Chapter 25
Senior Web Accessibility: Laws, Standards and Practices

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ABSTRACT
Web accessibility is a major question in present ICT legislation. An ageing population is a known phenomenon that makes older people become a specific interest group. In this chapter, we present the evolution encountered in laws and standards due to specific concern about older people. This publication is related to the works of the W3C WAI-AGE group. We specifically interest in the adaptations encountered in W3C accessibility guidelines (WCAG) while considering the difficulties related to ageing. We also propose some practical recommendations for web designers that want to develop websites targeting seniors. We finally give some perspectives about accessibility legislation and standards.

INTRODUCTION
A lot still has to be done to reach e-accessibility. However, legislation and standards are being formulated. These days, new laws apply in many countries concerning not only the accessibility for disabled persons but general accessibility for all persons. Seniors are one of the new target populations. We present in this chapter the laws, researches and standards that exist in the matter of senior web accessibility.

First of all, we present some analysis of world statistics showing that seniors constitute an important target group for the web services of tomorrow. A lot of studies show that the population pyramid is turning upside down. Seniors often encounter difficulties in mobility and are therefore highly interested in home services.

Therefore we propose a survey of the new laws concerning seniors’ accessibility. A lot of countries already implement other accessibility rules in practical life (inclined plane,...). For web accessibility, standards are still being formulated and awareness has to be incited in every aspect of web site construction: authorities ordering and cre-
Senior Web Accessibility

Figure 1. Population previsions for European population

![Population of Europe](image.png)

Source: U.S. Census Bureau, International Data Base

Atating web sites must mention accessibility in web site specifications, people filling the contents in content management systems have to be informed of the main rules to respect,... Web accessibility has to become a public preoccupation.

Next, we propose to review the literature about web accessibility difficulties of seniors. The problems encountered by seniors are due to sensory acuity decline: failing eyesight, hearing loss, motor skill depreciation, and cognitive decline.

We propose to analyze the World Wide Web Consortium (W3C) accessibility guidelines (WCAG) and to show how much they have been adapted from version WCAG 1.0 to version WCAG 2.0 in order to take care of seniors’ difficulties. A special W3C group discussed that question, the WAI-AGE group, and we will study some of their works.

Finally, we summarize the seniors’ web accessibility rules from the standpoint of web developers.

**SOME POPULATION STATISTICS**

The population ageing is a major challenge for the future. If we consider, for example, the population of Europe, previsions let us think that the age pyramid is turning upside down. We retrieved statistical previsions from U.S. Census Bureau IDB (2009). Figure 1 presents the predicted evolution of European population along years.

Presently, young people (younger than 20) are as numerous as older persons (older than 65). In the year 2050, the number of seniors will be almost twice that of young people. This analysis could be constructed according to different prevision sources but would lead to the same conclusion for all developed countries. This phenomenon is generalized but follows a different rhythm depending on the countries.

We also want to emphasize the generalization of the internet usage throughout the world. According to Internet World Stats (2009), about one in two people uses the internet in Europe uses. Internet-user growth is impressive, especially in countries that currently present a lower penetration level. For example, in Albania, about 16% of the population uses the internet today. Looking back in time, we notice that the penetration rate was multiplied by more than 200 between 2000 and 2008! While for a country like Belgium, where more than 67% of population uses the internet, the penetration rate was multiplied by 2.5 over the same period.

Statistics presenting the internet use according to age also show that the elderly group specifically presents a progression. In America, the Pew internet (2009) study highlighted that from 2005 to 2009, the proportion of online 70-75 year olds
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