

Technology and Education: Theoretical reflections exemplified in Religious Education

Abstract

How do recent technological advances impact upon the field of education? This article examines the work of the philosopher of technology Bernard Stiegler and his interpretation of technology as pharmakon (both remedy and poison). This is linked to threshold concept theory which advocates more creative ways of learning, and illustrated through a practical example from a new approach to Religious Education. It will be argued that it is possible to construct educational assemblages more conducive to personal and spiritual development.

Keywords

technology, education, pharmakon, Stiegler, Derrida, Religious Education, threshold concept theory, liminal spaces, chora.

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Introduction

This article focuses upon how technology is being implemented in educational settings. The argument is that education is a key example of how technological developments are starting to shape and determine current social practices. The work of the French philosopher of technology, Bernard Stiegler will be drawn upon in order to examine whether this is a positive or a negative development. Stiegler is an interesting character in his own right. Having been imprisoned for armed robbery, he discovered the work of Derrida, contacted him from prison, and subsequently completed a doctorate. Stiegler's more recent work is only just beginning to appear in English translation and is challenging, even for those familiar with Derrida. Rather than attempting a full introduction to his work the focus will be on the concept of the pharmakon - a term that Derrida adopts from Plato, and which Stiegler then employs for his own purposes. Derivations such as pharmacy and pharmaceutical may be more familiar but Derrida presents a more original interpretation where the pharmakon is BOTH remedy and poison. Are current applications of technology in the field of education either remedy or poison? Can they be a creative means by which the unpredictable, unexpected and challenging emerge? If so, under what conditions? The ways in which philosophers such as Stiegler and Derrida employ these unfamiliar terms is itself part of an educational process in the broad sense that they challenge people to think differently and to see the known and familiar in a different light. The objective of using a new conceptuality is to draw people out (educare) and enable them to make new connections. Strict definitions are less important than being prepared to move beyond the obvious and into unfamiliar territory.

Some ideas from the field of education itself will be presented, including work published in a book called “Heterotopia: Alternative Pathways to Social Justice” (Baillie, Kabo and Reader, 2012). This reports how an interest in creative learning emerged from processes designed to introduce students to liminal spaces (a term borrowed from the field of anthropology but used here to refer to the thresholds through which learners might pass). This meant taking students out of their comfort zones into less familiar or uncharted territory, and promoting their long term engagement in community projects. This brings together theory and practice in ways which, it was argued, are more likely to challenge unjust structures and systems.

A subsequent section will show how the development of a new approach to Religious Education in primary schools links to these ideas, and illustrates how a greater criticality, openness and flexibility can counter the detrimental effects of an over dependence on, and narrow usage of, new technologies as repositories of instantly-retrievable, unquestioned and unchallenged factual knowledge.

Finally, the conclusion will take these arguments further, drawing both upon the philosophical ideas used in more recent work and also upon concepts emerging from work in the area of spirituality. The ambition is to hold together theory and practice, employing concepts from philosophy in the field of education.

Technology in Education

There is of course a long history of the involvement of technology in education, for instance, the employment in teaching and learning of other objects in the educational process, for instance, buildings, chalk, blackboards, visual aids. The normal interpretation of this relationship however, is an instrumental one between the humans and the objects employed. Even in the case of new technologies, the question is often framed as to how humans use the latest developments which are seen as neutral ‘tools’ which can be implemented for either benign or malign purposes. This understanding will be questioned by arguing that the technologies are not neutral but rather form components in human - non-human assemblages (machines) as encountered in the work of New Materialism and Assemblage Theory (DeLanda, Latour, Bryant, Bennett, Bogost, Harman related to Deleuze and Whitehead) so building upon the concept of distributed agency rather than autonomous human agency (Reader, 2017). The mistake that is often made, both historically and ethically, is to imagine that the technologies humans develop are “neutral tools” that we simply manipulate to our own advantage. Whether it was the wheel, writing, clock time, drugs or the internet, it is as much the case that they re-shaped us and our cultures as that we shaped them. In less familiar language that does better justice to this insight, we are always already part of the assemblages or constantly shifting and developing combinations and configurations of the human (material) and non-human materials that are the components and ‘machines’ of our existence. Then, as we learn from Stiegler, there are differences with the latest technologies that change the traditional perspective, so it is claimed that the technologies that shape us have the capacity to inhibit or disturb our patterns of thought and reflection. This raises the ethical questions of which assemblages are life enhancing and which life denying, which lead to creative and constructive development, and which close down the spaces for growth.

So there are clear examples of this from the field of Higher Education. Some argue that education and knowledge have become subject to capture by the big corporations who have massive resources to fund large-scale data collection. There is also the growing influence of Internet organizations such as Google, and then the impact of Twitter, Facebook and other forms of social media mapping which generate some highly sophisticated mappings of social

networks and movements, all of them subject to thematic analysis. There is also a shift to AMD (alternative modes of delivery) such as MOOCs (massive, open online courses). This means that corporates can hire academics on a 'talent' basis, and then film, and sell knowledge and credentials. Universities are using MOOCs to 'shop window' in-house courses, but also to sell remote learning packages. Thus the relational spaces and opportunities created by face to face interaction become superfluous.

It is also the case that many components of the education process are becoming digitalized; all materials are made available online, and much student interaction is now also online. There is currently a move to video all lectures to make them available on demand. In one University where a member of staff was about to leave, the plan was to film all of his lectures and so run his module without a real time participating staff member. Most of staff training is also online, and takes the form of purchased digital packages, for instance an equal opportunities course in one institution was multi-choice and scenario based and purchased from a private company. All library training courses are now downloadable, as are many research methods courses. In short, education is migrating into the corporate digital domain at a considerable pace. Beyond Higher Education, apprenticeship models are running in very much the same direction, as are Further Education colleges. Teaching and social work training are both becoming a blend of 'hands on' plus online tuition. This is not to suggest that the impact of these advances is a necessarily a negative one, but rather that it raises interesting questions about the direction in which education is heading.

Bernard Stiegler

Within the constraints of this article it is only possible to summarize and simplify what are quite complex arguments. Stiegler talks about the industrialization of 'artificial memory supports' (Stiegler, 2013, 84-7). By this he means the digitalization of knowledge and information as in the examples above, and which has the impact of 'making the time of the human brain available, so that it can be turned into merchandise - i.e. an object of marketing and a means of turning people into consumers, also referred to as the proleterianisation of the consumer (Stiegler, 2015 B, 48). This means a loss of direct participation in the activity itself, so rather than learning being a process of engaging and thinking through, hopefully in a critical manner, it becomes a simple imparting of information which is itself controlled by those in charge of the technological media. Stiegler describes this as a short circuiting of both know-how (*savoir-faire*) and living knowledge (*savoir-vivre*) and a replacement of the longer processes of personal participation which are required for critical engagement (2013, 32). It will become clear in the later example of a new approach to Religious Education in primary schools that there are alternative ways of engaging students. Another case in point of this short-circuiting is the on-line Prevent programme which school staff and governors undertake (College of Policing & Metropolitan Police Service, 2014), and which reduces the issues to a series of caricatures and scenarios rather than helping people to address the underlying causes of radicalization. Having completed the course, which takes about 20 minutes, the box is ticked and a certificate is issued. Similarly, most of us now Google a subject on which we want quick and easily accessible information, and may use this uncritically as a source of 'knowledge'. This is the danger of the 'quick fix' solution to all issues, which actually inhibits the processes of more measured, time consuming and considered reflection and responses. However, Stiegler says this is a perversion of what should be a 'new spirit' represented by this technology, and that what must be sought are means of releasing the creative potential within it. Therefore, he is not a technological luddite arguing against any form of technological advances in the field of education, but someone searching for more appropriate implementations and assemblages.

Other helpful ideas he presents are that knowledge always overflows a simple reduction to information, and that it is characterized by an indeterminacy which means that it often challenges us to go beyond the immediate and familiar into new and unknown territory (Stiegler, 2015 A, 219-220). This is consistent with the work on thresholds and the capacity to take students out of their comfort zones mentioned above and later. He suggests that there is an excess which cannot finally be contained within what is merely calculable and subject to external control or manipulation. For him, there are still practices which do justice to that longer process of learning and that lead to critical reflection - he talks about Christianity as having been one of these before 'the death of God', and about the threatened 'death of Art or aesthetics' which might have replaced it. The longer term process of placing oneself in the presence of either a text or an image, for instance, and then repeating this on a regular basis, is seen to be a means of opening up new horizons of thought.

So Stiegler argues that it is important to understand contemporary relationships with technology as a pharmakon, potentially either remedy or poison, acknowledging both the positive and negative impacts upon human life and society. The idea of the pharmakon can be traced back to Plato where he proposed that it is a play of opposites, poison-remedy or bad-good. So writing itself, Plato argued, is a pharmakon, both a means of recording thought and also a producer of forgetfulness. Stiegler adopts the concept as interpreted by Derrida where writing contains both possibilities at the same time, as both a means of thinking for oneself, but also a mechanism which inhibits or prevents that degree of autonomy. So he concludes that: "the pharmakon is at once what enables care to be taken and that of which care must be taken: its power is curative to the immeasurable extent that it is also destructive" (Stiegler, 2013, 4). Technology is thus a pharmakon in that it possesses the power to both create and also to destroy the spaces and relationships so essential for growth, development and education.

One obvious concern with this line of argument is that it attributes too much influence to the technology itself which should be viewed instead as simply a neutral tool in the control of the humans that have developed it. This, however, is to miss the point that Stiegler is trying to make and also to ignore the previously mentioned insights of assemblage theory and the concept of distributed agency. As Lewin points out:

"the discipline of philosophy of technology began with and is sustained by the insight that technology is not neutral. Moreover the idea of technological neutrality does not seem to capture the intrinsic undecidability of the pharmakon. Indeed this is the point of Vlieghe and Stiegler's conception of technics: that technologies are not simply determined by the will of the user. This is my point with respect to the pharmacological nature of technology, that it is intrinsically undecidable" (Lewin, 2016).

Stiegler suggests that it is the predominance of a consumer culture which presupposes the abandonment of objects, institutions and relations, as all are increasingly controlled by the market, and which leads to addictions rather than constructive and creative relationships. This is relevant to educational institutions and practices, particularly with the move towards a privatization of provision through successive UK governments' academization programmes which place power into the hands of independent and sometimes financially driven organizations (2011 Education Act, Chapter 21, Part 6). As in the spheres of banking and finance, credit, according to Stiegler, becomes discredit, and it is the speed of transactions which undermines trust, and the disposability of products which counteracts confidence in the

reliability of relationships as mediated by the market. The challenge then is to discover or develop means of re-creating trust and fidelity within the field of education. Stiegler suggests that the disenchantment which flows from the lack of trust, liquidates fidelity, friendship, love, the arts, even knowledge itself and all that 'makes life worth living'. What is required is to 'keep the references circulating'.

As technology has developed in recent years, so the trends associated with the Industrial Revolution have become further exaggerated as knowledge passes into machines, often as data, and away from human know-how (*savoir-faire*). The major impact of this is the speed with which knowledge and information reverberate around the communication networks, thus short-circuiting the longer-term processes of thought and critical reflection. So there is now a new relation between subjects and objects which Stiegler calls an 'internet of things' (2013, 93). By contrast, he wants to develop an approach of attention and care, or apprenticeships for the art of living, all of which require a greater investment of time.

The term that he uses to describe these latest forms of knowledge production is tertiary retention, which can mean any of the processes and products through which knowledge is recorded, coded and passed on to others. Primary retention is what occurs when someone listens to another person speak and the meaning of what they have said is retained through the subsequent discourse, so although the original words are no longer present the actual meaning is unfolded through that response. Secondary retention is a memory, so something that has already passed but is dependent upon selection - so we each recall some of the things that have been said but not others. Once it becomes possible to use technological devices to record those spoken words, however, one is dealing with tertiary retention and the quite deliberate shaping of meanings and attention by the use of those devices. "Such a device allows.... the control of retentional and protentional arrangements with the aim of producing attentional effects" (2013,86). The question becomes that of whether or not these technologies are employed to create systems of care and apprenticeship or rather to control and manipulate attention for other purposes.

In this recent book Stiegler draws upon the work of Winnicott and Simondon to further develop these arguments, particularly emphasizing the distinction between adoption and adaptation. Adoption allows for the possibility of continuing questioning and reflection. Using Simondon's terminology of individuation and transindividuation, he argues that adoptive transindividuation forms long circuits, whereas the adaptive transindividuation process is formed through short circuits. The latter is the process whereby others determine the responses externally in order to serve other purposes, and thus there is limited time or opportunity to engage in critical thought.

"I propose that the question of the question is that of who, in posing questions, creates long circuits and through that adopts that which constantly places into question, namely the *pharmakon*. It is in this 'placing into question' that psychic individuals individuate themselves while being inscribed into a regime of collective individuation where technical individuation operates constantly" (2013, 105).

In more familiar terminology one might talk about this as a process of intellectual formation that takes into account those other dimensions on which humans operate, including the emotional and indeed the physical. Formation is close to this notion of individuation, but the argument is that the latter is both individual, social and collective, thus subject to the external influences encountered in education and now subject to the employment of current

technological developments. There is thus a political dimension to this debate as one needs to question who controls these process and with what purposes in mind.

So Stiegler sees a key role in this wider debate for education, but one that requires a renewal of the ideals of the university, rather than some current practices which are susceptible to being dominated by the new technology. This also includes a role for publication in developing new ideas and practices through open access publishing, for instance. Knowledge itself is in danger of being distorted and hijacked by the technology now available, and this must be subjected to critique in order to counteract the ‘stupidity’ and de-formation of reason (Stiegler, 2015, 152). Stiegler has moved on from earlier publications and uses the philosophy of Simondon and the work of the child psychologist Winnicott in order to strengthen his arguments regarding the impact of technology on the processes of human formation or individuation. In order to understand more fully how he reaches this position however, it is necessary to refer back to Derrida’s interpretation of the pharmakon.

Derrida on the Pharmakon

Within Plato’s system according to Derrida, the pharmakon, which itself has a wide range of meanings, is that which distracts from or disrupts the natural order of things. So specific interpretations of the term can be: remedy, poison, recipe, drug, philter (Derrida, 2013, 77) or even perfume (2013, 142). There is no such thing as a harmless remedy, since every intervention has impacts which can be either positive or negative or indeed both. So pharmakon as remedy or drug is used to disrupt the natural course of a disease and only shifts the problems elsewhere. Hence the ‘remedy’ is far from harmless or neutral. His understanding of writing as pharmakon has to be placed in this content. So speech is the natural or original means of discourse, and writing a lesser form in that it may only create a diminished form of the original, where even memory becomes remembrance and repetition, with loss of direct engagement or meaning. Writing can encourage forgetfulness and is inadequate to capture the living memory of speech. Pharmakon is a dangerous supplement that distracts from the original.

Derrida takes a different approach from Plato (and it is this which is an influence upon Stiegler as has already been seen) and talks about pharmakon as the difference of the difference. So it is an early version of his constant use of unfamiliar terms to unsettle, trouble and disturb the established philosophical hierarchies. This is NOT therefore a straightforward binary, an ‘either-or’, but the constant opening up of other possibilities that have been displaced or reduced by particular uses of language. Another term that he employs in this way is ‘chora’, pointing towards those spaces in which the new and unknown can emerge. This will be referred to again in the conclusion as it relates to ideas of spiritual development.

Where does all this leave the possible applications of Stiegler’s use of pharmakon as applied to technology? The argument is that the task is to work out which values are already embedded and assumed in specific applications of the technology in order to identify matters of concern, and to establish if alternative values need to be introduced in order to construct systems that are more conducive to (human and non-human) wellbeing, and are therefore ‘life enhancing’ rather than ‘life denying’. The pharmakon itself is neither necessarily remedy nor poison, but rather a context or space (chora) within which these various possibilities are played out through the assemblages which are formed.

A Model for Critical Learning: Threshold Concept Theory

How might this be achieved? In a recent book “Heterotopia” (Baillie, Kabo and Reader as referenced earlier) the work of Mezirow who developed the concept of Transformative Learning Theory is drawn upon, and this takes into account three related meaning structures: frames of reference; habits of mind and points of view (2012, 34). It is within these that each of us shapes and frames our experiences, and that therefore the question of transformation is to be considered. Any subjective re-framing that is to take place will commonly involve an intensive and difficult emotional struggle as old perspectives are challenged and transformed. This will probably require a supportive learning environment, and educators must be aware of this. This is then taken further by using Meyer and Land’s Threshold Concept Theory in order to suggest that all knowledge domains contain certain concepts that serve as gateways to further progress (2012,2). These gateways, once identified, become the potential means by which learners can change the way they see both the subject in question and also themselves. Central to this is also the concept of liminality, which is a space of uncertainty, flux and transition between two more stable states of knowing or being (2012, 3). They talk about a continuous liminal spectrum which goes from pre to post-liminal. As learners move along this spectrum they acquire increasingly complex conceptions or ways of seeing. Within the study of any discipline, one needs to consider exactly how students and practitioners can be encouraged out of their ‘comfort zones’ and into these liminal spaces where uncertainty is the order of the day rather than the false certainties. Once again there is a connection with Derrida’s interpretation of chora as such spaces.

The book then goes on to offer an example of a course involving engineering students and social scientists who do appear to have achieved the critical learning processes described above. Some of the key elements of this are: disagreement was legitimated because different disciplines were involved; small class sizes created a safe space for exploration of ideas and values; a respectful learning environment was established allowing individuals to explore and engage themes in their own way; real life issues and examples give students something ‘concrete’ on which to work; and flexibility to adapt aspects of the course to the needs of students is built in. So the liminal space is constructed in such a way that students can feel safe and free to experiment, and to both think and ask critical questions in ways they had previously been unable to do. Stereotypes are broken down in the course of the engagement between different disciplines, and alternatives are allowed to develop in terms of solutions that could not before have emerged. The question in relation to the use of new technologies is the extent to which these inhibit rather than enable the processes of critical thought by short-circuiting or closing down the time and space required for this process.

What might all of this suggest when it comes to the challenge of enabling students to begin to experience different perspectives on their particular disciplines? First, a need for inter-disciplinarity and an engagement with other practitioners who can offer different perspectives. Second, the identification of the gateway concepts that enable the initiation of critical questioning and provide potential thresholds. Third, a safe space within which that questioning and exploration can take place. Fourth, a freedom and flexibility in terms of the learning process that respects the needs of the individual but which can also enable the consideration of deeper personal and political issues. It needs to be noted that the use of the term ‘concept’ is not to be interpreted in a narrow sense, but in a wider context as often just a way of looking at the world. This is education as thinking new thoughts and seeing the world in a different light.

A Practical Example from Religious Education

How might we implement the above approaches in schools? Are they appropriate across the entire age range of compulsory education? Some of the theoretical ideas already shared can be illustrated through a practical example taken from Religious Education (RE) in primary schools (5-11 year olds). The teaching of RE in the context of reducing religious literacy and growing pluralism is a matter of major controversy (see, for example, Chater and Erricker, 2013; Conroy et al, 2013; Dinham and Shaw, 2015). It is in this context that a new approach to RE has emerged.

In RE, the wish is to see the flourishing of every child regardless of their religious or non-religious persuasion. By creating these circumstances of possibility, their rights and responsibilities will be upheld, as well as those of the state of which they will become citizens. The wish is also to prepare students to become lifelong learners, equipped to gain knowledge and understanding of the faith traditions (and relevant non-religious traditions) they will encounter throughout their life-courses. Yet it can be recognised that both their future (non-)spiritual journeys and (non-)religious encounters are unpredictable. Students are being prepared for the unknown, and given the freedom and confidence to move into liminal spaces of discovery. In doing so, it cannot be hoped to facilitate omni-directional personal development nor to provide comprehensive coverage of all relevant knowledge. The world, like the worldwide web, has to be explored critically, systematically and thoughtfully over-time, rather than being treated as a storehouse of ready-made, easily accessible information to be immediately 'downloaded' unquestioningly and indiscriminately. RE should provide students with the capabilities required for undertaking a lifelong learning process rather than merely transmitting inert knowledge for immediate reproduction.

In the face of growing recognition of the past, present and probable future significance of religions, and of increasing religious and secular pluralism globally (including diversity within faiths), religious literacy must mean more than obtaining a limited amount of factual information relating to pre-determined features of a finite number of religions within a present and particular locale. Religions are complex, diverse, multi-faceted, evolving and multidimensional phenomena, and there are multiple methodologies and methods for generating knowledge and understanding of religions, drawn from multiple disciplinary perspectives (Freathy et al, 2015, 6). Religious literacy should encompass the intellectual and practical nous required to participate directly in learning processes through which religious subject matter is critically encountered. In other words, it should incorporate a developing mastery of the knowledges and skills that will enable learning to occur in future encounters with new forms of religious difference and new ways of encountering familiar religions and beliefs. Such an emphasis on direct participation with a varied and complex subject matter is consistent with Stiegler's concern for direct participation as an antidote to the short-circuiting of education associated with inappropriate uses of technology. The opportunities presented for this form of engagement, leading to spaces for reflection, are essential for approaching such a diverse and complex field of study. Moreover, this emerging mastery should lead to an independence and self-regulation not shared by novices and apprentices. It includes being given the freedom to see religions from alternative viewpoints; having the critical wherewithal to expose the assumptions underlying these viewpoints; and consciously with justification accepting or rejecting perspectives. The freedom to explore religions from a range of perspectives can be realised through a positive employment of relevant technologies. Moving beyond the known and familiar into new territories and out of one's comfort zone can bring to the surface the range of approaches associated with the study of religions in a pluralist culture.

To extend the metaphor, religious literacy cannot mean the uncritical assimilation and internalisation of a singular religious language through immersion in a culture of native speakers. In this post-Babel situation, what are needed are polyglots, familiar with multiple languages, but also with a knowledge of: vocabulary, etymology and grammar; language acquisition, use and translation; commonalities between, and changes within, languages; linguistic analysis, and, perhaps most importantly, hermeneutics and exegesis. RE is analogous in that students need to learn not only about religions, but also to learn how to learn about religions. This means gaining (i) factual and conceptual knowledge and understanding of the subject content and issues of representation (i.e. what is being learnt about and why), and (ii) knowledge of interpretations, methodologies and methods used in the study of religions, and of how to plan, carry out and evaluate an enquiry (i.e. how it is being learnt about and why) (Freathy et al, 2015, 6).

There is a third strand involving students gaining knowledge of their own worldviews and of how these influence, and are influenced by, their learning about religions (i.e. who is the learner, and why this matters). Thus, to change metaphor, in an open-ended, flexible and challenging form of RE, students would be taken out of their comfort zones, so as to prepare them for the unavoidable lifelong exploration of previously uncharted religious territories and hitherto unseen representations of these terrains. To equip them for these learning journeys, teachers would need to ‘think about route maps, modes of transport and equipment (methods) as much as the ground to be covered (contents) and the selected destination (aims); treat pupils as co-travellers rather than followers; enable these intrepid explorers to develop their own understandings of what they encounter; allow them to write their own travel diaries not merely read the guide books of others’ (Freathy et al, 2015, 7). The latter would provide opportunities for pupils to ‘reflect’ on their own dispositions and worldviews, and how these affect, and are affected by, the learning journeys they undertake. Neutrality is impossible, but knowledge of the partiality of oneself and others is not. Reflection and reflexivity are pre-requisites for such self-knowledge and self-regulation. It enables students to embrace transformative learning experiences confidently without fear and suspicion of how their frames of reference, habits of mind and points of view might be challenged and changed.

This approach is consistent with that being commended by Baillie, Kabo and Reader (2012) as it deliberately takes students beyond the known and familiar and into the liminal but safe spaces (*chora*) where real exploration can take place. This is seen as journey and process, but one that acknowledges and enables the levels of indeterminacy and even excess (as Stiegler would describe them) which challenge an overly-prescriptive and formulaic approach to learning. The next question is how to deepen and enrich these explorations, especially when they are undertaken using technology. Casual users of the worldwide web, for example, ‘surf the net’, ‘browse’, send ‘instant messages’, feedback ‘Like’ or ‘Dislike’ on content immediately, and so forth, with the associated danger of short-circuiting critical thought processes. By contrast, critically-reflective student-users of the web should systematically scrutinise a multiplicity of online messages and media over time, as well as their own ‘search histories’, usage and engagement. In doing so, they might be expected to draw upon multiple methodologies and methods derived from a range of academic disciplines.

The above assumptions underpin the ‘RE-searchers approach’ to RE in primary schools, which was developed through ‘close-to-practice’ theorisation and conceptualisation within the policy and legal frameworks that define RE in maintained schools without a religious affiliation in England (Freathy and Freathy, 2014; 2013; Freathy and Freathy, 2014). The

versatility of the approach, however, has led to it being applied successfully in the context of many different forms of RE (mono- or multi-faith) and many different types of school (those with and without a religious character). Freely available exemplar units of work are accessible online (see Giles Freathy's *Mr. Stricken's Nativity Nightmare: A Christmas Unit of Work for Upper Key Stage 2* and *Let's Talk About Love!* which are both available at <http://socialsciences.exeter.ac.uk/education/research/projects/details/index.php?id=397>).

The critical, dialogic and enquiry-based RE-searchers approach aims to initiate students into the communities of academic enquiry concerned with theological and religious studies. It prioritises methodological considerations and seeks to provide opportunities for students to learn about, implement and evaluate the significance, appropriateness and effectiveness of multiple methodologies and methods, as they co-construct knowledge in collaboration with the teacher and their peers. Thereby, it seeks to expose the connection between methodological and pedagogical approaches, and to make these explicit matters for discussion with students rather than pre-determined outside of the classroom.

In practice, as part of the RE-searchers approach, students are presented with a series of cartoon characters - individually called Debate-it-all Derek, Ask-it-all Ava, Have-a-go Hugo and See-the-story Suzie, but collectively known as the RE-searchers - each personifying a research methodology. Each character holds different assumptions about the nature of religions; has a preferred way of approaching the study of religions; and employs particular methods of enquiry (e.g. questioning and arguing, interviewing and empathizing, participating and experiencing, and narrating and exploring interpretations). Once acquainted with the characters and their respective characteristics as researchers, students can undertake learning activities associated with each of them in pursuit of different understandings of religions. Then they can engage in dialogic conversation about the religious phenomenon under study, the 'RE-searcher' character through whose eyes it has been viewed and their own skills, dispositions and worldviews as researchers (Freathy and Freathy, 2014, 163). The implementation of the RE-searchers approach should result in a safe classroom environment characterised by multi- and inter-disciplinary perspectives; attentiveness to key epistemological and methodological concepts; ground rules for collaborative enquiry and exploratory talk; and freedom and flexibility in terms of enquiry processes and outcomes that are not pre-determinable.

Introducing these RE-searcher characters is a means of constructing the assemblages required for creative engagement with the subject area. It can be seen as a move in the direction of the care, attention and apprenticeship which Stiegler advocates as appropriate uses of the technology available. In a context of trust and fidelity, where the relationships between student and teacher are allowed to develop organically through familiarity with RE, both can work together to explore the know-how rather than know-that which encourages deeper reflection, and through which the established interpretations and contours of the subject can be 'troubled' and questioned.

The main purposes of the RE-searchers approach are (i) to enable students to acquire the knowledge and skills associated with the communities of academic enquiry concerned with theological and religious studies; (ii) to initiate students into some of the many methodologically- and hermeneutically-orientated dialogues that occur within these multi-disciplinary fields; (iii) to provide students with high-quality and first-hand experience of what it means to study religions and to consider their nature; (iv) to stimulate reflection on the students' own worldviews, and how these affect, and are affected by, their learning,

including their research strengths and preferences; and (v) to work towards students being able independently to plan, manage and evaluate their own enquiries. Students educated in such a manner are better prepared to move along the liminal spectrum, encountering thresholds of understanding and progressing beyond them, as well as coping with uncertainty, flux and transition.

In the RE-searchers approach, dialogue is important in gaining and demonstrating: knowledge of core theories and concepts; the ability to think and learn; and knowledge of self and others. Here the approach draws upon the dialogic educational theory of Rupert Wegerif, and the practice of teaching both *for* and *through* dialogue (Wegerif, 2012). Dialogic thinking is characterised by the ability to hold different points of view together in tension, to compare and contrast them, to critique and evaluate them, and to switch between them. Being dialogic means being open to otherness, being open to learning. For Wegerif, this is particularly necessary in an Internet age for the Internet is a shared space of dialogue, characterised by multiple perspectives and collective thinking, but no consensual criteria for determining certainty.

This absence of certainty does not mean the aims of acquiring knowledge and/or mastering core concepts in each school curriculum subject should be abandoned, but it does mean there is a need for critical thinking and dialogue about knowledge and concepts. Following Neil Philipson and Rupert Wegerif (In press), it can be argued that dialogic education is a means of teaching for conceptual mastery by enabling concepts to be distinguished and for the appropriateness of their use to be tested in practice. Through dialogic RE, students can be taught to think and to see the world in different ways, thereby assisting the creative leap necessary to cross conceptual thresholds. The personifications deployed in the RE-searchers approach enable young children to enter fictional conversations with new theories and concepts, getting to know and understand them as they would a new class mate. It is a manner of bringing different ways of looking at the world into the classroom and into a relationship with one another and with the worldviews of the students. The imaginary and real conversations which ensue within this dialogic classroom culture can be internalised by the students and potentially drawn upon throughout their lives. Thereby, their mastery of core concepts can be characterised as a mutually-enriching developmental journey from peripheral to full participation in the ongoing dialogues of the communities of academic enquiry concerned with theological and religious studies.

Following Philipson and Wegerif further, it can be argued that the consequence of this conversational encounter is exposure to an inheritance of powerful academic concepts for making sense of the world around them (Philipson and Wegerif, In press; See also Oakeshott and Fuller, 1989; Oakeshott, 1959). It is not an unquestioning and uncritical encounter, but one that recognises perspectives as perspectives that could always be different; treats contributions to dialogues - with epistemological humility - as calls for further responses rather than 'final words'; and invites students to become active, engaged participants rather than simply to remember and recall the contributions of others. Thereby the development of thinking and learning skills on the one hand, and the acquisition of conceptual knowledge on the other, are seen as mutually reinforcing, especially once it is recognised that concepts and knowledge are not indisputable and immutable, and that concepts specifically pertaining to interpretations, methodologies and methods may be acquired in theory and through practice. Indeed, all religious and theological concepts can be used as methodological tools as we encounter faith traditions (and non-religious traditions) throughout our life-courses.

One could argue that what is being advocated here is a method which holds the tensions which are also to be encountered in much religious life and spiritual development. So, tensions between the known and the unknowable; the apophatic and the relational, or the sensible and the intelligible - those things of the life of faith that are beyond conceptual articulation or direct communication, but which nevertheless require some sort of language if they are to be presented to others. As in Derrida's use of the notion of the pharmakon, it is not a matter of arguing for one particular approach over against another, but of holding both within a wider setting (*chora*) or open space thus enabling a continuing process of exploration and reflection that does not attempt to reach definitive conclusions. Both presence and absence, understanding and exploration, are honoured as characteristics of human experiences of the divine.

Overall, it is argued that the RE-searchers approach, as one example of dialogic education involving rich and meaningful dialogues combining skills and knowledge, provides students with a good preparation for surviving and thriving as independent people (with their own unique voices) in 'this Internet-mediated world' (Philipson and Wegerif, In press). Teachers and students should use technology in education with the same critical, dialogic and enquiring dispositions as they would manifest in their encounters with religion(s) through the RE-searchers approach.

Conclusion: faith and education

In conclusion, one can link all of the above to the wider concern for what one might call spiritual development, as it is, presumably, one of the objectives of the varied uses of technology in education, and in the context of RE in particular. By doing this it is argued that the boundaries are being stretched in such a way that new thoughts and practices can emerge.

In a recent book "Reimagining the Sacred" a number of major philosophers engage in dialogue with the work of the American philosopher of religion, Richard Kearney. In chapter 3, Catherine Keller offers constructive proposals for a contemporary understanding of Christian spirituality (Kearney, Zimmerman, 2016, Chapter 3). It is suggested that this is a fruitful and important line to be pursued, and more positive than a straightforward Derridean undecidability. It is something that has been attempted most recently in "A Philosophy of Christian Materialism" (Baker, James and Reader, 2015), and in ongoing discussions with the ideas of the New Materialism as referred to above. Bringing Kearney and Keller's work into conversation offers creative and exciting prospects for future development, utilizing concepts such as *chora*, the space of events or finite cave chamber where 'the sacred' visits, happens, creates and recreates.

Chora appears to be the key to Kearney's search for an appropriate way of describing this 'contemplative unknowing' and parallels the striving in "Heterotopia" for those liminal spaces within which real learning can take place. Kearney says that *chora* is the interpersonal space par excellence. In more explicitly Christian terms it is "a no-place, which allows for the annunciation, reception, conception and incarnation of the incoming divine stranger, the impossible guest" (2016, 253). *Chora* is the *u-topos* where the topos of the Messiah may constantly arrive, promise, call, take place. This notion of emptiness is echoed in the kabbalistic notion of divine creation as withdrawing or leaving space, but this space is then open to be occupied by creative energy. So *chora* is both emptiness and fullness, absence and presence, divinity and humanity, sacrifice and service, food and natality. These are the spaces where the new can come into being and critical thought can emerge. There is thus a direct

link between radical educational practice on the one hand, and ideas emerging from these philosophical engagements with Christian spirituality on the other.

So, where do we go from here? Current practices, which might serve only to short-circuit the processes of critical thought and personal development, can be effectively opposed by an alliance between radical educational theory and elements of faith traditions. We require spaces of faithful dissent that can escape institutional control and enable the critical thought and activity that can flow from this. To the extent that we employ new technology within this process we have to be aware that it can be both remedy and poison and that even apparent remedies carry their own risks and dangers.

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