

# Practice Firms and Networked Learning: Unaccomplished Potentialities

Jorge Alberto dos Santos

Lancaster University  
[j.santos@lancaster.ac.uk](mailto:j.santos@lancaster.ac.uk)

## ABSTRACT

The aim of this paper is to present and discuss some aspects of networked learning in “Practice Firms”. Practice Firms (PF) are simulated learning environments where participants operate fictitious companies creating a virtual market of nearly 4,000 similar companies in 39 different countries. This results in a network of approximately 50,000 students around the world. The interviews of this study were carried out in Austria and Brazil using a phenomenographic approach (Marton 1986); (Marton and Booth 1997) and employed Bowden's (2000) phenomenographic perspective called “developmental phenomenography”. The main conclusion is that the PF network has an enormous potential for improving management learning but needs to overcome structural and dynamic drawbacks.

## Keywords

Practice firms, networked learning, phenomenography

## INTRODUCTION

Along the many views of education, one view is that education is a process by which human beings ‘learn the way’ or insert learning in their culture. This socio cultural view considers education as a holistic process beginning from birth and continuing throughout life. As such, education is seen broader than ‘schooling’; and as defined as a cultural product that validates education; a special institutionalized way of transmitting culture, “strongly influenced by the inequitable distribution of knowledge, power and resources ...and that ...tend to reproduce these same inequities within their policies and practices” (Scheurich 1997:8). Education could then be split into a continuous, chronological sequence, beginning in the totally dependent relationship of a child with adults, to a phase of relative independence of others later in life. In this latter phase, choosing what to do is more a matter of self-determination. Therefore, it is understandable that education can be seen to mean different things depending on the different phases of a person’s life. However, whatever the phase, structures and dynamics are seen as culturally provided for learners.

These structures and dynamics are what I call ‘learning environments’ (LEs). LEs are being challenged nowadays more than ever. The one I call ‘traditional’ bravely resists yet seems still far from being overtaken but other views of LEs. However, a powerful strength of newer forms of learning are what has been labeled ‘information technology’. It provides society a way of connecting different sources of data and different groups of people in a way unimaginable before and provides LEs designers with opportunities and questions that need to be taken and answered.

## LEARNING ENVIRONMENTS

Systems theorists define environments as those things that are “outside the system’s control [yet] determines in part how the system performs” (Churchman 1979:36). In this sense, a learning environment is a set of variables that interfere in the learning situation but that is not controlled by the participants. I like this definition because it captures the essence of a concept of environment. It agrees with Carnap's (1966:59) observation that “we have to accommodate our system to the facts of nature as we find them. Nature provides factors in the situation that are outside our control”.

Ontologically there seems to be two basic characteristics theorists attribute to LEs. Either they describe LEs as places; ‘sites’, where learning occurs or they describe LEs as the attributes that bind participants in these sites. For instance, in the first view, Wilson (1996:3) defines a learning environment as “ a place where people can draw upon resources to make sense out of things and construct meaningful solutions to problems”. LEs are constituted and differentiated by the types of things that are present in the environment.

Hannafin and Land (1997) contribute to the debate with a broader classification of LEs based on psychological and cultural dimensions. According to them LEs have five foundations: a) psychological or “underlying beliefs about how knowledge is acquired and used”; b) pedagogical or the “activities, methods, and structures of the learning environment”; c) technological or “what is possible through advances in technology, not necessarily what is required or desired”; d) cultural that is “the values of a culture, and the roles of individuals in society, and e) pragmatic or “the situational constraints that affect the design of learning systems” (p. 172-177). Two of their conclusions are that “knowledge is most meaningful when rooted in relevant, scaffolded contexts” (p. 193) and “understanding is most relevant when rooted in personal experience” (p. 195).

It is also important to think of LEs from the learner’s perspective, because as Ramsden (2003:64) points out “the context of learning is an ever-present influence on students’ activities. Students do not simply read a textbook or write a practical report, for instance. They read or write for a particular audience and they do these things in response to the implicit or explicit degree programmes.”

More cultural and critical theorists argue that LEs analysis should emphasize yet the economic and power relationships that are reproduced in society. For in LEs

*“the tutor is earning a living; students are also there to get a degree; their educational institution gets reproduced through the enactment of such events; relations of status, gender, age and perhaps race are confirmed or challenged in the way people talk, interrupt and defer to one another; and the participants are usually also engaged in ‘self-presentation’, trying to win respect or at least not to look stupid in the eyes of others”.*  
(Sayer 1992:3)

The consideration of this several perspectives emphasizes LEs as ‘nested structures’ (Goodyear 1997) that “provide the physical setting for the work of a community of learners ...[and] ... include all sorts of learning resources, including what we conventionally think of as hardware and software but also other knowledge objects produced through interactions between members of the learning community” (p.6).

In summary my view is that there seems to be a two-dimensional entity when considering LEs: the first is a material or physical dimension that is composed of those resources-kits as blackboards, chairs, books, hardware, software and so on. The second is a conceptual dimension. The conceptual dimension is more elusive and dependent of analyst’s definition. This two-dimension entity is treated very differently when approached by traditional or by experiential learning practitioners. Let’s take a further look into each of these two groups view.

## **Traditional learning perspective**

### **Material framework**

In this perspective the material framework is what makes possible the encounter of the two basic characters of a learning situation: the teacher and the student. Despite innovations mainly in information technologies, the physical view of Traditional Learning Environments (TLEs) nowadays is surprisingly similar to the ones in the beginning of the 20<sup>th</sup> century. Schools are mainly composed of classrooms that are places where teachers and students should play their roles. Nowadays classes may have many sorts of pedagogical resources: sliding boards, flipcharts and audio-visual devices but the star ones are definitely the computer and the Internet connection. In this view LEs are ‘spaces’ where students and teacher(s) meet together to some educational purpose. As ‘spaces’ LEs exist per se and can be shown as a set of material structures.

### **Conceptual framework**

Conceptual framework of TLEs is embedded in the kind of activities that is going on when teacher(s) and students get together. Teachers are expected to be teaching and respectively students are expected to be learning. Hebert (1967), cited in (Dunkin 1974:34) suggests that those activities in classrooms fall into three basic forms: lecturing, teacher-pupil interaction and seat work. Lectures can be seen as a form of class-room-based experience in which the teacher is in control of the treatment of a subject matter. One influential research in this field is Bligh's (1971, 2000) work in which he concludes that lectures has “four logically distinct kinds of objective: 1. the acquisition of information, 2. the promotion of thought, 3. changes in attitudes, and 4. behavioural skills” (p.6) . His conclusion is that lectures can only fulfill the achievement of one: the students’ acquisition of information. “The available evidence suggests that discussion methods are superior to promote thought and attitudes. Practical activities are best to teach practical skills” (Bligh 2000:24). Nevertheless, those researches have been inconclusive what makes Hodgson (1997) assume that one reason may be the ‘narrowness of approach’. All these elements of TLE strongly rely on the figure of the tutor. To avoid this Bowden and

Marton (1998) among others argue that we should move learning from a teaching to a learning environment. What is needed is a transformative relationship between the elements of learning environments.

## **Experiential learning perspective**

### **Material framework**

It is not always simple to tell where Experiential Learning Environments (ELEs) begins to distinguish from TLEs. Even lecture-centered environments can be experiential in the sense that students make some kind of experiment (for example in physics laboratories where students performs experiments with a tutor guidance). Moreover, experiential learning activities may require a 'place' where learners get together and some guidance of what they are expected to do. But in general experiential learning perspectives stress different points both in the material and in the conceptual framework of learning. Experiential learning practitioners, for instance, do not feel comfortable with TLEs. Experiential learning practitioners need a more flexible environment where resources can be rearranged freely. Where experiential learning perspective relies on classrooms as places to learn, classrooms need to have flexible seats and more space to work with material things. Experiential learning relies especially on work groups. Therefore where classes are very large experiential learning is impractical because a series of environment issues complicates: space is not available to group work, the tutor cannot pay much attention to each group and noise limits each other's group ability to work.

### **Conceptual framework**

The conceptual framework of experiential learning perspectives reflects a movement from students' passivity to students' activity. In ELE students are expected to participate in discussion, interact with peers, work with materials, manipulate or create things. This is thought to promote effective learning. ELE are labeled in different formats: Learning by Design, Problem-based Learning, Project-based Science, Knowledge Building and E-learning (Networked Learning) are some of those. These five approaches can be defined as experiential learning perspective in the sense that they decentralized the role of the teacher, subvert the organization of space in the learning environment and problematize the relation between teacher, learner and knowledge. In the next section I introduce the concept of Practice Firms Network and explore how it relates to ELE and especially with network learning.

## **PRACTICE FIRMS AND NETWORK LEARNING**

### **Network learning**

E-learning or network learning is a generic label applied to many educational processes and products. I depart from the concept of network learning as "learning that uses communication and information technologies to promote connections between one learner and other learners, between learners and tutors and between a learning community and its learning resources" (Jones, Asensio et al. 2001:7)

There has been an increasing understanding of learning as achievements of communities of practice and situated activity. Thus learning should address the fact that "the mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practices of a community" (Lave and Wenger 1991:29). Approach learning as achievement of a community of practice requires us to understand learning as governed by macro processes (politics, culture and economics, for instance). Collaboration is another concern. Working in a community of practice assumes that people must collaborate between themselves. It is in this debate that I would like to insert the concept of Practice Firms Network.

### **The Practice Firms Network concept**

Practice Firms Network is a simulated learning environment where students are immersed in to live business situations. Each unit of the Practice Firms Network is according to European's "a virtual company run like a 'real' business silhouetting a 'real' firm's business procedures, products and services". PFs try to reproduce 'real conditions', where students can experience the total situation of working in an organization. The origin of Practice Firms Network is Austria where the model is compulsory in secondary education nowadays. The model is now present in five continents and 39 countries. In Europe, simulated LEs for teaching business activities have been established since the end of World War II, although "[T]he roots may be traced back to the 17<sup>th</sup> century. ...in the Austro-Hungarian monarchy [when they] set up in the commercial colleges [the so called] ... "Musterkontor" or model office ... [and offered] over-sleeves, stand-up collars, inkpots and writing stands "(www.act.at). Five elements are important to understand the concept of Practice Firms Network: European; Central Offices; Practice Firms Units; The PF Market and Business Partners.

**Europen:** The internationalization of the model was established by the creation of EUROPEN ([www.europen.de](http://www.europen.de)). According to EUROPEN's website the mission of the organization is "to support, coordinate and develop services adding value to the activities carried out in its member's national networks, to promote and enhance the concept of learning in and from a simulated business environment and to expand the number of regional and national networks". The Co-ordination Centre is, among other things, responsible for the Presidency and co-ordination of the various Central Offices.

**Central Offices:** Central Offices are local branches of Europen to coordinate local Practice Firms Networks in each country. Central Offices perform four different tasks in the model. First, the Central Office is the reference point for contacts between a unit of a PF and the 'simulated outside world' – the world which is essential for the operation of the PF but that the PF does not really make contact with it – for instance, the Central Office provides the services of a bank, insurance services (health, social, possessions), government agencies, tax office and so on. It functions also as an accountancy counselling, a supplier centre and a financial market for PFs. Secondly, the Central Office has the charge of coordinating the units of PFs under its concession area, providing the link between all PFs both in the national and in the international market. In the international market, it provides the transactions of currency when a practice firm sells abroad. Another role of the Centre is to coordinate trade fairs and seminars in its concession area. There are local, regional, national and international trade fairs. Finally, the Central Office supports the model expansion aggregating new followers to the system.

**Practice Firm Unit:** A unit of a Practice Firm is the operational level of Europen model. Each PF is a physical-conceptual learning environment where the model is made concrete.

*"(The) model allows the simulation of real economic procedures with varying degrees of complexity, thus making them transparent for learning processes. The practice enterprise is suited for the acquisition, practical testing and deepening of business-related knowledge as well as of personal skills and behaviour in all fields of company structures, ranging from junior clerk to entrepreneur..."(Philipp 1998:4)*

Although some PFs may produce some real products or services, the term 'production' here is deceiving. The great majority of products offered by PFs are virtual ones. This means that the products may be idealized, projected, accounted and sold but they are not really 'produced' or 'delivered'.

**Market:** The model mimics a 'market', which means that each unit of a Practice Firm offers some goods that are bought by other units of PFs, people and institutions around the concept. Those constitute the market of a PF or whom the virtual products of the PFs are addressed to. This 'virtual economy' generates the needs that Practices Firms have to attend. In thesis the market of PFs is constituted of all units of PFs around the world.

**Business Partner:** finally Business Partners are companies from the real economy and from the same economic sector the Practice Firm unit runs its business. Their role is to provide business information and assistance to the students according to the real market. This may include information about number of staff, salaries, capital, their own organisation chart and copies of procedures manuals. They may help PFs setting up the simulated business best practices of business like marketing strategies, how to elaborate a market pool, budgets and price lists. They may provide students access to their premises, ideas for project work and later on internship and employment for graduates. As such Business Partners functions as a link between the real market and the simulated educational environment.

## METHODOLOGY

The study was carried out using a phenomenographic approach (Marton, 1981; Marton and Booth, 1997) and employed Bowden's (2000) phenomenographic perspective called "developmental phenomenography". Developmental phenomenography "seeks to find out how people experience some aspect of their world, and then enable them or others to change the way their world operates" (Bowden 2000:3). This study concentrated on existing PFs in Austria and Brazil. Four students and one teacher were interviewed in Austria and 29 students, 7 tutors and 3 technicians were interviewed in Brazil about their experiences in the Practice Firm learning environment, and asked to comment on these experiences. They were free to choose any significant learning experience in PF environment they wished to relate. The analysis of interviews presented in this study focused on the participant's comments related to network learning in PF learning environment. Alongside with interviews observation and documents were used in the analysis. The observation was carried out during PF meetings (similar to a class) and Practice Firms Trade Fairs. The document analyzed here was Expand Practice Firm's website. Finally it is important to stress that this paper is a preliminary outcome of my research on PFs for my PhD dissertation.

## DISCUSSION AND CONCLUSION

### How Practice Firms relates to networked learning

PFs can be viewed as strategies to create “messes” (Ackoff 1974) and complexity. The concept of PFs and its use of information technology provide a LEs in which students, teachers, technicians and other people around the concept has the potential to create a global learning community with similar interests.

Tramm characterizes this learning environment as “learning within the model” and “learning by the model”, that is, the student learns not only because they act in the model but also because the model shrinks the complexity “when a practice firm is modeled, which ought to improve or ease the active learning within the model” (p.10). (Philipp 1998:4) adds that

*The advantage of the practice enterprise lies in its external contacts. Like companies in the real market economy, also practice enterprises maintain business relations with each other. They bring the students into contact with the business culture of their partners at home and abroad.*

Gramlinger (2003) considers pros of the model issues as ‘no entrepreneurial risk’, ‘discontinuity of time’ and ‘allowance to make mistakes’ among others. ‘No entrepreneurial risk’ refers to the fact that PFs do not run real enterprises. PFs’ ‘product’ and ‘money’ are virtual ones. Products are generally the representation of real products in business partners catalogues. Money is just an expression in the bank account. ‘Discontinuity of time’ is an important pedagogical feature. It refers to the fact that time in the Practice Firm can be adjust to fit the learning environment needs. For instance, one month can be run in a week. It allows that PFs can adjust their timing to school terms, to changes in the work team, to strategic stops or even to ‘rewind of time’ to analyze behaviors. Another characteristic is that in PFs students are ‘allowed to learn by his own mistakes’ in the sense that those mistakes are not harmful. But as mention Tramm “didactic reductions of complexity ... may not destroy the structures of meaning and context” (p.14).

Gramlinger recognizes that the same variables that make the strengths of the model have some cons. Some of these cons refer to ‘incompleteness of the model’, ‘learning is a play – not serious’ and ‘imaginary costs’ among others. If leaving out some variables – as real product and real money – assures security and possibility of learning through mistakes, at the same time it generates ‘incompleteness of the model’. Moreover, ‘the incompleteness of the model’ generates some ad hoc decisions. For example, the lack of a real product makes definition of stock costs unrealistic. In the end, the educational environment can be seen as a playing setting misleading the educational purposes.

Could this environment create the condition for networked learning? What kind of interest makes those people get together? Following I present some participant’s statements concerning these questions. Maybe one kind of interest could be stated as pedagogical. People around the concept usually mention it as “flexible”, “experiential” or “social”. Interestingly they rarely refer to it as “networked”. It seems that despite the possibility of the existence of a networking practice it is still not the realm of the system. The basic point to a networked learning environment in Practice Firms Network should be the existence of a market: people in and around the model buying from the PFs units. But the essence of a market (economic needs) is not real in the model. People buy if and when they wish and the inexistence of a reasonable model of demand makes students criticize the market model of PFs for

*“it is not a real market, it’s completely different...the Practice Firm market. They are students...whatever they are simulating an enterprise... they are students in a secondary school. They are not simulating the real market as they [tutors] say...”(Brazil-Stu06: 123)*

The model seems to neglect the powerful symbolism of money. Students clearly perceives that the real market is powerful

*Because the real market has real money...in the Practice Firm if you don’t sell it doesn’t make much difference in your life. So people [students] do not put much effort into this...”(Brazil-Stu06: 131)*

However students in PFs model are encouraged to use the network potential. Each PF unit, for instance, is encouraged to have its website (see <http://www.uni-graz.at/expand/>). Nonetheless it depends on students groups’ previous ability. Sometimes it is not quite balanced in one PF unit, as put by one interviewed

*One girl really wanted to make the homepage and I had some trouble with another girl who also wanted to make the homepage...but not everybody [can] come to the homepage...it's not possible... (Austria-Stu-03:146)*

PF's website may be quite dubious pieces of information sometimes because they integrate real messages with fictitious ones. Take, for instance Expand's website. Alongside the message that they have a real product (and it really is) as expressed below

*We work in the field of market research. Our goal is to support other practice firm in finding international markets to enable them to expand their own business (Expand's website).*

it carries the message that "eXpand International Consultancy GmbH is a university practice firm that does not deal with real products" (eXpand's website).

Another opportunity to create links in the PF learning environments is Practice Firms Trade Fairs. Trade Fairs seem important in actual business world so PFs practitioners try to mimic these environments. As the real trade fairs Practice Firms Trade fairs are real encounters in a real place. They can be very limited – local and regional (I have taken part in some of these events) - or international events. Practice Firms trade fairs seem to be very popular among its practitioners. It's the most cited event in the set of interviews I have taken. They seem to be social occasions where

*You start trying to speak a business language... you see how hard is to sell things to people...this kind of apprenticeship you have in the trade fairs... (Brazil-Stu05: 10).*

Another issue that is important to notice is about assessment. PFs learning environments practitioners seem to live a contradictory situation when it comes to the assessment phase. As PFs tries to create complexity, unstructured and on-going situations, formal types of assessment are clearly inappropriate to PFs students. But usually PFs environments have to attend institutional assessment rules that are made to TLE. As pointed out by one of the interviewees:

*... in Austria, since the new curriculum this year they [the students] have to do an exam in practice firms and I don't know how you can do it ... an exam in practice firm ... I think it is weird ... because ... I don't know ... there [ in the Practice Firms] you have to practice things and not theories ... but now ... in the curricula. (Austria-Stu01: 34)*

One final point that I would like to call attention in this paper is that Information Technology (IT) is not perceived as fundamental in PFs learning environment from the students' point of view or even from tutors' point of view. They would certainly disagree with my assertion but what I want to stress here is that participants - who were free to choose whatever experience they wish - rarely mentioned experiences where the networking facility was central to their learning. But IT is really important to technicians who control the interactions between PF units and simulated aspects of their environments like government and banks. One technician, for instance, described how IT system that controlled financial transactions needed to be improved to provide the traceability of the system

*We had the following the other day...someone logged in the system and made a payment: someone pays Bruna, amount: 2,000 pounds. Finished...we did it ...but who was Bruna? Where from? What was that payment about? What was the invoice? Nobody knew... Nowadays we know. (Brazil-Tec01: 32).*

The main conclusion of this initial furthering into the data of this research is that PFs learning environments are in tune with recent movements of educational shift. They aggregate some important features of ELE and make use of important learning resources as learning communities and information technologies. But the model needs to overcome structural and dynamics drawbacks. It could begin, for instance, debating the misleading double nature of the system. As put by one of the interviewees

*It's a pretend and it is not. (Brazil-Stu07: 51)*

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