Sharing Digital Resources among Teacher Educators

Abstract: ShareTEC “Sharing Digital Resources in the Teaching Education Community” is a 3-year project (2008 to 2011) co-funded by the European Community. Share.TEC is devoted to develop and cultivate a digital culture in Teacher Education. It supports the development of a European perspective of Teacher Education. To achieve this goal the Share.TEC-project is developing an online platform which will help practitioners across Europe search for, learn about and exchange resources. A major objective is supporting the sharing of experience about using the resources. The system is primarily designed for teacher educators and teachers engaged in pre-service education and professional development. Other target groups are publishers of digital resources for Teacher Education. Search and communications functions are presented as well as communities and workshops set up to facilitating use of resources. Finally the benefits, obstacles and challenges of using and producing digital resources in a portal are discussed.

Introduction: the ShareTEC project – building a portal for Teacher Educators

The teacher education field in need of digital resources

Teacher Education (TE) is a strategic field for Europe’s knowledge society and is now changing rapidly. Teacher educators have problems in keeping up with the development of the new learning modes many of them performed in new digital environments. Share.TEC aspire to be a tool for supporting this process by creating a digital environment that cultivates new ways of getting access to, retrieve and reuse of resources for TE across Europe. The underlying vision is that digital resources may be appreciated as vehicles of educational innovation which can help build bridges among the different cultures of the member states of the European Union as well as other countries. The partners which together make up the system are The Istituto per le Tecnologie Didattiche (ITD) Italy, Trinity College Dublin, Ireland, Stockholm University Sweden, Sofia university, Bulgaria, Ca Foscari University, Venice, Italy, Valladolid University, Spain and the Bologna University publishing house, Clueb.

The Share.TEC system can be seen as a federated aggregation of resources which can be extended by providing access both to the different partners’ own content and to other TE repositories. This is made possible by a metadata migration process featuring semantic, linguistic and cultural interoperability. Despite the push for digital-led innovation in Europe’s education systems, there are currently no services at European level for locating and sharing TE-specific digital content, much less for sharing the experience gained in the use of those resources. Share.TEC is addressing this primary need by building a unified interface to initiatives in different countries; it is seeking to bring a more networked, pan-European dimension to what has hitherto been a field firmly entrenched at local level.

The users of the portal

The intended users of the system will be teacher educators, teachers engaged in self-guided learning, and developers and publishers of digital resources for TE. Three levels of Teacher Education can be targeted for dissemination and sustainability strategies: professional networks (regional, national and international); organizational and curriculum level; working groups of teachers. Share.TEC will be adaptive to the specific needs of these users and take into account their professional profiles through an ontology-based approach designed to capture individual differences. Share.TEC will cover both professionally-developed, commercially-distributed content and open resources created by users, proposing an innovative model for managing their coexistence in a sustainable fashion. Effective brokerage will be offered between federated TE resources and user demand, which is strongly influenced by a variety of personal, curricular, cultural and national factors. To improve the matching mechanism, Share.TEC will integrate a folksonomy based approach and personalization functions such as user history. Since educational resources are typically rooted in local cultures, the project will have a strong focus on cross-cultural aspects so that users can benefit from contents developed in external contexts. User involvement will be an essential feature of Share.TEC and accordingly the project will establish a network of user communities that will continue beyond project completion, strengthening
sustainability.

Using the portal

When using the portal teacher educators may work in their own language and – most importantly - with the concepts and terms typical of their particular context of practice, users will be able to perform personalised searches across a “federation” of TE-focused repositories and collections managed by public and private institutions throughout Europe. Project partners’ substantial collections will represent the starting core of this federation, which will steadily expand and diversify as new repositories join and individual users share their own resources. Indeed, Share.TEC’s efforts to transmit innovation in TE will very much rely on the active involvement of users, and the engagement of existing professional communities and other stakeholders across Europe is central to building a sustainable system capable of meeting changing TE needs beyond the project period. The motto GIVE TAKE USE is used as a rational for the portal, a catch-phrase which underlines that sharing your resources with colleagues and giving them away is as important as using the ideas and productions created by others.

As to the future, Share.TEC services and infrastructure have the flexibility to be easily adapted to the requirements of a rapidly changing world: the system’s foundation structures with a specific Teacher education ontology which takes into account different concepts and terms within European TE as well as a common metadata model. These can be easily modified to reflect change and to underpin improvement in services so as to encompass users’ emerging desiderata.

Searching and sharing digital resources

The three main concepts of the portal, TAKE, USE and GIVE, contain each different level of engagement in the system. TAKE in this context means that the teacher educator can anonymously browse, search and reuse different educational resources in the repository without creating an account. By logging in the user can experience the full power of Share.TEC and GIVE means that you can share your educational resources, experiments and opinions with other uses.

TAKE

As an anonymous teacher or unregistered user you can still both search for and reuse several thousands of educational resources from twelve different collections (until today) in nine European languages. You can also browse by educational institution, practice content, knowledge area or generic skills.

The search feature can be refined by several filters; type of resource, language, format or educational institution. The search history is saved so that it is uncomplicated to find back to earlier searches.
USE and GIVE

As a member of the Share.TEC community the teacher educators create their own profile, express their areas of interests and have access to several interactive Web 2.0 tools like bookmarking, rating, commenting, saving favorite resources. Educators can also find similar users and create own groups or join other educators groups in order to discuss for them interesting educational matters.

The Share.TEC portal supports many of the current communications tools in the Internet; Delicious, Facebook, Messenger etc. if you want to share useful links with your colleagues.
Working in communities

As a member of the Share.TEC community a teacher educator can create either her/his own open group or choose the option “Request membership” in case she prefers to accept the members herself.

The groups work as simple forums where messages are posted to a discussion. One of the groups is called “Course design for learning ICT in Teacher Education”. This group is dedicated to learning ICT in Teacher Education. Focus is on designing for learning for teachers and teacher students. Discussions between experienced Teacher Educators from different countries can lead to new results, ideas and methods which can be used for different courses on distance or campus. The members in this group come from four different European countries and they are sharing their presentations, course plans, methods, learning objects and links through Share.TEC portal. Other current groups are working with ICT in Math education, Mind mapping, Web quest etc. The idea of creating communities has several objectives. The most pressing issue is to develop a sustainable system which is maintained by a large number of users. Another goal is to support the shaping of communities of practice i.e. if the common interest would be of such quality that they would identify common learning goals which could be kept up by the community. (Wenger, 1998)

To support collective learning patterns and use social web tools may be risky from a quality point of view, which can be seen as an incentive to adopt new more trusting attitudes towards users.

What skills are fostered by using Share.TEC?

The European parliament recommended the key competences for lifelong learning in March 2000: "Each citizen must be equipped with the skills necessary to live and work in the new information society". (EU recommendations 2000)
In accordance with the Commission's proposal for a Recommendation on key competences for lifelong learning all EU citizens should be under the agreement and have the following eight key competences:

1. Communication in the mother tongue
2. Communication in foreign languages
3. Mathematical competence and basic competences in science and technology
4. Digital literacy
5. Learning to learn
6. Social and civic competence
7. Sense of initiative and entrepreneurship
8. Cultural awareness and cultural expression

Many of these skills are practiced by using different features of the Share.TEC portal where it is possible to communicate in your language or in some other European languages, a user increases her digital literacy by using and sharing resources. She develops her social competence by interacting with teacher educators from different cultures and they all learn from each others.
To practice these skills and to implement the portal to teacher educators in but even matters of copy rights, open educational resources in general, digital competence and social tools in education have been discussed lively. Teacher Educators have also learned how to use different digital tools to create their own resources. Stockholm University several hands-on sessions have been arranged. These workshops have not only included searching of useful materials

**Benefits, obstacles and challenges of use and contribution of digital resources**

The idea of using digital resources in order to facilitate course-planning and teaching vary among different groups of teachers. For teacher educators involved in distance education and e-learning it has become a common tool and there is great demand for usable resources in various media. In the Share.TEC portal the teacher educator will find some resources which can be purchased at low cost and the major part which will be open resources. Since the business model still is in the making we intend to take a more general view in this paper and discuss the pros and cons about using and contributing to the open resources and leave the purchasable resources.

The use of Open Educational Resources (OER) and open courseware has been favored and marketed by major universities such as M.I.T and Open University in the UK and the OUNL. Open University Netherlands. At a National conference in Sweden early 2010 the following problems were identified in connection with university teacher’s use of OER:

- There is uncertainty regarding copyright and rights of use between university teachers and universities.
- Some teachers may consider their income threatened.
- There is little support from norms or from the university qualifying systems and there is little demand for OER- publication from the universities, thus there is little official or formal support for OER publication.
- Simple infrastructure and supportive services are lacking.

The advantages for the teacher to contribute to OER publication can be summarized as follows:

- There are few problems of transferring OER to a publisher
- There is no qualifying system deterring publication
- No active opponents for publication
- There are licenses to use for OER such as Creative Commons (http://creativecommons.org/)
- The target group of users/readers is potentially very large (Olsson & Axdorph 2010)

Further obstacles are set by the teacher educator groups who consider digital resources being of lesser or doubtful quality and who still are in favor of using printed media as their primary or sole resources. The quality criteria have to be set as firm for a digital text as for a printed one, but there is no doubt that it is more difficult to ensure uniqueness and production status. The most firm method to ensure quality is to only supply resources from high-quality academic institutions, which provide high-quality material or to have an expert reviewing service.

With the introduction of information technology there was a shift from the user/reader consuming texts offered by publishers to the user being transformed to producer of new texts. (Toffler, 1980) This process started decades ago and has reached new heights with the possibilities of using social web tools for communication. The web tools give opportunities for alerting users of new situations, new content, new knowledge and they may be used as supporting services for teaching and learning. The intellectual property issues may partly be resolved by working with appropriate licensing. The Creative Commons licenses can be attached to any creative work. This can be achieved by using their web application which helps anyone to dedicate their work to any open archive and to maintain their copyright while licensing them for specific uses and on chosen conditions.

Most producers of repositories, such as some of those repositories attached to the ShareTEC portal, would want to enhance their content and take advantage of the user sharing input. They will have then to adopt another view on quality and learning which will be part of the dynamics of the portal. This change of attitudes from the providers should put more trust into the users and may develop services to support the users which can facilitate learning loops. The users themselves may refine the resources by comments and eventual reproduction. Methods like this are discussed in some major OER projects. (Atkins et.al 2007)
A major challenge: sustainability

In order to assure the quality of a portal and its resources the services must be stable and the content must have reached a critical mass of resources. Sustainability is closely connected with the number of users and the way they use the resources. The Share.TEC system is considered sustainable when: the accessibility and value of current digital assets is guaranteed; the system continues to attract new and updated resources that end users consider valuable; and continues to attract stakeholders who are willing to invest time and money to maintain current and future digital assets. More information can be found on our project homepage http://www.share-tec.eu/

References:


EU recommendations for lifelong learning (2000)


Acknowledgements:

This paper is to a great extent a result of the collaborative effort trying to develop the Share.TEC portal. This means that all the partners and individuals taking part in this project have in some way contributed by idea or by initial writings. Official reports from the project can be found on the project homepage http://www.share-tec.eu/.

Prototype of the platform http://sharetec-dev.it.fmi.uni-sofia.bg/