

Servant Leadership as an enhancer of intrinsic motivation in MOOCs

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Abstract

This paper proposes that a servant leadership style of engagement in a MOOC learning environment has the potential, via the implementation of a collaborative engagement model, to enhance learner intrinsic motivation. Servant Leadership is a leadership philosophy based on the premise 'primus inter pares' or first amongst equals, thus the leader leads from within, sharing power rather than exerting power via controlling influence and the oppression of others. This style of engagement results in personal growth, enhanced identity and strengthening of community.

Traditional concepts of learning, understood in terms of engagement with resources, tutor and others have become complex endeavours, with varying pedagogies emerging over time in alignment with the changes in the resources, context and number of people involved in the teaching and learning process. Nowadays technology is dominating as a mediator between learner and learning with the role of 'other(s)' in one's learning being somewhat less regulated or even diminished. Technology based tools require, amongst other things, well developed capabilities in self directed learning strategies. Self directed learning implies taking a certain responsibility for one's own learning journey, often depicted in blogs, wikis and e-portfolios. However, many users of technology are not confident users of tools that are implicit in models of self directed learning in virtual contexts like MOOCs. In such instances, the autonomy required to achieve the level of competence in self directed learning strategies is a function of the relatedness of the learner to others in the social context of learning.

These aspects of learning namely, competence, relatedness and autonomy are key elements of motivation and relate to basic psychological needs of the individual. Satisfying these needs allows for optimal growth of the person. As such then, the social context can either serve to enhance or diminish motivation. It is anticipated that the inclusion of an appropriate collaborative engagement model, i.e. one based on servant leadership attributes, has the potential to engage the learner in such a way that enhances intrinsic motivation and consequently the development of the necessary self direction required in MOOC settings.

We envisage that a servant leadership style of engagement mediates the relationship between collaboration and enhanced intrinsic motivation, and further that enhanced motivation will lead to greater learner competence, and autonomy and thus self direction in learning, a key prerequisite for sustenance and survival in a MOOC environment.

Keywords

Servant leadership, MOOCs, collaboration, autonomy, relatedness, competence, self directed learning

MOOCs

MOOCs, characterised by technical 'nodes' and 'links' enable an infrastructure within which networks of contacts, source, use, reuse, upload, download, create, participate and via the connected and creative synergy of the 'crowd', provide opportunities for the emergence of the necessary creative problem solving and critical thinking skills required for survival in the 21st Century. Teaching and learning therefore traditionally a process represented by the transmission of expert knowledge to the apprentice no longer holds true.

In September 2008, the first MOOC, Connectivism and Connective Knowledge, was delivered by George Siemens, National Research Council of Canada and Stephen Downes of Athabaska University, Canada, through the University of Manitoba. The course was based on 'connectivist principles' enabling people to connect with both technology resources and participatory resources all of which were distributed across the web. Since the launch of this first cMOOC other MOOC ventures have been launched. Different models of provision like xMOOC, MobiMOOC and MiniMOOC, are now widely available, as well as different motives for provision, with both profit and non profit scenarios emerging.

One of the main differentiations has been between cMOOCs or connectivist MOOCs and xMOOCs. The first xMOOC was Stanford University's Introduction to Artificial Intelligence delivered in September 2011 by Sebastian Thrun and Peter Norvig. While cMOOCs rely on open content distributed across the web, xMOOCs operate from within a designated platform. As suggested by Conole, the thinking behind cMOOC was "promoting open educational practices and fostering connectivist learning approaches through the use of social and participatory media" (Conole, 2013). However, these earlier versions have more recently been supplemented by xMOOC versions that are more 'top down driven' (Conole, 2013) thus tending to replicate more traditional behaviourist pedagogy.

MOOC provision is also varied in that it is not restricted solely to the university platform, rather many large universities are combining with education companies like Coursera to provide courses to the masses. As of June 6th, 2013, the Coursera Community boasted 9,500,000 enrolments, 180,000 participants in their most popular course and 331,052 students actively involved in discussion threads (<https://www.coursera.org/about/community>). Coursera 'meet ups' and social events also happen, though it seems that much of the activity is uncoordinated. So, if you are fortunate enough to share a geographically proximal location with other active Courserians you have the opportunity to meet and discuss your learning with them. Most meetups however appear to take place in large centres of population, including Stanford, 1370 Courserians, New York, 1173 and London, 815 (as of 31st December, 2013). Thus the opportunities for face to face collaboration are limited. Evidence also points to declining participation in discussion forums over the duration of MOOCs courses. Researchers from the EDGE Lab at Princeton University, together with collaborators at Boston University and Microsoft Corporation found a number of issues relating to communication within MOOCs forums. For example, there was a continuous decline in forum discussions over the duration of a MOOC course. Furthermore, many discussions were found not to be course related i.e. 'noisy'. In addition the high volume of discussion threads were found to be at a rate that students were unable to keep up with, thus resulting in information overload (Brinton, Chiang, Jain, Larn, Liu and Wong (2013). These points suggest that opportunities for virtual engagement are not being optimized or that collaborative activity is not sufficiently structured in such a way so as to encourage participation.

Empirical research is however sparse. A review of the literature carried out by Lyanagunawardena, Adams and Williams (2013) found gaps, both in terms of definition of the different types of MOOCs, and in research focus, with most research gathering data from established Learning Management Systems, thus not capturing the diverse output and quality of engagement generated from collaborative synthesis, in the form of blogs, Twitter posts and social media interactions (Lyanagunawardena et al., 2013). In other words the very things that epitomise a connectivist learning context (Lyanagunawardena et al., 2013) and that are representative of the development of successful self directed learning strategies have so far not been extensively researched. Findings from one recent survey however do indicate that motivation is an important prerequisite to enhanced learner engagement and self direction in a MOOC with participants who had clear goals and ambitions having increased motivation (Milligan, Littlejohn and Margaryan, 2013). Drop out rates are also high in MOOCs with the available data suggesting completion rates of about 10% (Kolowich, 2013). Coursera has, to date only issued 280,000 certificates of completion in spite of having millions of enrolments (Kolowich, 2013).

On the one hand then MOOCs, as potential enablers of enhanced connectivity offer greater than ever opportunities for anyone, anywhere across the globe (with internet access) to connect with learning to suit their own learning needs. However the connectivist network, the nature of which is characterized by 'autonomy', 'diversity', openness', 'interactivity' and 'connectedness' (Downes, 2009), while offering the potential for enhanced connectivity, at the same time requires community in order for the 'connectivist dynamic' to be realized (Downes, 2009). The question thus remains the extent to which community can be inspired and learner motivation enhanced in massive virtual contexts of learning. In other words the problem of 'connectivity' lies at the heart of the dilemma of 'high tech' versus 'low touch'.

The Tech Touch Dilemma

Dilemmas are part of everyday life and as such give rise to problems or possibilities requiring alternative solutions. The challenge posed by dilemmas is that the solutions tend to be based around difficult to choose from alternatives rather than clearly defined and delineated courses of action. When faced with contradictory choices there are two possible outcomes. Trompenaars and Voerman (2009) suggest that in the case of the 'alternatives' scenario whereby two people want very different things, the outcome tends to be 'compromise' rather than 'all' or 'nothing', with the result that neither party is entirely satisfied or entirely dissatisfied. "When you both want something else, you cannot both get what you want, so you both sacrifice something to a certain

extent” (Trompenaars and Voerman, 2009, p.16). However, here no one is entirely happy. Instead “the best possible solution...is a disguised loss” (Trompenaars and Voerman, 2009, p.16)

Trompenaars and Voerman’s framework posits a second possibility, that of ‘dilemma reconciliation’ by acknowledging that differences present dilemmas like, leading-serving; rules-exceptions; parts-the whole; control-passion; specific-diffuse; short term-long term; push-pull (Trompenaars and Voerman, 2009, p.23). The dilemma reconciliation framework provides us with a conceptual tool that allows for the combining, as it were, of the best attributes of both points of view. Thus the solution is not bound by a continuum based around meeting half way between one choice or another (i.e. the compromise based on ‘linear logic’) but rather on the concept of overcoming opposites by combining them, what Trompenaars and Voerman refer to as the ‘process of cyclical logic’ (Trompenaars and Voerman, 2009).

Dilemma Reconciliation has been researched extensively in business settings and across diverse contexts (Trompenaars and Voerman, 2009), and can equally be applied to online communication (Trompenaars, 2013). Trompenaars likens the online dilemma to one of either ‘high tech specific’ or ‘high touch diffuse’ with the solution focusing both on ‘internet’ and ‘human relationships’, in other words we use the technology to deepen the human relationship (Trompenaars, 2013). Relating this concept then to the ‘touch’ element of MOOCs, the tech-touch dilemma conceptualises a seemingly irreconcilable dilemma encompassing the polar opposites of ‘high tech’ and ‘low touch’ (Fig.1). whereby ‘technology’ mediates learning and thus becomes an essential prerequisite to the 21st century virtual classroom, yet the human element, the ‘high touch’ of earlier times is no longer apparent, with learners often missing out on the type of engagement reminiscent of more traditional classroom settings.

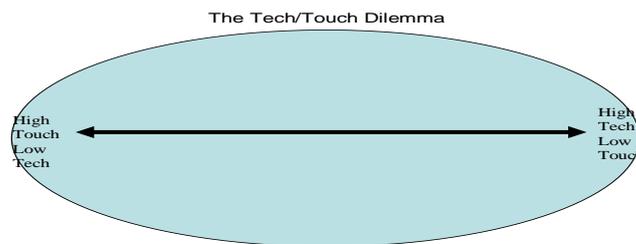


Fig. 1. conceptual representation of the ‘tech-touch’ dilemma depicting a continuum from low tech to high tech contexts with a converse relationship between technology use and human touch as a consequence of the changing contexts of learning. i.e. the potential for decreased engagement when moving from ‘high touch’ to ‘low touch’

Reconciliation of the seemingly opposing values created by the ‘tech-touch dilemma’ (Fig.2) is envisaged whereby a collaborative engagement model based on servant leader attributes bridges the gap between technology (MOOCs with their nodes and links) and touch (human engagement), thus enabling a process of ‘cyclical’ as opposed to ‘linear logic’ to emerge (Trompenaars and Voerman,2009).

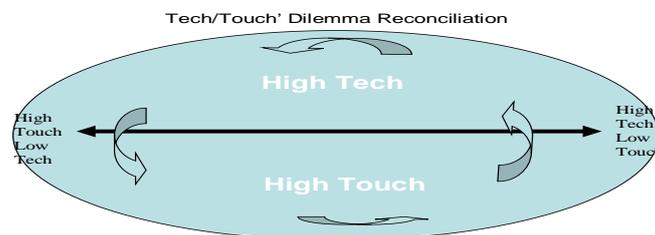


Fig. 2. conceptual representation of ‘tech-touch’ dilemma reconciliation depicting a continuum from low tech to high tech contexts together with the human touch associated with each of the contexts - and also showing the cyclical nature of ‘reconciliation’ by merging the seemingly polar opposites to generate a setting that combines the best attributes of technology and touch i.e. ‘high tech/high touch’.

Theoretical Perspective

This research is informed by the philosophy of servant leadership and draws on Self Directed Learning Theory and Self Determination Theory as a means of developing an evidential base in support of a collaborative engagement model based on servant leadership attributes as an enhancer of intrinsic motivation.

Why draw on the Servant Leadership Philosophy?

When Greenleaf envisioned the servant as leader, he drew on both the inspiration of the fictional prose of Herman Hesse's *The Journey to the East* (van Dierendonck, Nuijten and Heeren, 2009; Nuijten, 2009; Sendjaya, Sarros and Santora, 2008) and the wisdom gained from his own lived experiences (Greenleaf, 2002), much of which was spent within the ranks of management at AT&T (Nuijten, 2009).

Hesse's story recounts the voyage of a group of men on a 'mythical journey', in which a character, Leo, who is the party's servant, attends to the menial needs of the group. Leo however is also an entertainer, sustaining the group with "his spirit" and "his song" (Greenleaf, 2002, p.21). When Leo disappears the group falls into disarray and soon the journey is abandoned. However, it is not until some years later that the narrator, Hesse, discovered the real identity of Leo. It turned out that Leo was in fact the titular head of the Order that had originally sponsored the journey. Upon reading Hesse's story Greenleaf realised the possibilities of being both 'servant' and 'leader' at the same time, thus spawning the concept, servant-leadership, whereby "the great leader is seen as servant first, and that simple fact is the key to his greatness" (Greenleaf, 2002, p. 21).

While elements of servant leadership may be seen to share some similarities with other leadership styles, including, charismatic, transactional and transformational leadership, there are also differences that set it apart. Graham (1991) describes the ideal leader as one who is 'visionary', 'practical' and 'inspirational', characteristics often attributed to leaders with 'charisma'. However, drawing on House's (1977) List of Charismatic Effects, Graham's discussion tells a cautionary tale of the effects of charismatic leaders, including unquestioning trust in the leader and the leader's beliefs and a willing obedience and affection for the leader. With the potential for followers to 'romanticize' their charismatic leaders, Graham suggests that there is eventual diminution of independent thought by followers, as the leader increases his/her domination, control and distance from those served (Graham, 1991).

Other types or styles of leadership discussed in the literature include, transactional (Neubert, Kacmar, Carlson, Chonko and Roberts, 2008); and transformational (Neubert, et. al, 2008; Graham, 1991). Transactional leadership operates on the basis of what Bass (1997) refers to as the "contingent reinforcement of followers" (p.130) while the transformational leader works by "moving followers beyond their self-interests for the good of the organization" (p. 130). Graham (1991) sees transformational leadership as an enriched form of charismatic leadership, with the skills and potential of followers being recognized, but as a means to organizational goal achievement. While servant-leadership is sometimes likened to transformational leadership in that some of the constructs associated with transformational leadership, including idealized influence and intellectual stimulation, are also evident in servant leadership (Liden, Wayne, Zhao and Henderson, 2008), the key difference is that the focus of the servant leader is beyond that of organisational need. Combining 'strength' and 'humility' servant leaders, are 'ethically responsible leaders' whose power is exerted in a positive way that benefits follower well-being and the wider community (van Dierendonck et al., 2009).

In servant leadership philosophy then, leadership begins with an understanding of the self and is characterized by an "inner journey" of self discovery and belief in one's own abilities to lead others and to make a difference - that "your words can inspire and your actions can move others" (Kouzes and Posner, 2011, p.22). Assimilated knowledge of past experiences creates a present whereby an enhanced appreciation of one's own value system allows for the effective leader to emerge, one with the courage of their own convictions (Kouzes and Posner, 2011). Unlike other leadership styles where, say, the "contingent reinforcement of followers" is the primary goal as in transactional leadership (Bass, 1997, p. 130) or where leadership operates on the basis of "moving followers beyond their self interests for the good of the organization" (p.130); servant leadership, on the basis of discovering and accepting one's inner self, allows for an appreciation and understanding of the needs of others - thus taking care that the needs of others are met in such a way as to facilitate their growth and ultimately the growth of the wider community. We must ask "do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?" (Greenleaf, 2002, p.27).

Spears (2004) in interpreting the writings of Greenleaf devised a list of ten characteristics of servant leadership, including listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to the growth of people and building community. Measures and scales of servant leadership have also been developed based on the specific organizational area under study; including Laub's Organizational Leader Assessment Instrument (Laub, 1999), later expanded by Hannigan (2008) as the Servant Organizational

Assessment Instrument, and the SLS instrument (Nuijten, 2009, Van Dierendonck and Nuijten, 2011). Other research has focused on phenomenological analysis (Boroski and Greif, 2009).

A scales for measuring facets of servant leadership that may be effective in the tech/touch virtual context (where learning is reliant not only on mastery of content but also mastery of skills relating to the expansive use of media and texts across contexts) has not been developed, nor has any in-depth analysis of the impact on intrinsic motivation of the implementation of a collaborative learning model based on the application of servant leadership principles.

MOOCs and Connective Collaboration

Some would argue that the once familiar landscape of distance education based on cognitive behaviourist and social constructivist pedagogies has been augmented to incorporate connectivist theories of knowledge (Anderson and Dron, 2011, Rodriguez, 2012) where a virtual landscape of chaos and disruption presuppose the unfolding of a learning story, traditionally based on linear narrative (Laurillard, 2002), now best understood as an emergent process. Other researchers suggest however that connectivism is more like a set of hypothetical and as of yet unsubstantiated assertions rather than a learning theory at all (Ryberg, Buus and Georgsen, 2012).

It was Lave and Wenger (1991) who first identified the important role that communities play in learning contexts, with the learning generated by 'Communities of Practice' based on the core elements of 'joint enterprise', 'mutual engagement' and 'a shared repertoire' (Wenger, 1998). Indeed constructivist learning requires community in order for learners to get the most out of their learning experience. But what is the case with MOOCs? Here it appears that community is either not happening or that the engagement is not coordinated in such a way so as to facilitate the type of cohesiveness implicit in CoPs.

Connectivism, Collaboration and the Road to Self Directed Learning

Technology induces a qualitative shift in our thinking about 'teaching', 'learning' and 'knowledge' itself. Connectivism, centred on notions of autonomy, diversity and interactivity (Rodriguez, 2012), has promoted much debate and has even been considered by some as a driver of change. The term 'connectivism', originally coined by Siemens in 2004, and to some degree supplanting earlier versions of learning theories like, behaviourism, cognitivism and constructivism, acknowledges the role of technology in the lives of learners (Siemens, 2004).

According to Kop (2011) four types of activity contribute to learning in this type of environment. These include 'aggregation' (accessing many resources and in many different formats, video, text, podcast etc), 'relation' (assimilating information with previous knowledge and experience), 'creation' (expressing new learning in a way that is personally meaningful and using internet tools to do so, like YouTube, Facebook, Flickr), and 'sharing' (sharing of work with others within the network) (Kop, 2011). Their research however indicated that the four activities mentioned above were not engaged in by the majority of participants. (Kop, 2011)

Thus according to connectivism, connectivity is a necessary prerequisite for learning but it is not a sufficient condition for learning in and of itself (Williams, Karousou and Mackness, 2011). Connectivity implies access to affordances enabling the embodiment of personalised web learning spaces, arising from social networks which are themselves emergent and self organizing (Williams et al, 2011). The nature of connectivist web spaces requires what Williams et al. (2011) refer to as a change from learning environments characterised by control and predictability to a more 'pluralistic learning ecology'. (p.1818) that allows for the unpredictability associated with emergent learning (Williams et al. 2011). Self directed learning therefore becomes a critical enabler of success in connectivist learning contexts.

Self Directed Learning

Self Directed Learning is not a new concept. However, it was Houle (1961) and later Tough (1971) that refocused attention on self directed learning in educational contexts.

Self directed learning, often associated with andragogy (Knowles, 1980), is a concept used to illustrate the theoretical assumptions upon which adults learn. Knowles' model of adult learning aligns the developing self concept with the natural processes of maturation, thus an individual learns, through the assimilation of new experiences with what is already known. Increasing awareness of the demands of the social environment together with a readiness to learn provide the impetus for the learner to transition from being a 'dependent learner' to one of greater 'self-direction' over time. Implied in this transition is both a readiness to learn and enhanced orientation to learning (Knowles, 1980, p. 44/45). Knowles' later identification of the importance of intrinsic as opposed to extrinsic motivation (Knowles, 1984) has also been highlighted as relevant to adult learning (Merriam, 2001).

While Knowles viewed andragogy and pedagogy (directed and supported learning) as two models of learning based on differing sets of assumptions, he also suggested that individual learning scenarios may require the adaptation of either one set of assumptions or the other, depending on levels of 'dependence' and/or 'self direction' in a specific context. Thus, the application of either pedagogical or andragogical strategies is best viewed in terms of a continuum with the capability for self direction and/or the need for more directed support varying according to context as opposed to the age of the learner (Knowles, 1980).

While the concepts of pedagogy and andragogy provide useful frameworks for understanding the interplay between support needs and self direction in learning, they are limited somewhat in their breadth of explanation when applied to complex, chaotic and distributed contexts like MOOCs. Here the primary focus is not on instructivist learning, but rather on the ability with which learners can engage with others in the pursuit of information, the utilisation of which has the potential to create meaningful knowledge for that person. Heutagogy (Hase and Kenyon, 2007), provides an additive feature that emphasises choice and method, thus the learner is no longer a passive recipient but rather a participatory agent in determining his/her own learning journey. Well developed capabilities in self directed learning are thus paramount. Yet, many learners do not survive the MOOCs journey. This may relate to uncoordinated opportunities for interaction and collaboration, factors that may in turn enhance intrinsic motivation.

The Importance of Motivation for MOOCs Learners

The social context of learning has long acknowledged the importance of the zone of proximal development (Vygotsky, 1978) with ZPD providing a framework from within which to understand the role of scaffolding and the development of critical thinking skills (Wass, Harland and Mercer, 2011). However, both the activity of collaboration and the social context of learning have become complex endeavours. Mediated via layers of technology, the 'touch' elements of the virtual context, i.e. seemingly proximal yet distal, necessitate greater autonomy, self direction and self determination on the part of the learner. Yet, fundamental to achievement of autonomy is both the level of, and quality of, interconnectedness with others.

Competence, relatedness and autonomy are key aspects of motivation, and as such the fulfilment of these basic psychological needs is crucial to human growth, integration and wellbeing (Ryan and Deci, 2000, Ryan 2009). Satisfaction of these psychological needs is also a key determinant in goal pursuit and successful goal achievement (Deci and Ryan, 2000) and the extent to which they are supported directly impacts the extent to which motivation is either controlled, autonomous or non existent (Deci and Ryan, 2008).

Self Determination Theory

Self Determination Theory (SDT) is a theory of motivation that focuses on the development of self determined behaviour together with the social conditions which help to nurture its development (Ryan, 2009). Linked with humanistic psychology SDT views people as autonomous, free and growth oriented (Merriam, 2001, Ryan 2009). Orientation towards growth perceives people as personal agents in directing their own learning based on meeting basic psychological needs (Maslow, 1943) with this tendency towards growth promoting a sense of congruence or integration within the self.

Links between the psychological needs, and the degree to which motivation emanates from the self or is self determined, are complex, comprising regulatory styles, locus of causality and regulatory processes, with the type of motivation being determined by the degree of internalisation and integration of that particular behaviour (Ryan and Deci, 2000). For instance, Ryan and Deci identify *amotivation* as entirely non self determined. Non regulation combined with a perceived lack of control means that amotivated individuals do not feel competent, place little value on an activity and/or do not expect an activity to yield any desirable outcome for them (Ryan and Deci, 2000). Externally motivated individuals display varying regulatory styles based on the extent to which a behaviour is viewed as either controlled or autonomous. For example, an *external regulatory style* arises from extrinsically motivated behaviour based on the extent to which that behaviour is rewarded or punished. Externally motivated behaviour may also be '*introjected*' but without integration, with the role of the behaviour being to save face and to avoid anxiety or shame. Greater autonomy is associated with extrinsic motivation based on '*identified regulation*' where the individual sees the behaviour as being useful and '*integrated regulation*' where the behaviour is based on integration with the self, in other words can be aligned with one's own values and needs. Integrated regulation differs from intrinsic motivation in the sense that even though the behaviour is internalised and valued, the activity is not done for its own sake or intrinsically regulated (Ryan and Deci, 2000). Intrinsic motivation implies internalisation, integration and transformation of behaviour so that it is seen to emanate from the self i.e. is self determined (Ryan and Deci, 2000). Self determination implies autonomous regulation of behaviour whereby the individual experiences greater mindful awareness, energy and vitality (Deci and Ryan, 2008).

Given that the social context can either serve to enhance or diminish motivation (Ryan, 2009), it is anticipated that the inclusion of an appropriate collaborative learning model (i.e. one based on servant leadership attributes) has the potential to engage the learner in such a way that enhances intrinsic motivation and the development of the necessary self direction required in MOOCs. Thus the proposed research will ask 'how can a servant leadership engagement style help to promote collaborative learning in MOOCs?'

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