COMPARING E-TIVITIES, E-MODERATION AND THE FIVE STAGE MODEL TO THE COMMUNITY OF INQUIRY MODEL FOR ONLINE LEARNING DESIGN

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Abstract: This paper explores the question as to whether learning design strategies of E-tivities, e-Moderation and the 5-Stage Model by Professor Gilly Salmon, might be practically aligned with the Community of Inquiry Model (CoI). This is relevant to explore as there is very little literature that firstly presents on the current research in to these 'Salmon Methodologies'. Nor is there any literature at all that marries these methods as a possible guide for catering to the complexities of Social Presence, Cognitive Presence and Teaching presence within the CoI model. This report will explore, analyse and compare these methods and their alignment to the three CoI presences. Also providing an argument for consideration of their use in CoI online learning design. Limitations in the research and application of both models are explored and recommendations for future research that would enable the appropriate testing of this idea are then finally presented.
Keywords: E-tivities, e-Moderation, 5-Sage Model, Communities of Inquiry, Social Presence, Teaching Presence, Cognitive Presence, Online Learning Design.

INTRODUCTION

Online learning continues to increase in momentum as an accessible method for participating in higher education, with many higher education institutions have been investing their resources into accommodating these new learners needs (Sun, Tsai, Finger, Chen, & Yeh, 2008). Currently in the United States "thirty-one percent of all higher education students now take at least one course online" (Allen, Seaman, & Sloan, 2011, p. 4); and in Australia, 19% of student in higher education students participated online and multi-modal courses in 2010 (Australian Bureau of Statistics, 2013). The issue however is that the student experience of online learning has continued to be one of high dissatisfaction with many facets of their learning journey (Bolliger & Martindale, 2004). Institutions are now in competition to attract and sustain learners to their organisations (Abdous & Yen, 2010; Roach & Lemasters, 2006; Ernst & Young, 2012), and there has been a rise in learners expectations of a positive online learning experience (Goodyear, Jones, Asensio, Hodgson, & Steeples, 2005; Paechter, Maier, & Macher, 2010). In conjunction with higher learning satisfaction being linked to continual enrolment/lower dropout rates (Allen, Burrell, Bourhis, & Timmerman, 2007; Park & Choi, 2009) and perceived course satisfaction found to predict e-learner self-regulation and sufficiency (Liaw & Haung, 2012), ensuring that learners are satisfied with their online learning experience has become more relevant to institutional success than ever. Student satisfaction research has been wide and varied and the key areas identified in the literature, have been most effectively summated by Bouhnik and Marcus (2006) as the four dimensions of: "(a) Interaction with the teacher; (b) Interaction with Content [includes course design]; (c) Interaction with Classmates; and (d) Interaction with the system" (p.301-303). As technical systems are often outside the online teachers influence, it is the first three categories that form the basis of reviewing successful learning online learning design.

One particular methodology that has grown exponentially over the past decade of research into solving these learner satisfaction issues of online learning, is the principles of constructivist learning design (Chitanana, 2012). Specifically on review of the literature, it is the constructivist approach of a Community of Inquiry (COI) framework (Garrison & Anderson, 2003), that theoretically appears addresses theses first three issues of student satisfaction in online learning design. The COI framework emphasis the role of three key elements to creating a sustainable and effective online learning experience. These areas are Social Presence, Teaching Presence and Cognitive Presence. Social presence is suggest to occur when participants are "identifying with the community, communicating purposefully in a trusting environment, and developing interpersonal relationships" (Garrison, Anderson, & Archer, 2010, p. 7). Teaching presence emphasis the role of the online teacher in creating a sustainable online community and the facilitation of social and cognitive presence initiatives (Garrison, 2007). Indeed Teaching Presence is seen "as a significant determinant of student satisfaction, perceived learning, and sense of community" (Garrison & Arbaugh, 2007, p. 163). Lastly,
Cognitive Presence is described as "the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse"(Garrison & Arbaugh, 2007, p.161). The issue for diligent and conscientious

online educators, is how to navigate the complex and diverse world of designing and structuring their content in a way that suitable addresses these three categories of the COI framework. Indeed Garrison and Arbaugh (2007) reflected that future research needing to be done into CoI framework should include exploring practical learning design strategies for it. Such as "practical strategies and guidelines on how best to create social presence in an online environment" (p.168).

One particular 'practical' learning design approach that has a foundational of constructivist approaches, is the teaching and designing strategies first developed and coined by Professor Gilly Salmon of E-tivities (2002, 2013), e-Moderation (2003, 2011), The Five-Sage Model (2003, 2011, 2013), and more recently Carpe Diem professional development workshops for designing for online learning (2013). These particular learning and teaching design approaches attempt to converge many constructivist theories of online learning design in to one overarching framework for creating online pedagogy appropriate design of collaborative interactive learning and teaching in online environments. Although there is some research into the outcomes of applying these particular designing strategies, there is no research reviewing the connection between e-Tivities (Salmon, 2013) as a practical application of designing for CoI frameworks (Garrison & Anderson, 2003). Further there is no research that links designing e-Tivities to match the integral CoI indicators of Social, Teaching and Cognitive Presence. This paper seeks to argue that e-Tivities, e-Moderation and the 5-Stage Model, do indeed overlap and align with CoI, and could be utilised more fully by educators seeking to align their teaching and design practices with CoI frameworks.

This report will firstly provide definitions of E-tivities, e-Moderation, 5-Stage Model, and The Community of Inquiry. It will then compare the original literature on the Community of Inquiry and the subsequent key framework components of Social, Teaching and Cognitive presence, to E-tivities, e-Moderation and the 5-Stage Model as appropriate learning design strategies for catering to the three CoI presences. It will then explore the current, though minimal, literature on these Salmon specific strategies that are independent of the original authors work, and reflect on possible connections or alignments to the CoI framework in the results of the research. It will then explore limitations in the research for these Salmon Specific methodologies, then provide conclusions and recommendations for future research in the field.

Method of selecting literature

The literature for this review was chosen principally in the following manner.
- **E-tivities, e-Moderation and 5-Stage Model**: As there is limited research into these topics (thus the reason for this current research) most literature that could be found was included. This included literature from the original author, and from other researchers who claimed to have specifically used Salmon methods only. This was deducted on the basis of their citations and their descriptions of their processes. However some literature was omitted if there were methodological concerns, ambiguities in the purity of their use of the Salmon Methods. Research that was older than 2000 was also omitted, and where possible the most recent research available was utilised.
- **CoI research (inclusive of Social, Cognitive and Teaching Presence):** As there is quite a substantial amount of literature that has investigated CoI in one manner or another, it was decided that this review would stick to the original authors and regular contributors research as much as possible. This was to ensure purer and more accurate comparison between the original intentions of both methods descriptions and outcomes. As the original authors and contributors to CoI research have been diligent in producing regular and scientifically valid research, selection of literature was able to be chosen on the basis of relevant content to this research topic. However care was still taken to select research that did not have generalisability or ambiguity concerns. Also again, research that was older than 2000 was also omitted, and where possible the most recent research available was utilised

Methods of literature searching was predominantly electronic, with some exceptions for hardcopy books etc. The data base system EBSCOhost was used with the 'select all' option to include the total 38 subtopics, each which had access to thousands of journals. Including the popular Academic Search Complete which includes 8,500 full-text periodicals and more than 7,300 peer-reviewed journals. From there specific date range, full text and peer-reviewed journals only were set as refined searching settings. Google Scholar was also utilised for seeking relevant research. A number of search terms were used for finding results, obvious key terms included Online Learning, Distance Learning, Online Learning Design, e-Learning Design, e-Tivities, e-Moderation, 5-Stage Model, CoI, Community of Inquiry, and Social/Cognitive/Teaching Presence. Further terms were searched on the basis of their reoccurrence as synonymous to the above key terms in the literature. Author refined selection was also used to find relevant research from the main authors of the methods (eg. Gilly Salmon, Andy Garrison and so on). Citation searches in Google Scholar and EBSCOhost were also done on specific seminal papers or books from the original authors. This was to help hone in

finding research on the topics that appeared to have utilised the methods in their research and remaining close to their original forms.

E-TIVITITES, E-MODERATION AND THE 5-STAGE MODEL: DEFINED

E-tivies are defined as "frameworks for enabling active and participative online learning by individuals and groups" (Salmon, 2013, p. 5), and are utilised in online learning in order to create a clear structured opportunity for learners to participate and interact collaboratively with the content, peers and the e-moderator. Utilised as a means of seeking and acquiring a deeper understanding and connection to the content of the learning. The foundations of e-tivities include constructivism, situated learning and social learning theories (Salmon, 2002, 2013), which are integral components in "well rehearsed, principles and pedagogies for learning" (Salmon, 2013, p. 1). E-tivities are utilised weekly and constantly through course modules, are recommended to be deployed in groups of a maximum of 25 people (Salmon, 2002), and have a very distinct structure in their design. Please see Salmon (2013) page 3 for an overview of the structure of an e-tivity.

E-Moderation (2003, 2011) is term used to describe a particular strategy of interaction between the online instructor and their students. According to Salmon (2003) the role of the e-moderator is described as "promoting human interaction and communication through the modelling, conveying and building of knowledge and skills" (p.4). E-moderating skills (Salmon, 2003, 2011) include the use of weaving (integrating online student responses and probing or questioning areas of further discussion- particularly in through the use of e-tivities), and summarising (a succinct summary of learners responses to the module topic discussions, that explores the deeper context of learners responses and knowledge acquisition). An e-moderator is expected to be sensitive to the online learner's experience and have high levels of emotional intelligence. Important in applying e-moderating is "self-awareness, interpersonal sensitivity and the ability to influence" (Salmon, 2011, p. 104). Therefore e-moderating is directly linked to creating quality, personal, and effective interactivity between the learner and the teacher as important components of constructivism principles. See Salmon, 2013, (p.184-185) for an overview of weaving and summarising strategies in e-Moderation.

The 5-Stage Model (Salmon, 2011) is a strategic approach to structuring course content and interaction, around the basis of a natural stage-by-stage progression the e-learner is likely to go through in online learning. The model provides the course designer a scaffold in which to organise course content and structure, with the integration of specific stage appropriate e-tivities, to meet the individual online pedagogy needs of the learner (Salmon, 2003, 2011). This links directly to providing a valid strategy for meeting learner satisfaction in Course Structure and Organisation factors (CSO). Figure 1 displays a direct image replication of the model and the information of the stages involved from Professor Salmons (2014) website.
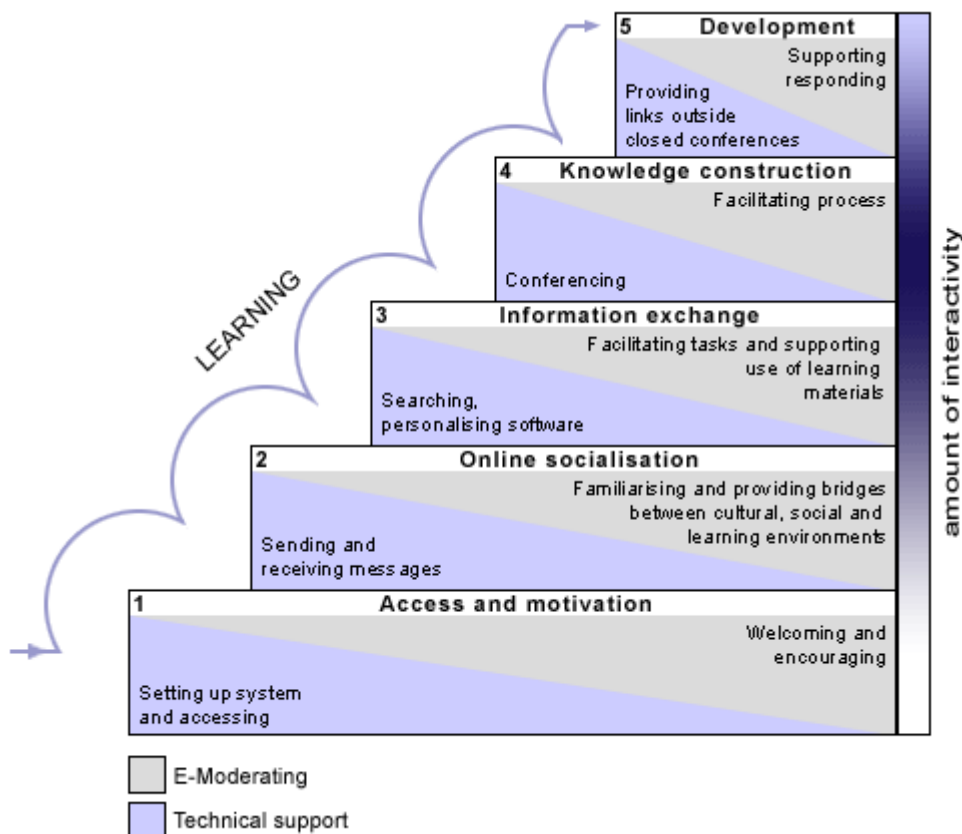
Figure 1: Salmon (2011) Five Stage Model (Gilly Salmon, 2014, para 1)

COMMUNITY OF INQUIRY DEFINED

According to the Communities of Inquiry (CoI; 2014) website, an educational CoI may be demonstrated as:

> A group of individuals who collaboratively engage in purposeful critical discourse and reflection to construct personal meaning and confirm mutual understanding. The Community of Inquiry theoretical framework represents a process of creating a deep and meaningful (collaborative-constructivist) learning experience through the development of three interdependent elements - social, cognitive and teaching presence (Communities of Inquiry, 2014, para. 1-2)

Also defined as a process model of online learning, it emphasise the importance of developing a community of learners, who through collaboration and connectivity, are able to create sustain higher order processes of learning (Swan, Garrison, & Richard, 2009). It seeks not only to establish this integral online learning community of students, but to embed the pursuit of inquiry into online learning (Swan, Garrison, & Richard, 2009). In order to create this, the CoI frame work identifies three key overlapping areas that are integral components of learning design for applying the model. These key elements are known as Social Presence, Cognitive Presence and Teaching Presence (Garrison & Anderson, 2003). The visual depiction of the framework and these entwined key elements a depicted in the model, Figure 2 below.
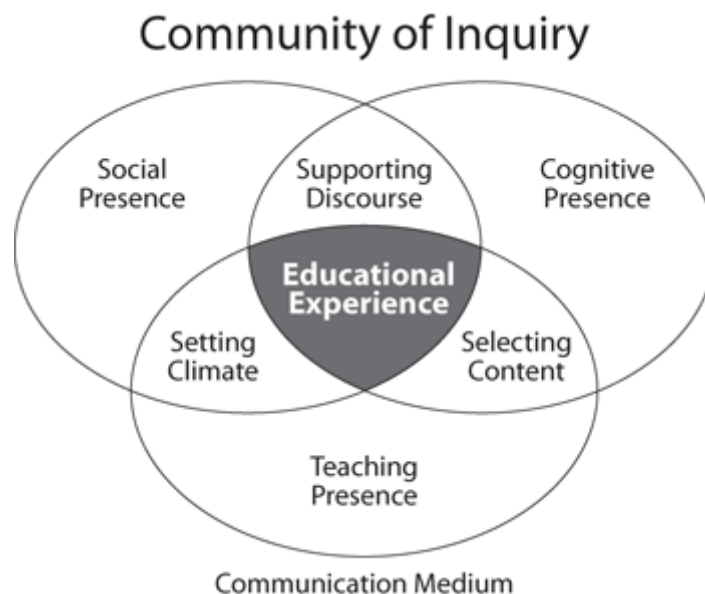
Figure 2. CoI Model. (Garrison, Anderson, & Archer, 2000; Model image retrieved from the Communities of Inquiry, 2014 website)

COMPARING SOCIAL, COGNITIVE AND TEACHING PRESENCE TO SALMON METHODOLOGIES.

SOCIAL PRESENCE

As it is understood that social presence encompasses the interactivity and meaningful correspondence between group member and course instructor in a trusting, collaborative and open online community (Garrison, 2007: Garrison, Cleveland-Innes, & Fung, 2004). Social presence in an online community can be divided in to three further aspects of "effective communication, open communication, and group cohesion" (Garrison, 2007, p.63). Research suggests that this type of social interaction is integral for successful online learning outcomes and that it is imperative they are imbedded within learning design (Irwin, & Berge, 2006; Watson, Gemin, & North American Council for Online, 2008). Some research has supported the necessity of social interaction with a sense of group belongingness reflecting better academic performance on coursework (Graff, 2006). Others provided results of barriers to student online learning, with a lack of social interaction indicated by students as the most important barrier (Muilenburg & Berge, 2005). Other student reflected data reported students beliefs that online socialisation was integral to their learning depth, sense of cohesion and emotional support (Holley, & Taylor, 2009). However, methods embedding social presences into online learning course design have not only been varied, but somewhat elusively described in the literature. There are still large gaps in providing clear and unambiguous clarity on how to design for this particular presence exactly (Garrison, 2007). Further limitations in Social Presence research seem to revolve around the issue that explorations tend to not measure the presences as a main variable as an achievement outcome, or its effect on other important learning variables (Biocca, Harms, & Burgoon, 2003). As well as a dominance in the literature to focus on social presence, without considering the overlap or importance of the simultaneous inclusion and effect of the other two presences (Garrison & Arbaugh, 2007).

Salmon (2013) stresses the importance of socialisation opportunities to be built in to e-tivities for successful online communication and group cohesiveness. Emphasizing that e-tivities need to support cultural, individual, and educational and personality sensitivity in order to enable participant's interpersonal engagement (Salmon, 2011). Indeed e-Tivities are expected to be designed catering specifically to the Five- Stage Model of student progression through an online environment, with stage two being the Socialisation stage. After students have progressed through the first stage, gaining access to the technology and being prompted by e-Tivities to explore their motivations towards the online course, the learning design is then set to move students through to the Socialisation stage of learning. E-tivities for this stage are meant to be designed so as to establish the online community and develop student networks and friendships similar principles of Wegner's (2006) communities of practice; joint enterprise, mutuality and shared repertoire. With these components reflected by designing e-tivities that teach the value of collaboration online and methods for doing so (Salmon, 2013). As well as opportunities to develop trust through safe self-disclosure and shared interested and ideas. Salmon (2013) again highlights the importance of the e-moderators role in enhancing the groups sense of cohesion and collaboration, thus supporting Garrison and Arbaugh's (2007) assertion to the importance in the overlap of the Presences.

Socialisation opportunities are built in to e-Tivities for successful online communication through the design component of the 'interact/respond' section (Please see Salmon , 2013, page 3). Whereby participants are required (through the e-Tivity instruction) to engage with other participants post responses to activities in order to allow for more meaningful connectivity between participants. Research supports that e-Tivities have the potential to develop this social element of online instruction as seen in the previously mentioned Pavey and Garland's, (2004) research that utilised e- tivities specifically to enhance student interaction and learning. It was noted that "successful bonding required encouragement and well-planned activities to foster student communication" (p. 313). This study reported that students did indeed engage with e-tivities to create social discourse and overall positive feedback for their implementation to socialisation and their learning outcomes was received (Pavey, & Garland, 2004). In other research (Morley, 2012) study that utilised e-tivities for enhancing practical socialisation, results revealed that students evaluated e-tivities as having assisted them with 'in-group' socialisation which contributed to their learning engagement.

Garrison and Arbaugh (2007) however have emphasised that the purpose of developing social presence should not reside solely for creating social support networks, interaction and effective communication. But rather its purpose in education "is to create the conditions for inquiry and quality interaction (reflective and threaded discussions) in order to collaboratively achieve worthwhile educational goals" (p.64). Which reflects the Cognitive Presence element of the model, and emphasises again on the overlap and fluidity of the presences. While Salmons 5-Stage Model does emphasise a full stage for the development of Socialisation, it does not believe that the social processes end there. Rather that they form the foundations for more in-depth cognitive processes to occur, through collaborative inquiry to be designed in e-Tivity structure, at the next two stages of the model. Which will be explored further in the next analysis of Cognitive Presence.

COGNITIVE PRESENCE

Cognitive presence is defined as "the exploration, construction, resolution and confirmation of understanding through collaboration and reflection in a community of inquiry" (Garrison, 2007, p. 65). Cognitive presence has been described as rooted with in Dewey's (1993, as cited in Garrison & Arbaugh, 2007) assertion regarding practical inquiry and the importance of critical thinking. Cognitive presence can be operationalised through a process of four phases of learning, as identified in Figure 3 below.
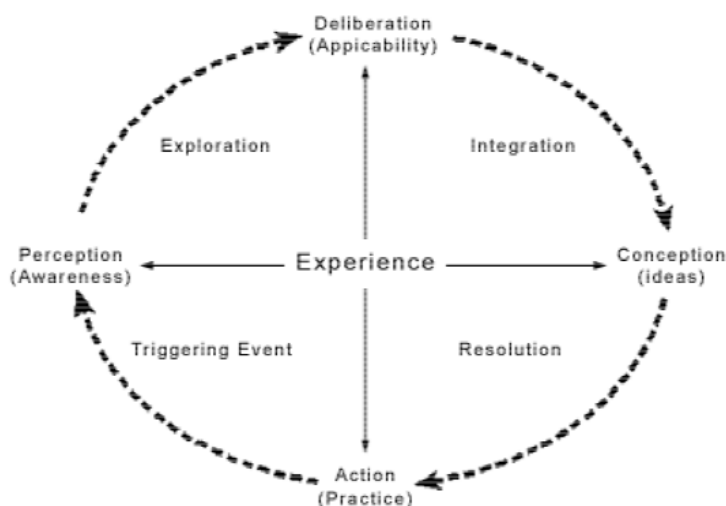

Figure 3. The Practical Inquiry Model (Garrison, Anderson, & Archer, 2001; Model image retrieved from the Communities of Inquiry, 2013 website).

The first phase of the Practical Inquiry model within CoI (Garrison & Anderson, 2003) is that of a 'triggering event' to create cognitive dissonance, whereby the students are faced usually with some form of learning challenge or issues to review. This can be likened to the 'Spark' element of the design of every e-Tivity, where by the learning designer/teacher using various online media, creates the ignition for the activity and discussion of the learning event. This could be a controversial/inspiring video, photo, or article that relates directly to the learning outcome of the task. The purpose of this spark is an "opportunity to expose 'content' but with the purpose of a spark to start a dialogue with others" (Salmon, 2013, p.3).

The second phase of 'exploration' "participant's shift between the private, reflective world of the individual and the social exploration of ideas. Early in this phase, students are required to perceive or grasp the nature of the problem, and then move to a fuller exploration of relevant information" (Garrison, et al., 2001, p. 10). This same phase reflects Salmon's (2013) third stage of Information Exchange whereby e-Tivities are to be designed concentrating on "discovering or exploring aspects of information that are known or reasonably easily retrieved by them. E-Tivites that encourage the presenting and linking of data, analysis and ideas in interesting ways online will stimulate productive information sharing" (p. 29). Both the Cognitive Presence phase of Exploration, and the Information Exchange stage of the 5-Stage Model emphasise the importance of an appropriately timed development process in critical thinking and the construction of knowledge. With an understanding that students must first be allowed to explore their own understand of a problem, and then seek knowledge and information both through the collective experience and personal reflection.

At the third phase of 'integration' in Cognitive Presence learning is more constructed and "decisions are made about integration of ideas and how order can be created parsimoniously" (Akyol & Garrison, 2011a, p.236). In other words there is a synthesis and focusing of their knowledge construction, application and understanding. However it has been reflected that this particular stage has been difficult to not only design for, but also to measure in terms of students achieving it (Akyol & Garrison, 2011a; Garrison, 2007; Garrison & Arbaugh, 2007). Garrison (2007) reflected on the research into this particular difficulty and acknowledge that it was integral that timing, appropriate content designing, and the role of the instructor to facilitate the group towards developmental discussion opportunities, were likely to be key to moving students through this phase. Salmon's forth stage of Knowledge Construction correlates directly with the requirements of integration, however does operationalise an approach to designing for students to demonstrate their achievement of the integration phase, through the use of appropriate e-Tivites and the role of the e-Moderator. Salmon (2013) advices that e-Tivites at this stage are to be designed to build knowledge without clear answers, create sequenced e-tivites that are strategic or problem based. Recommending that discussion based activities work well here as long as objectives are clearly focused but still allow for multiple perspectives. Salmon provides an e-Tivity exemplar to demonstrate a way to design for this particular stage (See Salmon, 2013, p.142-143). The role of the e-moderator also here is integral through 'weaving' and 'summarising' (See Salmon, 2013, p.184-185, for key explanations of what the process of weaving and summarising entails) in order to provide participants opportunities critically reflect and provide evidence of their learning. Research (Darabi, Arrastia, Nelson, Cornille, & Liang, 2011) also supports this particular style of scaffolded online facilitation (or moderation), whereby moderators were to "raise questions focusing on advancing the discussion towards a consensus among the group members on recommending an intervention asked" (p. 220). With results revealing that this scaffolded moderating approach was "strongly associated with all of the phases of cognitive presence" (Darbi et al., 2011, p.223).

Finally the last stage of Cognitive presence is the Resolution phase whereby students now are able to apply their learning from the previous phases within a meaningful context, through processes of testing and reflection (Akyol & Garrison, 2011a). The process of which could be demonstrated by finding solutions, evaluation, or providing examples of cognitive processes to reach their decisions or understanding (Garrison, et al., 2001). Salmon's (2013) final stage in the 5-Stage Model, 'Development' reflects the same outcomes as the resolution phase. With emphasis on this stage producing evidence of metacognative processes as students demonstrate cumulative knowledge to new situations, self-reflection and critical evaluation. With explicated instructions for designing e-tivities at this stage that ask students to demonstrate this though encouraging them "to explorer their metcognative awareness of positions they adopt-for example, 'How did you arrive at that position?' or 'Which is better and why?' (Salmon, 2013, p. 34). With research supporting that if the design or facilitator did specifically focus their questions on encouraging students to produce practical applications of their knowledge, then students/discussions would proceed into this resolution phase of Cognitive presence (Darbi et al., 2011). Limitations of the research into Cognitive Presence has focused on analysis of discussion forums and other web communicative content, in which the clarity of student progression through the four cognitive presence phases is reliant on the activity design and the role of the facilitator (Akyol & Garrison, 2011b). Overall Cognitive presence represents higher order thinking and is seen as one of the hardest areas to design for and measure (Garrison, 2007; Garrison et al., 2010; Akyol & Garrison, 2011a).

TEACHER PRESENCE

Teaching presence is defined as the "design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educational worthwhile learning outcomes" (Community of Inquiry, 2013, para 1.). Teaching presence reflects the online facilitators ability to help establish a trusting online environment, where by the facilitation of learning is goes beyond a transactional experience, but encompasses the 'coaching' of knowledge acquisition and group cohesiveness through shared meaning (Garrison et al., 2001). Much of the research into Teaching Presence and the CoI over the last 10 years or so has emphasised the growing awareness of just how important this presence is (Garrison, et al., 2010), and it "might be thought of as the glue which holds together the

CoI"(Redmond, 2011, p. 43). However the complexities of facilitating a collaborative and cohesive student cohort in the online environment, as well as training traditional teachers in this method is something that research has debated widely since the introduction of online learning (Macdonald & Poniatowska, 2011; Salmon, 2011). As reiterated by Anderson, Rourke, Garrison, & Archer (2001) "for learning to occur in this lean medium of communication, dependent on written language only, a strong element of what we refer to as teaching presence is required" (p.3). But with many online teachers having very little experience to teaching in this medium, let alone what it means to be a student in one (McQuiggan, 2012), a substantial framework or method for achieving this presence is integral to online learning success. Limitations into Teaching Presence research includes issues with debate with regards to the validation of the three subsections included in Teaching Presence (Design, Facilitation and Direction) and how to adequately define or measures the constructs (Garrison, 2007; Garrison et al, 2010). Other general limitations include the issue that much of the research to date tends to explore the three presences as a standalone investigation to another variable (Garrison & Arbaugh, 2007). As opposed to ensuring that all presences are adequately designed for and measured in research and learning design, given that the original CoI framework states that success in a CoI framework is the result of the interwoven experiences and co-aligned development of the strategies working together, not as separate entities (Garrison et al., 2000; Garrison et al., 2010).

Garrison et al., (2001) highlighted that elements of successful teaching presence include the "regulation of the amount of content covered, use of an effective moderation style in discussions, determining group size, understanding and capitalizing on the medium of communication" (p. 96-97). Anderson et al., (2001) explain Teacher presence through the three components of design (before and during the course), facilitation (encouraging discourse and knowledge construction) and direction (providing direct instruction for key course milestones). It is of note that these overlap and aligned with six categories in competencies for online teaching and e-moderators as identified by Goodyear, Salmon, Spector, Steeples & Tickner (2001). The following table gives a representation of these six Goodyear et al., (2001) areas with the researchers summations in relation to Anderson et al., (2001) Teaching Presence indicators.

Table 2:Online Teaching Competencies Compared with Teaching Presence Indicators.

Online Teacher/e-Moderation competencies	Alignment to three Teacher Presence key indicators
Process facilitator: facilitating the range of online activities that are supportive of student learning.	Facilitation and Design
Adviser/counsellor: working on an individual/private basis, offering advice or counselling learners to help them get the most out of their engagement in a course.	Facilitation
Assessor: concerned with providing grades, feedback, validation of learners' work, etc.	Direction
Researcher : concerned with engagement in production of new knowledge of relevance to the content areas being taught	Design
Content facilitator: concerned directly with facilitating the learners' growing understanding of course content.	Facilitation and Direction
Technologist: concerned with making or helping make technological choices that improve the environment available to learners.	Design and Direction

Salmon (2011) went on to further define these strategies and competencies for e-moderators which related to their "a) understanding of online processes, b) technical skills, c) Online communication skills, d) Content expertise (and) e) personal characteristics "(p.106-107). This comprehensive description can be reviewed in more detail in Salmon (2011), p. 106-107. Research supports that effective Teacher Presence (in conjunction with social and cognitive) has an effect on students perceived learning and course satisfaction (Akyol, & Garrison, 2008). With further research into Salmon's e-Moderation technique specifically also revealing that e-moderators giving quality feedback, support and module

management to ensured an effective online learning environment from the students perspective (Packham, Jones, Thomas, & Miller, 2006). As well e-moderation, in conjunction to the 5-Stage Model, created a cohesive and confident group environment for exploring learning through innovative technologies (Salmon, Nie, & Edirisingha, 2010).

REVIEWING THE PREVIOUS RESEARCH ON E-TIVITITES, E-MODERATION AND THE 5-STAGE MODEL

In a study by Pavey and Garland (2004), e- Tivities were utilised in a blended delivery, sports and exercise physiology module at the University of Durham in order to "stimulate depth of learning by encouraging students to engage more fully with the topics and issues" (p.305). As well as promote more interaction between students, instructors and the course content than have previously been experienced before the implementation of these strategies. The study attempted to utilise e-Tivities and the 5-Stage Model using a variety of platforms. While it did not follow the traditional structures of e-Tivities, which limits it its reliability as support for the learning design, it did utilise formative quizzes, discussion boards, interactive pages and virtual lectures to support learning through the 5-Stage Model. The course tutor and 95 of the 146 participants completed a multiple choice and short answer feedback survey and overall Pavey and Garland (2004) stated that "positive feedback emerged from the student's overall experience of participating in e-tivities to support their learning" (313). As well as positive online collaboration and interactivity observed between participants of e-tivities which could be linked to the development of possible Social Presence. However generalisability is limited to blended delivery mode only and to the use of e-Tivities and the 5-Stage Model, without the effects of e-Moderation as a facilitation strategy.

A further study by Headlam-Wells, Gosland and Craig (2005) involved e-mentoring for career development for women in management (Empathy-Edge), utilised e-Tivities and e-Moderation in order to structure their online e-mentoring web environment. While evaluations did not directly assess the success of the implementation of e-Tivities, nor was this a traditional academic environment, but rather a professional development one, positive student feedback and engagement was reported to help foster socialisation and authentic relationships between mentors and mentees (Hedlam-Wells et al., 2005). It could be considered that the role of a mentor is similar to that of a teacher, and that these outcomes could relate to Social Presence and Teacher Presence.

Morley (2012) investigated the use of wikis through an e-Tivity and e-Moderation structure, as a method for creating self directed and collaborative learning environments in a blended 1st year nursing course at Bournemouth University in the UK. Student evaluation of the experience revealed implementation of e-tivities helped them with their "learning demonstrations" (p.265). Content of the wikis also were evaluated and provided positive progression through the 5-Stage stage model helped create a cohesive and active group which lead to more positive evaluations. Evaluations did not extend to the whole course, nor to the use of these strategies, however there's an indication here of possibly Cognitive Presence and Social Presence effects of the analysis.

E-tivities and the 5-Stage model was used in a study was conducted by Bermejo (2005) over two years, on an engineering course for the School of Telecommunication Engineering of Barcelona, in order to meet integral learning outcomes set by the Accreditation Board for Engineering and Technology relating to higher order processing skill outcome expectations. Results of the study were the product of analysing student participation contributions and Student Evaluations regarding these knowledge skills (Bermejo, 2005). Results revealed that through these learning strategies, higher order skills processing and meaningful knowledge construction were prevalent both in the online environment, and the students assessment pieces. There is further possibility here that these outcomes, had they been measured, might have demonstrated the creation of Cognitive Presence. Other research that might also support Cognitive Presence comes from a private university in Malaysia of part time education students, reflected that the use of collaborative e-tivities was reported by students to aid in creating meaning and perusing deeper information construction (Sidhu, & Embi, 2010)

Kovacic, Bubas, and Zlatovic, (2008) investigated e-Tivities in the form of a wiki for English as a second language courses. They found that e-Tivities supported creative and deeper engagement with the content, an ability to reflect on personal interpretations and apply authentic learning strategies. Also it was noted that "most of the 23 analysed e-tivities with a wiki were positively evaluated by students of the ESP/EFL course" (Kovacic et al., 2008, p.1). As well as that e-tivities have "worked miracles and in many others changed the students learning experience" (p. 9). Again, although not a measurement variable, there is insight here into the potential of Social Presence initiatives emerging from this learning design.

In one of the few research available that utilised all three methods, Armellini, Jones and Salmon (2007) at the University of Leicester completed a 12 month study investigated the Carpe Diem process (a team based process in higher education for developing e-learning course design that utilises all three strategies of e-Moderating, e-Tivities and the 5-Stage Model) for learner centred e-learning course design and assessment in online learning through. However while their results reflected these strategise as being a valid method for creating learner centred course design and assessment strategies, the results of the teachers development of these strategies, and implementation in their online classes (successful or otherwise) was not a part of the measurement of results of the research design. Armellini and Aiyegbayo (2010) investigated the use of Carpe Diem process four British universities and three course disciplines, as a methodology to create "change and innovation in e-Learning design and assessment through e-tivities" (p. 933). This 12 month cognitive mapped study revealed that not only were Carpe Diem processes effective team based environments for creating innovation and change to online pedagogy, but also that the e-tivities created within this environment were successful in creating learner centred course design (Armellini & Aiyegbayo, 2010). However again, there was no follow on research into the implementation of these strategies by teachers, or the outcomes of the students they may have been applied to.

E-TIVITIES, E-MODERATION AND 5-STAGE MODEL RESEARCH LIMITATIONS

Firstly, there is very little research that clearly and identifiably utilising correctly designed or trained in Salmon specific e-Tivities, e-Moderation and the 5-Stage Model. Particularly all three methods within the one study. Also much of the research has limitations in providing effectual empirical data with its over reliance on qualitative methods, and follows the same issues in research design that much of the literature into online teaching strategies share (Oncu, & Cakir, 2011). It is also integral to note that not only is there little research into these strategies in general, but so far there is no research into the use of e-Tivities, e-Moderation and the 5-Stage Model (Salmon, 2003, 2011, 2013) that measure the success of these strategies specifically linked directly to the CoI. The links to the CoI presences provided in the e-Tivities, e-Moderation and 5-Stage literature above, is at best, deductive reasoning, rather than empirical evidence. Nor is there more importantly much research that directly explores how to effectively design for these strategies outside of the original authors work. More often these methods were used as part of a research design measure, other than student learning outcomes and factors, which in itself denotes a generalisability limitations.

Conclusions and Recommendations

Whether the industry likes it or not, teaching and learning as we have known it, is rapidly changing due to the trailblazing and transparent nature of online learning. E-learning is pushing teaching and learning design to evolve and reflect a more authentic and accurate representation of how we as humans, actually learn. What appears to be a 'new' era of knowledge delivery, actually reflects how humans have traded in knowledge for millions of years. Our individualistic educational culture is beginning to recognise the wisdom of collective principles in learning and knowledge. The days of the so called 'sage on the stage' are numbered as we make way for an organic and collective voice on what constitutes knowledge and skill acquisition. Constructivism (Dougiamas, 1998; Siemens, 2004) and its learner-centred principles of collective knowledge and personal meaning in learning, provided the seeds which gave rise to the roots of the future of learning design. Excellent gardeners Garrison et al., (2000) fertilized and tended to this 'new' learning tree and provided the guiding principles of Social, Cognitive and Teaching Presence that nurtured the sapling. No longer a sapling it widens its reach and strengthens the rings on its bark more and more every day. But what of the branches and shadow casting leaves that might be applicable to complete this potent life force? E-Tivities, e-Moderation and the 5-Stage Model appear very much to being in the same genus, with potential to blossom and cast their own seeds into the e-learning wind.

However in order for this knowledge delivery forest to blossom and give life and resources to a knowledge hungry world, many more ground keepers are needed. It stands to reason, based on previous research limitations that future research into CoI, needs to include more quantitative analysis methods. Future studies need to survey students directly, using a stable survey instrument such as Arbaugh et al., (2008), as seen in Shea and Bidjerano (2009). However this research assumes that the CoI methods have been adequately designed for in the online courses to begin with. Although it is clear, not just in this literature review, but in much of the dominating e-learning literature, that there is surmountable debate and confusion in to the 'how' of actually achieving this. As this literature review has pointed out, a viable 'how' is the use of Salmon specific methodologies (E-tivities, e-Moderation and the 5-Stage Model). Therefore future research should explore whether educators who use these strategies, are designing for the elements of CoI. Providing firstly evidence of CoI frameworks in design components of these methods, and secondly important insight and practical design advice for strategising to meet theses CoI frameworks. Lastly this would contribute to the limited body of research into these Salmon methodologies, providing much needed support and evidence for their increasing popularity in online learning design.

Furthermore, if online learning is more and more being accepted as the future of learning delivery for 21st century students, then it is imperative that ongoing investigating into many learning design methods continues in order to support student success. The key to the future of online learning, student, and institutional success, is for educators to simply never stop trying to provide quality and innovative delivery of knowledge. Continue to support the growth of new methods and approaches to learning design, rather than allowing online course delivery to stagnate due to lack of experience or interest. For in the end, not only does this rob students of the sustenance they require to succeed, but it also robs us all of a prosperous and resource plentiful harvest for the world we live in.

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