

Workshop on Electronic Books and the Open Web Platform

Expression of interest in participating in the Workshop

Font emulation in EPUB

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Participant's interest

Hachette Livre, publishing group number one in France with 60 different brands, has been producing ebooks in EPUB format since 2008. This universal format allows Hachette Livre to address the digital market with a single file benefiting from the set of W3C standards gathered in the EPUB specifications.

The new flavor of EPUB3 files “Fixed Layout”, standardized in March 2012, allows digital production of books that would never have been imagined in the reflowable EPUB2 world! Starting from illustrated books to highly layout school books, with a top interest in graphic novels, comics and mangas, “Fixed Layout” opens new potentialities for eBook distribution.

Point of View

Fixed layout in EPUB3 is enabled by text positioning technologies long available in SVG and also in CSS text modules.

This great technology needs fonts, and here comes the question: what if the fonts used for paper layout are not available? Embedding fonts isn't always possible, so this position paper is about another technology: font emulation.

In the old days of PDF being the major digital distribution format, the question of not having the fonts inside the distributed file had been addressed. Until now, did you experience bad text rendering of any PDF you get from the Web? No, and in most cases the fonts are not embedded in the PDF: this nice behavior probably comes from a font emulation solution.

Suggestion

Without entering the detailed of this old implementation, the idea I would like to raise in this workshop is: “How would it be possible to empower Reading Systems with a font emulation function based only on a small set of generic fonts, like serif and sans-serif?”

More precisely, any character specifically layout inside the Fixed Layout EPUB would take its typographic characteristics from the style context and its glyph inside the emulation font. Then, even if the design of the character is different from the paper one, its position, size, angle, weight, etc, would fit the original, thus performing a good quality result in rendering.

This technology would probably be a combination of font technology and software rendering. Should this question be asked to W3C working groups as CSS, SVG and particularly WOFF?