

The European Union and e-learning: an examination of rhetoric, theory and practice

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Abstract The paper examines the impact that new technology has had upon the rhetoric, theory and practice of trans-national educational collaboration within Europe. The paper first looks very generally at the way e-learning has become a strong part of the educational rhetoric of the EU. Some of the different models found in the literature for describing online courses and teaching and learning approaches used within distance education are then described. These models, however, for the most part apply to courses that are offered by single generally specialist distance education providers. In contrast, the ODL/Minerva projects supported by the European Commission's Socrates programme are relatively unusual in that they have as a starting point a consortium of trans-national partners engaged in a common educational venture. Consequently, the second part of the looks at some of the models generated within the ODL action. This is followed by descriptions of the work of three ODL projects, each of which differ in orientation and approach. It is argued that the dimensions on which the three projects most significantly differ are not so much according to the models already described in the first part of the paper but is more related to their assumptions about how comparative knowledge is viewed and the kind of discourse from which knowledge and learning is generated and the dialogical practices used to support this.

Keywords: Collaboration; Distance; E-learning; European; Learning design models; Higher education; Internet; World-wide web

Introduction

In this paper I would like to consider in some detail the impact that the increased possibilities to communicate and to access information is having on European educational co-operation and collaboration in terms of both educational models, learning theory, and actual practice.

Everyone acknowledges the explosion in access to knowledge and information that has accompanied such developments as the Internet and the World-wide web. Increasingly, many commentators are raising questions about the adequacy of current models and approaches to higher education. The increased capacity for global communication, together with the easy access to information rich repositories accessible via the Internet and/or WWW, has led educationalists to suggest we need to change our ideas about teaching and learning.

Invited Regional Report

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At the same time the advent of new information and communication technology (ICT) and the WWW has encouraged educational institutions to think that open and distance learning is no longer the sole province of specialist institutions working only with students located somewhere other than on a University or College campus. Increasingly, all higher education institutions are looking at what new technology is able to offer them for both their existing students and for potential 'new' students.

Despite the recognised capacity for increased communication and consequently the potential for inter-institutional and trans-national partnerships, most of the literature and existing ideas about open and distance learning remain largely single institution provider-based. There are some suggestions about partnership provision but in practice, with some notable exceptions*, most institutions are addressing the issue at either an institutional or individual course level. The Open and Distance Learning (ODL) action of the European Commission's Socrates programme known as Minerva† is relatively unusual, though not entirely exceptional, in that it supports projects that have as a starting point a consortium of *trans*-national partners engaged in a common educational venture. This is unusual in education practice in general and even to an extent in the majority of EU funded educational projects where the balance of funding is towards systems and structures that support the mobility of individual students and to a lesser extent, staff.

The models being used by ODL/Minerva projects pose an interesting question as to what educational/learning approaches they support in practice? Does the collaborative *trans*-national partnership aspect of the Minerva projects imply or create different kinds of educational experiences and opportunities for those involved?

Additionally, much of the current political interest in lifelong learning and in e-learning is itself arguably a reaction and response to the so-called transition from the Industrialised Society to the Information Society. Lifelong learning together with ICT-supported learning or e-learning are both increasingly strong aspects of the political educational rhetoric at a European level as well, of course, at the national level in many countries.

EU political rhetoric on e-learning

Current political educational rhetoric is within a general political and economical context of the postmodern information driven age. Rumble (2001) points out that such rhetoric, particularly when implicitly or explicitly linked to ideas associated with post modernity, not only puts the individual at the centre of the learning process but also increasingly takes a view of:

the individual responsible for managing and directing their own training, updating, and education; an increased service-industry orientation on behalf of education; a changing role for the teacher – from teacher to mentor, guide, advisor. (Rumble, 2001)

And, as Rumble also comments, the raised interest in distance education:

has been fuelled by the growth of new technologies that seem to preserve two-way communication and dialogue within the educational processes that they support. (Rumble, 2001)

* E.g. WADE (World Alliance on Distance Education) is a collaboration between four leading distance universities: Deakin University in Australia, the Hong Kong Open University, the Open University in the United Kingdom, and Canada's Athabasca University to offer a global business school post-MBA International Business Program via the Internet

† Minerva Action details can be accessed at <http://europa.eu.int/comm/education/socrates/minerva/>

In general we appear to have a strong political rhetoric that presumes that ICT will give wider access and opportunities for education but at the same time puts the responsibility for taking advantage of this increased access and opportunities with the individual. In addition, as indicated by Rumble in his last comment, ICT is also seen to give the opportunity within an ODL framework for a more dialogical-based educational/learning experience.

At the European level political educational rhetoric and accompanying policy imperatives empathise such things as digital literacy for all in the information age, lifelong learning, and providing/acquiring the required skills for employment in the so called information society. Examples of these can be found in various papers and documents published by the European Commission.

A recent report* summarises the situation explaining that:

The EU Education Council adopted in 2001 a report entitled 'Concrete Objectives in Education and Training Systems' in which policy objectives were set out within the wider context of the ambitions of the European Council that Europe should become 'the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'. The Education Council report also noted the important role of education in promoting humanistic values. The report set out three main objectives:

- 1 Increasing the quality and effectiveness of education and training systems in the EU.
- 2 Facilitating the access of all to education and training systems.
- 3 Opening up education and training systems to the wider world.

The Education Council report placed great emphasis on developments in information and communication technologies (ICTs), not only to ensure that individuals acquire the specific skills which they will need in the Information Age, but also because of the important direct effects of the technologies on education (*eLearning*). The European Commission has developed an *eLearning* Action Plan and has issued calls for proposals to implement the plan which it intends to achieve over a 10-year time scale.

Greater details on the progress with e-learning activities and initiatives related to the above objectives can be accessed from the Commission's official WebPages for the e-Learning Initiative. The pages include a section on 'What's New' in e-learning and can be viewed at http://europa.eu.int/comm/education/elearning/doc_en.html. In addition a full description of the various actions and ongoing activities is given in the recently published interim report 'eLearning - Designing tomorrow's education' available at http://europa.eu.int/comm/education/elearning/sec_2002_236_en.pdf.

Further information can also be obtained from the many documents published by the Commission such as 'The eLearning Action Plan — Designing tomorrow's education and 'Making a European Area of Lifelong Learning a Reality'

(<http://europa.eu.int/comm/education/life/index.html>).

Models of online ODL

A number of authors have attempted to distinguish between approaches and models used on different ODL/distance education programmes and courses. I will briefly describe the models that have been suggested by Rumble (2001) and Mason (1998) in recent reviews that they have done of distance education and online models. I will then move on to look more specifically at the models used and work done within the ODL/Minerva action of the Socrates programme.

* European Union Policies & Strategic Change For *elearning* in Universities Report of the project Higher Education Consultation in Technologies of Information and Communication (HECTIC). Coimbra Group of Universities, Brussels.

Teaching and learning models

Rumble, in his review of developments in distance education over the last 30 years, suggests that there are primarily four models of teaching and learning that can be associated with ODL and/or distance education. It is the case that, traditionally, most ODL courses have been closer to what he describes as the 'transmission' model of teaching and learning than to the more constructionist models of teaching and learning that tend to be associated with dialogical-based educational and/or learning. Rumble describes the four models as follows:

The transmission model of teaching and learning, in which teaching is the giving of accurate information, within a structured environment, sequentially, over time. Learning is seen as the correct performance of task, based on cumulative practice, until such time as the information, skills or behaviours imparted by the teacher have been mastered and can be reproduced.

The constructivist model assumes that learning is the active development of personal understanding, based on interpretation and selection, the personal construction of meaning, and its continuing review and integration with new information and understanding. Teaching is setting challenging tasks, observing and supporting learner's activity, creating dissonance and helping learners to reconsider.

The socio-cultural model assumes that learning is social, involves assisted performance, is interactive and coconstructive, is regulated by the group and involves the formation and evaluation of shared values. Teaching is a joint activity which is guiding the conversation, helping joint constructions to form and enacting shared group values.

The metacognitive model is reflective and helps learners step back from their own learning and monitor it, in order to improve their understanding. In this model, teaching supports and assists reflection.

As Rumble explains

two-way/multiway technology of online distance education can, its proponents argue, assist the evolution of constructivist and sociocultural models of education. So far as constructivist models are concerned, online learning or Tele-learning in the home is a testbed for . . . ideas [about the empowerment of students as effective decision-makers about their own learning processes], ideas that are supported by learning theorists who see learning as a constructivist activity, fundamentally an individual experience and an experience in which the individual must have real self-responsibility On-line education is an equally powerful enabler of sociocultural models of education.

(Rumble, 2001)

In these comments Rumble is confirming that the advent or introduction of ICT into distance education programmes should assist the move away from more transmission models to more constructionist or socio-cultural models of teaching and learning.

Educational models for online education

There is certainly an increased interest in the idea of more constructionist/socio-cultural models described by Rumble, it is not, however, always very evident when we look at actual educational practice. This was well illustrated in a recent study where the authors found that none of the courses they looked at met all of the following indices of constructionism that they had identified through a discussion list set up to explore the concept, process and facilitation of constructionist learning (Tenenbaum, *et al.*, 2001).

1. ethos/environment (learner-centred; tutor or content centred; neutral or indecisive);
2. authenticity of content (realistic/real world; theoretical);
3. learners' personal experiences (sought or offered and utilised; not sought or utilised);
4. learner-learner interaction (encouraged; not sought; encouraged and tutor participation);
5. learner 'thinking aloud' (development of student own line of thinking encouraged; not sought or encouraged);
6. feedback on contributions (positive and encouraged; negative or dismissive);
7. development of thinking skills/understanding (dominant; partial or incident neglected), and
8. learners contributions to tutorials (publicly valued; not valued; not sought).

Similarly, if we look at various models for describing online courses it is clear that some still follow essentially a transmission model rather than constructionist models. The framework for 'online course models' that Mason proposed (Mason, 1998) reflects this. As she herself suggests it is a rather simple framework within which to consider a very wide range of existing online courses. She also explains that her three models do come from institutions that provide primarily distance education programmes. But, as this remains the dominant view of ODL provision, it is interesting to consider her three models:

The three models that she suggests focus on the relationship and approach that courses have to content and tutor support. The three models are:

Content plus support are separate and this is the defining feature of this model, i.e. the strong division between content and support. The model supports the notion of relatively unchanging content materials which can be tutored by teachers other than the content authors. This model is probably most closely aligned with Rumble's 'transmission' model of teaching and learning.

Wrap around model. This is more of a resource-based approach that still retains a predetermined content aspect but gives more freedom and responsibility to students to interpret the course for themselves. Not all the content is predetermined in this model and there is more interaction between students and tutors, often through problem solving activities and other online events. This model is probably most closely aligned with Rumble's 'constructivist' model of teaching and learning.

Integrated model. Courses under this model are fully integrated with no separation and/or distinction between content and support. Courses consist of collaborative activities and joint assignments and are organised on a learning community basis. This model is probably most closely aligned with Rumble's 'socio-cultural' model of teaching and learning.

None of the models for online courses proposed by Mason seem to explicitly follow Rumble's 'metacognitive' model of teaching and learning, which is interesting, as this is the model that includes reflection and has the greatest potential for a more critical orientation for distance education teaching and learning.

Trans-national Virtual Learning Institutes

The models suggested by Mason and Rumble are essentially based on ODL courses provided by a single institution that specialises in distance education. It is only when we look at the work of projects funded by such as the ODL/Minerva action of the Socrates programme that we begin to see examples of courses that are not only

provided by cross institutional partnerships but also by institutions that have traditionally been campus-based/face to face institutions.

It is thus interesting to see the difference, if any, in the models used to describe the work they do and, more importantly, if the courses they provide reflect different models of teaching and learning to those proposed by either Rumble or Mason. It is, consequently, my intention in the second part of this paper to look in more detail at the assumptions and educational models reflected in three different projects that between them are representative of Socrates ODL/Minerva projects within the HE sector.

Before doing so, however, I would like to consider how some of the Minerva projects* have already addressed the issues of models and approaches to inter-institutional collaboration at both the conceptual/theoretical and practical levels.

Two related ODL funded projects (MECPOL and DO-ODL), for example, considered the question of models of inter-institutional collaboration, and identified four models. The models are essentially more instrumental/functional than educational in their perspective. They, arguably, tend to reflect the institutional operational reasons and purposes for cooperating rather than the educational ones. Each of the four models for inter-institutional collaboration proposed, encompass in different ways the concept of Virtual Learning Institutes (VLI), defined as '*created through a collaboration between two or more universities with the aim of providing networked open learning opportunities to students*'.

It is claimed that recent experience of inter-institutional collaboration suggests that four main models cover most eventualities. The main dimensions on which these models differ are: the life expectancy of the VLI; status relations between the partner institutions and the rationale for the grouping (geographical or by specialism).

The four VLI models are:

- long-term speciality-based cooperations;
- long-term geographically-based cooperations;
- long-term franchising and related hierarchical cooperations;
- short-term speciality-based cooperations.

Whilst these models do not themselves consider the educational imperative or benefits for collaboration, they do address the geographical and location of specialist expertise imperatives for collaboration. These aspects continue to be seen as important in many European ODL collaborations.

The four VLI models proposed are clearly not 'simply' replications of face-to-face models but instead highlight potentially new/different dimensions to educational experiences available to (EU) students as a result of institutional collaboration supported by ICT.

Indeed, the notion of ODL as a replication or substitute for face-to-face approaches is perhaps the least useful way to characterise what happens or can happen at the EU level. If we, for example, consider possibly one of the currently best promoted ideas at the EU level of 'virtual mobility', we begin to see quite clearly that virtual mobility is not simply a 'less effective substitute for physical mobility'. The physical mobility of students has been a cornerstone of European educational policy and funding and virtual mobility is seen as a natural progression and extension of this policy. It may well be so, not in the sense of a substitute to

* See <http://siu.no/isoc/> for information on Socrates funded projects

physical mobility, but as the opportunity to participate in an educational experience of an entirely different nature and, consequently, the educational and learning benefits that are accrued will differ for both the students and staff involved.

The way virtual mobility differs to physical mobility can be recognised in the definition of fully developed virtual mobility proposed by a series of projects collectively known as HUMANITIES*. The model proposed by Humanities is based on seven requisites. Most of them differ from those that apply to physical mobility although one of the requisites is that virtual mobility is complimentary to physical mobility. The seven requisites are:

- trans-national learners audience;
- trans-national teaching team and learning resources;
- joint design and delivery of courses at trans-national level;
- high communication intensity of the learning experience;
- credit recognition by all participating teaching institutions;
- respect of cultural diversity and clear definition of a language policy;
- complementary to physical mobility.

It could be argued that virtual mobility is/was the first educational model based on characteristics/features uniquely supported by ICT to be developed for specifically European educational collaboration.

Within the four VLI models proposed it could equally be suggested that generally speaking it is possible to either accommodate or recognise the requisites listed above. As we will see in the next section, elements of these models are regularly present in Minerva ODL projects.

Neither the VM nor VLI models, however, explicitly consider or describe the educational approach and learning design used to support learning. Nonetheless, the courses offered by different Minerva ODL projects do display a certain set of assumptions about the way to contribute to or support learning in their educational/learning design, approach and practice. I will therefore now describe in more detail three Minerva ODL projects and the educational approach and learning design used to support learning in each case.

Minerva ODL projects

*EuREX: An Expert Knowledge Project**

The aim of EuREX is to establish a seminar series on the processes of social transformation and social exclusion impacting on cities and metropolitan areas in Europe. The seminar series is typical of a number of Minerva projects in that it addresses an area/field that contains issues of a comparative and European perspective. It uses ODL technologies to support cross-country dissemination of recent theoretical and empirical findings.

The approach adopted by EuREX is to use a mix of procedures that involves the use of new ICT and an international team of scholars, tutors and students. Fifteen professors from 12 universities in Europe (one in the United States) located in seven countries are responsible for writing 15 online lectures to support the seminar series and for moderating live chat sessions associated with each of the online lectures. The

* ODL Joint Action 1994-96 and SOCRATES ODL Action 1997-99; see www.dipoli.hut.fi/humanities and www.dipoli.hut.fi/humanities/hum-pub.html

* European Online Seminar on Urban Transformation, Poverty, Spatial Segregation and Social Exclusion.

project also offers three 'Visual seminars', each of which are supported by live chat sessions.

In addition to the 15 tutors responsible for the lectures and for moderating the synchronous chat session, the project includes local tutors at each university who are responsible for co-ordinating activities and students at the local level. The project aspires to achieve the following as a result of adopting ODL technologies:

- to bring together leading European urban sociologists, social and urban geographers, who provide reading material and lectures on specific issues related to the overall topic of the seminar and to their own research activities; also debating in the web-based forums provided;
- to disseminate to students the most recent findings of ongoing theoretical and empirical research on the issue;
- to use innovative technologies to overcome the time-space gap allowing a more effective access to up-to-date information from ongoing research at a European level.

This project has been particularly successful in giving students access to a range of EU specialists/experts but it initially experienced some difficulties with the implementation of chat sessions and online forums.

In the second year of the project an increased amount of visual material was introduced and a 'visual lab' was established for this purpose. The Online Visual Laboratory is intended to utilise the interaction between photography and other visual digitised and sociological knowledge. The project explains that visual tools used on a city helps to explore and disentangle a field where spatial and social aspects overlap in many and nonstraightforward ways.

The Visual Laboratory itself is both technically and aesthetically interesting. Currently, it includes mostly photos but has, in addition, two video clips, including one of work being carried out on the Bicocca Tower in Italy over a 24-hour period. The visual seminars comprise either video clips of keynote addresses from an International Conference organised in Amsterdam or illustrated papers on topics relevant to the project/seminars.

A comparative expert knowledge VLI. The project offers an interesting example of what an elaborated resource and media rich content-based VLI can look like in practice. It attempts to share specialist resources that are mostly based on geographically dispersed expert knowledge/knowhow and which is frequently 'captured' in visual format. The project thus attempts to use the visual possibilities afforded by ICT to bring more immediate and potentially more effective images to the students involved in the seminars.

Arguably the approach taken does not fit neatly into any of the online/learning models described earlier. The model used is clearly staff/teacher led and the materials and resources provided are generated from the EU specialists/experts involved. The students involved are offered the opportunity to access the ideas, research and theories of these experts and of other experts via the visual seminars. They are, as a consequence, exposed to a wide range of European perspectives which are provided in both visual and textual format. In addition, they have the opportunity to question the professors/experts involved during the live chat sessions.

The project doesn't, however, detail how the seminars fit into the specific and local educational contexts/situations or courses for the students involved. It does, nevertheless, represent a specific model of virtual education that has evolved within

EU cooperation projects, based on European comparative and specialist knowledge. To this extent it has some similarities to the content and support model proposed by Mason. In addition, it does fit into the broad rubric of a VLI. In many ways it is perhaps best described as an EU *comparative expert knowledge VLI*. As we shall see, all of the examples to be discussed have a comparative knowledge aspect to them. It is arguably the basis from which the comparative knowledge aspect is viewed and, more specifically, the kind of discourse from which knowledge is generated and the dialogical practices that are supported that most clearly differentiates one from the other. These aspects are potentially more significant than differences in the relationship on the courses between course content and tutor support *per se*.

Transformation in a comparative EU perspective: a relativistic knowledge project

This next project, like the previous, also involves comparative knowledge, indeed the concept appears in the title of the project. In this project the aim has been to develop an Internet-based Masters course, equivalent to 60 ECTS and accredited according to that system. The course focuses on globalisation and social transformation from a comparative European perspective. The course consists of one introductory course, which is compulsory for all students, four optional subcourses (where the students select two) and a thesis. The empirical basis for the course is based on data from Bulgaria, Germany, Romania and Sweden — the countries of the seven universities involved.

The course(s), however, are somewhat different to the previous example in that there is a more explicit use of 'collaborative learning'. Students from different countries form collaborative learning groups and as a part of the learning process the students are required to read, discuss and comment upon each other's assignments. A large part of the course is based on a problem-based pedagogy and collaborative learning is one of the pedagogical principles in the course.

This means that during the course staff are mainly intended to have the role of advisors. The course does, however, retain predetermined content in the form of introductory lectures for each module/subcourse which are also supported by both compulsory and optional readings. Also included are virtual seminars that have predetermined topics to discuss. The extent to which students can choose the topic of their assignments varies between subcourses, but they are relatively free to choose a topic for their thesis.

Assignments and assessment for the course/subcourses include both individual and collaboratively written papers and, additionally, students are required to participate online in either virtual seminars or forums. Students are expected to contribute to the discussion of paper assignments of other students in the virtual forums and the virtual seminars which are each linked to a subcourse and intended to support discussion on specific topics introduced by the course tutors. The course is designed to encourage both interaction and collaboration between students based at the different participating universities.

Staff from the seven universities participating in the project contributed to developing the course through five working groups established for each different subcourse. The framework for each subcourse is similar and comprises an online lecture, suggested literature, individual and/or collaborative paper assignments plus the linked virtual seminars and forums. Tutors from the different universities

involved support each subcourse module.

A relativist knowledge VLI. Whilst as in the previous example this course does have an EU comparative expert knowledge component, in this example it is used as the basis for a learning design intended to support collaborative learning between students within a learning community. The learning community component that underpins the design of this course comprises of both expert staff who act as advisors and learners who also act as evaluators of others work. Most of the course design features, e.g. commenting upon other students paper assignments, doing collaborative assignments and participating in the virtual seminars are all components that are intended to encourage collaborative learning.

On the surface this course has many of the features associated with Mason's 'wrap around' model of online learning. It is, however, arguably the nature of the knowledge encouraged by the project that differentiates it from the previous example in terms of being a VLI. Whilst in EuREX the comparative knowledge was wholly expert generated, the knowledge used in this case is also generated collaboratively within a learning community. The basis from which the comparative knowledge aspect is viewed and the kind of discourse from which the knowledge and learning is generated in this example is perhaps closer to what Calás has described as relativist in nature. That is, it is based on an epistemological viewpoint that remains grounded in a dominant world view but has a greater tolerance 'for the possibility that a multiplicity of views can lead to equally valid if different notions of Truth' (Calás, 1992). It is certainly the case that both the discourse and dialogical practices supported by the design are based on somewhat less authoritative assumptions about knowledge than in EuREX. To this extent the dialogical practices encouraged by the design appear to be closer to those associated with what has been described as an 'ethics discourse' (Gergen, 1999). An ethics discourse, according to Gergen, is based directly on the work of Habermas (1981) and his idea of ideal speech that has led to the concept of ideal discourse. Gergen explains such a discourse seeks to achieve a consensual view of the world which, incidentally, he suggests is unrealistically idealistic. This example could, consequently, be described as an EU *relativist knowledge VLI*.

Videoo: a learning and knowledge project.

The final project considered is somewhat different to the previous two. The basic design principle underpinning the Videoo project is to involve students in interdisciplinary group work that is based on projects intended to encourage discovery learning kinds of experiences. In Videoo the interdisciplinary-based groups are located in different EU Universities and the students are expected to work together on a group project. The assignment on which they have to work is in general terms the same for all the interdisciplinary groups and is described as follows:

You should produce a feasibility study for a new product.

This feasibility study should comprise a specification for the product and a commercial justification for its further development. It is your choice to decide whether you are presenting this case to a board of Directors who you wish to persuade to take the product as part of their portfolio or whether you are asking for capital to exploit the product yourself.

The choice of product is your own. Your team should jointly assess your strengths and weaknesses and look for a product that enhances these capabilities.

The product must use existing technology or an obvious extension of it.

You must demonstrate your claim that the product has value and marketability.

The approach used in the project is, where possible, to form the project groups from technical/engineering students in one of the participating universities and business/entrepreneur students in one of the other partner universities. The students from the two participating universities are allocated to trans-national project groups that are each required to use their respective skills and knowledge as engineering and/or business students to collaboratively produce a feasibility study for a new product of their own choosing.

The project groups use communications technology to communicate between the two sites involved in each project, and the Videoo project has developed and implemented an environment that is intended to support and facilitate the trans-national communication between students involved in each group project.

The virtual teaching and learning environment developed by the Videoo project has essentially two main components to it. One is a PC-based video-conferencing environment and the other is a CMC (computer-mediated communication) groupware environment. The video-conferencing software used by the project supports, in addition to video-conferencing itself, the following facilities:

- sending of text-based messages (a chat facility);
- transfer of files of any kind;
- sharing of applications/files and collaborative work on those files;
- use of a Whiteboard facility which allows you to do drawings with text — this can be used when not connected to the video-conferencing system but, when opened during a conferencing session, appears automatically on the other connected PC monitor.

The CMC software is a web-based environment and primarily provides an asynchronous workspace that was/is used for storing and working on documents and adding responses to a threaded discussion space. It also has a synchronous facility and supports email exchanges between students.

Video-conferencing sessions between the interdisciplinary groups take place on either a weekly or fortnightly basis for a period of 20–30 minutes. In addition to the video-conferencing sessions it is intended that at each institution students should participate in a half hour ‘interview’ with a member of staff prior to each video-conferencing session. During these interview sessions the staff member is expected to discuss with the local group of students what progress had been made and their ideas so far, etc., before the meeting with their counterparts in the partner institution.

Assessment of the student projects is the same at each site and consists of the following elements:

- a group presentation of the feasibility study to other students, academic staff and invited business people;
- a group report;
- an individual report — this is intended to be a reflective account of how they and the group have worked and should include at the end a short commentary on the contribution of the members of the group.

Learning and knowledge VLI. The approach of this project might be said to be reminiscent of Mason’s ‘integrated’ model of online courses. This model, however, does not sufficiently address the key educational aspects of this example or consider how either the comparative knowledge aspect is viewed or the kind of discourse from which knowledge and learning is generated.

Whilst in the last example the knowledge used was generated collaboratively,

there remained a predetermined and expert-based element to the knowledge used. Students were expected to use this knowledge within the confines of a carefully designed and structured learning community. In the case of Videeo the nature of the knowledge used and generated is not explicitly predetermined but emerges from the individual and collective meanings brought by the students themselves to the projects and generated during the work and discussion that they had together in the *trans*-national groups. So whilst Videeo might at first sight appear to have elements of the socio-cultural model of teaching and learning described by Rumble, it does not assume, as in that model, that the design will lead to 'the formation and evaluation of shared values'. Arguably this example comes closer than the other two to Rumble's metacognitive model.

Overall, however, in terms of knowledge used and the kind of discourse from which knowledge and learning is generated, this last example moves closer to a design that could support a more poststructuralist approach to knowledge in that greater consideration and value is given to knowledge generated through dialogue between the learners. As Calás (1992) helps us to understand, in a more clearly poststructuralist approach, the issue of whose knowledge and learning for whom and for what would be more overtly addressed as would the issue of whose voices are privileged and whose are not. It is, consequently, best to simply describe this case as a *learning and knowledge VLI*. Expert content in this example, is not a predetermined element of the educational model used but, instead, the content and knowledge used is created within the learning discourse generated by the educational design/model adopted.

Summary and conclusions

In this paper I have tried to demonstrate that adopting ICT supported e-learning approaches to develop institutional collaborations and/or partnerships does not necessarily lead to either a substitute or less effective alternative to face-to-face educational provision or to existing distance education models. Through the analysis of three projects funded by the ODL/Minerva Action of the Socrates programme I have attempted to locate those elements of the models used by each that differentiates them from each other and, more importantly, from existing models of online courses and programmes. The projects all involved both *trans*-national institutional collaborations, facilitated and supported by new ICT. Analysis of the three projects suggests that they all appear to be examples of Virtual Learning Institutes. In examining the different designs used by the three projects the key element that distinguishes them from one another is the basis from which comparative knowledge is viewed and the kind of discourse from which knowledge and learning is generated and the dialogical practices used to support this.

All three projects have a distinct approach to knowledge and the extent to which this is essentially based on individual and collective dialogue or on expert authority, is the feature that differentiates the three projects from one another. It equally defines the *trans*-national/European collaboration dimension of the three projects and, by implication, the view of knowledge and learning in different models for VLIs and the courses they promote.

Returning to the discussion of the rhetoric of e-learning at EU level, the approach to knowledge within education is seldom addressed and the kind of discourse from which it is generated rarely mentioned. Yet the rhetoric on e-learning is aimed at

becoming 'the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion'. The issue of whose knowledge is represented should surely be a central concern. As Calás (1992) points out, the focus on the construction of knowledge is considered a core problem from a poststructuralist perspective. Consequently, it is not unreasonable to suggest that the way the three ODL/Minerva projects each worked with different assumptions about the nature of knowledge used, and generated in collaboratively-based Virtual Learning Institutes, is potentially the key and critical dimension for future political rhetoric about e-learning. To date it is an aspect that has not been given serious consideration in the rhetoric of e-learning at either EU or at national levels. Arguably, the questions of whose knowledge is represented and/or used in addition to for whom and for what purpose, will be central for the future development of Virtual Learning Institutes based on collaborative partnerships between *trans*-national institutions.

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