

Social Collaborative e-Learning in Higher Education: Exploring the Role of Informal Learning

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Abstract. This position paper presents work in progress (within the first year) of the doctoral research into adoption of social collaborative e-learning in higher education. The research coins three concepts which intersect to form the fourth, *social collaborative e-learning*. These concepts are: informal learning, social networking and learning management. This paper explores the conceptual and theoretical role of informal learning practices in building social collaborative e-learning environment. Specifically the paper will:

1. Explain the role of informal learning in formal educational setting
2. Introduce informal learning strategies that can be adopted within formal educational programmes to scaffold e-learning
3. Discuss the implications of involving educators and learners in informal interactions as a scaffold to formal education.

The paper concentrates on how strategies can be used to promote social collaborative e-learning within a higher education context. The desk-based research method was used in this research leading to the development of a framework for informal learning proposed in this paper.

Keywords: Social e-learning · Collaborative e-learning · Informal learning · Formal learning · Informal learning strategies · Higher education

1 Introduction

Learning is the process whereby new knowledge, skill, value, belief, attitude or behaviour is acquired. It may occur as a formal process, following institutional ladder that goes from preschool to graduate studies [1] or a non-formal process, when learners opt to acquire knowledge or skill by studying voluntarily with teachers who assist their self-determined interests, by using an organized curriculum, as is the case in many adult education courses and workshops [2, 3] or sometimes unconsciously through informal social interactions with others. It can therefore be argued that informal social communications and interactions especially using social networking platforms promote learning (Fig. 1).

Informal learning results from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional but in most cases it is non-intentional or “incidental” [4]. Considering the fact that the use and influence of social networking platforms is evolving significantly, higher education institutions stand to benefit from the learning opportunities provided by this emerging and evolving technology. In this paper the following three questions are explored:

1. What is the role of informal learning in formal educational setting?
2. What informal learning strategies can be adopted within formal educational programmes to scaffold e-learning?
3. What are the implications of involving educators and learners in planned informal interactions as a scaffold to formal education?

The paper starts by differentiating the concepts of formal and informal learning before explaining the various dimensions of informal learning and the resulting learning strategies. These strategies are discussed from theoretical perspectives based on the review of empirical evidence in literature. The informal learning strategies within formal educational programme are presented as basis on which the concept of informal learning environment is built. The on-going research will establish among other things, the effectiveness of the informal learning environment in two universities in Uganda. Finally, the role of educators in promoting informal learning is discussed. The on-going study will evaluate this role by examining the perception of educators and learners in adopting these strategies in light of increased use of social networking platforms in higher education.

2 Formal Learning vs. Informal Learning

Historically formal and informal learning have been at the centre of debate especially about the inherent superiority of one or the other. Scribner and Cole [5] argued that much of the research and theorizing about learning in advanced industrial societies focused primarily on formal learning. Therefore more efforts, science and enlightenment-based rationality were applied to formal learning with the assumption that when effectively provided, it had clear advantages over informal learning.

Furthermore this kind of assumption put the knowledge gained from formal learning to be more generalizable in the sense that it could be used or applied in a wide range of contexts and circumstances as opposed to the informal learning which was seen to be context-specific. For example, it is asserted that formal learning of Mathematics can be used in any context where numerical values are relevant while learning to play darts only equips a person to use numbers in that very restricted setting.

Another author whose work added to this debate was Bernstein [6] whose argument made it clear that formal learning opened up high status knowledge. These arguments resulted to a belief that formal learning and informal learning were two mode of learning that served different purposes and suited in different settings in which case, formal learning was preferred. Formal learning was therefore equated with education in schools and universities; non-institutional or informal learning was overlooked or dismissed and known to be in outside ‘school’ setting.

Several researchers, however, have come out clearly to oppose this debate on supremacy. Billett [7] does not believe that there is such thing as informal learning. He argues that norms, values and practices shape and sustain activities and interactions within workplaces, as in other social practices, such as homes or educational institutions are structures that constitute performance.

This paper argues that formal and informal learning are both significant in higher education and therefore they should be viewed as complementary modes. With the increased use of social networking services, online informal interaction can be integrated in the learning process to support e-learning. The research, which is exploring adoption of social collaborative e-learning in higher education institutions, is intended to among other things; determine the perception and practices of students and lecturers in two Ugandan universities on the use of informal learning strategies to scaffold formal educational goals. With the advancement of social networking technology enhanced learning, the two modes need to be embraced as complementary. The increased use of social networking technology in educational institutions has meant that there is greater role that informal learning in education as students and lecturers are spending a great deal of time engaging in online social interactions.

The focus of this position paper is therefore on the role of informal learning as a scaffold for formal education with the view that informal strategies can be planned within the design of formal educational programme in higher education (Fig. 1). Basing on this, the current learning management platforms can be integrated with the social networking features to make e-learning more captivating. There are few, if any, learning situations where either informal or formal elements are completely absent [2]. As asserted by Jeffs and Smith [8], informal education offers choice not compulsion; freedom not order; empowerment not indoctrination. This makes the role of informal learning very significant given the wide use of social networking technologies in higher education. This paper therefore argues that the current formal education programmes can be enhanced through informal learning styles by the use of social networking technology.

3 Dimensions of Informal Learning

Michael Eraut [9] defined two dimensions within the informal learning domain from which this paper establishes informal learning scenarios which have been proposed as suitable e-learning strategies that can be adopted as a scaffold within a formal educational programme. This is discussed in detail in the subsequent sections. The first dimension Eraut introduced is level of intension to learn which to him presents a range of learning phenomena including implicit learning at one extreme (“bottom-top” process); the deliberative learning at the other extreme (“top-bottom” process) and the reactive learning in between.

Implicit learning (as defined by Reber [10]) is learning in which the acquisition of knowledge is independent of conscious attempts to learn and is in the absence of explicit knowledge about what is learned- there being no intention to learn and no awareness of learning at the time it takes place. Implicit learning is therefore non-episodic learning of complex information in an incidental manner, without awareness

Table 1. A typology of informal learning adopted from Eraut [9].

Time of stimulus	Implicit learning	Reactive learning	Deliberative learning
Past episode (s)	Implicit linkage of past memories with current experience	Brief near-spontaneous reflection on past episodes, communications, events, experiences	Review of past actions, communications, events' experiences. More systematic reflection
Current experience	A selection from experience enters the memory	Incidental noting of facts, opinions, impressions, ideas. Recognition of learning opportunities	Engagement in decision making, problem solving, planned informal learning
Future behaviour	Unconscious effect of previous experiences	Being prepared for emergent learning opportunities	Planned learning goals. Planned learning opportunities

of what has been learned. Although Seger [11] points out that implicit may require a certain minimal amount of attention and may depend on attentional and working memory mechanisms, it may be difficult for any learning output arising from this dimension of learning to be meaningfully measured.

Because this research is considering scaffolding formal educational programme, which requires some prior planning (in terms of learning activities and learning output measurement), the proposed strategies will not take in consideration the implicit learning dimension.

Reactive learning is near-spontaneous and unplanned, the learner is aware of it but the level of intentionality will vary and often be debatable. What is important here is that an environment can be set to ensure that the learner is stimulated through social networking environment to learn. Its articulation in explicit form could also be difficult without setting aside time for more reflection and thus becoming deliberative [9]. Therefore learning activities that involve reflection may be planned.

Deliberative learning is when learning appeals to the learner whereby a time is specifically set aside for that purpose. In other words, it is when one decides if it is worthwhile to learn something. When the educator plans goal oriented learning activities especially whilst exploiting the opportunities in the social collaborative environment, learners may get more motivated to deliberately learn. This research will therefore explore the adoption of these strategies in order to determine whether or not effective learning can be achieved.

The second dimension is the timing of the events providing the focus for the learning. These events can be from the past, something happening in the present or part of some possible future action. Eraut combined the two dimensions time of local event and level of intention to construct a typology of informal learning (Table 1) from which this paper draws the informal learning strategies discussed in the next section.

4 The Informal Learning Strategies within Formal Programme

Informal learning takes place anywhere including inside and outside of formal and non-formal educational institutions. However, the main discussion in this paper is centered on the informal learning strategies within the formal higher education courses, which may include on campus and off campus courses where some of the students may be within the formal institutional settings and others in the informal settings including those who may be attending other institutions.

This paper argues that the social interactions and collaboration play a very significant role in bridging the communication gap between those who work within the formal educational setting and their counterparts in the informal settings as well as promoting, creating and sharing knowledge between students and lecturers; and among students themselves. This is based on the hypothesis that informal learning occurs in online communities. There are various technologies that support online social interactions however, what is missing is the culture within the higher education setting to stimulate and promote informal learning practices. Without this being integrated in the current e-learning systems, formal learning will remain less motivating.

In the typology shown in Table 1 above, Eraut [9] highlights nine types of situations informal learning takes place. Based on this typology, this paper introduces six strategies for effective “measurable” informal learning in support of carefully designed formal learning programme. As mentioned in the previous section, scenarios which are completely implicit will not be considered. The following are the six scenarios considered appropriately planned:

- (a) Reflection on own past episodes
- (b) Opinion and facts expressions
- (c) Self-directed emergent learning
- (d) Review of past activities
- (e) Engagement in current problems
- (f) Goal setting

Reflection on own past episodes: Near-spontaneous reflection on the past episodes and communicating events and experiences as noted by Eraut [9] as reactive learning provides essential knowledge that can be utilized for one’s formal learning. This is specifically important is reactive decision making in case of an emergency other than a normal decision making process that follows steps including defining the problem, collecting necessary information, developing options, devising a plan, executing and making following-up. When an emergency situation occurs in a similar way to the past episode, it becomes easy to make a correct reactive decision basing on reflection on own past episodes.

Opinion and facts expressions: Incidental noting of facts, ideas and expression of learning opportunities also describe reactive learning using current stimulus. When learners are given opportunity to express their opinion on an object which has close link to the main subject of study, the scope of the learning opportunities can be

developed. Allowing students to freely express their opinion about any learning experience or material certainly promotes learning. When students sure that their opinions are not censured by people in authority over them, they are highly encouraged to interact with their peers and express their opinion.

Self-directed emergent learning: Megginson [12] used the term emergent to describe an alternative strategy to planning. Emergent learning strategy is focused on learning through experience to continually and effectively get ready cease learning opportunities. Most self-directed emergent strategy learners start the learning process with just an idea of the outcome they want and progress as more opportunities avail. This strategy was illustrated by Gear et al. [13] using Tough’s [14] concept of learning project (an extended piece of learning with a particular idea in mind) whereby less than 20 % of their respondents claimed to have unequivocally followed a pre-determined plan. 80 % per cent had an idea of the outcome they wanted, but followed an emergent strategy which took advantage of learning opportunities as they arose. What is important here is that allowing learners to have exploratory facilities will aid them in self-directed learning.

Review of past activities: Review of past actions, communications, events and experiences demonstrates deliberative learning from past episodes. Activities such as story-telling and experience sharing with an aim of getting lessons can provide a very supportive environment for informal learning. This scenario can be carefully managed through experiential learning activities. Learning that took place in the past can be reviewed to give experience needed for present and future learning.

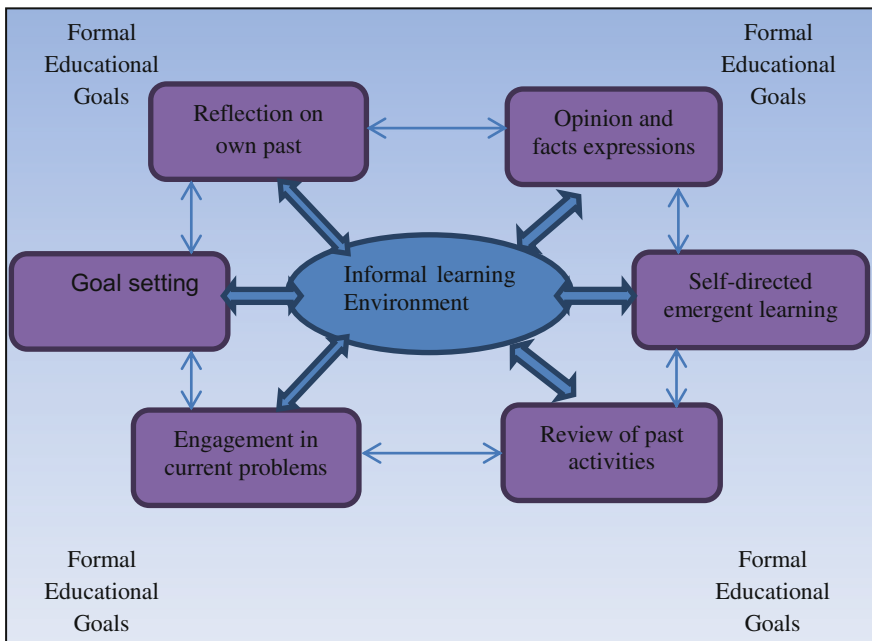


Fig. 1. Integration model for informal learning within formal programme

Engagement in current problems: Engagement with and aim of problem solving and decision making can promote informal learning. With the increased use of interactive media in education the focus of the teachers are more in engaging students, promoting independence and challenging learners. This can be done in a number of ways including: Using a wide range of tasks and resources, encouraging independent and small group research, allow presentation of results and encouraging different approaches to problem solving and judgment.

Goal setting: Planned learning goals and planned learning opportunities are commandingly used in facilitating deliberative learning for future achievements. For example if a teacher gives an assignment for the learners to learn how to cook a particular recipe. This task generates goals that will guide the learning in the future and make it easy to assess performance.

5 Involving Educators and Learners in Informal Interactions

With the increased use of social networking platforms in higher education institutions, students and their lectures are involved in informal interactions during and outside class time. This paper argues that the role of educators must therefore be flexible and change from formal to informal educators as argued by Jeffs and Smith [8]. When educators become informal instructors, they help learners to achieve learning outcomes, working in various styles and in informal settings. This can be achieved if the educators do understand and appreciate the significance of educational affordances of social networking and interactions offered by the social media platforms. One of the objectives of this on-going research is to establish and evaluate the level of engagement of students and lecturers in two universities in Uganda in regards to informal social interactions. This exploratory research will establish and evaluate perception on lecturers' role in promoting planned informal conversations using the common social networking platforms. The following are among key activities that will be considered in this study:

- i. Sharing your own past experiences
- ii. Expressing own opinions and facts
- iii. Demonstration of what was learned by own accord
- iv. Discussing or reviewing past activities
- v. Solving current problems
- vi. Setting goals and sharing them
- vii. Discussing assignments.

6 Conclusions

This paper presented an on-going research into the role of informal learning in scaffolding formal educational programme. The significance of informal learning in formal educational setting was explained whilst noting that both formal and informal learning can work as complementary modes of learning. The paper also introduced various informal learning strategies that can be adopted using social networking technologies to

scaffold e-learning. This can be achieved if educators' role can flexibly change from formal to informal learning whilst promoting greater conversations and interactions with learners. The implications of involving educators and learners in planned informal interactions was discussed whilst arguing that adopting the use of social networking services provides great opportunities to bridge the gap between informal learning and formal learning. The findings from this study will be useful in developing a framework to guide effective integration of social collaborative e-learning in higher education systems.

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