Achievements Sheet Template

Scope

Software has become a strategic societal resource in the last few decades. The emergence of Free Software, which has entered in major sectors of the software market, is drastically changing the economics of software development and usage.

SELF - Science, Education and Learning in Freedom - is an international project aiming to provide a platform for the collaborative sharing and creation of free educational and training materials on Free Software and Open Standards. In contrast to proprietary software, Free Software can be freely used, copied, studied, modified and redistributed. Free Software offers the freedom to learn and to teach without any proprietary barriers. Open Standards and the ability to exchange data and to share information and knowledge have become essential for cost-effective, flexible and transparent support of government and business processes.

Free Software applications are available in all fields and can be obtained from many sources. However, to use them you must first know of their existence and practical value. In addition, the lack of technical support has been called upon as a reason to failure or delay for the adoption of Free Software applications. The real and long term technological change from private to Free Software can only come by investing in education and training. The SELF Platform creates awareness on the advantages of the use of Free Software and provides educational and training materials to learn how to use Free Software applications. The SELF Platform is 1) a repository with free educational and training materials on Free Software and Open Standards, and 2) an environment for the collaborative creation of new materials.

Inspired by Wikipedia, the SELF Platform provides the materials in different languages and forms. The SELF Platform is also an instrument for evaluation, adaptation, creation and translation of these materials. Most importantly, the SELF Platform is a tool to unite community and professional efforts for public benefit.

Advances

Blazing a new trail, SELF touches on a broad spectrum of challenges in areas relatively uncharted. The SELF Project integrates the fragmented educational and training efforts on Free Software and Open Standards as well as the diversity of actors (from business and educational institutions to governments) involved in the production of these materials. This is done by exporting the model of Free Software development (i.e. online collaborative development of software that can be used and distributed freely) to the production and use of educational and training materials in a unique platform. The SELF Project contributes to the scientific objectives of the IST priority by helping to reduce the fragmentation of educational and training efforts and by establishing bridges between research communities, Free Software communities, educational institutes, business, NGO's and governments. The SELF Project also contributes to the dissemination of Free Software and of Open Standards. On a more concrete level, the SELF Project contributes to the creation of a web-based platform for the collaborative creation, updating and recombining of educational materials that can be reused in and outside SELF, through the use of open e-learning standards. Besides the technical aspects, innovative work has been needed on legal issues and on defining standards and relationships for the new cooperation that SELF enables.

The SELF Platform responds to the wider societal and policy objectives by increasing European independence, creating a sustainable knowledge economy and a service oriented economy, increasing European cooperation, positioning the EU as a leader in knowledge on Free Software and Open Standards, stimulating knowledge transfer by sharing materials within the European community, encouraging the economical activities as spin-off from the SELF Platform, and encouraging collaboration with INCO countries.

Positioning in global context

In the field of education and training, various initiatives have been undertaken inside and outside the European Union. On the one hand, there are projects that provide educational and training content on Free Software. On the other hand, there are projects that offer learning environments and platforms based on Free Software to develop and distribute general educational materials.

The first type of projects, those that provide educational and training content on Free Software, are scarce and still in development. Moreover, the materials they provide are fragmented in form, place and language. The second type of projects, those that offer learning environments and platforms based on Free Software to develop and distribute general educational materials, show very interesting solutions like tools and methodologies for creating digital educational content and learning environments. However, these platforms don't facilitate the collaborative authoring of educational materials and less do they focus on Free Software. In this regard, on all of them we see a lack of educational contents on Free Software and a need for a collaborative production platform of educational materials. SELF believes such platform is crucial for advancing the educational community in the widest sense to work together on educational materials that can be used, reused and distributed without restrictions. This fits in the larger trend of Open Educational Resources.

With partners in Europe, South America, and India, SELF is positioned for broad adoption as well as diverse implementation environments. Through collaboration across these varied systems and cultures, SELF will be able to observe best practices – and see where customisability is needed.

Contribution to standardization and interoperability issues

The SELF platform provides a repository of educational materials that can be retrieved in Open Standards formats. Although the concept of Open Standards is well known, it has no universal definition. Together with industry partners, the SELF Project has adopted a definition that has broad acceptance and which we believe to be meaningful and robust.

This definition was then applied to the project by reviewing available licences and data formats. The SELF Project will thus only use Open Standard data formats. The list of acceptable formats and data formats should be of use to many third-parties with similar needs.

Because Open Standards are clearly documented, and because SELF uses only Open Standards, a high degree of interoperability is possible with external applications and services.

Target users / sectors in business and society

The SELF platform aims to bring together universities, training centres, Free Software communities, software companies, publishing houses and government bodies to centralise, create and disseminate information, educational and training materials on Free Software and Open Standards. All parties that have an interest in educational materials can benefit from the collaborative production so the individual investment per contributor is reduced while each has full access to the pool of educational materials.

Overall Benefits for business and society

The SELF Platform aims to be a community of all interested parties related with educational and training materials on Free Software and Open Standards. All of these actors will benefit from their participation in the SELF Platform while at the same time adding value to the Platform by collaboratively developing new or improved materials. The final result is that the community model of the SELF Platform will assure a "win-win situation" for those who provide efforts to the platform and those who use it. It is also important to note that the multidisciplinary and multisectorial character of all the actors involved will facilitate new initiatives and ideas that otherwise would not have been raised that easily.

The collaborative and voluntary sharing of content will be guaranteed by free content licenses that permit unrestricted use, improvement and re-use of the contents as long these freedoms are maintained. This will facilitate companies and organisations to collaborate in the production of educational materials while competing on services and expertise.

Examples of business scenarios or use cases

SELF will provide both tools and content to allow the development of tailored learning materials, creating opportunities for new business models, such as course design or certification. Another model is providing consultancy about the existing materials. Printing and delivery of courses materials is another. Legal verification, copyright stewardship, or enforcement for commercial entities are further models. This is a very new market that SELF is contributing to build.

Achievements

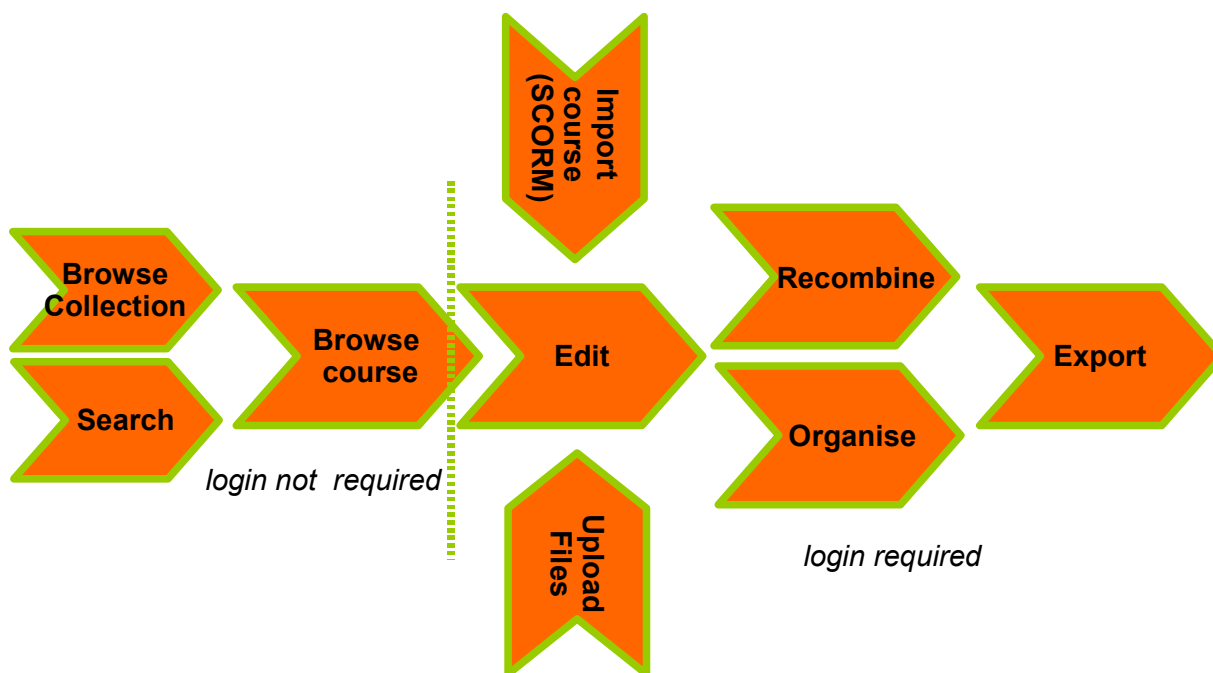Figure 1 illustrates the main workflow of the SELF Platform.

Figure 1: SELF workflow

1. COLLECTIONS are a subset of Learning Objects (LO's) grouped around a certain topic .
2. LEARNING OBJECTS (LO's) are a structured form of a learning material (documentation, manual, course, textbook, ...) and is usually a consolidation of smaller objects or chapters (lessons). An LO may consist of several types of sub objects, such as lessons or chapters, glossary of terms, bibliography, sets of tests, etc.
3. ADD, EDIT, ORGANISE, RECOMBINE LO's - these operations can only be used by logged in users; these functions form the main authoring environment for Learning Objects: users can start new LO's, add new sub-objects, edit the content and metadata of each object (with version control), organise the order and hierarchy

of the overall LO, save favourite objects to the personal bookshelf, recombine saved objects in another course .

4. UPLOAD, IMPORT, EXPORT through the FileManager - any logged in user can upload files (in open standard formats), search files of other users, add them to the bookshelf. SCORM files (standard format for LO's) can, once uploaded, be imported into the system.

5. COLLABORATE version control keeps track of each change in a tree-like version history. Unlike many other authoring tools, SELF is not linear but allows branching; different users or groups might work on different branches and thus avoid edit-wars, while recombining and merging permits the combination of desired work. Interest groups around a common topic may be formed and use collaborative project management tools including messaging, discussions spaces etc.

6. MATERIAL RATING & USER RATING - SELF is working on the implementation of ranking mechanisms that keep track of the popularity of each LO and assigns proportional parts of that popularity to the contributing users. Contributing users will therefore be recognised for their work and gain certain privileges in the community. At the same time the material rating helps the more popular material show up higher in search results and helps users get an indication of the maturity and use of each LO.

The main results can be found at: http://selfproject.eu/en/project/results

- Learning Materials: Study after the existing free educational materials about Free Software an/or Open Standards
- Learning Standards: Study of available open standards for usage in the SELF Platform and set up of the Learning Standards Expert Group
- Legal Policy: definition of the SELF Legal Policy and Legal Expert Group
- Reference Architecture for a collaborative production platform of educational materials
- Set up of the Technical Expert Group
- Implementation of the SELF Platform as free software
- Set up of the Learning Materials team
- Initial collection of freely redistributable and modifiable learning materials
- Quality Assessment mechanisms architecture and set up of QA Expert Group
- Communication Strategy and set up of team
- Community Building
- Organisation of FKFT international conference: http://FKFT.eu/
- Publication of SELF Coursebook: *Introduction to Free Software*

Website addresses:

SELF Project - Project description: http://selfproject.eu/
SELF Platform: http://selfplatform.eu/
SELF expert groups: http://selfproject.eu/en/expertgroups/

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