

# THE FIRST NEED IS A LEARNING COMMUNITY: JUST DO IT!

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## ABSTRACT

Italian economy is heavily bounded to SMEs, so it's important their competitiveness remains strong. On the contrary they experiment difficulties in understanding the possibilities supplied to their business by the ICTs, and, consequently, in their adoption. We've tried to design and implement a method to create a strategic vision in SMEs approaching ICTs and to support the birth and the development of learning and/or practice communities. Two major problems need to be addressed: the definition, on a "logical" basis, of an integrated, sounding and effective set of services for SMEs challenge with ICTs, and the creation of a technological infrastructure (with a special attention for a suitable e-learning platform), able to support the designed set of services. The experience performed till now within the project "Just do it!" told us that, among these services, the most important one consists in the possibility of being part of a learning community.

## KEYWORDS

Collaborative Learning, E-Economy, E-Learning, Learning Communities, Virtual Communities

## 1. INTRODUCTION

A series of phenomena, clearly related to the ICTs and the Internet (such as disintermediation processes, new transactional models, the reach-richness model obsolescence – due to new hyperarchical links -, the virtual supply chain emerging), seem to state we're facing a gradual but relentless transition from a physical goods based economy to an excess of information based one, where the true scarce resource is the decision-makers' attention and knowledge treatment. In those conditions, response velocity, flexibility, adaptability are more and more stressed, among the competitive factors, as crucial to survive, and, as a consequence, the "network paradigm" seems to be the winning organisational system. In such a context the networks (both formal and informal) crucial function is to support the learning and collective intelligence (and the information organizing); but the management of the related technological innovation, especially for a small/medium enterprise, implies to compare with something continuously changing and evolving.

Since the Italian economy is heavily bounded to (networks/communities of) SMEs<sup>1</sup>, it's important that their competitiveness remains strong, but, on the contrary, Italian SMEs (and particularly districts) suffers for problems of growth, and experiment difficulties in understanding the possibilities supplied to their business by the ICTs -and consequently fail in their adoption-, mainly for lack of information, as recently demonstrated by the UE Adapt<sup>2</sup> project (actually the SMEs involved in the project, segmented on the basis of the presence of internal informatics networks and of an Internet access, and asked about the process of the demand for ICTs creation, demonstrated that a direct relation between the enterprise dimension and the ICTs use do exists, but also answered that the major difficulties in the ICTs adoption depend quite completely on lack of technical knowledge/skills/know-how).

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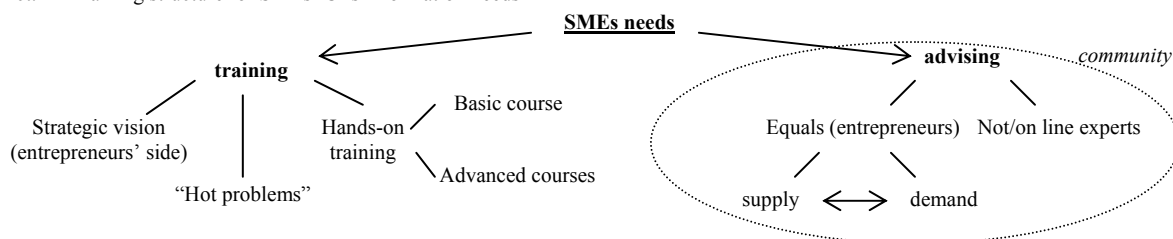
<sup>1</sup> SMEs employ the 80% of the working population: small businesses (less than 100 employees) employ the 70% of the working population (35-40% in the rest of OCSE), while medium enterprises employ another 10% (against the 20% in the rest of OCSE).

<sup>2</sup> See: <http://adapt.formaper.com/home.htm>

## 2. THE “JDI-JUST DO IT!” PROJECT IDEA AND LOGICAL STRUCTURE.

While SMEs main challenge seems to be the comprehension of the strategic potential deriving from the Internet, the commercial formative supply upon these themes -copious and variegated- do seem neither to match SMEs need for personalized training (see Pict.1), nor to respect their constraints of time and money (since the target for standardized commercial formative supply on ICTs usually are professionals that need to re-qualify themselves or big companies). Keeping this in mind, we’ve started to wonder if and how our

Pict. 1 - Training structure for SMEs ICTs information needs



experience with both (virtual) communities<sup>3</sup> and ICTs could help to design a new methodology (repeatable and designed according to a contingent approach) to create a strategic vision in SMEs approaching ICTs and to support the birth and the development of learning and/or practice communities. For this purpose the “Just do it!” project has been started in the 2002 spring. We needed both to find the right way to make up for the SMEs lack of information/skills upon ICTs, and to make them “experiment” the technological potentiality for their business, while creating a “protected” environment, expressly developed for SMEs needs, and free from “business interests”, in order to make them feel confident in the quality and honesty of services and information supplied. At least three sets of different major problems –both on designing and implementing level- required our attention: firstly the definition, on a “logical” basis, of an integrated, sounding and effective set of services for SMEs challenge with ICTs; secondly the creation of a technological infrastructure able to support the designed set of services; and, last but not least, the SMEs involvement in the project, in order to assure project goals consistency with SMEs needs. While designing the services set, we kept in mind two major goals, deriving both from our experience and from the direct involvement of several small business owners (through focus groups aimed at a better comprehension of SMEs needs in the ICTs field):

- the creation of the best environment possible for small business owners networks/communities to be born and develop, where they can find equals to share experience with (this point is fundamental for the specific Italian SMEs reality, built on strong interpersonal relationships), thus creating an effective auto-certification system on ICTs services and suppliers;
- the definition of a repeatable model to provide personalised service and training upon ICTs.

Thus we’ve created an environment (see Pict.2) composed of several different integrated (but independent too) tools, supplying a complete and sounding training service that matches the SMEs ICTs information needs structure (as derived from focus groups, and depicted in Pict.1).

## 3. JDI! AND JLI! TECHNICAL INFRASTRUCTURE

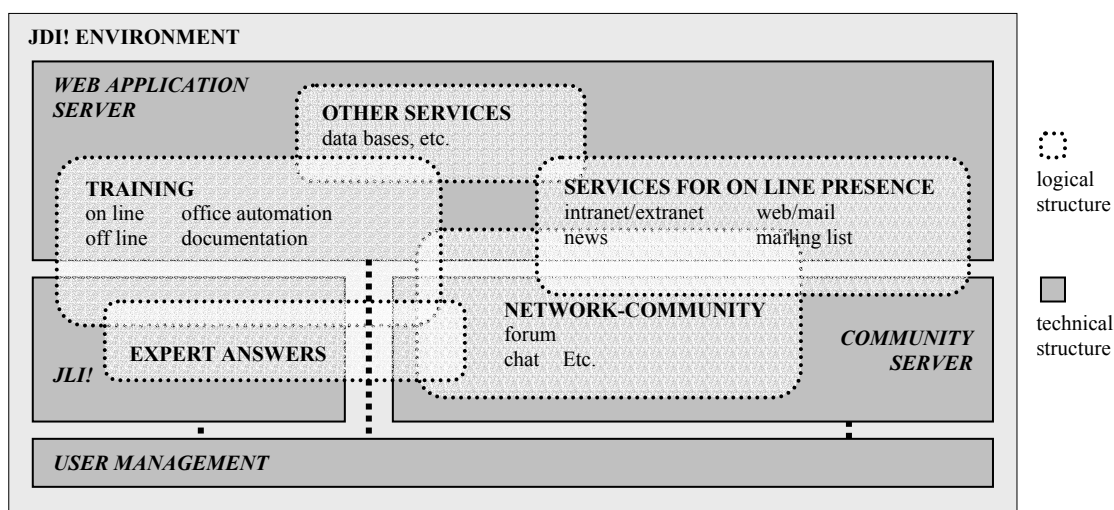
To support the logical infrastructure described above, we’ve decided to adapt and integrate several existing/already developed tools (for network, “the expert answers”, mailing lists, documentation, news,

<sup>3</sup> The Civic Informatics Lab. of the Milan University Information Science Dept. runs since 1994 RCM (Milan Community Network), a citizens virtual community of about 14000 users, and has a significant experience in the hands-on ICTs training of citizens and public servants

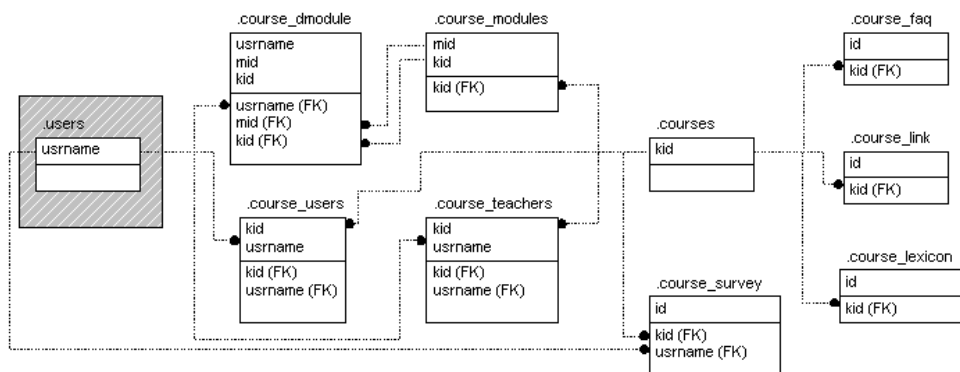
etc.), while this has been impossible for the e-learning platform, since none of the product we've examined (neither commercial, nor open-source ones) supported such a strong integration with community tools as we needed. To address this problem we've chosen to develop our own e-learning platform, starting from the Adept (<http://adept.sourceforge.net>) open-source project, even if its latest version was quite less than a "beta release". The overall technological infrastructure is outlined in Pict.2.

From a technical point of view, since Adept prototype presented several architectural problems, we needed to redesign the whole application structure, making also several features "external" (e.g. discussion fora only implement a logon interface between "JLI!-Just learn it!" e-learning platform and the external community application). Changes to the database structure (see Pict.3) have also been made: to assure an easy and flexible integrability (e.g. through LDAP directory), in the data base layer implementation all the calls to user management functions have been isolated into a library. JLI!, as the overall infrastructure, has been developed to be an upgradable open platform, integrable with other "products" in a simple way, to reach the needed interoperability among the different tools used in the JDI! environment. The system is platform-independent, and runs in Apache/PHP environment, using MySQL DBMS.

Pict. 2 – "Just do it!" logical and technical infrastructure (main features)



Pict. 3 – JLI! data base structure



From a functional point of view, during the design phase, there are several main features we've focused on in order to achieve the community integration above mentioned. Firstly we needed to create intuitive and simple interfaces, since users' skills in software tools use is quite low. On the opposite (teachers') side we needed to supply a flexible and easy-to-use tool. Actually e-learning platforms usually "publish" ready-to-use courses, while we couldn't be sure users' requests for personalized training will match with something already existent. For this reason, teachers must be able to create new courses (eventually even free from

commercial standard constraints) in a very short time, with few and low-cost resources (since the critical mass for heavy investments -e.g. in graphics- is not assured). In particular we've developed a WYSIWYG interface to create HTML contents immediately usable, and we give teachers the possibility to upload and/or link any other resource he/she may consider useful (e.g. video, documents, etc.) and the possibility to include in the course FAQs and glossaries (that may also derive from the direct interaction with the community fora and/or chat).

#### **4. CONCLUSIONS AND NEXT STEPS**

Since the involvement in a learning interactive environment seems to be very important for SMEs owners, a quite huge effort has been made to analyse the Italian SMEs difficulties in approaching ICTs, in order to develop a technical environment supporting a training method that couples personalised formation with self-training through the interaction in a virtual community (composed both by equals and ICTs experts). The JDI! environment has thus been design and developed, focusing also on assuring its easy expandability, enabling us to plan, on the medium term, its integration with several other services (to be supplied in ASP mode) supporting the SMEs everyday activity (e.g. document and/or project management tools) in order to help SMEs to cut down costs and skills barriers to ICTs adoption.

While the technological structure is now ready and –as far as possible- designed on the users' needs, we're now facing a crucial step: the involvement of a first set of "pioneer" small business owners. As a consequence, at the moment our major challenge is the creation of useful contents to fill the training JDI environment with, and to develop it together with users.

#### **AKNOWLEDGEMENT**

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