

Guglielmo: An Open Source Approach to the Development of a Smart Linux Extension

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We are developing a next generation workstation, around the metaphor of stories and venues [1]. The idea is to move away from the desktop metaphor [2] in favor of an interaction that is closer to what people experience every day. In practical terms, placing all that is relevant to a specific *story* within a single space (called *venue*): for example conversations involving the user, documents, tools, contacts, resources and so on. Our aim is to help users in dealing with the natural complexity of work in the most natural way possible. The project is called *itsme* and it started in April 2008.

Our system architecture, extending a standard GNU/Linux system, is essentially composed of three main elements:

- A *graphical user interface* implementing the *itsme* metaphor visually, and therefore presenting the concept of venues;
- A lower *software layer* managing all the data and metadata, and therefore implementing the concept of stories – this layer is currently code-named *Guglielmo* – like *Guglielmo Marconi* – and it is the focus of this paper;
- A *migration support* system that allows the exchange of documents and applications with other (operating) systems.

Guglielmo is an open source project, and we will describe the project by answering to the following three main questions.

1. Why and how was *Guglielmo* started as an open source project?

Even before the beginning of the *itsme* project, we noticed that we were not the only ones pursuing this kind of innovation in personal computing. For this reason, we are aiming at being reusable from systems implementing alternative metaphors (e.g., OLPC's [Sugar](#) with its structure based on learning activities). *Guglielmo* will be a framework allowing the development of specific plugins, moreover, we are working to establish collaborations with interested communities and companies, and trying to reuse existing contributions (e.g., indexing libraries, remote file system access, and so on)

2. What is being done at the moment?

We have just released a first prototype of our architecture for internal use only, with the aim of validating our design choices. At the same time, we are gathering more specific requirements for *Guglielmo* and assembling some early experiments testing software developed with similar approaches (e.g., [Xapian](#), [Nepomuk](#), ...).

3. How will *Guglielmo* be released to the open source community?

Once reached a sufficient degree of maturity (completeness and stability of the code), the source of the *Guglielmo* infrastructure will be released on SourceForge (or similar) under GPL and also as an add-on to [Sabayon Linux](#) (thanks to the [Entropy](#) infrastructure).

References

1. De Michelis, G., Loregian, M., Moderini, C. *itsme: Interaction Design Innovating Workstations. Knowledge, Technology, and Policy*, 2009. <http://dx.doi.org/10.1007/s12130-009-9069-9>
2. Kay, A. Microelectronics and the Personal Computer. *Scientific American*, 237(3):230–244, 1977.



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