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A Diet of Daily Bread, Food for Thought, and CoFI (Communities of Faithful Inquiry): Key Factors in LMS Decision-Making for Online Catholic Education

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As Information and Communication Technology (ICT) becomes more ubiquitous in postsecondary education, and pressures from Learning Management System (LMS) manufacturers on universities become heavier, the leadership at Catholic postsecondary schools must have a clear idea of how exactly technology and online learning can and should be used in a way that is consistent with Catholic principles in order to guide their decision-making with regards to the school's online platforms and resources. Using Ex Corde Ecclesiae as a guide, this paper takes the standard model of online learning as requiring a Community of Inquiry (CoI) and suggests that a Catholic university should be a Community of Faithful Inquiry (CoFI), which requires having pastoral presence in its online work. This takes the form of using technological aids to foster the spiritual lives of its students, ensure that a genuine community is being built, and find ways to equip online students to live out their faith outside of the digital realm.

Keywords: Catholic online education, Community of faithful inquiry, Pastoral presence, Technology in faith-based learning

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Introduction

Given the importance of Information and Communication Technology (ICT) in modern postsecondary education, seen particularly in the fact that a modern university is expected to have an online Learning Management System (LMS), it is imperative that postsecondary education leaders (PSELs) are prepared to manage the unpredictable changes and complexities that technological developments will bring to their institutions (Kowch, 2016). This is challenging for any institution but especially relevant to religious universities and colleges.

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A half-century ago, the Canadian philosopher of politics and religion George Parkin Grant (1998) argued that a technological and instrumentalist way of thinking perpetually threatens the mandate of any learning community that derives its identity from religious commitment. Grant (1998) adopted a Platonic Christian perspective on education: Its goal was for students to exceed themselves and their desires in recognition of eternal and transcendent moral and metaphysical truth. Technology, or, as he preferred to call it, technique was diametrically opposed to this, since its goal was to alter nature in accordance with our wills. Using Heideggerian terminology, he identified technique as not a tool but as an "ontology" (Grant, 1998, p. 431). In this way of being, the individual's desires, which the technique seeks to gratify, were of paramount importance, thus locking the individual within themselves and closing them off to self-denial and spiritual growth.

Moreover, Grant (1998) recognized technology as a kind of imperialistic ontology which colonized any arena into which it was introduced. It was absurd, he stated, to claim that "the computer does not impose on us the ways it should be used" (Grant, 1998, p. 418). Introducing the computer meant redesigning the infrastructure of the entire institution, and, indeed, the entire world, to make room for it. Thus, technology imposes social, political, and economic liberalism wherever it appears. Grant (1998) saw this already taking place at the university, which was becoming, to use his word, a "multiversity" (p. 461), an industrial institution no longer dedicated to enlightenment but instead to equipping students to work for and fit into a technological society. In other words, to translate him into more contemporary vernacular, Grant (1998) was predicting an inevitable union between technological progress and the advance of neoliberalism, which we can understand as a pervasive attitude which treats all assets as valuable to the extent

that they have competitive market value or are profitable from a capitalistic perspective (Thorsen & Lie, 2006).

The relevant literature on ICT in education reveals the merits of Grant's (1998) prediction. For example, policy documents on technology and education, such as the consultants' report of Bailey et al. (2018), betray an attitude which seems to view technological innovations as existing for their own sake rather than for the sake of educating students. Using data from six different postsecondary institutions, the paper acknowledged the existence of "the digital learning paradox" (p. 22): Students enrolled in online courses often receive lower grades but also exhibit higher retention and graduation rates. However, "[o]nline learning lowers instructional costs" (p. 26). The dilemma facing postsecondary education seems to be the tradeoff between the fact that students often do more poorly in online courses and that those courses save the institution money. After describing the various ways that online courses save a PSEL money, the authors wrote:

> In making these tradeoffs, most universities may be investing in instructional quality in other ways, such as by providing more and better professional development opportunities, enabling students to engage with course content more interactively, or providing tailored student support such as coaches who follow students throughout their enrollment, thus ensuring a high-quality overall learning experience. (p. 28)

The cost-cutting advantages of online learning apparently outweigh the demerits of worsened student performance because universities may be using the funds they saved on enhancing student learning. The word "may" indicates that this is largely speculative, though Houston Community College is offered as an example of an institution that has "solv[ed] the digital learning paradox" (p. 42) by providing tutors to students in online courses. One wonders if these

tutors are paid similarly to adjunct faculty. If they are paid less, this may be another cost-cutting measure.

The report ultimately recommended that PSELs invest in high-quality resources for online learning, assuring postsecondary institutions that the long-term benefits will outweigh the short-term costs by growing revenue from increased student enrollment while saving on costs in various other areas. The financial incentives and the fact that online learning corresponds to higher graduation rates outweigh the fact that students are getting less out of the experience from an educational perspective if grades are taken as an indication. Grant's (1998) ominous forecast about technology ushering in a blizzard of neoliberalism that would destroy the university's purpose seems to have been largely confirmed, particularly given that the perceived necessity for this innovation derives in part from market competition with corporate non-university institutions such as Google (Hill, 2020).

Of course, there is no way to avoid using technology altogether or to deny the legitimate value it has added. Since its presence is inevitable, universities should take care to ensure that technology in learning is only used to the extent that it serves pedagogical goals, adds value to the experience of teaching and learning, and is accessible to all students (Contact North, 2020). As Grant (1998) put it, using language which reflected the gendered economy of the time:

> It is obviously good that women should have automatic washing machines; it is almost as good that we men should have cars…There is nothing wrong with automobiles and washing machines, but they must be known as simply means – means of richness of life for individuals and society. (Grant, 1998, p. 52-53)

Therefore, religious PSELs, which generally share Grant's (1998) ontological and moral perspective on education and truth (Casamento & Riondino, 2022; Fisher, 1987; Glanzer &

Ream, 2013; Holmes, 1987), need to understand the pedagogical commitments of their institutions in the light of the doctrines that they profess. This way, they can make wise ICT-related decisions that are consistent with the school's purpose of intellectually and spiritually forming their students rather than be caught up in the addiction to technology for technology's sake fostered by modernity.

Currently, official church policies currently lack definite direction on the use of ICT in their educational institutions. We can take Catholicism as a case study here. The Vatican's Congregation for Catholic Education (2021) recently issued *Instruction on the Use of Distance Learning in Ecclesiastical Universities and Faculties*. However, although it referred to how Catholic universities should "make ever more appropriate use of the new forms of technology" (p. 4), it went into no detail about what exactly constitutes appropriate or inappropriate use of technology in distance education from a Catholic theological perspective.

This paper will look at Catholic postsecondary institutions specifically and will seek to guide PSELs for navigating decisions about ICT. However, it will draw on research into religious education from other faith traditions. These studies are often descriptive rather than prescriptive, but we can seek to draw principles from them that are applicable to a Catholic context. The research often focuses specifically on religious studies classes or formation for ministers in seminary[1] (Holdener, 2010; Hung & Lu, 2022; Tran, 2010; Wright, 2024). However, since every subject in a Catholic educational institution is expected to be infused with Catholicism, and the goal of a Catholic PSEL includes the holistic spiritual development of its students, we can perhaps still glean valuable models for Catholic education generally from these seminary-specific examples.

[1] A seminary (from the Latin for "seedbed," or a place of growth and cultivation) is a postsecondary institution dedicated to the ministry training and theological education of individuals who are preparing to work in ministry or in religious academic institutions.

General Principles of ICT Use in Education

Distance education is not identical to online learning, and much confusion has resulted from using these two terms synonymously (Nichols, 2011). Distance education presupposes physical and geographical distance between the instructor and the student, while online learning refers exclusively to the medium through which instruction occurs; the online student could be thousands of miles from the university but could equally well be taking a course in the computer laboratory on campus. Further, the term “online learning” does not in and of itself distinguish between synchronous and asynchronous lecturing, or between purely online and hybrid classes. In this paper, I will refer to “online learning” and to the LMS with the recognition that this always involves some element of distance from the facilitator, at least relative to the familiar model of learning within a classroom setting.

This last insight comes from the standard model of the university in the digital age as a Community of Inquiry, or CoI (Garrison et al., 2000), a model which came out of research done at the University of Alberta. This two-decade-old framework proposes that a genuine postsecondary community can occur in the online space when Social Presence, Cognitive Presence, and Teaching Presence intersect. Social Presence refers to the extent to which learners project themselves as “real people” and build relationships in the cyber classroom; Cognitive Presence refers to the extent to which online communication leads to the participants constructing meaning, or, we could say more succinctly, learning; Teaching Presence identifies the degree to which teachers facilitate these other two presences.

The model of CoI is understood by many as being a way to analyze and provide guidance for designing individual courses (Fiock, 2020; Krzyszkowska & Mavrommati, 2020). However,

the Catholic theologian and university rector[2] John Henry Cardinal Newman (1992) argued that not only is the entire university fundamentally a single community, but also that, as the word “university” can be construed to imply, a locus for universal knowledge, meaning that every subject and class should be integrated with each other. We can thus push the idea of a CoI to encompass the entire school, at least in the case of institutions which are organized around the central principle of Catholicism.

In a postsecondary context, these three presences take place primarily within the LMS. In considering Teaching Presence in the LMS setting, there are at least two major factors at play. One is that the effectiveness of an instructor’s use of an LMS is closely correlated with their attitude toward it. Teachers with negative attitudes toward their LMS are less likely to fully utilize its potential than those with positive attitudes (Bervell et al., 2020).

A second, and likely closely related, mechanism is the teacher’s beliefs. Instructors will design their online courses in different ways depending on their different ideas about pedagogy. Those who see the teacher as having a pivotal role in education will use several real-world examples in their online materials and will structure online discussions in such a way that they provide constant feedback, assessment, and access to themselves for the students while instructors with a strong belief in different “learning styles” will design the online materials in a way that invites students to “explore” the content and choose topics of interest to themselves to study and be assessed about (Steel, 2009).

Most learning theories were developed in the pre-digital era, though they may have taken on new forms as technology developed. For example, scholars like Dewey and Vygotsky proposed constructivism as a learning theory in which knowledge is constructed by the learning

[2] In this context, “rector,” from the Latin for “ruler,” refers to the head of a postsecondary institution. It is also commonly used in religious contexts to refer to a member of the clergy in charge of a parish or other institution, including an educational one.

subject. However, inspired by what he observed of children learning and using programming language, Papert (1986) extended constructivism into a theory he called “constructionism,” which included the tenet that this construction of learning occurs best in interaction with manipulative materials.

More recently, connectivism, which allows for machine as well as human learning, has been proposed as a learning theory for the modern world by thinkers like Siemens (2005), who worked as a professor and strategist for Alberta’s online distance learning PSEL, Athabasca University. Connectivism posits that, while learning does involve knowledge construction, learning is also not fully under the learner’s control but is, in some sense, the result of a confluence of forces and factors of an increasingly interconnected world; the learner’s job is to develop a multidisciplinary perspective towards the world and to learn to recognize which knowledge to assimilate and which to discard (Ally, 2011). That insight is relevant to online learning, in which each student is seen as a ”node,” connected through various digital links to a wide array of technological links. The connectivist perspective is similar to the earlier observations of Marshall McLuhan about how digital technology has turned the world into a global village (McLuhan & Powers, 1989). Connectivism’s resonances with McLuhan have been noted (Salvatori, 2017); Siemens’ observation on the non-human component of learning, “The pipe is more important than the content within the pipe,” is essentially a paraphrase of McLuhan’s famous aphorism that “the medium is the message” (McLuhan, 1964, p. 1). If McLuhan’s thought is an application of Catholic philosophy to the digital world, then connectivism, if it is seen as an elaboration of McLuhan’s insights, can also be seen as consonant with a Catholic worldview.

In summary, we can state that the PSELs in the digital era should aim to foster an online CoI and should recognize that the attitudes and beliefs of instructors will influence the ways they create or fail to create that community. In turn, instructors should be sensitive to new theories of learning like connectivism, which incorporate elements of previous theories, such as constructivism, while taking into account the rapidly changing technological situation and the way it sheds light on how that learning takes place. These are all essential to keep in mind if technology is to be harnessed for pedagogical purposes rather than the other way around.

We now turn to Catholic institutions to see what their unique pedagogical purposes are.

Catholic Postsecondary Education

Not only is Catholicism deeply tied up with postsecondary learning, but the very origins of the Western university are inseparable from the institution of the Church. The predecessors of the medieval university were the cathedral schools and the monastery schools, which developed a curriculum that sought to interpret all knowledge and wisdom, including the insights of pre-Christian philosophers, through the light of Christian doctrine. The development of the university was fueled by papal charters, including the papal blessing on some institutions to grant licences to teach (*licentia docendi*), which had to be universally respected. This was the origin of the doctorate institution (Noone, 2018). The fact that the center of medieval education shifted from the monasteries to the new institution of the university under the aegis of the Church shows that Catholic higher education was always willing to adapt and accommodate its mission of teaching to a changing cultural situation, much like the one in confronts of the rapidly digitizing world of today.

Pope John Paul II (1990) issued an apostolic constitution about Catholic colleges and universities titled *Ex Corde Ecclesiae* (“From the Heart of the Church”), which explained:

> A Catholic [PSEL] pursues its objectives through its formation of an authentic human community animated by the spirit of Christ…As a result of this inspiration, the community is animated by a spirit of freedom and charity; it is characterized by mutual respect, sincere dialogue, and protection of the rights of individuals. It assists each of its members to achieve wholeness as human persons; in turn, everyone in the community helps in promoting unity…and also towards maintaining and strengthening the distinctive Catholic character of the [i]nstitution (paragraph 21).

We can summarize this excerpt, and thereby the entire document, thusly:

1. The Catholic PSEL ought to be a community.
2. This community ought to be characterized by authentic interrelationships of Christian love.
3. The PSEL's goal is the spiritual as well as the cognitive growth of its students.
4. Everything about the PSEL ought to be distinctively Catholic.

Point 4 touches on a theme which often recurs in Papal documents: Every aspect of a Catholic school should be permeated with Catholicism. This immediately indicates that ICT at such an institution should also be "permeated." Determining what this means in practice requires us to review how the Church understands the nature of education itself.

The Church designated Thomism, the thought of the medieval Scholastic philosopher St. Thomas Aquinas, as its official philosophy in 1879. Aquinas explains his view of education in *Summa Theologica* I-I, q. 117, a. 1. He views the teacher's role as being like that of a physician. Like a medical doctor, a teacher does not directly cause the learning or healing, but rather assists the student or patient in achieving something they are already naturally capable of by introducing something supplemental, whether that be ideas or medicines. For Aquinas, learning is ultimately

caused by the students themselves by means of a faculty called the active intellect, which generates concepts from the sense data it receives.

McLuhan (1951), a Thomist convert to Catholicism, identified the active intellect with the "poetic process," meaning there was something creative about the way the mind constructed knowledge. McLuhan is thus a bridge between Thomism and constructionism. McLuhan also recognizes in his other work (1964, 1989) that this construction is mediated by the wider "global village" and by the various forms of media in a way that is consistent with connectivism. We can thus draw a further connection between McLuhan's interpretation of Thomism and connectivist learning theory.

Having established some general epistemological and pedagogical principles from the tradition, we now turn to what the content of Catholic education is supposed to be. Hanchin (2019), inspired by the actions and utterances of Pope Francis, suggested that the essence of Catholic education is "encounter." The primary encounter involved here is an encounter with God. The first paragraph of *Ex Corde Ecclesiae* notes a kind of paradox about Catholic universities: They seek truth even though they have already discovered Truth in the person of God Himself. Encountering God, in turn, requires spirituality, which is understood in a Catholic way.

The Catholic PSEL is thus committed not only to the intellectual development of its students but also to their spiritual development (John Paul II, 1990, para. 13). It should, in some ways, facilitate their encounter with God. This means providing spiritual nourishment as well as cognitive nourishment. Roberts (2019) referred to this as "formational teaching," an education driven by the Holy Spirit that focuses on the character development of the student, which helps them become more like Jesus. That said, Shimabukuro (2008) noted that an education rooted in

Christian spirituality now faces the challenge of being accessible to "digital natives" who have grown up in the information age.

We can, therefore, suggest that Catholic schools are bound to have a fourth kind of online presence besides the three identified in the acronym CoI: Pastoral Presence. While instructors can contribute to Pastoral Presence, it is neither synonymous with, nor limited to, the activity of teaching and must therefore be distinguished from it in a way that leaves open various other ways the entire PSEL, by way of the technology it uses, can provide this presence. Following Anselm's definition of theology as "faith seeking understanding," alluded to in paragraph 5 of *Ex Corde* (John Paul II, 1990), we could call these four presences the ingredients for a Community of Faithful Inquiry (CoFI).[3]

The question of what the "faithfulness" of CoFI involves leads to point 3 and to the second form of encounter in Catholic education: Encounter with other human persons. In this context, the most immediate example of this is encounter with others in the PSEL community. *Ex Corde* cited Newman (1992) as stating that community among students was more important at a university than instruction was. It should also mean an encounter with the poor and marginalized, as expressed by Catholic social teaching in its concept of "the preferential option for the poor" (Dorr, 2016). Catholic education should also be oriented towards the Christian *praxis* of the corporal works of mercy.

Additionally, Catholic social teaching also stresses workplace democracy and workers' rights, commending the work of unions and cooperatives. This is not necessarily related directly to pedagogy, but is worth remembering when considering the challenge Catholic institutions face to be faithful to these economic principles in the face of neoliberalism (Beyer, 2021).

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[3] Remember that we are broadening this concept from referring only to the community of a particular course to that of the entire PSEL.

In summary: Catholic universities are to be communities dedicated to fostering the spiritual growth of their students. This means supporting their devotional and contemplative life as well as their Christian *praxis*. When it comes to learning content, they should invite the active learning of students; McLuhan recognized the implications of this for technology and media. They should be committed to supporting the most marginalized in their communities.

Catholic Concerns with Online Learning

It is worth noting the criticisms that have been made of online learning from a Catholic perspective, both to acknowledge the useful cautions they offer and to recognize the ways in which online learning can avoid the problems they identify (Barbour et al., 2019).

One issue is the supposed lack of embodiedness. Catholicism is based on the idea that God became a human being in the Incarnation and that contact with his physical presence and that of fellow Christians is thus key to the Christian life (Catholic Church, 2000, para.s 115-116). This is why sacraments play such an important role in the life of the Church and why they cannot be received "virtually." For example, from the perspective of Roman Catholicism, one cannot validly confess to a priest over the telephone or over Zoom, nor is watching a livestream of Mass considered "going to church" (Pontifical Council for Social Communications, 2002). Online learning is similarly accused of being disembodied and, therefore, could be deficient from a Catholic perspective.

Similarly, not only is there a general tendency towards individualism in technology, already identified by Grant (1998), but the Internet itself, like the devices used to access it, is by design meant to be convenient and accommodating to the desires and comfort of the individual user (Frehill, 2024). This reality tinges the experience of taking online courses, and Nichols

(2011) cited skeptics who wonder if something like Newman's ideal of a university community, as mentioned in section II, is possible in that setting.

Finally, the digital divide, in which marginalized groups have less access to the benefits of new technology than more privileged groups with better financial and technical resources, puts lower-income students at a disadvantage in the online classroom (Abdrasheva et al., 2022). Moreover, while some customization of the online learning environment to its students is possible, skeptics assert that this is different from personalization. Critics like Malesic (2013) claim that a teacher can more easily accommodate their teaching to a struggling student sitting right in front of them than they can for a struggling student in the comparatively impersonal LMS. Online learning is, therefore, alleged to be at odds with the Christian mission to give special care to those who are, in Jesus' words, "the least among you" (Matthew 25:40).

There are a few points which can immediately be made in response to these charges.

The first is that distance education has a precedent in the Bible. Much of Christian Scripture consists of epistles and letters written to give doctrinal and practical instruction to congregations in different parts of the empire. The New Testament authors used contemporary technology to teach from a distance. It is, therefore, not surprising that recent popes have given a qualified endorsement to the use of electronic resources (Ngumba et al., 2019).

Further, in dealing with the four presences of CoFI, we should consider how McLuhan famously defined media and technology as "extensions of ourselves" (1964). The computer, for example, extends its user's psyche and nervous system around the world. McLuhan's definition of media has been compared to the Catholic theological concept of a sacrament as being a symbol as a sign that makes present what it signifies (Soukoup, 2011), which is not dissimilar to the Orthodox understanding of religious icons as in some sense making present the figures and

scenes they depict (Zelensky & Gilbert, 2005). We should not be too quick to dismiss the possibility that our online selves are, in a genuine if limited way, quasi-sacramental extensions of our embodied selves.

Relevantly, to be embodied means being in a particular place. Schade (2022) noted the increasing academic interest in "place-based" education in relation to online learning. The question then becomes whether physical places can play an important role in online theological education; if so, this counts against the idea that online learning and presence is something divorced from incarnate human existence.

Finally, multiple studies have indicated that online formation can be just as effective as in-person formation and, at times, be even more successful (Nichols 2015, 2016). These findings are intriguing, but we cannot be content with them: We must understand why this is the case so that this success can be intentionally cultivated when online learning is necessary, as it often will be.

Recognizing all this, let us consider whether a Catholic university can achieve CoFI using its LMS.

The Digital Encounter with the Divine and with Humanity

We have seen that the primary encounter of Catholic education is with God, Who is understood by Catholics to have been revealed in the Scriptures and understood through the official teachings of the Church, as explained in the documents it produces. Online learning provides direct access to these sources. Arroyo (2010) explained how he strenuously avoids using secondary sources and textbooks when teaching religion online. Whenever possible, he has students engage directly with primary sources like the Hebrew and Christian Scriptures, the

Noble Qur'an, the Bhagavad Gita, and so on. This allows the student space to engage thoughtfully and immediately with them.

There are also ways of engendering spirituality in students using digital resources. Oliver (2019) described a class he teaches called *Dipping Our Toes into Multimedia Spirituality*, in which students are divided into groups and asked to pray and meditate using digital resources, such as an app and podcast, *Pray As You Go*, dedicated to Jesuit prayer. Admittedly, Oliver's context is a seminary. The student body he describes would, therefore, consist of individuals who not only share the same faith and denomination but who are also all uniquely committed to spirituality. An instructor to a religiously and spiritually mixed student body, where not every student will be Catholic and not every Catholic will be equally spiritual, would have to approach this differently. That said, there are many digital prayer and meditation resources from many different spiritual and wisdom traditions available (such as *buddhify* for mindfulness and meditation or *Athan* for Islamic prayer). Consistent with the principles of andragogy, students could be given the freedom to find apps suitable for their spiritual journeys.

The use of these online tools can be included in assignments and can further serve to deepen all students' interior lives and, hopefully, bring them closer to God. Moreover, while the Internet may have an "individualizing" effect, in this situation, the solitude of the student can actually be an advantage since it may be easier for them to enter into the intensely personal activity of thoughtful reading, meditation, and prayer in the quiet privacy of their home (Ascough, 2002).

In Catholicism, encounter with God also occurs through exposure to iconography, religious statuary, sacred architecture, and other physical imagery. The campus and chapel of a Catholic university ought to be designed to be filled with such devotional imagery and thus be a

place of encounter. But this place can itself be “extended” through online learning. Just as many have taken to “visiting” religious pilgrimage sites through the Internet in the phenomenon known as “cyberpilgrimage,” in which cyberspace becomes sacred space (Hill-Smith, 2011), the university’s physicality can be presented to online students for their reflection and meditation. Oliver (2019) gave the example of how he posts photos of stained-glass windows at his church on social media to invite congregants’ observations on what they mean and calls this “digital geography.” Something similar can be done in an LMS context with the university’s campus, thus giving students a sense of connection to the location where their education comes from while simultaneously inviting them to divine encounters.

Having different members of the community posting and sharing their reactions to a religious text or image is, naturally, also a form of encounter: An encounter with other students and with their spiritualities. Catholicism does not share Protestantism’s[4] emphasis on the reader’s idiosyncratic reading of the Bible but holds that interpretation happens in the community. The online setting has the distinct advantage that each student, regardless of their language proficiency, physical condition, or any struggles with shyness they may possess in “the real world,” can contribute to the discussion. The marginalized are thus given a voice by the LMS (Lamb, 2019).

There are other ways of deepening these encounters. Gilliat-Ray (2020) described designing a MOOC (Massive Open Online Course) about Islam in which Muslim students were invited to post short videos of themselves describing their lives and their faith for their peers to watch. This not only heightened community and deepened the sense of mutual encounter but also

[4] Protestantism refers to the churches and theological traditions that arose out of the Protestant Reformation of the sixteenth century, including Lutheranism, Presbyterianism, Pentecostalism, and the various Baptist traditions. Protestant theology can be very diverse, but it generally sees Scripture alone (*sola Scriptura*) as the source and standard of theology and does not regard tradition or Church teaching as having the authority that Catholicism does, and as a result tends towards a more individualistic than communal approach towards reading and interpreting the Bible.

challenged preconceptions about the Islamic world, which non-Muslim students may have brought to the course.

This situation has strong connectivist overtones. Each student is a “node” of information feeding their experiences and ideas, including their experiences and ideas of God, into a conversation occurring throughout the global village in which that connectivity serves as a channel of content that goes deeper than mere information into the interpersonal encounter and even shared spiritual experience. Knowledge is constructed out of this digitally mediated confluence of testimony (Chetty, 2013).

The Pastoral Presence of the Instructor

The Internet’s democratization of information has had many positive effects but also some negative ones, including a kind of levelling effect when it comes to the way providers of information and misinformation are perceived. For many Internet users, homemade websites have the same level of authority as university textbooks. The worldwide web may similarly confer the same level of credibility on a student’s peers as it does on that student’s professor (Flanagin & Metzger, 2013).

Let us first focus on the advantages here. The LMS forum is a place of “decentered learning.” The instructor is no longer at the center of the learning environment, but this does not necessarily mean the individual student takes their place. Instead, the center can and perhaps should move to “the wisdom of the learning community…of which the master is part” (Troftgruben, 2018, 35). The complex network of intellectual connections within the learning community can generate new concepts, which have been shown not to be opposed to the Catholic pedagogical tradition. To that extent, this is a highly desirable development from a Catholic perspective.

On the other hand, Catholicism does recognize such a thing as a wrong answer in religion; this is known as heresy (Catholic Church, 1983, canon 751). Given that there are such things as heretical ideas, it follows that there are also sources that are more valuable than others and interpretations of human experience that are more helpful and enlightening than others. This is where the instructor plays a key role as a guide for the dialogue between students. Even Arroyo (2010), who took an openly postmodern and "liberating" view of pedagogy, recommended steering conversations on religion away from "fringe ideas" (p. 44). Conversely, from a Catholic perspective, everything can be connected back to God because "all truth is God's truth" (Holmes, 1977), and thus a skillful instructor can find ways to draw any discussion and any themes that emerge in it back to Christianity. Ngumba et al. (2019) called this a "rhizomatic" approach to teaching Catholic theology, a reference to the post-structuralist concept of knowledge that spreads out like a network of roots rather than existing in a rigidly structured hierarchy.

Perhaps paradoxically, for this rhizomatic approach to learning to be possible, the teacher must be as present as they can be. This does not mean that they are speaking as often as possible; being present often means knowing when to be "absent" from the conversation so as not to stifle the process of discovery among students (Arroyo, 2010). However, an essential component of a CoFI is relationship-building between the instructor and their students, which occurs through regular, meaningful dialogue (Roberts, 2019). This is not only to clarify intellectual difficulties or prepare students for assessments but also to provide spiritual support for them, such as helping them analyze how what they are learning can deepen their relationship with Christ and pray with them (Barbour et al., 2019). A CoFI can come into existence when this occurs.

Online Learning and Christian *Praxis*

Given that Christianity calls for contemplation as well as action, Catholic postsecondary institutions should be equipping their students to live out the Gospel in their non-academic lives, as referenced in paragraphs 41 and 42 of *Ex Corde*. This may be where distance and online learning are most obviously of service to Catholic universities.

Catholic Distance University, as its name implies, provides education entirely through this format. When it was originally founded, and before it could confer degrees, its name was the Catholic Home Study Institute (Walter, 2013). This was significant. For Catholics, the layperson's home life and family life are of paramount importance, particularly for those in the sacrament of marriage who are raising children (Catholic Church, 2000, para.s 1655-1658). Enabling them to study Catholic theology from home was not about superficial comfort or convenience but about enabling the faithful to carry out their vocation in the world while still having an educational encounter with God. This also allowed the university to be evangelistic,[5] since it could reach anywhere in the world. Evangelization is another goal of the Catholic university, per paragraphs 48 and 49 of *Ex Corde*.

Online learning's ability to allow students to fulfill their vocation to their family and their profession gives an indication as to why formation among online students is often as strong, if not stronger than among in-person students. Various studies indicate that off-campus students attend church more regularly than students on campus, which is largely because those who stay home already have congregations they belong to and are involved with, while those who moved to attend the university can have more difficulty finding and integrating into a new parish (Palka, 2004; Nichols, 2015). Thus, distance learners receive their primary intellectual formation from university but their primary spiritual and pastoral formation from their local church community, meaning that their church life is enhanced by what they learn in postsecondary, and their

[5] Evangelization is the practice of proclaiming the Gospel (*evangel* or "good news" in Greek).

postsecondary learning finds application and meaning in the enacted practice of their church life (Nichols 2015, 2016; Roberts, 2019), leading to them receiving a better overall formation than those who are either only taking postsecondary education or only attending church.

Nichols (2011) suggested that there are two types of Christian fellowship at play here: The *akadameia* (academy) and *ekklesia* (church). They are both communities, and are both important, but they serve and are meant to achieve different purposes. In this sense, the fact that one cannot receive a sacrament online (Pontifical Council for Social Communions, 2002) is, in some sense, irrelevant to the fact that one can still receive a Catholic university education online. Conceding this fact but remembering that the spiritual growth of the enrolled is still a priority for the Catholic PSEL, its online education should seek to foment Christian *praxis* among its students as much as possible.

Online students can thus participate in the *ekklesia* in person while also participating in the *akadameia* through digital media, and, indeed, the *akadameia* can find ways to foster this ecclesial engagement. For example, Oliver (2019) has his students visit and provide feedback on church websites to assess how effectively they serve their communities and invite visitors. This trains students in thinking about how to work with their parish in an evangelistic way. When it comes to service within the world, Schade (2022) described a pedagogical tool she uses called the *"Who is My Neighbor?" Mapping Exercise*. This activity involves immersing oneself in one's environment, whether that means meeting with local politicians, talking with health care workers, connecting with local environmentally conscious businesses, attentively walking around town, or simply sitting still and observing your area. The student then creates a visual "map" of their findings, which can be a physical map or a collage, PowerPoint, or other visual displays. This map should depict all the "neighbours" in one's area whom this person is called to

love as a way of answering the Biblical question, "Who is my neighbour?" (Luke 10:29). This digital lens is intended to enable the student to view their community through an ecohermeneutical lens and think more deeply about what "care for our common home" (Francis, 2015) means concretely in their situation.

Once again, embodiedness means an awareness of place. Online learning can not only extend the place where the university is located but also root the student more deeply in their own place for the purpose of love and service. Indeed, digital learning opens up the entire landscape to be a place of reflection, learning, meditation, and prayer, which is perhaps why, in his final book, and his only book focused on education, McLuhan et al. (1977) stated how the digital age had turned the entire city into a classroom.

Conclusion: Implications for Educational Leaders

From a Catholic perspective, technology reveals the image of God in the human ability to create incredible tools but also poses considerable risks. We have recognized the threat to a Christian vision of university education posed by technology-driven capitalism and have also seen how an LMS can be utilized at Catholic postsecondary institutions in ways that are consistent with Catholic educational theory and the vision of universities laid out in *Ex Corde Ecclesiae*. We therefore return to our initial question of what this means for PSELs at these institutions.

Firstly, the importance of community for the Catholic ideal of university has been demonstrated. However, Kowch (2016) noted that, in practice, most postsecondary institutions are not genuine communities. How to effectively build an authentic community among staff is a challenge to leadership, which goes beyond the scope of this paper, but one key unifying feature of the faculty ought to be a shared vision of what is to be taught and how it should be taught. A

common pedagogical mission will have implications for ICT since, as noted, instructors use LMSs differently based on their personal beliefs about learning. It has also been shown that Catholic social teaching promotes the rights of workers to have a measure of control in their workplace. This, too, has ramifications for ICT. Lawler (2011) reported on how the University of Ballarat's transition from the Blackboard LMS to the Moodle LMS was "surprising[ly] successful" because this change was effected in consultation with the faculty rather than imposed on them from above. These significant decisions about pedagogical tools should not be made without granting a degree of control over these decisions to the teachers who will actually be using this technology. This is not only because instructors will use LMSs more effectively if they feel favourable toward them but also because workplace democracy is a principle of Catholicism.

Community among students should also be promoted, and LMSs should be designed with an eye toward encouraging the growth of relationships between learners-what form this may be an open question. Some data suggests that Facebook may be a more effective learning platform than a standard LMS because students on social media experience more of a sense of companionship than in their university forums (Meisher-Tal et al., 2012; Vázquez-Cano & Díez-Arcón, 2021). Barbour et al. (2019) recommended Stack Overflow as a platform for forum discussions but also noted how instructors use Skype to build relationships and pray with their students. Chetty (2013) even recommended the multiplayer virtual world Second Life for discussions in religion class since the different groups within a classroom can be depicted as separate locations where participants interact and communicate.

The visual content of the LMS is another issue. Oliver (2019) suggested that visually attractive and easily digestible content is best for generating community-building engagement,

but Arroyo (2010) warned that videos that require higher bandwidth[6] to download will be more difficult for lower-income students with less updated devices to access (see also Barbour et al., 2019) and that more visual content leaves students less mental room for building personal meanings and making creative contributions. Oliver (2019), therefore, recommended using audio clips instead.

In deciding what kind of platform the university will use and what media it will support, the Catholic PSEL ought to remember the importance of iconography. The Church understands icons to be images that make sacred events that depict contemporary events to the viewer, just as a user's digital avatar symbolically presents them to their viewer (Vasiljevic, 2018). The power of media is its ability to direct its users' attention, and iconography can play a role in how a Catholic PSEL directs the attention of its students toward the transcendence of God and the implications of this fact. Consideration should be given to the question of whether, for example, a cross ought to appear at the top of every page of the LMS, just as one often hangs on the wall of Catholic classrooms.

A PSEL seeking to become a CoFI should weigh how best to be spiritually available to its online learners. Young (2022) suggested that artificial intelligence could be programmed to provide pre-recorded videos from spiritual leaders dispensing wisdom for specific occasions, or "pastoral carebots," to those experiencing distress. While this specific suggestion may be problematic given its faint implication that spiritual direction can be automated, Catholic institutions should prioritize making the spiritual counsel of their chaplains as available as possible to their students in the cyber-classroom. Perhaps short videos or podcasts of chaplains

[6] In a computing context, bandwidth is the highest rate of data flow possible across a specific path.The maximum amount of data that can be transmitted via a network connection in a specific amount of time using a wired or wireless communications link is measured as network bandwidth. Lower network bandwidth in an Internet connection will result in a user's Internet working more slowly and sporadically.

giving pastoral advice on specific issues that students are likely to encounter could be available in the LMS, or a chaplaincy chat service could be built into the university's website.

Ensuring that CoFI is achieved presents many challenges for PSELs, who must take the spiritual and economic health of all its students, especially the most marginalized, into account in the face of strong marketing pressures from technology companies. However, Catholic education has taken advantage of technological developments in the past; witness the strides that reformers like St. Joseph Calasanz and St. Jean Baptiste de la Salle took in their schools. These challenges also bring excitement about the great possibilities that lie waiting in the future.

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