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The Global Initiative for Inclusive ICTs  
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# **National Accessibility Standard in the Russian Federation: A First Step toward Creating a Barrier-Free Internet**

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adaptive technology for the blind and visually impaired*

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## **National Accessibility Standard – a First Step toward Creating a Barrier-Free Internet**

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Considering the rapid Hi-tech development and an ever increasing role of information for the adequate society development, the Web-accessibility questions become more and more vital. The computerization of social life means that significant part of communication practices (economical, political, informational, etc.) is either being transferred, or has already been transferred, into the Internet sphere. Barriers that physically disabled people face in modern Internet often prevent them from proper socialization and rehabilitation.

Web-accessibility issues arise when either the user himself or particular user-agent (application allowing access to the Internet resource) has special informational needs that frequently do not comply with the ordinary forms of information representation. From now on we will only discuss disabled computer users who can be characterized by “...long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others”. Often such people resort to the use of special hardware

and/or software (adaptive technology – AT) to access the Internet, although even exploitation of AT to the maximum extent currently available doesn't guarantee complete Web-content access. We assume that Web accessibility efforts should be directed to unification and standardization of obligatory forms of data representation in the Internet. By the term “obligatory forms of data representation” we mean such data types and formats that enable a person with disability to use the same amount of information that is available to people with no special requirements. Questions related to the Web-content (i.e. censor, legality, moral values, etc.) are not covered in this article.

The concrete mechanism of ensuring certain Web-accessibility level on a national scale can be presented as a three-level model:

- Legislative base which comprises administrative will (expressed in various legal texts) that statutes exact ways of exercising civil right to free access to the Web-published information considering special needs of disabled users.
- Organizational base which is to be presented by a state or civil legal entity whose main purpose is to control and verify Web-accessibility of the Internet resource and issue some Certificates of Compliance.
- Documental base, i.e. accessibility standards accepted and adopted on a national level. In Russia this could either be so-called “Technical regulations” (compulsory law) or National standard (Russian “GOST” = “GOvernmental STandard”), conformity to which is advisable (with few exceptions that relate to some vital spheres such as public health, safety, etc.).

### ***Legal Base***

The legal base should clearly define:

- Groups of Web resources of the national Internet zone that must fully comply with the accessibility standards.
- Groups of Web resources that should be advised to conform to the accessibility standards and to what particular extent.
- Terms, conditions, and authorities of the certification body that is an organization in charge of controlling Web resources and verifying certain level of compliance with the national accessibility standard.

It is assumed that Web-accessibility to the maximum extent is a must for official Internet resources of federal, regional, and local authorities (including all branches – executive, legislative and judicial). The same requirements should be applied to the websites created and maintained with the financial support from government and/or municipal structures, as well as Internet resources of state-owned corporations.

Currently only few federal government agencies (namely Federal Ministry of Health and Social Development and Central Election Commission) strive to provide some accessibility of their official Web resources on their own.

It is also vital that reasonable accessibility measures should be undertaken by private (non-governmental) online services and sites that roughly can be referred to as “socially indispensable”. In this group would fall official Web resources of educational institutions (especially those that offer distance learning programs), mass media, financial organizations; large (nationwide) search portals and social networks; E-mail systems and online payment services – in short, all those essential E-commodities unavailability of which reliably excludes people with disabilities from active social participation. Presently Russian accessibility experience of socially indispensable private Web-resources is rather far from the ideal. Only large international organizations attempt to adopt their websites to the needs of disabled users. For example, Russian UN office ([www.unrussia.ru/](http://www.unrussia.ru/)) was the first to officially and willingly conduct professional accessibility-testing and to redesign web-interface to conform to the WCAG. Certain measures are taken by enthusiastic IT developers, although this is but the tiny portion of socially indispensable privately-owned Web resources while the overwhelming majority still has quite a way to go.

### ***Organizational level***

In Russia official organizations entitled to issue Certificates of Compliance with any national standard have to obtain accreditation by the Federal Agency on Technical Regulating and Metrology and become a “Certification body”. During the first year of Russian Web-accessibility standard (RWAS) existence not a single instance of issuing Certificate of Compliance went public (if such official accessibility-testing ever took place). Thus creating competent and authoritative certification body to spread, control and verify the implementations of the RWAS provisions is still a problem to be solved. The question of such a certificate body being a state or civil entity represents yet another inexplicit matter. The problem is that civil society mechanisms in Russia are so faint and indistinct that

energetic and effective functioning of a non-governmental organization seem to be somewhat over-idealistic.

Meanwhile international experience clearly shows that state support of an NGO being in control of national Web-accessibility standard implementation may turn out to be rather fruitful. In Germany, for example, the project “BIK - barrierefrei informieren und kommunizieren” appeared in 2002 mainly as a state initiative. Now it is supported by various state agencies, scientific institutions, non-governmental organizations, etc.

### **National accessibility standard**

On the 1<sup>st</sup> of January, 2009 a national standard: “GOST R 52872-2007: The Internet-Resources. Requirements of Accessibility for -Visually Impaired Persons” entered into force in the Russian Federation. This document is intended to smooth over negative impact of discriminatory Internet elements that hinder free information access by the blind and visually impaired (BVI) users. Particularly it serves as a technical foundation for implementation of international and Russian socially oriented laws (UNCRPD, Russian constitution, Federal law on social security of disabled people, etc.).

### ***Brief Standard reference***

Russian Web-accessibility standard consists of the 5 following parts:

1. Sphere of application;
2. Normative references;
3. Terms, definitions and abbreviations;
4. General requirements;
5. Internet resource component requirements.

Specific accessibility mechanisms described in the Standard include:

- Mandatory text representation as an alternative to inaccessible Web content;
- Absence of graphical CAPTCHA for the pages containing information for the BVI users;
- Limited use of PDF files containing documents in graphical form (apparently the authors had in mind PDF files lacking the textual layer, although clearly it is not stated);
- Limited nested table levels if the information is presented in table form;

- Limited use of Web page frames for content structuring;
- Mandatory textual descriptions of the form field elements located on the page and so on.

### *Future evolution directions*

The most prominent directions for the Russian Web accessibility standard development (or may be even a group of accessibility standards) are:

- Comprehensive consideration of the available international experience. As a prime source of international accessibility regulations should be treated achievements of Web Accessibility Initiative (WAI) of W3C, i.e. Web-Content Accessibility Guidelines 2.0.
- Comprehensive consideration of special needs of disabled users of all categories as well as certain disability-like peculiarities of elderly people. Presently RWAS ignores special needs of deaf and hearing-impaired people, persons with limited movement and cognitive disfunctions, etc.
- Significant technical improvement. Some terms and abbreviations found in RWAS do not fully reflect notions and meanings that are widely accepted by either general public or professional community. This misuse of technical terms may confuse Web developers and cause improper standard interpretation. Some basic concepts are not defined in the Standard at all, but nevertheless they appear as Web content requirements. This illegibility may result not only in the variability of implementation, but also in possible administrative abuse on behalf of certification body (especially if RWAS compliance becomes a mandatory demand).

Besides, RWAS often resorts to using specific (even proprietary) names instead of appealing to general terms that refer to entire object classes, methods of data representation, file formats, etc.

It is worth mentioning that RWAS was developed back in 2007, thus some of its provisions rely on IT and AT available at the moment. Since that time AT and the Internet itself have made quite a leap in their evolution. On the one hand, static HTML-content is constantly yields its positions to the dynamically changing elements and specific Web page regions. Interactive user-to-Web communication steadily becomes more and more intensive while Web-content itself includes more of multimedia forms and various embedded objects approaching advanced functionality of full-fledged computer applications. On the other hand, more applications – from Internet browsers to E-mail clients, from Office Suites to operating systems – natively provide greater level of accessibility which

in turn extends user possibilities to unforeseen levels to be dreamed of just a few years back. All of these tendencies have to be taken into comprehensive consideration by the national Web-accessibility standard. Furthermore, general (basic) Standard provisions have to be universal to the maximum extent possible, so that Standard would remain applicable not only to the existing technological solutions, but also to the innovations yet to come in near future.

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