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E-tivities: An active online learning with conceptual background resources

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Abstract
Our present educational systems, pressures at every level of training and education in the 21st century are paradoxical than pleasure at every level educational technology. We must reduce costs, increase student numbers and improve quality. We are moving away from 'factory' education, whether classroom based or distance towards provision for learning of a more experiential, applied and individual kind. So, we can personalize and customize learning and yet make it efficient and effective. As the 'hype' around e-learning as the panacea and the trigger for changes in education is dying away. Reports of expensive failures of new forms of educational organizations continue to hit the headlines. Instead of the predicted replacement of education by electronic means, we witness a web of educational providers, using ever more sophisticated networked technologies, constantly repositioning themselves in a slippery market place. Higher and corporate education is seeing the most dramatic challenges and opportunities, but primary and secondary education are gradually digitizing too.

Keywords: e-tivities, e-learning, spark, e-moderator and background resources.

1. Introduction
Our present educational systems, pressures at every level of training and education in the 21st century are paradoxical than pleasure at every level educational technology. We must reduce costs, increase student numbers and improve quality. We are moving away from 'factory' education, whether classroom based or distance towards provision for learning of a more experiential, applied and individual kind. So, we can personalize and customize learning and yet make it efficient and effective. As the 'hype' around e-learning as the panacea and the trigger for changes in education is dying away. Reports of expensive failures of new forms of educational organizations continue to hit the headlines. Instead of the predicted replacement of education by electronic means, we witness a web of educational providers, using ever more sophisticated networked technologies, constantly repositioning themselves in a slippery market place. Higher and corporate education is seeing the most dramatic challenges and opportunities, but primary and secondary education are gradually digitizing too.

2. Concept of E-Tivities
E-tivity is a term coined by Professor Gilly Salmon (2002) [36] to describe a framework for facilitating active learning in an online environment. An E-tivity involves learners interacting with one another and with the course tutor (who Salmon refers to as the e-moderator) in an online communication environment (e.g. bulletin board/chat room) in order to complete a particular task. E-tivities generally involve the tutor providing a small piece of information, stimulus or challenge, which Salmon refers to as the 'spark'. Learners then take part in an online discussion or activity which requires them to respond in some way to the 'spark'.
This generally involves each learner proving an individual response and then commenting on, or contributing to, that presented by other group/course members. A summary, feedback or critique is then provided, often by the e-moderator, but in some cases it may be provided by the learners themselves. According to Gilly Salmon [36] highlights in her definition of E-tivities is that they take place asynchronously. One of the novel things we will be doing during this module will be to introduce synchronous E-tivities during the regular online

meetings. It means "task online"; it is a framework to learn something in a dynamic and interactive way. This activity is based on intense interaction and reflective dialogue between a number of participants, such as learners / students and teachers, who work in a computer-mediated environment. E-tivities are text-based and led by an e-moderator (usually a teacher).

2.1 E-tivities are shortly we can say that the following points

a. Motivating, engaging and purposeful;
b. Based on the interaction between learners/ students/ participants, mainly through written message contributions;
c. Designed and led by an e-moderator;
d. Asynchronous (they take place over time);
e. Cheap and easy to run – usually through online bulletin boards, forums or conferences.

2.2 Key features of e-tivity

a. A small piece of information, stimulus or challenge (the 'spark');
b. Online activity, which includes individual participants posting a contribution;
c. An interactive or participative element, such as responding to the postings of others;
d. Summary, feedback or critique from an e-moderator (the 'plenary');
e. All the instructions to take part are available in one online message (the 'invitation')

2.3 Advantages of E-tivity

We can now look beyond the hype and the rhetoric and stimulate achievable worthwhile online learning. Research and experience of teaching online as a result, on the contentious premise that teaching techniques are more important than 'content' delivery. Academics, teachers, course managers, teaching assistants, instructors, trainers or one of the increasing band of e-moderators from many disciplines, from any level of education, within any teaching tradition and in any country will be online or wish to 'move online'; developers and trainers in corporate training and professional associations; staff developers and teacher trainers. Some browsers, lurkers or vicarious learners interested in the E-tivities will also be useful for:

a. Software and platform designers and providers;
b. Computer services and support staff;
c. Directors, managers and administrators responsible for the provision, evaluation and assessment of online learning in any educational context;
d. Staff is working online in contexts other than teaching and learning for example, community programs, e-democracy.

3. E-tivities for active online learning

The frameworks explores of e-tivities enhancing active and participative online learning by individuals and groups. All the e-tivities that are based on low-cost computer-mediated environments such as bulletin boards or forums. E-tivities are cheap to create and run. They only require access to the Internet and to a discussion board. Discussion boards are usually text based and asynchronous. They are scalable and customizable. E-tivities are important to the online learning world because they deploy useful, well-rehearsed principles and pedagogies for learning, but focus on their implementation through the best of networked technologies. Regrettably, there is no one obvious and easy route to making online teaching and learning enjoyable and productive for the greatest number at a reasonable cost, but developing and running e-tivities makes the key difference.

There are, of course, many ways to use new technologies for teaching and learning. E-tivities are designed for efficiency, however. They are reusable. Indeed, they improve the more they are employed. They involve other learners and readily available electronic resources. They can be used for participants who never meet or in combination with classroom activities or print-based distance learning. They can form a whole course or programme when sequenced care-fully together or can replace or support all kinds of other learning and teaching methods.

The e-tivities are for everyone. They have attracted the interest of teachers and trainers from many sectors and levels of education. E-tivities can be adapted for use in any discipline and for all topics. They are cheap and they are in the hands of the educators. They are easy to try out and to change. An e-tivity involves at least two people working together in some way, and usually many more. E-tivities take place online. The Web or other resources may be involved, but this is usually to provide a stimulus or a start (the 'spark') to the interaction rather than as the focus of the activity. E-tivities are easily accessible as all the instructions to take part are in one message (the 'invitation'). They encourage a very wide variety of different perspectives and ideas. They do not depend on learners being physically in the same place. Indeed, many of the e-tivities, as exploit the benefit of participants being in many different locations. E-tivities are available to a wide range of people, and many disabilities are unimportant, or can be assisted through the technologies.

It refers to all online learners and students by the term 'participants' and their trainers, instructors, facilitators or teachers as 'e-moderators'. These words illustrate the different roles that each adopts online when compared to learning and teaching face to face. The role of the e-moderator is one of process designer and promoter and mediator of the learning, rather than content expert. The e-moderator needs to know enough about the topic to provide the 'spark' for the online interaction and to enable development, pacing and challenge to take place.

E-mail, chat groups, bulletin boards and computer-mediated conferencing were developed to enable interaction between people. If a voice or text message is sent, the writer expects a response from some other person. This key characteristic can be harnessed for the purpose of teaching and learning.

That said, much work has been carried out on the design and application of tools and technologies for learning, but only a little practical and useful research has taken place on the promotion of online tutorials led by an e-moderator and involving active learning and group work.

The increasing complexity of online programmes means that simple and powerful technological ideas are becoming more and more complex and require faster and more memory-hungry hardware (Cuban, 2001) [10]. By way of contrast, It shows that the technology can promote engagement and activity if it is simply and appropriately used. Recent research has shown that what is important is promoting robust and usable knowledge through engaging learners in authentic tasks and situations (Hung and Wong, 2000).

Combining new ideas about computer-mediated technologies and well-loved theories of learning and teaching results in fantastic possibilities, but they need a little human time and energy to get them to work. High-quality interaction, full participation and reflection do not happen simply by providing the technology (Tolmie and Boyle, 2000) [39], hence the need to design e-tivities carefully, to reduce barriers and to enhance the potential of the technology.

Many teachers and trainers at all levels of education are influenced strongly by the way they themselves were taught. Most have not grown up learning to take an active part in remote or scattered groups, nor those spanning many different time zones. Many educators miss opportunities for working comfort-ably and effectively online because they assume that online co-operation and collaboration needs to follow similar patterns to classroom interaction (Ehrmann, 2001) [13]. The patterns and processes of e-tivities are different, although they draw on the best traditions of active group learning.

Many students are concerned about working online. They see reduced social contact in learning contexts as a real threat. They are anxious about the lack of stimulus and fun from their 'buddies' and on the potential loss of a special relationship with their teachers, trainers and professors. Somehow, without them, a little magic seems lost! Hence learners need support to develop the skills of working together through text-based media as well as online contact with leaders and teachers. E-tivities are an answer because they focus on fun and on working together online.

Preparing effective online learning materials is an expensive business in terms of both actual costs and opportunity costs. Few academics or teachers have all the necessary skills, or either the time or the desire to acquire them. Usually, teams need to be set up with academics who have subject expertise, creative Web developers, programmers and instructional designers. Quality assurance and evaluation processes are essential too, but they add time and require extra effort. Surprisingly, many teaching and learning organizations start by developing resources of this kind as they seem to be the safest 'way in' to e-learning. They find that there are no quick fixes, many expensive experiments, and 'pilots' that fail to lead to 'scaling up'. However, in my view, e-tivities are lower risk, lower cost and a better place to begin.

4. Resources for the conceptual background to e-tivities

This resource runs through some of the main underlying concepts for e-tivities from this background will encourage that many approaches to teaching and learning are still as relevant in the online world as they were before anyone mentioned the term 'Internet'. As a 'spark' for this resource, According to Jonathan Darby [11] The mule is a hybrid creature that can only be produced through the union of two different species, but from this union comes a vigour that exceeds that of either parent. Networked learning requires a similar union between the traditional strengths of higher education institutions and the entrepreneurship of the business sector (Darby, 2002: 25) [11].

4.1 Knowledge circulation

There are many different ideas about knowledge, supported by a large range of literature. For example, for Plato, knowledge comes from pure reason and logical thought, and it is the essence of being human. For Aristotle, knowledge comes from our senses. We know about the world and seek to understand it through empirical evidence (this is the basis of positivism and the scientific method).

Concepts for knowledge creation and sharing for e-tivities are drawn from ideas of knowledge as being constructed (Weick, 1995). We view 'knowing' as an active and personal process (Cook and Brown, 1999) [9]. Knowledge itself is of many kinds. Some types of knowledge come from knowing how, what, who, why. Other kinds we can acquire only through experience, such as playing a musical instrument or riding a bicycle. We can internalize this kind of actively acquired knowledge, but cannot communicate it to others, as they have to practise or experience it for themselves. Some knowledge can be expressed (often called codified) in language (such as English, mathematics, Cobol), but this is only information that a recipient has to interpret to create meaning for him- or herself. Meaning is a process of sense making, relating it to existing known concepts in order to turn it into useful knowledge for an individual. For Polanyi (1962, 1966) [29], all knowledge has a tacit dimension: not everything can be codified.

How do we acquire knowledge? We learn through interaction with others and, given half a chance, we quickly spread that knowledge, although in many groups there are appreciable barriers to knowledge sharing. The reason why people collaborate is associated with a purpose. When a group *needs* to work together for a reason, then more knowledge may be created through the interactions (McDermott, 1999) [27].

Knowledge circulates through communities in many ways. Often we think of knowledge as being in books, articles and in people's minds – hence the importance given to the 'keynote' speech at terrestrial conferences, although if you accept my description in the previous paragraphs, then you will see this as really data and information being exchanged. A big literature on 'storytelling' has emerged recently as a way of sharing experiences and expressing tacit knowledge (Brown and Duguid, 2000; Churchill, Snowdon and Munro, 2001) [6, 8]. For example, in management thinking, the telling of 'war stories' from the 'front line' to otherwise quite isolated senior managers has always been considered an important form of knowledge. In teaching, much practice is developed quite informally, from trial and error and from discussion in teachers' common rooms. Recently, my aspiring actor daughter told me that even in highly competitive audition situations, most candidates are extremely supportive, helping each other practise for parts or auditions and by exchanging information on good sources of materials and contacts. E-tivities attempt to tap into, structure and provide an ongoing supportive environment for this kind of information sharing and knowledge construction.

4.2 Constructivism and situated learning

Making learning personally meaningful comes from the constructivist perspective, which emphasizes collaboration between peers and teachers within supportive frameworks, in this case, the online learning environment (Duffy and Cunningham, 1996) [12]. Situated learning emphasizes learning happening in context and the importance of relevant and authentic tasks that can be applied to the participants' everyday learning, working and cognition (Fox, 2002; Goodyear, 2002; Brown, Collins and Duguid, 1989; Jonassen and Tessmer, 1999; Wenger, 2000) [14, 16, 5, 12]. A new book by Etienne Wenger and colleagues, *Cultivating Communities of Practice* (Wenger, McDermott and Snyder, 2002) [43], has

a chapter applying their ideas to what they call 'distributed communities'. Martyn Sloman's recent book (Sloman, 2001) [31] is good for exploring the challenges of online learning in corporate environments.

5. Engagement theory

From engagement theory comes the key idea that students must be engaged with other people – not just computer programs – as well as in meaningful tasks, in order for successful learning activities to take place (Kearsley and Shneiderman, 1998). Teams of learners (the 'participants' of this book) should work together on projects that are stretching and have application outside the learning time itself. This means that the activities need to be rooted in real-world experience.

5.1 Deep and surface learning

One way of considering learning is through the surface and deep approaches. Deeper learning is demonstrated by the learners' ability to explain a topic to others, to apply it and consider related theories. The deeper learner will also display more 'engagement' around the topic and the learning experience. In other words, deeper learning is related to more active engagement, shallower learning to more passive responses to learning opportunities and environments (Biggs, 1999). So we can conclude that an active, more problem-based approach encourages online participants to adopt deeper approaches to a topic.

5.2 Reflection

The role of 'learning to learn' – reflection on activity, questioning previously held knowledge and developing a more strategic approach to study – is increasingly seen as important to lifelong learning approaches (Sharples, 2000). The importance of reflection goes back to the educationalist Dewey's early writing, but there has been increased interest in researching and using reflective processes in adult teaching in the past 20 years (Bengtsson, 1995; Moon, 2000). In 1983 Schön pointed out that people change their everyday practice by having reflective 'conversations' with themselves and with other people. As a result of considering experience in this way they reinterpret or reframe their understandings of the experience. They may take action based on the reframing and, after further reflection, reinterpret the experience. Schön also argued that through reflection, a practitioner could surface and critique understandings that have grown up around a specialized or professional practice and make sense of them for him-or herself.

5.3 Teaching strategies

Prosser and Trigwell (1998) distinguish two main pedagogical approaches: teacher focused and student focused. Teacher-focused strategies typically deploy transmission theories of teaching with the focus on what the *teacher* does. Student-focused strategies encourage the learners to change their view of the world and are based on what the *students* do. Learner-centredness draws heavily on the notion of the construction of knowledge, which emphasizes the key importance of the social process to learning. Peter Goodyear's excellent chapter in *Networked Learning* provides an underpinning and overview of the psycho-logical areas (Goodyear, 2002).

Biggs (1999b) offers us a way forward for learner-centred learning. He suggests giving learners autonomy and control of the choice of their subject matter, learning methods and pace of study. The implication for learner-centred pedagogy is that the learner should be given the opportunity to process information, solve problems and make decisions. Project-based learning approaches have been one outcome (Blumenfeld, 1991) [4]. E-tivities are a safe way of introducing more learner-centred approaches, using the online environment.

6. E-moderating

Essentially, learning is a way of interacting with the world. As we learn, our conceptions of phenomena change and we see the world differently. The acquisition of information does not itself bring about a change, but the way we structure and think about that information does (Biggs, 1999a). This means that each time an e-tivity is offered, it is essential to ensure that participants are given opportunities to structure the variety of contributions and that the e-moderator makes certain that they are left with some kind of plenary or summary. The role of the e-moderator in creating and developing learning through computer-mediated conferencing (CMC) is critically important.

6.1 The impact of disciplines

The word discipline is derived from the Latin 'disco' (which means 'I learn' – not 'I dance') (Cybenko, 2000). Disciplines affect the way we think about methods of teaching and research. There are historical legacies framed by disciplines at every level of education, but especially in universities (Cuban, 2001) [10]. Disciplines strongly influence our professional identities and what information and knowledge we think is valid and important. Despite changes in membership and dominant paradigms, the discipline itself continues often with its 'basic assumptions and approaches relatively intact for generations' (McDermott, 1999: 108). Most educational institutions are based on disciplines, and the 'going to college' experience is therefore bound up with perpetuating and promoting the discipline base. Even if we challenge the accepted ideas or ways of practice (as online educational provision has, for example, in the university communities throughout the world), we are still part of the inherited and transmitted wisdom of that community. The discussion on knowledge generation in Chapter 2 shows that each learner enters a territory already occupied by others. Typically we want participants to enter into the usual way of thinking in our discipline, and, in a corporate environment, the special aspects of our industry, our corporate mission and tacit ideas of how our organization or institution works. Therefore, e-tivities need to tap into the special aspects of each discipline or context in order to be authentic.

6.2 Computer-mediated conferencing, communication and media

Information technology has inspired the vision of widespread information sharing (Grudin, 1994) [18]. Research and work on computer-mediated conferencing and online discussion groups spans many years and predates the growth of the Internet, for example from Professor Robin Mason and her colleagues in the Institute of Educational Technology (IET) at the Open University (OU) (Mason, 2001; Mason and Weller, 2000) [23, 24]. The ideas that individuals are part of rich social networks that can be promoted and harnessed in the service of group learning can be explored through the ideas of Brown and Duguid (2000) [6]. Theoretical and

practical issues around computer-mediated conferencing include those of the role of critical thinking, legitimate discourse and challenges to assumptions and beliefs. Vivien Hodgson's recent chapter is a good place to start (Hodgson, 2002) [19].

Diana Laurillard's book is still one of the best for exploring the advantages and disadvantages and uses of different kinds of media for teaching and learning purposes (Laurillard, 1993) [22]. When e-learning first started, flexibility and choice for learners were given priority over groups working together. However, this news sent to me from the corporate sector shows that learning cohorts are most important for success. There is strong evidence that communicating through text on screen is a new genre in its own right and that most people are still getting to grips with it. There really are no well-established rules. Behaviour and language online are in transition, despite the codes of practice that are frequently offered for appropriate modes of operating. As a shorthand, we can use David Crystal's term 'Netspeak' (Crystal, 2001, p. 170). For e-tivities we try to use Netspeak to provide a clear set of motivating and interesting instructions, which we call the 'invitation'.

Participants who are working in a language other than their own have a particularly sharp learning curve with Netspeak. Writing on screen can be playful, liberating and releasing. Emotions can often surface and be expressed when they could not do so in face-to-face situations. We know that involving emotions helps to promote reflectiveness (Moon, 2002). Online conferencers are often more willing to try things out in a dynamic way than they would be face to face, which means that e-tivities can be more fun and more playful and still promote learning and reflection. Some people are very interested in comparisons between working online and traditional face-to-face learning. Others want to talk about the differences between online and print-based distance learning. One thing we do know is that the costs of producing materials for online courses are very high, but savings can be made on 'delivery' (Rumble, 2001). E-tivities help with saving costs in this way because they use existing resources and the participants' exchange of knowledge.

6.3 Accepting the challenge

This action research traditionally involves the exploration of many aspects of online teaching through research into practice and experience. You can read about my methods in Salmon (2000a) and Salmon (2002a). I have tried as much as possible to weave the principles into practice-based advice and examples.

The role of designing and running e-tivities as belonging to the e-moderator. Some suggestion of each e-moderator can have a wonderfully important role in structuring and creating productive e-learning encounters. To be successful in designing and running e-tivities you will need some passion and commitment. At the moment, working online involves shifting time about and changing patterns of how you work with colleagues and students. It involves setting up a computer and getting the software to work to your satisfaction, which may include going cap in hand to others for help.

7. Conclusion

This article describes the scientific and theoretical active online learning, resources for the conceptual background to e-tivities and the practical need in schools, universities or other places for further education. There is a need for a practice-oriented step-by-step concept to transfer traditional courses to blended learning. Based on that problem a method was developed to help lecturers find out which e-tivity is appropriate to support their traditional lessons and the didactic concepts in use. The method consists of a step-by-step framework which helps to adopt or replace a traditional curriculum and its courses with e-learning with an e-tivity which gives a guideline to match e-tivities with traditional learning methods. Moreover, the article sums up some critical factors that should be taken into account when being on the way to a successful blended learning course. The resource for the conceptual background to e-tivities helps teachers to find out which contents of their traditional lectures can be supported or replaced by elements of e-learning. The developed the design as a step-by-step process, which should allow teaching and learning process very effective of students and lecturers at every time.

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