Increased content accessibility for wikis and blogs

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At a glance

- Content in social media applications is contributed by users, who are
  - non-experts in web page design
  - unaware of accessibility guidelines
- Social media content is provided in a structured way (by filling predefined forms) and is exported in a structured format
- We introduce the framework for aggregators of social media sources, which will become a one-stop-shop solution for social media readers
  - Structured content and User presentation preferences will be used in the adaptation process in order to improve web accessibility

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Content lifecycle

- Accessibility of social media content is supported by
  - Template driven editing of content (HTML forms)
  - Content distribution standards (RSS, Atom)
  - Aggregation (of presentation-independent data) and redistribution
  - End user browsing solutions (browser plugins, extensions and add-ons)
Our suggestion

- Increased accessibility with limited user awareness
  - Users
    - As writers will provide content, metadata and optionally alternative content formats
    - As readers will provide browsing preferences
  - Social media software
    - will wrap user-provided content in well structured and meaningful feeds and increase the available content formats
  - Aggregators
    - will collect readers’ preferences and provide alternative versions of content when necessary

More specifically 1/3

- Extent content editors in order to allow writers to:
  - provide plain content (image, text, video)
  - choose among a range of different presentation options
  - attach useful metadata (selected language for text; format, sampling dimensions and alternative representations for image, video and audio)
- and readers to
  - personalize the appearance of content according to their needs
More specifically 2/3

- Social media software
  - will gather the preferences and presentation needs from users (user profiles) and create formatting instructions for content (font size, colors, language, audio or visual representation - in the form of XSL files)
  - will recompile content and provide additional content formats (e.g. using text to speech applications, translators etc)
  - will assemble content to XML feeds
- The combination of XML feeds and XSL will provide restructured content, which matches user browsing preferences

More specifically 3/3

- Content aggregation services
  - will store user (reader) profiles
  - will gather RSS (XML) feeds and audiovisual alternatives
  - will provide more content alternatives, where needed
  - will present the reconstructed content to the user
- All user’s preferences and disabilities must be considered
End users

- Can still use widgets or browser extensions and toolbars for supporting screen readers or other devices in order to read contents from social media
  
  but have the alternative
- To be totally unaware of accessibility extensions, of supportive services and tools
- In this case the have to simply logon to the aggregation service, set up their profile and browse the social media

Conclusions

- We presented a flexible architecture for the production, management and delivery of user-created content
- The content creation process is template-driven and leads to structured and semantically enhanced content
- The content management process incorporates reformation services that produce alternative representations of the original content
- The content delivery process collects presentation preferences form end-users and restructures content to meet their accessibility requirements
What is next?

- Implementation and testing
  - Hundreds of blog or news aggregators
  - Many of them offer personalized services
  - None of them (as far as we know) offers personalized presentation options especially for people with disabilities

- The service
  - will read the RSS feeds of existing blogs
  - will create a simple user profile (language, disabilities)
  - will reformat content according to the preferences of each user

Thank you!

Questions?

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