum of 12 minutes per hour. Genres such as comedy, drama, entertainment programs, do not have any restrictions, while movies are allowed to be interrupted only every 45 minutes. News and religious rituals cannot be interrupted at all, and information programs, documentaries, religious programs and children television cannot be interrupted if shorter than 30 minutes. For the *HRT*, regulations stipulate that a maximum of 9 minutes of advertising per hour is allowed. An advertising block (two or more) can only be broadcast between the programs. In addition, news and information, documentaries, religious programs, children television, movies and programs that last for less than 30 minutes cannot be interrupted.

[62] In addition to legal restrictions on ownership, diversity and pluralism are positively promoted through the Fund for the Promotion of Diversity and Pluralism of Electronic Media which supports local and regional broadcasters.

No information is available on the definition of public service content in relation to the EU requirements related to state subsidies. This topic will perhaps be covered in the update of the Law on the Croatian Radio Television, already announced by the government in relation to EU harmonization. It might, however, be better not to change the law (again), but to define the public service content which is to be financed from the license fee in a separate document.

A public discussion has not yet developed, and no public policy seems to be in the making to define public service content and public service values for the media in the digital age. Elements of the discussion can be found in the DVB forums, but they are at the moment limited to digital terrestrial broadcasting, and do not apply to other new media platforms. The government seems to be reluctant to tackle the content regulation requirement for the new digitalized media, including television. But television is perhaps the easiest medium to envisage in the future digital world. In terms of public service content, new thematic channels can be envisaged, and the public policy appears to support their development. But what of the other media platforms? If the present (liberalized) policy trend continues, the decisions on the future shape of the media and its content will be made in the market-place and not in democratic institutions.

## 5.2. Public Service Content on Public Service and Commercial Television

In spite of the expectations of public interest fulfillment by commercial televisions, public service content is primarily expected from the public service television station *HTV*. In year 2005, The public service *HTV* broadcast, in 2005, 43 hours of programming daily, or 15,978 hours (958,705 minutes) of programming on its two terrestrial television channels, and produced 12,615 hours (756.907 minutes) of programming: 43 per cent of this was of foreign production, 2.1 was domestic independent producers, and the rest was in-house production or adaptation of archived programs.[63] It is clear that the percentage of independent production is below the Television Without Frontiers Directive.[64]

Two of our recent research studies allow further insight into program genres broadcast on Croatian national televisions and their audiences. The data set for the analysis of content diversity was created in the comparative “Study on the assessment of content diversity in newspapers and television in the context of increasing trends towards concentration of media markets,” led by David Ward (Centre for Media Policy and Development, London), for the Media Division of the Council of Europe. The Croatian research was performed by the authors of this text, then based at the Department for Culture and Communication, IMO, Zagreb. The content analysis was performed simultaneously in Croatia, Italy, Norway and the UK. A quantitative content analysis was conducted over a period of two weeks (24 October 2005 –6 November 2005), through the monitoring of daily newspapers and television news coverage, as well as genres appearing in the programs of the broadcasters.

The second was a study on media markets[65] in Croatia, also undertaken in 2006. According to this analysis, in the public service programming genres (cultural programs and art, religion) the *HTV* has almost 100 per cent of the audience market share. In sports, music, information and political programs, documentaries, science and education programs, 80 per cent of Croatian audiences watch *HTV*. For those programs, *HTV* contributes very significantly to the diversity of the television programs in Croatia.[66]

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[63] Godišnje izvješće o poslovanju Hrvatske radiotelevizije za 2005. godinu. Zagreb, 3. svibnja 2006. (The Croatian Radio-Television’ Annual Report for 2005., Zagreb, 03 May 2006.).

[64] The annual reports of *HRT* do not include a breakdown of program genres produced and broadcast on their television or radio channels. Information on this is available from the State Bureau of Statistics, based on questionnaires filled in by the television stations themselves, but after a long delay.

[65] Z. Peruško and K. Jurlin, *Hrvatsko medijsko tržište*. Studija. IMO, Zagreb, 2006. (Z. Peruško and K. Jurlin, *Croatian Media Markets: Regulation and Concentration Trends*, Study. IMO, Zagreb 2006.).

[66] Parts of this text has been presented in the paper *Content Diversity vs. Ownership Concentration in a New Media Market: The Case of Croatia*, Z. Peruško and H. Popović , ICCPR conference, Vienna, July 2006.

**Table 4: Share of Genres in Broadcast Programs on Television in Croatia (2005)**

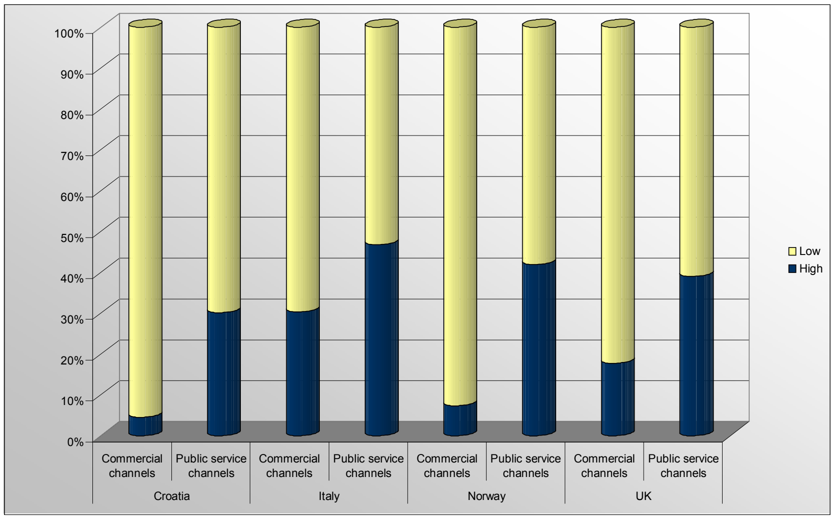
| | **BROADCASTER** | | |
|---|---|---|---|
| **GENRE** | **PSB (HTV 1 and HTV 2)** | **NOVA TV** | **RTL TV** |
| MOVIE | 16.9% | 27.2 % | 18.8 % |
| **CHILDRENS** | **9.7%** | **6.2 %** | **4.3 %** |
| SOAP OPERA | 8.2% | 25.9 % | 19.0 % |
| COMEDY | 7.5% | 8.6 % | 15.1 % |
| DRAMA | 6.7% | 6.2 % | 9.4 % |
| **NEWS** | **5.5%** | **2.7 %** | **2.5 %** |
| **SCHOOLS AND LEARNING** | **4.4%** | **0.0 %** | **0.0 %** |
| BREAKFAST TV | 3.9% | 0.0 % | 0.0 % |
| QUIZ AND PANEL GAMES | 3.6% | 1.3 % | 0.0 % |
| SPORTS | 3.5% | 0.4 % | 0.6 % |
| **MAGAZINE** | **3.5%** | **0.0 %** | **0.0 %** |
| **POLITICAL INTERVIEWS AND DISCUSSION** | **3.4%** | **0.7 %** | **0.0 %** |
| **DOCUMENTARY** | **3.3%** | **1.3 %** | **1.2 %** |
| **ARTS AND CULTURE** | **2.7%** | **0.0 %** | **0.0 %** |
| **CURRENT AFFAIRS** | **2.7%** | **0.0 %** | **0.0 %** |
| LIGHT ENTERTAINMENT | 2.4% | 13.6 % | 17.9 % |
| MUSIC | 2.3% | 1.7 % | 0.0 % |
| **NATURE AND WILDLIFE** | **2.0 %** | **0.0 %** | **0.0 %** |
| **RELIGION** | **1.7%** | **0.0 %** | **0.0 %** |
| **CINEMA** | **1.4%** | **0.0 %** | **0.0 %** |
| CHAT AND TALK SHOWS | 1.3% | 2.1 % | 6.6 % |
| **HISTORY** | **0.8%** | **0.0 %** | **0.0 %** |
| HUMAN INTEREST | 0.6% | 0.0 % | 1.1 % |
| CONSUMERS AFFAIRS | 0.4% | 0.7 % | 0.1 % |
| HOBBIES AND LEISURE | 0.8% | 0.0 % | 0.0 % |
| OTHER | 0.8% | 1.4 % | 3.4 % |
| **TOTAL** | **100 %** | **100 %** | **100 %** |

**Source:** David Ward, "Study on the assessment of content diversity in newspapers and television in the context of increasing trends towards concentration of media markets," Council of Europe, 2006.

In the analysis of genres broadcast on Croatian televisions, the differences in the program output of commercial and public service *HTV* is most visible. While commercial broadcasters show 17.9 per cent (*RTL TV*) and 13.6 per cent (*Nova TV*) of light entertainment, *HTV* only has 2.4 per cent of this genre. The differences are also visible in the time provided for soap operas: *Nova TV* – 25.9 per cent, *RTL TV* – 19 per cent, and *HTV* – 8.2 per cent. *RTL TV* gives more space to comedy (15.1 per cent), drama (9.4 per cent) and chat and talk shows (6.6 per cent) compared to *Nova TV* and the *HTV*. However, *Nova TV* gives considerably more space to movies (27.2 per cent) than *RTL TV* (18.8 per cent) and *HTV* (16.9 per cent).

Movies are the most frequent genre in Croatian national broadcasters program viewed in total. *HTV* differs from the commercial broadcasters in that it has the highest percentage of news (5.5 per cent), children's television (9.7 per cent), quiz and panel games (3.6 per cent), political interviews and discussion (3.4 per cent) and documentaries (3.3 per cent). *HTV* also contributes to the diversity of content, and thus fulfills its role in serving the public, since it is the only broadcaster that broadcasts on schools and learning, breakfast television, magazine, arts and culture, current affairs, nature and wildlife, religion, cinema, history and hobbies and leisure.

**Chart 1: Percentage of High Social Value vs. Entertainment-based Programs**

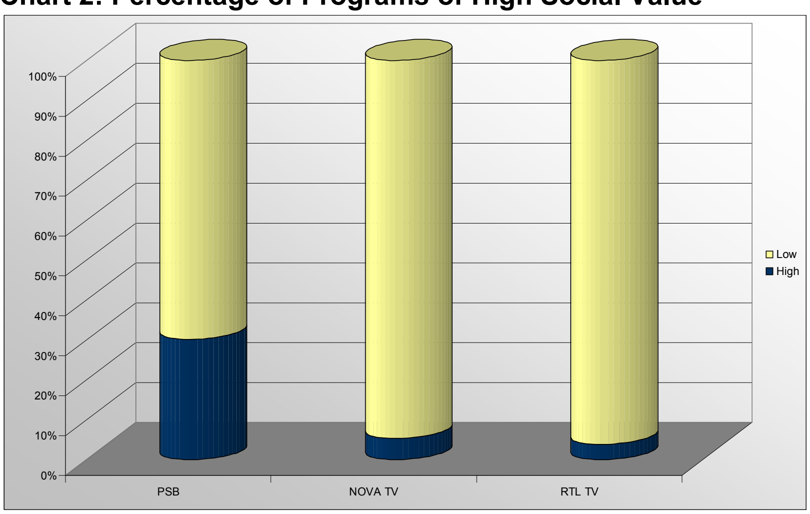



**Source**: David Ward, "Study on the assessment of content diversity in newspapers and television in the context of increasing trends towards concentration of media markets," Council of Europe, 2006.

Even though *HTV* has much better quality[67] programming production then the commercial televisions in Croatia, when compared to other countries in the survey, Croatian public television broadcasts the lowest amount of socially important programs (news and current affairs, documentaries, culture, children's programs).

The differences in the program content visible in the private and public broadcasters can partially be explained through economic reasons, especially due to the restrictions in the *LoEM* on advertising in specific genres, such as religious programs, informative programs, documentaries and children's programs.

**Chart 2: Percentage of Programs of High Social Value[68]**




**Source**: David Ward, "Study on the assessment of content diversity in newspapers and television in the context of increasing trends towards concentration of media markets," Council of Europe, 2006.

[67] Quality is here defined as those programs contributing to the political and social life of society. These programs of "high social value" included in the study design are news and information programs, political talk shows, and documentaries.

[68] *HTV 1* and *HTV 2* classified as PSB.

When we look at how this programming sits with audiences, we find that in the information genre (news and political magazines), *HTV 1* and *HTV 2* combined have 80 per cent of the audience, followed by *Nova TV* (14 per cent). The share of *RTL* in this genre is less than seven per cent. The reason for this is the much higher quality of *HTV* news, as well as the larger offering of news than on commercial channels. In the entertainment genre (mainly reality shows including games and quiz shows), the leader is *RTL* (almost 50 per cent of the audiences), followed by *HTV* (25 per cent), and *Nova TV* (20 per cent). There is strong competition in the markets of films, series, and to a lesser degree, in entertainment and children's programming.[69]

The evidence presented here tends to show that public service content is rare within Croatian television output in the analogue world (Peruško 2007).[70] Will the situation be any better in the digital? Not unless public policy requires commercial televisions to include public service content. As the study by Ward (2006) showed, those countries where commercial television networks were not legally required to include such content broadcast a much lower share of it, especially that of their own production.

### 5.3. *HRT* and Digitalization

*HRT* is a serious player in digitalization. *HRT* broadcasts their programs through a terrestrial analogue network, satellite, and also through an experimental DVB-T network. By the end of 2005, *HTV* had finished the digitalization of its equipment. However, the digitalization of production of the informative programs and the progressive spreading of the digital system over the entirety of programming of the PSB, as well as the system of archives, has yet to be accomplished.

**Table 5: Income of *HRT* (in thousand euros)**

| Source of Revenue | 1998.* | 1999.* | 2000.** | 2001.*** | 2002.*** | 2004***** | 2005***** |
|---|---|---|---|---|---|---|---|
| License fee | 64,632 | 68,154 | 72,518 | 88,426 | 98,067 | 112,916 | 122,471 |
| Advertising | 46,971 | 45,174 | 49,694 | 59,746 | 61,397 | 54,797 | 52,249 |
| Other income | 6,571 | 27,493 | 35,106 | 23,514 | 11,454 | 20,813 | 25,248 |
| Total income | 118,174 | 140,832 | 157,319 | 171,686 | 170,918 | 188,526 | 199,968 |

**Sources: Yearly Reports HRT for 1999, 2000, 2001, 2002 and 2005[71]**

During 2006, *HTV* worked on its strategy for the transition to DVB-T transmitting, which should be accomplished by 2012. According to this, *Croatian Radio-Television* needs two digital multiplexes

[69] Z. Peruško and K. Jurlin, *Hrvatsko medijsko tržište*. Studija. IMO, Zagreb, 2006. (Z. Peruško and K. Jurlin, . *Croatian Media Markets: Regulation and Concentration Trends*, Study. IMO, Zagreb 2006.).
[70] Z. Peruško "Mediji i politički proces u Hrvatskoj", Međunarodna konferencija: *Mediji i izbori*, Opatija, 29-30. lipanj. 2007. (Z. Peruško, "The Media and the Political Process in Croatia," International conference *Media and Elections*, Opatija, 29-30 June, 2007. The conference was organized by SEEMO, Radio 101, ICEJ, Centre for Media and Communication Research, Croatian Journalists Association.
[71] *Izvještaj o radu HRT-a za 1999., 23 veljače 2000. (Yearly Report HRT for 1999., 23. February 2000.).
** Godišnji izvještaj HRT-a za 2000., 12. lipnja 2001. (Yearly Report HRT 2000., 12 June 2001.).
*** Godišnji izvještaj HRT-a za 2001., lipnja 2002. (Yearly Report HRT for 2001., 12 June 2002.).
**** Izvještaj o radu HRT za 2002., 13. svibnja 2003. (Yearly Report HRT for 2002., 13 May 2003.).
***** Godišnje izvješće o poslovanju Hrvatske radiotelevizije za 2005. godinu, 3. svibnja 2006. (Yearly Report HRT for 2005., 3 May 2006.).

with national coverage.[72] *Croatian Radio-Television* cooperates with Transmitters and Communications, Ltd., a public company, on the possibilities for future investments by *HTV* in the development of the network HTV DVB-T transmitter for one digital multiplex with coverage of 95 per cent of the population, and which should be finished by 2009. This would enable the broadcasting of specialized channels, as preparation for the future fragmentation of the market that will occur with the implementation of new technologies.[73] CTA granted to the *HTV* an additional frequency in the Zagreb area, for the purpose of experimental broadcasting of the HDTV signal through the DVB-T transmitter.

According to Robert Šveb, recently appointed Director of Television (until July 2007 the Deputy Manager for Technology and Development at HTV), the *HTV* has, in the last four years, invested approximately 700 million Kuna (about €95 million) in the acquisition of new digital equipment. In the process, the system of recording and editing, the TV mobile vans and engineering equipment has been digitalized**.** In addition, a new newsroom system has been introduced. However, regardless of the digitalization of production capacities, the systems have not yet been integrated, and thus the end-to-end digital workflow has not been fully accomplished.

Besides Internet streaming, IPTV and VoD services, *HTV* plans to introduce new services: linear services (including new thematic TV channels, including a 24 hours news channel) and non-linear services (including Internet video portals, programs for mobile phones, etc.).

*Croatian radio* (*HR*) is available on-demand at their web site, free of charge. This service includes also the archives of some of the programs, most of which are public service content – news, science, documentary, children's programs, and music. *HTV 1* can be view live on-line from the *HRT* web site.

The archive of the *HTV* consists of audiovisual materials produced since the beginning of the broadcasting of *Croatian Radio-Television* (the radio, 81 years ago, and television, 51 years ago). Most of these materials are catalogued. The materials are preserved on different types of analog media (film, vinyl, u-matrix, beta and IMX[74]).The materials produced in the last three years have been preserved in a digital format. However, in order to digitalize all of the materials, *HTV* would need approx. €50 million. Because these costs are too high, *HTV* depends on state subsidies as well as financial aid from the EU. The digitalization of the audiovisual archives will certainly have to be part of the government's media policy if the task is to be completed.

## 6. Conclusions

In determining the possible future of public service television programming in the digital age in Croatia, one needs to take into account the forces at play in the media field.

The first is technological change, which is offering new challenges. Without a doubt, a multi-channel environment is developing in Croatia. Digital television is present as IPTV (Max TV by T-Com) and all four television channels at the national level are available in some regions in experimental digital transmission DTT. Both platforms will further develop to include new channels and services. Mobile services can also be expected to develop further, as the present use and growth of mobile phones in the country demonstrates. Public policy is mainly of the character of spreading the technology and investing in the transmission capabilities geared towards developing broadband access as well as the digital broadcasting system. The government policies are a combination of liberalization (especially in

[72] As the standard for the digital terrestrial transmission has not yet been decided, the number of channels in one multiplex is not known yet.
[73] http://www.hrt.hr/hdtv/razvoj.php
[74] IMX is a MPEG-2-based video format,which bridges the gap between traditional video formats and computer-based postproduction systems .

what used to be mainly telephone networks), where the market develops the product, with some support and investment in infrastructure, mainly broadband development (especially in geographical areas with low commercial value).

Economic forces are at the moment in synergy with the technological challenge, especially in the telecommunications area, i.e. the IPTV and mobile services. DTT is seen as too expensive for individual television players, and only the public service, *HRT*, has publicly announced plans for new thematic channels. In the future, the economic forces might prove to be a constraint on public service content in at least in two ways. First, even though advertising revenue is growing steadily in Croatia, the assessment from the industry is that the revenues from advertising spending in individual media companies are diminishing. Since commercial media are primarily funded by advertising, the lower revenues mean less money for program production. We know from other experiences that less money for programs primarily influences the public service content: news rooms are streamlined, and personnel and costs for investigations or correspondents are cut. It is cheaper to buy programs in international production than to produce the same minutes in house. It is even cheaper to produce reality-TV.

Telecommunications services like internet or voice telephony can also be provided by cable operators. Cable is operating according to a fully liberalized regime, with problems mainly in the ownership of the underground installations. Still just a transmission medium in Croatia, no cable companies have as yet also become content producers. The "must carry" rules for domestic television and radio production have not yet been implemented, showing that the importance of cable as a medium platform has not been appreciated. Also, the public policy seems either unaware or indifferent to the public service implications of cable television. The vastly predominant position of the new B.net company seems not to worry anyone from the public bodies in charge of telecommunications or protection of competition, and the fact that they have no legal constraints or obligations regarding their program offerings leaves them to fulfill their business aim only – the highest profit. At the moment, Max-TV and the cable companies include Croatian terrestrial televisions in their offerings (always the public service *HTV*, and a choice of regional/local televisions), and hopefully this will continue. We are not yet sure how the fact of predominant foreign ownership in television, telecommunication and cable television (which is a reality in Croatia) affects the diversity and quality of media content and the public service offered. Public policy should ensure the fulfillment of public good no matter who the owners are.

Public policy for digital media is on the move, especially in the area of digital television broadcasting. In broadband internet and cable platforms the public policy is not yet aware of the necessities of public service content. The predominant character of the policy is to ensure the transmission of data, in a way reminiscent of road building, telephone lines, or natural gas introduction as a development goal. Croatia does not yet seem to be aware of the importance of the future digitalized media space, nor of the changes this will bring to society. It would seem necessary that the policy makers start rectifying this immediately, as public policy which aims to ensure that the public good is served is a necessary in any new media development. It seems it is still necessary to remind that the media have a social role and impact, even if they are delivered to our mobile phones or on our computer screens: the media constitute not only a business, but a social activity as well. In the multi-channel environment of the abundant delivery networks, it might become harder to enforce the social benefit expected of the media. This will become especially difficult if society is not sure what kind of social benefits it wants and expects from the media. Proponents of further liberalization of the media system and policy think that there is no further need for enforcing a social contribution from the media, as the diversity in media type and channel is so great that "the market" itself will provide exactly what the individual wants. This issue warrants much more probing before we can propose a happy end to the problem.
At this point in time, the public service broadcaster *HTV* seems to be the only player seriously involved in the development of public service audiovisual digital content. Mobile and internet use is becoming a standard practice for young people, and interactivity is something they are used to and expect. Future digital television will have a better chance of serving the interest of young users if

interactivity is present. The public service *HTV* is a market leader in public-service television offerings, but the data seem to show that younger audiences are not very interested in this type of content. This offers a paradox which we are yet to fully understand: the audience that has the opportunity to use the public service content in the digital media environment might not have a motive to.

## 7. Recommendations

In order to advance the presence and quality of public service content in future digital television, the government is clearly called upon to take steps to create a public policy capable of assisting the provider companies with fulfilling the public good. With this in mind, the government should:

- Coordinate different governmental and non-governmental bodies in audiovisual and telecommunications in order to create a comprehensive and coherent policy for the new media in the digital age, in harmonization with the EU. This includes adopting new laws with provisions including must carry rules for cable and IPTV, and expanding the understanding of the process as not only technological but social and political.
- Cooperate with the academic policy community, professionals, and media and advocacy groups in enhancing the debate on the introduction of digital television, and expand it to other new media as well. The society-wide debate should include the issue of public service content and the social expectations from the media.
- Analyze best practice examples and recommendations on introduction of digital broadcasting, adopted by the Council of Europe.[75]
- In cooperation with academia, introduce research into audience behavior in the digital media environment, as well as audience satisfaction with media content and services. Research should also include investigation of the social expectations of the media, as well as the dynamic shape of the media markets and trends in diversity or concentration (both in ownership and in content).
- Invest in digital archives of the public service HRT and preserve the audiovisual heritage. Also, facilitate cooperation of HRT with possible other financiers of the digitalization of the archives (for instance, the EU).

Independent bodies overseeing the development of television and radio broadcasting should, in cooperation with academic policy research community:

- Introduce regular monitoring of public service content in the media, both traditional television, radio, press, as well as in the new digital environment – internet, cable, satellite, DTT.

[75] Recommendation (Rec (2003)9) on measures to promote the democratic and social contribution of digital broadcasting.

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