



Inclusive Future-Internet Web Services



The Future Internet is here, providing access to commerce, government and leisure through online web applications. These new web applications have rich, complex interfaces that allow people to engage in social networking, contribute their content and access a wide variety of multimedia content from their computer, their mobile phone or their TV. Given that the Future Internet is becoming so important to all aspects of our lives, it is important that everyone is to use these web applications, including people with disabilities and older people. To ensure that these groups are not excluded from all the Future Internet has to offer, i2web is developing tools for transforming websites to meet people's needs and it is producing tools to help web developers, web accessibility experts and people who commission websites and apps to deliver accessible web applications.

At a glance

Inclusive Future-Internet Web Services
<http://i2web.eu/>

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Partners:

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An accessible Future Internet

The population of the European Union is aging with nearly one third of the population being over 60 by 2025. A further 10% of the population are people with disabilities, with a range of needs and preferences on how they access technology. However, at the moment, a substantial number of Web 2.0 applications are inaccessible, meaning that people with disabilities and older people cannot use them. i2web is helping to address these problems through new and innovative approaches to web accessibility.

How i2web is helping people use Web 2.0 applications?

i2web has conducted extensive research with people with disabilities and older adults into how they use Web 2.0 applications. As opposed to looking at problems that people encounter when

using the Web, i2web has studied the strategies that these diverse groups of users employ when using Web 2.0 applications. After working closely with over 60 users in laboratory studies, working with desktop computers, mobile phones and interactive TV, the project has defined 7 key strategies that people use with Web 2.0 applications. These strategies are accompanied by 100 different patterns of interaction by which people apply those strategies to applications, depending on the platform on which they work, their assistive technologies and their personal preferences.

These strategies have informed the design adaptations that will help support disabled and older people while they are using Web 2.0 applications. i2web is providing a modelling framework through which users can specify what adaptations they would like to have applied to Web 2.0 applications, based on their technology and personal preferences. This framework can then be used to automatically transform websites so that users are better supported and can succeed at their goals with Web 2.0 applications.



How i2web can help developers, accessibility experts and web commissioners?

i2web has worked with web developers, accessibility experts and commissioners to determine the current support they provide for accessibility and where there are opportunities for improvement by conducting surveys, interviews and observations with over 100 practitioners. Based on this deep understanding, i2web is developing its EASI (Evaluation of Accessibility Support & Integration) tools to support the creation of accessible websites and Web 2.0 applications.

The EASI tools for developers are focused on understanding their mental models and language and integrating accessibility testing into the workflows they already undertake in their development processes. Accessibility support and advice is focused at the level of web content, allowing developers to undertake both formative and summative evaluations of accessibility with the assistance of automatic and semi-automatic testing tools.

For web accessibility experts, the EASI tools support evaluations of a user's journey through a Web 2.0 application, and help them manage their testing practices to improve reliability throughout their evaluations.

The project is providing EASI tools to commissioners that allows them to track the accessibility of their Web 2.0 applications over time. It allows them to have an overview of what pages are likely to cause users trouble in using a website, but provides that information abstracted away from the technical details of how the website was developed and tested.