All undergraduate and postgraduate students of the Hellenic Open University (HOU) attend courses at a distance. The lack of a live academic community is reported by many as a drawback in their studies. Systematic exploitation of new communication and collaboration technologies is desirable in HOU but cannot be imposed universally as the average student’s IT competence level is relatively low. In this work, we present a key aspect of the development of an integrated communication environment in which collaboration spaces serving as open communities play a key role in user engagement in the whole communication environment. To track and evaluate user participation, we propose to use indices drawn from inexpensively collected usage data. Such indices, when combined with our detailed knowledge of the internal workings of user groups, provide concrete evaluation of the community online activity.

Keywords: distance learning technologies; team collaboration; user participation
59% of the population aged 25 to 54 had no basic computer skills (Eurostat, 2006). This problem is aggravated in the uptake of collaboration in e-learning services, which also demands an investigating attitude by the users (beyond usage skills). Thus, planning for the development of electronic services should address the need for universal access in services of stratified complexity (suitable for each team level in order for all to accept their use) and the organizational aspects of scaling up in numbers and in complexity.

Moving from a model where Web technologies are used for publishing information to a model where such technologies constitute a basic working tool in the everyday life of students is a huge undertaking, which addresses both technical and cultural issues. Both types of issues are closely linked to the diversity of the backgrounds of the students and of the tutors, as well as to the availability and ease of use of the underlying infrastructure.

Our laboratory is heavily involved in designing the entire communication environment provided to students and tutors. Collaboration spaces constitute a focal point in our environment, wherein users can engage in asynchronous communication, publishing content and opinions related to their work. Given that access to these spaces is allowed for every student and centrally managed but that attendance and participation are optional, these spaces function as emerging communities of practice for collaborating tutors and as communities of learning for students.

We liberally use the term community to refer to the tutors and their students who are actively engaged in the same subject during an academic year. In HOU nomenclature, this refers to a thematic unit (TU), the basic unit in HOU studies. The population of a TU consists of student groups, each of which is assigned to a tutor who oversees 10 to 35 students per group. There are some really small TUs with just one tutor and just over 10 students. There are also some very large ones with about 1,250 students in over 40 groups. Currently (2007) about 200 TUs are offered to about 28,000 students and about 1,100 tutors are allocated to TU groups.

In the present article, we explore a key aspect of our work toward the goal of establishing a working communication environment. This aspect is to define indices that express user participation in the community spaces. We expect that a comparative evaluation of community online activity will help us propose actions to promote user engagement and participation across varying communities. In particular, we explore aspects of a methodology for the quantitative and qualitative follow-up and evaluation of users’ participation in combination with the participation of tutors. Our hypothesis is that we will eventually be able to provide a quantitative index of the maturity of communities and therefore will be able to offer sound advice to lagging communities. We are particularly interested in studying the participation of tutors who act as expert users providing advanced knowledge and guidance to their students and may, in the process, affect the way their students view and utilize the communication services we offer them.

The rest of this article is structured in five sections. Next, we offer a coarse description of the infrastructure. Following that, we elaborate on numeric indices for quantifying the role of the tutors as experts. We then analyze specific groups with respect to their usage patterns and attempt to classify their maturity in using the collaborative work environment. We then proceed to qualitative remarks on the impact of personal attitudes of tutors toward communication and towards the uptake of the collaboration infrastructure. Finally, we conclude and highlight our research directions.

**A COMMUNICATION INFRASTRUCTURE TO SUPPORT COLLABORATION**

In HOU, a substantial part of the mandatory administrative procedures followed by students is carried out through a portal platform; a key example is the selection of TUs in which a student will be enrolled in the coming academic year.