

# Third report

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*on the actions taken in Hungary to give effect to recommendations as formulated in the 2003 October UNESCO General Conference concerning the promotion and use of multilingualism and universal access to cyberspace*

Focusing on the developments and activities in Hungary in recent years with respect to the advancement of multilingualism and universal access to information in cyberspace the present report addresses the relevant issues in the order as laid out in the recommendation.

## **Development of multilingual content and systems**

Significant initiatives have been launched to support the development of (multilingual) digital content and innovative communication technologies.

- *National Research Infrastructure Survey and Roadmap*:<sup>1</sup> the Hungarian Government launched the National Research Infrastructure Survey and Roadmap (NEKIFUT) project as a part of its 2007–2013 mid-term science, technology and innovation (STI) strategy. The project steering committee prepared a report on the actual conditions of the national research infrastructures, defining less developed branches and fields and the necessary measures to be taken. Parallel with the EU programmes and plans the Hungarian development strategies also mark the innovation and science as an engine of social and economic prosperity. The first and probably the most important step in the innovation process is the knowledge creation, the basic research activity. The technical infrastructure and the research community strictly defines the scientific research capability and “power” of a nation, that is why the development of infrastructures and instruments is essential. The NEKIFUT project has two objectives: the assessment of the Hungarian research infrastructure, the preparation, publication and operation of an online register of national research infrastructures, in order to optimise their use and the formulation of the above mentioned unified national report and programme for the development of research infrastructures. To single out just a few prominent resources and applications, a list of recent developments is presented below.
  - *Hungarian EuroWordnet*: is an electronic lexical semantic database, a network of linguistic concepts and their relationships, represented by synonym sets (the so-called synsets) interconnected by a vast number of semantic relations of different types (hypernym, meronym, antonym etc.)
  - *Complex Uralic Linguistic Database*. The aim of this project was the research and development of the morphological description of eight small, endangered Uralic languages; the adaptation of MorphoLogic's existing morphological engine to these languages; and the creation of various

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<sup>1</sup> <http://www.nih.gov.hu/english>

developer tools supporting the research. The project was carried out with partial help of the NKFP 5/135/2001 research fund.

- *Ob-Ugric Linguistic Resources*. Modern descriptive online resource on Ob-Ugric languages, including corpora, e-dictionary, e-grammar and language processing tools.
  - *Language processing tools for the Hungarian language*. In spite of the significant decrease in available project funding further natural language processing applications have been developed in numerous Hungarian research centers, now more and more focusing on higher order language processing tasks, such as deep parsing and semantic analysis.
- *National Technology Platforms*: supported by the National Office for Research and Technology, a new network of technology platforms has been established, a number of which focusing on domains with direct relevance to the proposed recommendations, such as:
    - *Language and Speech Technology Platform*:<sup>2</sup> is established to help work out strategic goals and an implementation plan in order to make the research and development activities of the institutions working on this field more coordinated and efficient. On their homepage they present the different fields of language and speech technology, its main research and development centers for their potential industrial partners and the public. They also offer an easy access and use of current research results, tools and databases, and the opportunity to adopt these into industrial applications. Activities are supported by the Ministry of National Development and Economy through the National Office for Research and Technology.
    - *Creative Industries Technology Platform*:<sup>3</sup> the operations of the Hungarian National Technology Platforms are funded by the Hungarian National Office for Research and Technology (NKTH) to develop the Hungarian economy by promoting innovative and perspective technology areas. It was initiated by the Hungarian Association of Content Industries (MATISZ) and started its operation in December 2008. Now the Platform, which is jointly managed by MATISZ and the National Host of Hungary, has about 50 members.
    - *NESSI-Hungary Software and Services National Technology Platform*,<sup>4</sup> which aims to elaborate development and research strategies in information service architecture and software infrastructure to serve a knowledge-based society.
    - *E-Governmental Free Software Competence Centre*:<sup>5</sup> sets the target to support (give advice and technically support) several projects aimed at introducing free software in the public administration sector. Plans to

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<sup>2</sup> <http://www.hlt-platform.hu/en/>

<sup>3</sup> <http://host.hu/projects/kip/en>

<sup>4</sup> <http://nessi-hungary.com>

<sup>5</sup> <http://szabadszoftver.kormany.hu/>

document the process and the results in the form of case studies, which will definitely be of help for future free software migration projects. The EKOP-1.2.15-2011-2011-0001 “E-Governmental Free Software Competence Centre” is a project under the Electronic Public Administration Operational Programme. The main objectives are: to promote the growing share of open source applications in public administration and to increase the interoperability of different systems by information technology developments through the use of open source tools and the use of open standards.

To facilitate digital publication, to ensure universal access to cultural and scientific content in digital form, several public repositories have been significantly extended in last years:

- *National Audiovisual Archive of Hungary (NAVA)*:<sup>6</sup> constitutes the legal deposit archive of the Hungarian national broadcasters. The scope of its collections ranges from the programmes of the national broadcasters produced in or relating to Hungary, plus any other audiovisual content which facilitates the preservation of audiovisual content as part of cultural heritage. In addition to retaining and cataloguing audiovisual material, NAVA also wishes to be a centre of research and to keep up with the recent trends such as long-distance and optimal storage of audiovisual documents, and working out guidelines for sorting media texts by searching their subject-matter based on auditory, textual and visual elements.
- *Videotorium*:<sup>7</sup> is a video/audio sharing portal created for the players of research and education. Videotorium provides professional presentation of video content recorded at higher-education organisations, research institutions and public collections. Videotorium has been launched in June 2010 by the maintainer of the Hungarian research and education computer network infrastructure National Information Infrastructure Development (NIIF) Institute. The portal is the successor of former “Video on Demand” repository aiming professional accommodation for the growing collection of recordings and content upload and sharing by institutions. Videotorium is freely available for users of any NIIF member institutions, but any non-profit research and education activity can be supported. The content created by affected organisations can be infinitely various: scientific conferences, seminars, university lectures, trainings, scientific events, scientific experiments, research PR, documentary, interviews, etc.
- *Hungarian Electronic Library*:<sup>8</sup> the MEK collects resources concerning Hungary or the Central European region, in the fields of culture, education and academic research. The collection consists of text-based resources, but does not exclude other formats such as maps, sheet music etc. The Hungarian Electronic Library also collects periodicals and journals, and links to other relevant resources, services and documents concerning libraries. During the course of the past few years the

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<sup>6</sup> <http://nava.hu>

<sup>7</sup> <http://videotorium.hu/en/>

<sup>8</sup> <http://mek.oszk.hu/indexeng.phtml>

Hungarian Electronic Library became one of the most popular and most significant text-archives of the Hungarian web space. Technically a civil movement has formed around it, due to the fact that anyone, even with the simplest of methods and means can contribute to the development of the collections: individuals can offer digitized works (their own or by other authors) with due respect to copyright-issues. In 2012 were created a mobile interface (m.mek.oszk.hu).

- *Hungarian National Digital Archive and Film Institute (MaNDA)*:<sup>9</sup> successor of the former Hungarian National Film Archive, was established in June 2010. Its status is a public collection. MaNDA's major tasks are to record the values of the Hungarian cultural heritage, particularly the literary, artistic, musical and audiovisual works, especially to record these materials digitally, to preserve and hold them for posterity and to ensure the broad dissemination and wide access. As a specialised task, MaNDA collects, preserves, restores and manages Hungarian and international film materials, written or other documents giving high priority to the Hungarian features, documentaries, newsreels, experimental and animation films and related products. MaNDA contributes to the Hungarian culture with its research activity, professional services and supports education. Concerning to MaNDA's overall collecting policy, the entire Hungarian cultural heritage is going to be accessible online throughout a central data base. MaNDA is responsible for dissemination the national cultural heritage in the Europeana as well.

#### Facilitating access to networks and services

Number of the Internet subscriptions by access services, 31 December (2003–)

At the end of the period	Public switched network (by modem, dial-up) + ISDN	xDSL	Cable tv	Wireless	of which mobile internet	Other	Total
2003	391 398	114 813	77 189	60 538	..	22 654	666 592
2004	320 494	235 969	135 803	88 122	..	14 489	794 877
2005	241 611	372 523	212 145	155 988	..	18 470	1 000 737
2006	85 878	597 331	374 647	251 774	199 784	19 995	1 329 625
2007	62 985	739 028	563 593	434 361	356 721	32 056	1 832 023
2008	24 742	806 569	718 060	678 123	570 835	83 420	2 310 914
2009	22 403	800 013	782 430	1 036 898	933 000	161 799	2 803 543
2010	15 137	789 657	893 177	1 407 039	1 306 912	236 454	3 341 464
2011	13 527	801 165	970 499	2 254 948	2 154 842	292 386	4 332 525
2012	12 897	774 458	1 055 078	3 278 677	3 177 412	334 529	5 455 639
2013	12 452	765 846	1 144 496	4 176 116	4 072 242	383 939	6 482 849

Source: Hungarian Central Statistical Office

The access to internet in Hungary is growing continuously. As we can see, only the growing of xDSL stopped during the years, but the wireless, the mobile internet and the other communication channels are unstopably expanding. This is an international information society trend in developed countries.

<sup>9</sup> <http://mandarchiv.hu>

## ICT usage in households and by individuals (2005–)

Denomination	2005	2006	2007	2008	2009	2010	2011	2012	2013
<b>Access to ICT devices (household level)</b>									
Households having mobile phone	79,9	84,4	86,4	88,0	90,4	93,2	94,7	95,4	96,0
Households having desktop computer	40,7	47,1	50,6	54,6	56,8	58,6	59,5	59,1	58,3
Households having portable computer	6,3	9,3	11,4	15,7	21,0	26	31	35,1	41,6
Households having handheld computer	1,6	1,8	1,8	2,8	3,6	3,9	4,7	4,5	4,8
Households having internet connection	22,1	32,3	38,4	48,4	55,1	60,5	65,2	68,6	71,5
Households having broadband internet connection	10,9	22,0	33,0	42,3	50,9	52,2	60,8	68,0	71,0
<b>Computer and internet use (individual level)</b>									
Individuals who have ever used a computer	43,3	59,5	62,4	68,5	67,7	70,3	73,9	75,9	77,0
Individuals who have actually used the computer (real user)	42,1	54,1	58,3	63,4	62,6	64,1	69,3	71,8	73,2
Individuals who have ever used the Internet	39,9	48,5	54,4	62,7	63,7	67,6	72	74,2	75,9
Individuals who have actually used the Internet (real user)	37,2	44,9	51,6	58,7	59,3	62,2	68	70,6	72,6
Individuals who have ever ordered goods or services over the Internet	8,9	8,2	12,2	15,7	18,9	22,2	26,6	30,3	33,3
Individuals who have actually ordered goods or services over the Internet (real user)	5,3	5,0	6,9	7,7	8,9	10,3	12,7	14,7	16,8

Source: Hungarian Central Statistical Office

Based on the data of Hungarian Central Statistical Office, in Hungary 7.800.000 people has access to internet. The total population of Hungary in January 1, 2014 were 9.877.365, so nowadays 79% of Hungarian people has broadband internet access. 71% of people used internet at least weekly, and 62% used the internet every day in 2013.

## Enterprises using the Internet to interact with public authorities (2008–)

Denomination	2008	2009	2010	2011	2012
To obtain information from public authorities' websites or home pages	73,7	77,3	93,0	93,8	94,9
To obtain forms from public authorities' websites or home pages	73,1	76,8	88,8	89,9	93,1
To return filled in forms electronically	64,4	69,5	82,9	84,5	91,4
To treat an administrative procedure completely electronically without the need for paper work (including payment, if required)	37,0	44,0	50,9	77,5	86,3

Source: Hungarian Central Statistical Office

Unfortunately, there is data only until 2012, but the trend is very clear: the usage is growing, and is close to 100%.

## **Development of public domain content**

*To enable universal online access to public and government-held records* at a national level, and to comply with Act XC. of 2005 on the Freedom of Electronic Information, the services of the general web portal for public administration has been significantly extended in recent years. The development of similar sites bringing together the widest range of public service information and services online is now a de facto standard at the level of local councils, offering on-line access to relevant information and services. In line with the above law, all authorities performing a public role are liable to grant access to their public data specified by the law through their websites, free of charge and registration.

Within the framework of the *Public Sector Information Program*, a central electronic register keeps track of the descriptive data of the available information from organizations, and a related uniform public data search system has been linked to this resource, with additional links to collections of official data resources of public interest.

*The Commissioner for Fundamental Rights and his Office*: the work and the mandate of the Commissioner for Fundamental Rights and his Office are determined by the Article 30 of the Fundamental Law of Hungary adopted in 2011 and based on the Act CXI of 2011 on the Commissioner for Fundamental Rights, both which enter into force 1st January 2012. Following the relevant regulations, the Commissioner for Fundamental Rights is the legal successor of the Parliamentary Commissioner for Civil Rights, who ensures the effective, coherent and most comprehensive protection of fundamental rights and in order to implement the Fundamental Law of Hungary.

The *Hungarian National Authority for Data Protection and Freedom of Information* is responsible for supervising and defending the right to the protection of personal data and to the freedom of information in Hungary. The National Authority for Data Protection and Freedom of Information is regulated by Act CXII of 2011, on Informational Self-determination and Freedom of Information, which was endorsed by the National Assembly on 11 July 2011. The Act is comprehensive in scope, and concerns all data control and data processing activities undertaken in Hungary. The Act defines these activities as those which relate to the data of a natural person, as well as data in the public interest and data made public on the grounds of being in the public interest. Anyone may make a request to access data of public interest to the state organ or organization in question. The petition may be made verbally, submitted in writing or electronically. There might be a small fee charged to cover the cost of making copies.

Access to public records preserved in the *National Archives of Hungary* is regulated by the Archives Act (1995. LXVI., Amendment 1997. CXL., Enacting Clauses 19 and 20/1198.[V.13.] MKM), the Data Protection Act (1992. LXIII.) and the Privacy Act (1995. LXV.). According to the Archives Act (hereafter AA), any natural person may, upon preliminary application for access submitted to the archives, have free access to archival records held in public archives. Under the regulations of the AA (Section 22) access to public records is limited by a dual time restriction system: records created before 2 May 1990 are made available to the public

15 years after their creation, and records created after 1 May 1990 are made available to the public 30 years after their creation. Some records are available without restriction from the date of transfer. Examples of such records include published materials and records (only) containing information of public interest. It is possible to have access to records before the 15 or 30 year period expires. The record creator agency may allow access to records closed under the terms of the 30-year rule. In the case of records closed under the terms of the 15-year rule an additional permission of an ad hoc scientific advisory board is also required (AA Section 23).

*Digital census database:*<sup>10</sup> data collected between 1784 – 1996 can be browsed freely with keywords and pre-collected tables, too. The maintainer is the Hungarian Central Statistical Office, and there are collected 128.000 pages of 362 statistical books.

Main projects about the development of publishing governmental data, and development of the governmental infrastructures and data sharing:

- National Infocommunication Strategy 2014-2020: only in Hungarian language.<sup>11</sup> After analyzing the current situation, describes the development of digital infrastructure, and based on this, the development of digital skills, digital economy and the digital government.
- The goal of Hungarian Government is to reach the full broadband internet availability in the whole country until 2018. It will cost 200 billion HUF (Digital Nation Development Program, Governmental Decision 1162/2014. (III. 25.).
- ÁROP-1.2.17-2012-2012-0001 – the project developed the environment of publishing governmental data with the help of the verification of the regulations about data and information publishing. The goal was not to develop only the publishing, but to help the utilization of data, too.
- ÁROP-1.2.14-2012-2012-0001 – developing the name-registers with new data tags for example topographical number, geo-data, type of property etc.
- EKOP-2.2.5 – KÖZNET project – with 240 million HUF the goal was to upgrade the ICT tools of organizations working in the system of Közháló (Public Network). There are various organizations (IT mentors, public access points, cultural houses etc.). One of the results is that broadband internet become reachable in 400 stratas (altogether 1,5 million people – many of whom can reach the broadband only with the help of this project).
- GOP-3.1.2-12-2012-0005 – broadband internet development in North and East Hungary
- "Postal Agora" programme, where various community services are available for customers at postal outlets operating with IT support (project of Hungarian Post Office).

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<sup>10</sup> <http://konyvtar.ksh.hu/neda>

<sup>11</sup> <http://2010-2014.kormany.hu/download/b/fd/21000/Nemzeti%20Infokommunikációs%20Stratégia%202014-2020.pdf>

- TÁMOP 2.1.2. Project: the scope of the project, which began in 2012, is to improve digital literacy and knowledge of foreign languages in the population, to help them improve their employability and escape from unemployment, respectively.
- Digital Community Miskolc and Agglomeration: the aim of the project (2012-14) is to develop the disadvantaged region of Miskolc by means of improving digital literacy and e-skills, which are seen as preconditions for better education, employment and regional competitiveness. The programme is expected to significantly update Internet and broadband internet access in Miskolc and its agglomeration.
- Social Renewal Operational Programme 4.1.2.A1/A2 – Teacher Training: These measures aimed at improving the overall quality of teacher training, the propagation of ICT tools in teaching and development of instructional materials, with a special focus on ICT. The measure had an overarching goal of improving the standard of Hungarian trainings in STEM subjects.

### **Reaffirming the equitable balance between the interests of rights-holders and the public interest**

The Hungarian copyright legislation is in line with those international copyright and related rights conventions that may be considered as relevant in relation to the adaptation of the copyright system to cyberspace, such as the WIPO Copyright Treaty and WIPO Performers and Phonograms Treaty and the Beijing Treaty on the Protection of Audiovisual Performers. (It is to be mentioned however that Hungary only signed but has not yet ratified the Beijing Treaty.) The framework provided by these Treaties is also complemented by the European Union's Copyright related acquires, since Hungary is a Member of the EU since 2004. Hence, during the important challenge of updating our national copyright system it is inevitable that such process shall respect the aforementioned international and European principles. The dossier on the reform of the European copyright system has been on the Agenda of the European institutions for years and Hungary has closely followed the developments in this field ever since. In 2012 the Hungarian Council of Copyright Experts (CCE) was requested to conduct examinations and create studies related to the copyright reform initiative launched by the European Commission under the title "Licensing Europe". The results of the CCE's work were published and articulated during the negotiations held in the EU Council.

The Hungarian Government adopted the National Strategy on the protection of Intellectual Property for the period between 2013 and 2016 by its Decision No. 1666/2013. As one of its main goals, the strategy aims to adapt the existing copyright system to the ever developing new requirements of digital technology, and to preserve the interests of rightholders and cultural diversity at the same time. Within this approach the Strategy includes to the following strategic goals: (i) to develop the efficient, transparent system of collective management of rights which can be operated within the European Single Market; (ii) to ensure the balance between the access to works and the protection of rightholders; (iii) to improve the social role and perception of copyright. The Strategy puts emphasis on developing legal online services and on the introduction of innovative licensing technologies and open access licensing too. The Strategy outlines that in order to confine illegal online

music services, it is needed on the one hand to apply proper tools of copyright enforcement and on the other hand to introduce such new business models that may provide a suitable alternative for the claims of consumers. The role of awareness raising is also to be considered as inevitable in this field. Within this framework the Hungarian Board Against Counterfeiting has participated in several events including festivals and conferences to promote the legal use of cultural content, and to educate simple consumers and even officers who are in charge for Intellectual Property enforcement.

The basis of the system of exceptions and limitations set out in the Hungarian Copyright Act (Act 1999 LXXVI on Copyright) is the so called “three step test” outlined in the WIPO Treaties and 2001/29/EC Directive on Copyright in the Information society. According to the Directive, the EU Member States may only establish such exceptions and limitations to copyright in their national law that are listed therein. Within this framework 2 smaller amendments were introduced in relation to already existing exceptions and limitations in our Copyright Act (both in relation to public performance of works.) In relation to the use of the so called orphan works (whose rightholder may not be identified or located, thus the licensing of their use is problematic) a new exception was introduced into our law, which is in effect since the 29th of October 2014. These rules were introduced into Hungarian law in order to implement a European Directive adopted in 2012. It is also to be mentioned that Hungary participated in the Diplomatic Conference (June 17 to 28, 2013) that adopted the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired or Otherwise Print Disabled. As a Member of the EU we have also become signatories of the Treaty after the EU signed it on April 30, 2014. The ratification and the details of implementation are yet to be discussed within the EU.

### **Final comments**

The internet penetration in Hungary is high, cca. 80 percent of population can reach online data and information. There are a lot of (interactive) data sources about the Hungarian culture, and cultural objects in various topics and formats. In recent years, many projects have been launched with a view to develop the quality and the openness of public and governmental data. To reach the truly value-creator usage of internet there is a great need to develop the information literacy of Hungarian people, beside this to help learning foreign languages (and culture) for everybody.