

Higher Education Academic Staff: Professional Identity and Sense of Community as the Key to Enhancing Teaching Quality

The Culture of Sharing Educational Resources in the Catalan University System

Teresa Sancho Vinuesa¹, M. Rosa Estela Carbonell²,
Clàudia Sànchez Bonvehí³ and Joana Villalonga Pons¹

¹*Estudis d'Informàtica, Multimèdia i Telecomunicació, Universitat Oberta de Catalunya, Barcelona, Spain*

²*Dept. Matemàtica Aplicada III, Universitat Politècnica de Catalunya, Barcelona Tech, Barcelona, Spain*

³*Consorci de Biblioteques Universitàries de Catalunya, Barcelona, Spain*

Keywords: Catalan Universities, CIRAX, Collaboration, Community, Institutional Repositories, Open Educational Resources, Professional Identity, Teaching Quality.

Abstract: This study presents an analysis of the main features of teaching community of the Catalan university system, from both the individual activity of professors and the sense of belonging to a community. The basis of the present study is the meaning and the sense of community: a required factor for collaboration between professors, sharing and reusing teaching resources and, for ultimately, the success of a teaching and learning resources repository. Common goals that determine a community of practice can encourage collaboration through the network. The discussion presented here is based on the analysis of the pilot program “Col·laboratori Interuniversitari de Recursos d’Aprentatge en Xarxa” (CIRAX), developed in 2013 in the field of teaching and learning introductory mathematics in the Catalan university system.

1 INTRODUCTION

In 2013, in the context of the European Commission's Opening up Education initiative, “Col·laboratori Interuniversitari de Recursos d’Aprentatge en Xarxa” (CIRAX) was born. CIRAX is an interuniversity program funded by the Catalan government and its pilot-experience has been developed by lecturers of introductory mathematical courses at different Catalan universities. This project was basically motivated by three factors:

- a) Transverse opening movement (Openness), which led into the development of ICT.
- b) Communities of practice which share knowledge across the network.
- c) Necessity to ensure a qualified Higher Education to respond the Europe 2020 strategy for smart, sustainable and inclusive growth.

In order to improve the teaching quality at university, this project aims to promote and consolidate a teaching community which should be active in the creation, updating and sharing resources, and learning practices. The tool for

achieving this goal is a *repository-in-collaboration* where resources could be shared, well-catalogued and well-managed. It should facilitate a subject preparation as well as the sharing of proposals and teaching works. CIRAX pilot experience allows us to analyse the role of teaching at universities and its quality, while putting particular emphasis on the higher education academic staff identity and the sense of community, as a success factor for collaboration, sharing and reuse of open educational resources.

Different sections of this article describe the different issues surrounding the utilization, sharing and reutilization of networking resources in the Higher Education context, in our territorial framework and within mathematics academic community.

The first section contextualizes the teaching activity in Spanish Higher Education. The second part points out to some basic ideas about the definition of the sense of community, as well as some features on professional identity. The third section focuses on the existence and coexistence of different online repositories and platforms, as well as their utilization. Then, it sets down the way in

which Catalan university system values teaching activity at university and, consequently, what is understood as teaching quality in Higher Education. Finally, it connects CIRAX experiences with the previous sections. Thereafter, in the last section we remark the most important experience outcomes and show some final thoughts in order to suggest future lines of action.

2 TEACHING ACTIVITY IN HIGHER EDUCATION

In Spain, university faculty has three tasks: teaching, research and management. Two of them are not always easily separable: one linked to the teaching and learning process and the other one tied to deepening their own knowledge. For this reason, it is said that university professors have to deal with a dual identity: one related to being a specialist in the field of science, and the other, to be a specialist in the development of teaching-learning processes in the same discipline (Fernández, 2011); (Peña Calvo, 2012); (Zabalza, 2009). Despite the fact that these basic tasks are known, they are not differentiated or understood as they should be. For that reason, working with these two identities is not a simply task.

In the context of Higher Education, professional identity of academic staff has been analyzed from multiple perspectives, but not many of them study the university professors' teaching concepts or their feelings regarding this activity (Badia, 2011).

Sancho (2001) classifies the characteristic traits of Spanish academic staff. According to her study, it is, for example, common to hear about research teams, it is not so common to hear about teaching teams. Another characteristic is that teaching at university is often reduced to be rather private in nature. In general, most teaching activity remains between professors and their students and educative projects are usually accepted without revisions or external controls.

EHEA's (European Higher Education Area) aim is to improve the quality of their programs and degrees. Its main goal is to ensure the quality of the education offered, in order to cope with a fast growing and internationalized higher education demand.

The problem, then, lies in the definition of a teaching community at university, its members and their operational dynamics within the European Higher Education context.

Marin (2004) argues that relationships formed by

a university professor both with students and colleagues are probably the elements that most strongly affect teaching, especially during the period of induction to professional practice. This is because these relationships help to determine methodologies, beliefs and attitudes towards the university in general, and in particular, in relation to the development of their work.

In this context, Mas Torelló (2011) indicates that although university professors work for the highest level of educational institution that exists, mostly of them are not trained in teaching. They enter the university system after learning about their chosen field of study in higher education institutions, without receiving any teaching training.

These ideas are summed up by some authors, like Marín (2005), Show-Gerono (2005) or Zabalza (2009), who suggest that professional development of teachers in the new university educational system requires dialogue and collaborative work, as a training that enhance not only teaching skills, but also the whole person, both personally and professionally.

As Zabalza (2009) pointed out, regarding teaching "it is imperative that (the people who teach at university) have to be satisfied with their salary levels, prospects for promotion and treatment, the intellectual challenge of research the pleasure of teaching and emotional quality of communities of practice in which they work" (Knight, 2005).

Sancho-Vinuesa (2013) claims that a local policy framework is established and it can help to define professional identity regarding university teaching. Nevertheless, an adequate teacher training, a system of incentives, an appropriate recognition criteria and values of quality and prestige, would allow to shape it. Therefore, a definition of various profiles, a weighted system of incentives and appreciation of teaching could definitely contribute to the review the professional identity of university faculty (Sancho-Vinuesa, 2013). This framework should promote teamworking, sharing experiences and peer review, basic elements for the quality of educational system.

3 SENSE OF COMMUNITY

There are different definitions of "community" and "sense of community". Rovai (2002) points out that community dimensions depend on specific context. Likewise, there are some aspects which are basic for members of any community: mutual interdependence, sense of belonging, linking "relationship", spirit, trust, interactivity, common

expectations, shared values and goals, and co-lived stories. Specifically, the same author argues that members of a group have feelings of belonging, confidence and have obligations to others and to the institution. Of course, they have a shared conviction that the educational needs of all members will be met through their commitment to shared goals.

King (2003) points out that “professional identity” is a key element with which analyses the factors that influence resistance to change in institutional contexts.

Beyond the factors that explain the involvement of people in institutional innovation, which has been analyzed from multiple perspectives (Shaninina, 2003), it is interesting to know the reasons why some people remain committed to innovation and sustained change in shape and others are not. Sharratt (2003) states that sharing knowledge within a community reflects a moral obligation, which corresponds to a personal feeling more than other factors. Consequently, if there is a “community”, the sharing of knowledge would be stronger when the sense of community is stronger. Davis (2010) considers that altruist sharing is not enough by itself and needs to be accompanied by more pragmatic selfish motives.

In this context, on the one hand, we wonder whether a definition of a community and professional identity of university professors in the sense of teaching and learning process is possible. On the other hand, we think that advantages of sharing need to be integrated by the community in its day-to-day teaching practices, in order to reinforce a sense of community belonging and motivate exchange and dialogue between members.

4 REPOSITORIES AND SHARING ENVIRONMENTS

The introduction of ICTs has had a very direct effect on the format of educational resources and the way that they are stored and distributed.

Governments and educational institutions have devoted much effort in the development and implementation of institutional repositories, but not much in assessment in relation to the participation of teachers. There are some recent studies (Davis and Connolly, 2007); (Davis, 2010) that have analyzed the low usage in terms of content and participation in the service offered from university libraries. It is a fact that this poor use of institutional repositories is not only a local concern, but there are some questions that are valid, wherever the learning

repository is: institutional, local or global, thematic or by discipline. In this section we identify the factors that influence in the participation and resource sharing in the Catalan university system, focusing on the variety of repository strategies, professors’ behaviour and organisational structures.

While there is a widespread use of educational platforms, preservation strategies of teaching materials are diverse, and rarely both environments have been joined or integrated to facilitate exchanges between the repository and the virtual classroom or platform. In this sense, we realise that there are two environments managed by different actors and focused on different aims. Learning management systems are managed by lecturers themselves in order to connect resources and students, and repositories are managed by librarians and serve preservation and informational needs.

According to different authors (Davis, 2007); (Bueno de la Fuente, 2011), the success of projects such as educational repositories often involve different strategies, both human and cultural. The review conducted by Bueno de la Fuente and Hernandez (2011) exposes different factors that determine the success of an institutional repository with learning resources: conceptual and pedagogical, human and cultural, political and organizational, legal and technological. Repositories that can be divided by collections need not only allow depositing resources, but provide a favourable environment to enhance dialogue and communication.

This explains why in the framework of projects which promote the sharing of open educational resources, different models of organisation have been described. While the technological tool could be similar, attitude and its integrative dynamics can produce organizations that differ according to the presence of a collaborative goal. On the one hand, the social network becomes a meeting and exhibition space for its users. On the other hand, the community of practice goes beyond coexistence in space and is characterized by collaborative and common goals of its members (McAvinia and Maguire, 2011). Both phenomena are interrelated or lived separately.

In addition, these communities of practice among teachers become stronger when they are based on a specific theme or built from personal relationships (EdRene, 2010). In other words, a criterion is needed that groups the actors in the community and acts as a common goal, in order to increase the perception of belonging. Some open educational resource projects also include a community coordinator who also has

expert insight into the discipline. Other projects let librarians lead communication tasks and stimulate collaboration.

In our study, we consider the fact and the desirability of sharing resources and teaching experiences. The next section will show how organizational and institutional factors take part in sharing culture, and show how they may influence teaching quality.

5 TEACHING QUALITY

In general, management, participation or membership innovation teaching groups or projects is viewed favourably for Catalan universities¹. However, aspects of collaboration or cooperation between the members of these groups or projects are not specially valued in most of them. The situation is the same regarding the publication of educational resources in the institutional repository, which is not mandatory for most of Catalan universities.

Creation of teaching materials, developing specific experience with teaching methods or be the author of teaching-learning process documents is recognised by Catalan universities, but not in the same way in all institutions. For example, only one of these universities clearly sets out the creation of multimedia resources, another university appreciates the use of own resources and only one university takes into account the fact that resources can be shared or reused in some sense.

Each Catalan university has its own virtual platform that professors can use for their teaching activities. Although some universities encourage professors to use them, only one of the universities considers and consequently positively values the fact that resources stored on these platforms can be shared, used for collaboration or reused.

Few Catalan universities recognize the worth of openness and accessibility of teaching material to others via a virtual space and only one university contemplates the idea that this material could be shared. Moreover, the system of assessment of some universities does not value the use of educational platforms as a repository of educational material or for outreach publications.

It is clear that the common aim of sharing and re-use of resources such as teaching materials, and collaboration between professors to enhance them goes beyond what professors and departments can achieve themselves. The resources, designed and used by professors, are the common point of collaboration. University establishes the common

structure of a course and a specific team teaches the lectures. All of these entities would have to go in one direction and recognize the same practices.

6 CIRAX EXPERIENCES

Through the CIRAX pilot experience, which involved 150 people (lecturers, librarians and IT staff) we confirm and justify several of the ideas discussed above. They allow us to think that a sense of professional identity and a sense of community is the key to collaboration among university professors and, consequently, to enhance the quality of teaching in the European High Educational context.

According to Academic Library Consortium of Catalonia (CBUC) librarians, most professors have been reusing teaching and learning resources in a spontaneous and uncontrolled way. This perception is shared by professors, who recognised that they have generally shared materials among department colleagues, and above all, colleagues of the specific course. Both, librarians and professors, assume that in general professors have a strong sense of ownership of their own teaching resources. Moreover, it is claimed that educational materials differ from scientific publications because the first one is alive and is never closed. These facts confirm that cultural factors can play an important role in enhancing or inhibiting sharing.

The diffused information through CIRAX that sparked more interest in professors was related with the announcement of new resources hold in CIRAX and related with the recognition for the material hold in CIRAX which caused more expectation during the pilot experience. These facts allow us to think:

- a) Professors are interested in knowing possible new resources for their teaching activity and they are grateful for an easy way to finding them out.
- b) Recognition for teaching work, in terms of developing or sharing teaching resources encourage lecturers to create, use, reuse, modify or collaborate on teaching materials.

Most of professors involved in the CIRAX experience complained that they do have not enough time to explore new platforms or resources. For this reason, they would appreciate more transversal teaching resources, which will make research easier and faster. To achieve information retrieval, it is necessary to have a system that is both robust and flexible, but in the pilot, professors claimed that thematic classification is crucial.

From interviews to professors carried out during the project and from a final questionnaire, professors

involved in the CIRAX experience emphasise that teaching resources should remain bounded in a specific and reduced context around the topics of their courses of subjects. They require a small environment for colleagues that share the same interests and work on similar topics.

As stated above, in Spain, teaching resources are not revised in the same manner as research papers. In relation to this, through the CIRAX pilot, we detected that professors who wish to reuse materials require a teaching guarantee of shared resources. However, during the I CIRAX Day final roundtable a great number of authors of materials claimed that revision of this material is not necessary. Autocratic and self-revision could be useful instead, as well as simple exposure to maths community. Thus, in order for all professors to share and collaborate, focusing on enhancing materials, an agreement regarding this will be necessary.

7 CONCLUSIONS

Open Educational Resources and Teaching Practices in Europe 2013 show that in the European Higher Education context, collaboration and sharing are fundamental practices. They allow the enhancement of teaching activity and, therefore, the learning process and professional development.

After the CIRAX pilot, we realised that despite the fact that these practices are accepted by most of the higher education staff, there are some barriers, mostly cultural, which do not facilitate the collaboration and sharing to take place. Nowadays it is still difficult for university staff to share or reuse teaching resources and, consequently, collaborate with each other, especially when they come from different institutions.

Collaboration requires a specific and well-defined community to succeed, where each member has a clear idea about his or her professional identity. What faculty have to do in order to be an excellent professional? Regarding to this, the recognition and value of teaching practice as well as the definition of a professional career in a Higher education institution becomes a key factor. To incorporate mechanisms for the evaluation of teaching (relatively standardized through universities from Catalan system) as well as incentives, not only economical, but in prestigious sense for teachers in their daily dedication in teaching, and encourage teamwork like in scientific field. These strategies could support professional identity and enhance community collaboration.

Altruism, recognition and prestige are basic elements for collaboration, but they are not possible without a main element. This is the identity, the feeling to be part of a (specific) community.

Achieving this objective goes further than only a feeling. Sharing and reusing requires a stronger link than just to have common goals. It requires a stronger level of support and help. In addition, evidence from this pilot study points out that professors' engagement does not happen on its own. Diffusion and communication activities are elements that reinforce this engagement, like a Community Manager in other social networks.

In a nutshell, two factors are identified in order to guarantee a real collaborative work among academic staff: a) the definition of a professional identity in the case of faculty members; b) the existence of a specific community which share knowledge, values, expectations and goals. If professors know that teaching activity will be assessed and recognized, and they belong to an active teaching community in a specific area, there will be the basis for a teaching which follows the quality standards on research activity: peer review, openness and teamworking.

ACKNOWLEDGEMENTS

The project described here was funded by the Catalan Government and carried out by an interdisciplinary and interuniversity team of faculty and specialists in the development of technological tools for learning. We would like to express our most sincere gratitude to all people who have taken part in the project at any level.

REFERENCES

- Badia, A., Monereo, A., Meneses, J., 2011. El profesor universitario: identidad profesional, concepciones y sentimientos sobre la enseñanza. In *VI Congreso Internacional de Psicología y Educación: Educación, aprendizaje y desarrollo en una sociedad multicultural*. Valladolid (Spain).
- Bueno de la Fuente, G., 2010. *Modelo de repositorio institucional de contenido educativo (RICE): la gestión de materiales digitales de docencia y aprendizaje en la biblioteca universitaria*. Ph.D. Thesis Universitat Carlos III de Madrid. Departamento de Biblioteconomía y documentación.
- Bueno de la Fuente, G., Hernández Pérez, T., 2011. Estrategias para el éxito de los repositorios institucionales de contenido educativo en las

- bibliotecas digitales universitarias. In *BiD: textos universitaris de biblioteconomia i documentació*, juny, núm. 26. <http://bid.ub.edu/26/bueno2.htm> [2013/10].
- Bueno de la Fuente, G., Martínez, D., 2011. Informe de resultados de la prueba piloto: cuestionario sobre los hábitos de los profesores universitarios para compartir, intercambiar y reutilizar materiales didácticos en un entorno digital: el uso de los repositorios. Departamento de Biblioteconomía y Documentación, Universidad Carlos III, Madrid. <http://e-archivo.uc3m.es/handle/10016/16004> [2013/10]
- CIRAX, 2013. *Col·laboratori interuniversitari de recursos d'aprenentatge en xarxa* <http://www.cirax.cat/> [2013/12]
- Davis, H., Leslie Carr., Hey, J., Howard, Y., Millard, D., Morris, D., White, S. 2010. Bootstrapping a Culture of Sharing to facilitate Open Educational Resources. In *IEEE Transaction on Learning Technologies*, Vol. 3, N.2, April-June 2010.
- Davis, P., Connolly, M., 2007. Evaluating the Reasons for Non-use of Cornell University's Installation of DSpace. In *D-Lib Magazine*, Març-Abril. Vol. 13, N 3,4.
- Tommy Byskov, L. et al., 2010. *Engaging users and producers. Thematic synthesis report*. EdReNe, 22 p. http://edrene.org/results/deliverables/EdReNeD5.4TS_R_Engaging_users.pdf.
- Fernández, R., 2011. La Universidad tiene dos almas inseparables y que le dan sentido último: la docencia y la investigación. In *Noticia: Entrevista, La Vanguardia*. 22 November 2011. <http://noticias.universia.es/en-portada/noticia/2011/11/22/890154/roberto-fernandez-universidad-tiene-dos-almas-inseparables-dan-sentido-ultimo-docencia-investigacion.html> [2013-10]
- King, N., 2003. Involvement in innovation: The role of identity. In *London: LV Shaninina (ed), The international handbook on innovation Elsevier Science*, pp 619-30.
- Knight, P. T., 2005. *El profesorado de Educación Superior. Formación para la excelencia*. Madrid: Narcea.
- Marín Díaz, V., 2004. El conocimiento y la formación del profesorado universitario. http://rabida.uhu.es/dspace/bitstream/handle/10272/6646/Conocimiento_y_formacion_profesorado.pdf?sequence=2 [2013/10]
- Marín Díaz, V., 2005. El desarrollo profesional del docente universitario a debate: factores que lo determinan. <http://pedagogia.fcep.urv.cat/revistaut/revistes/desembre06aniversari/article02.pdf> [2013/10]
- Mas Torelló, O., 2011. El profesor universitario: sus competencias y formación. In *Profesorado. Revista de curriculum y formación del profesorado*. Vol 15, 3. <http://www.ugr.es/~recfpro/rev153COL1.pdf> [2013/10]
- McAvinia, C., Maguire, T., 2011. Evaluating The National Digital Learning Repository: New Models of Communities of Practice. In *The National University of Ireland Maynooth i Institute of Technologie, Tallaght. Aishe-J, Volum 3, N. 1*.
- Peña Calvo, J.V., 2012. Desarrollo profesional del docente universitario. In *Histodidáctica. Enseñanza de la historia / Didáctica de las ciencias sociales*. 2012/03/09. http://www.ub.edu/histodidactica/index.php?option=com_content&view=article&id=60:desarrollo-profesional-del-docente-universitario&catid=15&Itemid=103 [2013/10]
- Rovai, A. P., 2002. Building Sense of Community at a Distance. In *The International review of research in open and Distance Learning*, Vol. 3, No.1). <http://www.irrodl.org/index.php/irrodl/article/viewFile/79/153>. [2013/12]
- Sancho Gil, J. M., 2001. Docencia e investigación en la universidad: una profesión, dos mundos. In *Educación num. 28, 2001 p. 41-60* <http://dialnet.unirioja.es/servlet/articulo?codigo=276693> [2013/10]
- Sancho-Vinuesa, T., 2013. Espacios virtuales de compartición y colaboración entre docentes: Un camino hacia la mejora de la calidad docente. In *Congreso Iberoamericano de Aprendizaje Mediado por Tecnología (CIAMTE) 2013*.
- Sharratt, M. Usoro, A., 2003. Understanding Knowledge-Sharing in Online Communities of Practice. In *Electronic Journal on Knowledge Management. Volume 1 Issue 2 (2003) 187-196* www.ejkm.com/Academic-Conferences-Limited-2003.
- Shaninina, L. V., 2003. Understanding innovation: Introduction to some important issues, London: LV Shaninina (ed). In *The international handbook on innovation Elsevier Science*, pp 3-14.
- Snow-Gerono, J., 2005. Professional development in a culture of inquiry: PDS identity the benefits of professional learning communities. In *Teaching and Teacher Education*, 21. Pág. 241-256.
- Zabalza, M. A., 2009. Ser profesor universitario hoy. In *La Cuestión Universitaria*, 5, 2009, pp. 69-81. ISSN 1988-236x. http://www.lacuestionuniversitaria.upm.es/web/grafica/articulos/imgs_boletin_5/pdfs/LCU5-7.pdf [11/2013]

APPENDIX

¹Each Catalan University has its own Manual d'Avaluació Docent (MAD) that specifies which teaching activities are recognized. The Agència per a la Qualitat del Sistema Universitari de Catalunya is responsible to set up common criterion and validate each MAD.