

Publishing Web Content to CE Devices

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1 Company & Author Biography

Davy Van Deursen received the master degree in computer science from [Ghent University](#), Belgium, in 2005. He joined the [Multimedia Lab](#) of Ghent University in 2005 where he is currently working toward the PhD degree. His research interests and areas of publication include video coding, media content adaptation, media content presentation, Semantic Web technologies, W3C standardization, and mobile Web publishing. Further, he is also involved in [Siruna](#), which is a spin-off of [IBBT](#) and Ghent University. Siruna is a mobile Internet technology provider, offering a platform that serves as a thin client mobile application gateway. In 2008, the company made its technology available to the open source community, implying that the platform is freely available for non-commercial purposes.

2 Web Access on CE Devices through the Siruna platform

In 2006, the [Consumers Electronics Association \(CEA\)](#) standardized the Web4CE framework (a.k.a. [CEA-2014](#)). Within this framework, they defined CE-HTML, which is a collection of technologies (XHTML, CSS TV profile, AJAX, etc.) that enable the creation of Web content for Consumer Electronics (CE) devices (e.g., TV). Several restrictions and extensions are defined on top of these technologies. Examples of extensions are support for remote control keys and media integration. In this paper, we demonstrate how the Siruna platform can be used to customize existing and new Web content for CE devices, according to the CE-HTML specification.

Siruna's primary target was to provide a software platform that customizes existing desktop Web content in real time for usage on mobile devices such as GSM's, PDA's, and smartphones. First, device characteristics and the mobile browser capabilities are detected. Based on the detected capabilities, a combination of generic and Web site specific transformation rules are applied to the input Web content. The result is a customized Web site perfectly suited for the requesting mobile device and compliant to the mobile profiles of existing Web standards.

Similar to mobile devices, bringing the Web to CE devices requires a number of changes for existing Web content. On a TV for instance, font sizes are typically higher, navigation between different links and buttons is different, the layout may be different, etc. Note that similar constraints are present on mobile devices (i.e., navigation and layout). Hence, an obvious extension for the Siruna platform is to publish existing Web content to CE devices. XHTML, JavaScript, and CSS transformations specific for CE-HTML can be easily implemented within our transformation engine. Therefore, in this presentation, we provide an overview of the necessary CE-HTML specific transformations and demonstrate how Siruna's technology enables the true multichannel management of Web content.

