Jacques Delors, in the powerful introduction to the report ‘Learning: The Treasure Within’, places great emphasis on the role of learning in “developing an understanding of others and their history, traditions and spiritual values and, on this basis, creating a new spirit … guided by recognition of our growing interdependence and a common analysis of the risks and challenges of the future” (1996). For Delors, education has the power and potential to help people understand one another and the world in which they live. However, little is known about how exactly learning leads to the virtues of responsibility, acceptance and solidarity that Delors believes are so central to living together in peace and prosperity. Is learning on its own enough to create this utopian environment? We have access to more information now then we have had at any other point in human history, yet we still see division, conflict and a widening gulf of inequality. If learning is supposed to lead to unity then why is there so much discord in a world that is so connected and has such phenomenal access to information? Two important concepts in understanding how we can learn to live together are empathy and social capital. Social capital, consisting of "features of social organisation such as norms, networks and trust that facilitate cooperation and coordination for mutual benefit" (Putnam, 1995), has become an increasingly important concept, receiving a great deal of attention from economists, development practitioners and educationists alike. Moreover, social capital has been shown lead to positive outcomes, both social and economic, and has been linked to democracy, peace and prosperity. Empathy is the ability to understand and share in the feelings of another person – to put yourself in the proverbial shoes of someone who may or may not be similar to you. Empathy allows us to build and strengthen our social relationships. Both empathy and social capital are at the core of learning to live together, but the relationship between these concepts, or how they can be integrated into learning in the modern globalized world has not been adequately explored. This paper discusses the emergence of new processes of socialisation, examining the roles of the formal education sector and technology in shaping how we interact with others and build social
capital. It also addresses the under-researched topic of the relationship between technology, empathy and social capital, drawing on evidence from a recent exploratory case study conducted by the Commonwealth of Learning (COL), which highlights the role of technology and empathy in strengthening social capital in online and ‘real’ communities. This concrete example from a developing country highlights shortcomings in the way technology is integrated in the formal education sector, and offers important lessons for learning to live together in this modern, globalised world.

**The Evolution of Socialisation**

As human beings we have a unique cognitive ability to conceptualise and organise ourselves into communities, and this ability has allowed us to survive and thrive, becoming the most dominant species on the planet. According to Yuval Harari, author of *Sapiens*, a “cognitive revolution” some 70,000 years ago created the ability for Homo Sapiens to cooperate with one another on a large scale, organising ourselves into groups ranging from nations to companies to teams, and more (2014). In order to build and sustain these groups, socialisation processes are essential – In essence, socialisation processes are what enable us to learn to live together. While socialisation processes differ from culture to culture and across time, they all share the same fundamental objective: creating a common understanding amongst members of a group, to build cohesion and solidarity. Our pre-historic ancestors relied mainly on informal socialisation processes, which began in infancy and continued throughout their lives as they engaged with different segments of their community, in different roles. The family, religious institutions, and immediate community members played a major role in these informal socialisation processes. While this kind of informal socialisation occurred for thousands of years, the formal education system has more recently emerged as the central agent of socialisation. Saldana (2013) argues that in the modern day “the school system has become the glue that holds society together” (229), playing a pivotal role in shaping minds, values, attitudes and relationships, and thus our ability to live together.

A relatively new factor influencing both formal and informal socialisation processes is technology. While our ancestors’ social realms were limited by geography, today most of us belong to multiple communities that transcend our immediate spatial context. According to Hauser, through technology “local modes of participation are stretched globally” (n.d., 3), allowing us to interact despite being physically separated from one another. Much like the ‘face-to-face’ socialisation that occurs within our geographically grounded communities, there are clear socialisation processes occurring in groups that are connected by technology. Like face-to-face interactions, technology-mediated interactions lead to “the spread of uniform systems of symbols, lifestyles and stereotypes” (Schmidt, 1999, 125 cited in Saldana, 2013) which facilitate a kind of virtual ‘living together’ even when separated by space and time. While there are multiple technologies that can facilitate social interactions, perhaps the most important of late is
the internet. The Internet a very powerful tool for socialisation given that it offers “platforms for collective communication…[which] can be used by existing groups to enhance their communication, or entirely new forms of collectivism may be generated” (Hauser, n.d., 14). Unlike previous communication technologies, such as the telephone or radio, the internet enables communication between large numbers of people, both synchronously and asynchronously. With the rise of social media and social networking sites, online communities are becoming more and more ubiquitous and are connecting people that otherwise would not have a chance to interact. This means that not only are social interactions being extended beyond geographical limitations, but there is a greater potential for heterogeneity within groups than there has been at any time in our past. This increased heterogeneity can pose challenges in terms of learning to live together, as members may come from entirely different cultural and geographical contexts.

Through both formal and informal socialisation processes we can build social capital, consisting of networks, trust and reciprocity. In this way social capital is a useful indicator of the ability to live together. However, it is important to note that social capital can be both positive and negative. OECD (2001) points out that bonding social capital can potentially have adverse effects on social cohesion. For example, strong social capital exists in terrorist groups, drug cartels and mafias, yet this kind of social capital is negative, as it is harmful to the community and goes against public interest. When we refer to social capital as a measure of the ability to ‘live together’ we must distinguish this specifically as positive social capital, or social capital which leads to positive impacts on the community as a whole, not just one specific group.

Empathy, social capital and education?

The ground-breaking discovery of mirror neurons in the 1980’s revealed that our brains actually evolved to understand the emotions of others by feeling what they might feel- in other words, we evolved biologically to be empathetic beings. Neuroscientist Vilayanur Ramachandran asserts that this ability to empathise is in fact what enables human beings to learn the complex social behaviors to build community, calling it “the basis of civilization” (2009). This scientific assertion is echoed in research from a broad range of fields. In the corporate context, Lawson (2009) suggests that “empathy has traditionally been a main ingredient … for building effective working relationships and networks.” Similarly, studies by Bahara, Thatchenkery, & Kenney (2008), Orr & Sankaran (2007) and Preece (2004) all show that empathy between team members and between service providers and clients is regarded as a key factor that enables effective knowledge management to occur and to develop social capital. In the area of education, Molka-Danielsen, Carter, and Creelman (2009) identify empathy as an important skill in engaging students in a learning experience. Because of its important role in building social
relationships and communities, empathy is a key factor in learning to live together. In recent years, a growing focus on soft skills in the education sector has thrust empathy into the limelight. Educators and employers alike are beginning to demand that young people should be taught empathy, or have their natural empathetic abilities fostered rather than suppressed. Daniel Goleman’s book Emotional Intelligence: Why it Can Matter More than IQ (1996) brought skills like empathy to the forefront of the discussion on how young people should be educated. Goleman argued that the ability to empathise is crucial for understanding ourselves and building relationships with those around us. Krznaric (2008) takes this argument even further suggesting that empathy is not only a useful skills for relationship building, but that it can also “lead to fundamental social change” and that “some of the most significant shifts that societies undergo cannot be fully explained without resorting to empathy” (p.2)\(^1\). With the growing interest in empathy there have been several initiatives that have begun implementing empathy based education programmes. One such example is the Collaborative for Academic, Social, and Emotional Learning (CASEL) movement in the UK. As part of this programme eight large urban districts are adopting social and emotional learning standards, programs and assessments. These changes are intended to promote empathy, as well as other social and emotional skills/traits, amongst both students and educators. The Danish school system has been teaching empathy in the classroom for years through a mandatory national programme called Step by Step. In higher education, numerous institutions have begun to integrate empathy into training for medical doctors through the use of literary fiction.\(^2\) Private organisations have also begun implementing programmes for empathy education, such as the ‘Roots of Empathy’ programme, which has been shown to boost emotional intelligence and reduce aggression. These programmes are significant in that they integrate empathy, a key skill for learning to living together, into schooling, which is perhaps the most important agent of socialisation in the modern world.

However, while empathy is a desirable skill for living together and there is growing interest in empathy education, it is still not widely embraced and cultivated in formal educational contexts. A major critique of the formal education system is that it actually quashes the natural empathetic tendencies of learners and is antithetical to collaboration and cooperation. This typical Freirean ‘banking’ model of education is “mechanical, reductionist, and competitive” (Palmer, 2008, p. 13). It is a system characterized by memorization and rote learning, which encourages obedience, and rewards the completion of menial tasks and regurgitation of information (Loui, 2006).

Founder of Engineers without Borders, Bernard Amadei passionately echoes these concerns saying:

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The education system forces people to unlearn the empathy they were born with. It’s a system based on always seeming strong, contributing to the economy, and being number one. Being number one is the rule of game, and how we relate to others is fundamentally dismissed. (2012)

Furthermore, there is a concern that even when empathy is integrated into the curriculum, educators should be wary of developing bystander empathy, as opposed to empathy for action. Bystander empathy is when an individual is able to feel for another, but does not act about that feeling. Action-oriented empathy is when the empathy is translated into action. If empathy is to have an impact on society, to make those monumental ‘shifts’ that Krznaric refers to, we must look beyond simply developing our innate abilities to feel how others might feel, and cultivate our ability to respond and act on these feelings. The ability to understand how another feels must also be augmented by skills to act on this feeling, to stand up for justice and equality, to help and support where possible. While there are some exceptions, the formal education systems in many countries are not adequately helping pupils to learn to live together. If we are to raise a generation of empathetic learners, who will be able to build strong relationships, live together peacefully, and affect positive social change then we must rethink the way that we approach teaching and learning.

**The role of technology in building empathy and social capital**

As earlier highlighted, technology has had an increasingly important role in socialisation processes, and it has enabled new forms of interaction and communities to emerge, thereby building social capital in new ways. However, it is also argued that technology can have a negative impact on social interactions, and it is often portrayed as isolating and alienating. David Greenfield, founder of the Centre for Internet Studies describes the internet as “a socially connecting device that's socially isolating at the same time” (DeAngelis, 2000) pointing to the growing problem of internet addiction as evidence. Similarly, a 2005 study by Nie found that each hour an individual spends on the internet reduces their face-to-face interaction with family and friends by 23 minutes, and is also associated with lower mental health scores (Bell, 2009). In both these studies it is suggested that the internet replaces face-to-face-human interaction with either lower quality online interactions or isolating activities that have negative social and psychological effects. Furthermore, Konrath, O’Brien and Hsing (2011) suggest that the “rising prominence of personal technology and media use in everyday life” is a major “contributor to declining empathy” claiming that as people become more immersed in online environments they remove themselves from more meaningful social situations. In this sense the internet could actually inhibit us from learning to live together, and instead lead to isolation and decreased empathy.

Despite these findings, other studies have shown that increased technology use does not necessarily lead to weakened social capital, or poorer face-to-face social relationships. A study conducted
by the Centre for Urban and Community Studies at the University of Toronto examined the effect of free broadband internet provision on a neighbourhood near Toronto. The study showed that internet access actually strengthens social bonds in communities: Residents with the free internet access had more informal contact with neighbours, knew more of their neighbours and visited their neighbours more frequently than the residents without broadband access. The ability of the internet to strengthen social relations has been attributed in large part to the new generation of Web 2.0 technologies, which include prominent social elements and mechanisms to encourage collaboration, cooperation and sharing. O’Reilly (2005) claims that “the theme of collaboration is central to the social application of the current generation of Web 2.0 technologies, including social networking, such as Facebook, Twitter, and Flickr” (cited by Miller and Wallace 2011). Users of these technologies actively share personal information and knowledge, and engage with other members both within and outside of their geographic communities. Moreover, in this study the internet users not only strengthened their relationships with people who they lived close to, and ostensibly had much in common with, but they were also able to connect to people outside of their core social groups, people who were not necessarily from their same geographic, social or cultural spheres. This suggests that technology can help to strengthen both bonding social capital, which creates cohesion within our existing groups, and bridging social capital, which links us to other groups outside of our immediate context.

Technology, and more specifically the internet, also has the potential to facilitate learning and to transform the education system into one which is based on collaboration rather than competition, and promotes living together over succeeding at the expense of others. Rifkin (2010) states that:

The realization that we are an empathic species, that empathy has evolved over history, and that we are as interconnected in the biosphere as we are in the blogosphere, has profound implications for rethinking the mission of education … New teaching models designed to transform education from a competitive contest to a collaborative and empathic learning experience are emerging as schools and colleges try to reach a generation that has grown up on the Internet and is used to interacting in open social networks where information is shared rather than hoarded.

A 2008 qualitative study by Tonnessen traces what she calls the ‘rapid’ growth of ICT use in and outside of the classroom by a specific group of learners from 1993-2005. While she discovered that ICT use in the class room increased significantly over the time period, she notes that ICTs were not being adequately used as tools for social or collaborative learning. She found that computers were used to replicate textbook activities, only in a digital format. She further discovered that the “knowledge of ICT and its use is developed mainly outside school in informal learning communities” (p.5). Despite the growth of technology in the formal schooling system, questions remain about how effectively it is being integrated for socialisation processes and learning. If technology is to help us learn to live together, it must be used as a tool to communicate, connect and collaborate. As highlighted in Tonnessen’s 2008
study, many schools are not using technology to its full social potential. By harnessing the social power of technology in our education system there is a massive potential to transform the current system and build the empathy and social capital of learners and to make learning more engaging; however, we must be wary of integrating technology while adhering to the traditional pedagogical approaches. In this sense the medium must also be the message: When we integrate technology, particularly the internet, into education, we must also integrate the values of openness, sharing and collaboration that are inherent in this medium. While Rifkin espoused these views in 2010, 7 years later we must reflect on how far we have actually come in transforming our education systems.

**The Reddiarchathram Seed Growers Association (RSGA) Facebook Group: An exploratory case study**

While the formal system has faced challenges in appropriately using technology for social capital building, the non-formal learning sector has exhibited a great deal of success in this area, with numerous NGO’s, IGO’s and civil society organisation playing a key role. The Commonwealth of Learning (COL) is an intergovernmental organisation that promotes learning for sustainable development, focusing on support for open, distance and technology-enabled education and learning in developing Commonwealth countries. One of COL’s non-formal learning programmes, Lifelong Learning for Farmers (L3F), uses information and communication technology to build the capacity of farmers, and links this capacity building process with social and financial capital. Reddiarchathram Seed Growers Association (RSGA) is a main L3F implementing partners in India, and they have been increasingly utilising technology to build the capacity and social capital of their constituency. One of the platforms they have been using is Facebook, with a ‘friend’ count that has grown to around 5,000 people. They use their Facebook page to share information on agricultural practices, posting step by step instructions and photos, and often linking users to YouTube videos of real farmers demonstrating specific practices. Commenting, ‘shares’, and questions are encouraged and there is active engagement and participation by members. The page has become a kind of ‘community of practice’ that links farmers and other agricultural stakeholders together with the purpose of knowledge sharing and learning. Learning takes place in the context of vertical flow of knowledge (from RSGA to the Facebook ‘friends’) and horizontal flow of knowledge (between ‘friends’). The active utiliser constituency forms the basis for collaborative constructivism.

In order to better understand the dynamics of the technology-enabled social learning that appears to be taking place, COL conducted a survey amongst RSGA’s Facebook friends. The survey was canvassed via their Facebook page. A link to the survey was also sent to registered friends who had provided their WhatsApp contact information. Out of nearly 5,000 users 378 responded to the questionnaire, providing a confidence level of over 95% and a margin of error of less than 5%. It is
important to note that respondents were not randomly selected, thus there is the potential for self-selection or opt-in bias. Respondents were asked general demographic questions, as well as questions related to their use of technology, learning, empathy, and social interactions. An 8 item empathy scale, based on Loewen et al’s 8-item Empathy Quotient (EQ-8) was used to assess empathy, while two 9-item bridging social capital scales, based on Williams’ (2006) Internet Social Capital Scales (ISCS) were used to measure social capital in both online and off-line contexts. The social capital scales capture the ability to ‘live together’ both in online and face-to-face environments. The study sought to determine whether there was a relationship between online social capital and face-to-face social capital as well as the role of other factors including education, technology use and empathy in strengthening social capital.

The study yielded some interesting results in terms of the relationship between empathy, online social capital and face-to-face social capital. There is a significant (although not particularly strong) correlation between both face-to-face and online social capital and empathy. Additionally, there is a significant and strong correlation between face-to-face social capital and online social capital. In order to explore these relationships further, regressions were run on both face-to-face as a dependent variable. In this case, the social capital index scores are conceptualised as measureable proxies for the ability to live together, both in place-based and ‘virtual’ contexts.

Table 1. Correlations

<table>
<thead>
<tr>
<th></th>
<th>Empathy Pearson Correlation</th>
<th>F2F Social Capital</th>
<th>Online Social Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy</td>
<td>1</td>
<td>.251**</td>
<td>.167**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.005</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>283</td>
<td>279</td>
<td>278</td>
</tr>
<tr>
<td>F2F Social Capital</td>
<td>.251**</td>
<td>1</td>
<td>.621**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>279</td>
<td>315</td>
<td>306</td>
</tr>
<tr>
<td>Online Social Capital</td>
<td>.167**</td>
<td>.621**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.005</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>278</td>
<td>306</td>
<td>306</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

Regression on face-to-face social capital index scores

A regression was run with face-to-face social capital as the dependent variable, and empathy, online social capital index, age, years of formal education, and how many times information was shared with people online, as the predictors. The model accounted for approximately 34% of the variation in social
capital index scores. Both the online social capital index score and empathy emerged as significant predictors, with online social capital score having the strongest influence on the face to face social capital index scores.

### Table 2. Regression on F2F Social Capital

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>9.848</td>
<td>1.611</td>
<td>6.111</td>
<td>.000</td>
</tr>
<tr>
<td>Age</td>
<td>.019</td>
<td>.018</td>
<td>.066</td>
<td>1.027</td>
</tr>
<tr>
<td>Years of Education</td>
<td>-.007</td>
<td>.029</td>
<td>-.015</td>
<td>-.243</td>
</tr>
<tr>
<td>Empathy</td>
<td>.074</td>
<td>.036</td>
<td>.131</td>
<td>2.062</td>
</tr>
<tr>
<td>Online Social Capital</td>
<td>.538</td>
<td>.061</td>
<td>.559</td>
<td>8.866</td>
</tr>
<tr>
<td>Number of Times Posts Shared</td>
<td>.004</td>
<td>.004</td>
<td>.055</td>
<td>.887</td>
</tr>
</tbody>
</table>

a. Dependent Variable: SCfaceIndex

### Discussion and Conclusions

The data suggests a relationship between online social capital, face-to-face social capital and empathy. While further exploration of the relationship between these three factors is needed, including the possibility of two-way causality, the study suggests that online social capital and empathy are the important predictors of face-to-face social capital. This finding challenges the critiques of technology as replacing or taking away from face-to-face social engagement, and instead suggests that technology, when used appropriately, extends our engagements, and that our face-to-face interactions remain important. This notion is supported by Miller and Wallace (2011) suggest that even though there is a rapid move towards technology-mediated social relations “face-to-face communication is likely to continue to be important: as human beings we are physically embodied and social animals above all. However, physical communication may be complimented by online interaction” (124). In this sense personal social interactions and technology-enabled social interactions should not be seen as incompatible, as the accumulation of social capital in face-to-face and virtual contexts is not a zero sum game. As Bell (2009) rightly states, “the Web is increasingly providing a digital projection of life as it's lived within the community, and [people are] online to deepen engagement in it.” Technology is a tool that can extend our social relationships, but it is not a panacea. Much of its efficacy to build social capital depends on how it is used, and the skills, values and attitudes of its users: computers can be used to engage in isolating online activities, or in active social communities. When technology is used for empathy building,
connection, communication and collaboration it can actually lead to stronger social relationships, both in online communities and in our geographic-specific contexts.

The study also reveals that formal education does not appear to have a relationship to empathy, or either kinds of social capital, and in the analysis, the sign is actually negative. This finding echoes the critiques raised earlier in this paper regarding formal education systems as oppressive, individualistic and overly competitive. We must introspect on the extent to which our current systems of formal education are contributing to the conflict and discord we see all over the world, and examine ways in which we can begin to transform education so that it truly builds learners’ capacities to live together. Introducing technology into the classroom is not enough to affect change or to teach our future generations the skills required to live together when our pedagogy encourages traits that oppose collaboration, cooperation and partnership. To harness technology’s power in helping us learn to live together we must not only embrace its capacity to build social connections and empathy, but transform our pedagogy to do the same.

In terms of concrete recommendations, the first is that technology should be integrated into formal education to promote collaboration rather the competition. The newest generation of learners have embraced the social power of the internet and other communication technologies in their everyday lives, yet the formal education system has not done the same. To harness the power of technology for education we must take advantage of its ability to connect with others, to share and to collaborate. The second recommendation is that empathy should be integrated into formal education in a deliberate way. We should look to the models and programmes that have been successful in and see how they can be adapted and adopted in all education systems. We must also place a greater focus on empathy for action, as opposed to bystander empathy, in these kinds of programmes. The final recommendation is that teachers must become allies in supporting the first two recommendations, and should be given the training and support necessary to adequately integrate technology and empathy into the classroom. Without the support of teachers, a transformation towards an education system that embraces learning to live together will not be possible.
References


