

Online Religion? The Evolving Religious Information Landscapes
of Zen Buddhism and Roman Catholicism

Tim Gorichanaz

Drexel University

Author Note

Tim Gorichanaz, College of Computing & Informatics, Drexel University.

Correspondence concerning this article should be addressed to: Tim Gorichanaz, College of Computing & Informatics, Drexel University, 3141 Chestnut Street, Philadelphia, PA 19104.

Contact: gorichanaz@drexel.edu.

Abstract

Advances in technology allow for new modes of access to both secular and religious information. Historically, some religious groups seem to have been eager to accept technological developments, while others have done so reluctantly. Nevertheless, the sustainability of a religious tradition depends on the ability of its believers to continually access information in an evolving world. Modern technology has occasioned broader religious information landscapes than ever before, to the extent that religion can seemingly be practiced using entirely online tools. Is this possibility borne out in reality? Through a synthesis of the nature and historical development of Zen Buddhism and Roman Catholicism, this study identifies some aspects inherent in each tradition that have influenced each one's religious information landscape. It then explores the extent to which each religion can be practiced without an in-person faith community. These findings suggest an opportunity for further investigation into the information behavior of technology-enabled believers as a means of better understanding the future of religious experience.

Keywords: Information landscape, information behavior, Catholicism, Buddhism, Zen

Online Religion? The Evolving Religious Information Landscapes
of Zen Buddhism and Roman Catholicism

This study introduces the concept of *information landscape* and proposes religious information landscapes as useful for studying religious information behavior. It then describes the key features of the religious information landscapes of Zen Buddhism and Roman Catholicism in order to discern, through historical synthesis, the extent to which their religious information landscapes reflect characteristics inherent to the religions themselves. Finally, it discusses whether the information landscapes of Zen and Catholicism afford online religious practice, as indicative of the evolving nature of the very notion of religious communities.

Information Landscape as a Concept

It's a small world, after all. And as communication and transportation technologies continue to improve, we often say the world's getting even smaller. And yet, the size of the world relative to a human being has not changed; the physical earth is as vast as ever. Because of this vastness, we find it useful to refer only to the visual features of the earth that are relevant at any given time. The North American continent, the Delaware River Valley, this building... The visual features of the world comprise its *landscape*, and this landscape can be framed as fitting to any situation. Canoeists, for example, may be interested only in the river, not the distant mountains. Framing the overarching landscape of the world frees us from having to consider the world in its entirety—which is welcome, because knowing the objective entirety of the earth from our human vantage is simply impossible.

Though *landscape* generally describes geography, we can conceptualize information landscapes, adapted from Annemaree Lloyd's (2006) *information literacy landscapes*, which

consider “people, content, [and] processes as they constitute a holistic and dynamic multidimensional system” (Skovira, 2004, p. 309). Adventurers navigate geographic landscapes through orienteering, and information users navigate the particular affordances of information landscapes through analogous practices (Lloyd, 2006).

Just as the landscape of the entire earth can be framed, so can the information landscape. Rather than having to tend to the entire infosphere (Floridi, 2010) every time we want to discuss information, we can focus only on those aspects that are relevant to a given discussion. Each specific framing (which, for convenience, is sometimes also called an *information landscape* in its own right) has a distinctive shape and character (*e.g.*, educational and workplace information landscapes differ). Defined by Lloyd (2006) as an intersubjective space, each information landscape reflects the way information is collectively exchanged by those engaged in the information practices and performances in that space. These information landscapes are constructed through “epistemic, social, and corporeal experiences with information. The prominence of each modality within a landscape will reflect the ontological nature of the particular setting” (Lloyd, Kennan, Thompson & Qayyum, 2013, p.130).

Religious Information Landscapes: Examining Religious Information Behavior

The concept of information landscapes has guided research in organizational information management (O’Day & Jeffries, 1992) and everyday life information behavior (Lloyd, 2006). It seems feasible, then, to apply the concept to religious information in order to provide a framework for studying the information behavior of believers¹ as it changes across time, culture and geography.

¹ The term *believer* is used to refer to a person who identifies with a religious tradition.

The religious practices and beliefs of individuals can differ from those prescribed by religious institutions. Meredith McGuire (2008) offers the term *lived religion* to make this distinction, highlighting that lived religion is complex, may appear incoherent and is not necessarily linked to the beliefs and practices promoted by the religious institution with which the person identifies. Framing religious information landscapes can offer insight into the lived religions of individuals, while revealing how each individual's behavior sits within the overarching information landscape of a given religious tradition or symphony of traditions.

This discussion assumes that people engage in information behavior as part of exercising their religious beliefs and practices, which is not immediately evident. In the 2013 *Conference on Information & Religion*, Elysia Guzik presented on the information seeking behavior of religious converts. It seems that non-converts also engage in such behaviors, if only passively; Tim Bednar (2004), for example, examines how Christians adopted blogging as non-converts to enrich the religious experience of all participants. He highlights that the blogosphere has the potential to transform the very notion of religious practice:

I opened my eyes and found myself in the midst of what can only be called the cyberchurch. I was interacting on a spiritual level with other believers scattered across the world. We shared ideas, but also extended concern and caring to one another. (Bednar, 2004, p. 7)

Furthermore, as will be discussed below, the contemporary information landscapes of Roman Catholicism and Zen Buddhism demonstrate active information seeking by believers.

Aspects of the Religious Information Landscape

A religious information landscape is the network through which information regarding a religion is exchanged. It might be thought of as the sum of information grounds (Fisher & Naumer, 2006) where religious information is exchanged, including those in both physical and conceptual spaces (Narayan, Talip, Watson, & Edwards, 2013), but it must be understood to include not only the grounds themselves, but also the information exchanged on those grounds and the implicated processes. The landscape itself is afforded by religion-as-preached (McGuire, 2008); believers navigate this landscape idiosyncratically as they practice their lived religions.

Thus the religious information landscape includes, but is not limited to: sites where believers gather; religious objects and their use; social networks; prayers, rituals and sacred texts; rulings, exegeses, sermons and other interpretations; and books and other sources that relate religious belief and practice to everyday life.

Not all aspects of geographic landscapes are equal (Mount Fuji, for example, dominates eastern Japan); likewise, certain aspects of religious information landscapes are more salient than others. From a religion-as-preached perspective, some features are of central importance, as prescribed by religious institutions. These may or may not be the same as those places and routes most frequently traveled by individual believers.

We might be tempted to consider a religion's sacred text to be the Mount Fuji of its information landscape. Grant Hardy (2014) identifies that scripture tends to be central to religious traditions because it communicates core values and functions as a cohesive glue. Christianity, for example, is known as a Religion of the Book (Poston & Poston, 2011), and it rests heavily on the information found in the Bible. But in other religions, it's less clear how central sacred texts are to information practice. The Hindu canon is vast and undefined, and

scripture is traditionally performed in a language not understood by modern believers. Thus, it is used primarily for its aural and ritual value, rather than its content (Hardy, 2014). The Buddhist canon is even more unwieldy; there is no particular corpus that is considered by all Buddhist sects as authoritative (Veidlinger, 2010).

The Information Landscapes of Zen Buddhism and Roman Catholicism

Below are discussed two religions practiced in the United States of America, Zen Buddhism and Roman Catholicism, and their respective information landscapes. Less than 0.3% of Americans identify as Zen Buddhist, and approximately 23.9% identify as Catholic (The Pew Forum on Religion & Public Life, 2008). (For reference, according to the same survey, 0.7% identify as Buddhist in general and 78.4% identify as Christian.)

As an exploratory foray, this study identifies only the most salient features of these religious information landscapes. In particular, the possibilities afforded by the profusion of smartphones in the United States can shed light on how religious information landscapes have evolved in recent years. In the overviews below, special focus is placed on smartphone applications (apps) and podcasts available on Apple mobile devices. According to the Pew Research Center 2013 survey *Cell Phone Activities*, half of smartphone owners download apps, making it one of the most widely used smartphone features (Duggan, 2013). Another survey showed that 30% of smartphone users have listened to podcasts; this figure has been steadily climbing over the past decade, demonstrating increased prevalence of the medium (Edison Research & Triton Digital, 2014). Apple is the world's largest smartphone manufacturer; Apple's iOS is the most widely used smartphone operating system in the United States (Leswing, 2015).

Zen Buddhism

Zen Buddhism originated in India and spread to China and Japan. As James Hilgendorf (2012) explains, Zen was introduced to America in large part by Henry David Thoreau and his contemporaries. Twentieth-century Zen teacher D. T. Suzuki had perhaps the greatest impact in the spread of Zen in America because of his literary output.

As a denomination of Buddhism, Zen follows the teachings of the Buddha, a man who lived in ancient India. Orthodox belief holds that the Buddha was not divine. While the Buddha was alive, he outlined the path to salvation, inviting others to follow (Hamilton, 2001). The Zen school of Buddhism was founded in the sixth century CE by Bodhidharma, a monastic who defined Zen as: “A special transmission outside the scriptures; no dependence on words and letters; direct pointing to the mind of man; seeing into one's nature and attaining Buddhahood” (as cited in O’Brien, n.d.-b). Thus Zen focuses on the in-person transmission of its teachings, rather than relying on the study of scripture. Moreover, Bodhidharma taught that spiritual realization in Zen cannot be achieved through intellectual study; it must be experienced by observing oneself. This observation is carried out primarily through the practice of seated meditation (O’Brien, n.d.-b).

The Zen information landscape. The very definition of Zen given by its founder seems to curtail the importance of sacred texts. Still, Zen does have a generally accepted canon, which consists of recorded sayings of historical Zen masters, collections of koans (riddles meant to encourage intuitive rather than intellectual analysis), and stories of teacher–pupil relationships (Wright & Heine, 2004). It should be noted that the Zen canon is not considered the revealed divine word (O’Brien, n.d.-a).

With this in mind, it is not surprising that sacred texts are not central to Zen practice. Instead, Zen teaching is primarily concerned with the correct practice of seated meditation, in which believers assume a specific posture and silently observe their breath (Dogen, n.d.). Seated meditation can be done on one's own, or as part of a communal service. These services generally include dharma talks (analogous to Christian homilies) and chanting.

The Zen information landscape is also comprised of numerous books on Zen and Buddhism in general (and related topics, such as calligraphy); magazines such as *Shambhala Sun*; courses and retreats; blogs and other websites; radio broadcasts; applications; and more.

To get a sense of how the Zen information landscape has changed in recent years, the most popular podcasts and iPhone apps on the U.S. Apple iTunes Store (Table 1) were examined. These were retrieved via the query “zen buddhist” in the iTunes Store search engine, which lists results in order of popularity.

Table 1

Most popular Zen Buddhist podcasts and iPhone apps

Zen Podcasts	Zen iPhone Apps
Upaya Zen Center	Buddha Quotes
San Francisco Zen Center	Pocket Zen
Living Zen Podcast	Meditation Timer
Ancient Dragon Zen Gate Dharma Talks	ZenView
Zen Talks from the Windhorse Zen Community	Zen Quotes & Sayings
Rochester Zen Center Teisho Zen Talks	Access to Insight: Readings in Theraveda Buddhism
Hardcore Zen Podcast	Sati
The Drinking Gourd Podcast	Buddhism by Pictures
Katagiri Roshi Talks: Minnesota Zen	Buddha Quotes with Music
MN Zen Meditation Center: Sunday Talks	Brain Wave Zen Meditation

With the exception of *Hardcore Zen Podcast*, all the top Zen-related podcasts are recorded dharma talks from Zen communities. *Hardcore Zen Podcast* offers an independent commentary on Zen's place in our wider, contemporary culture, but because this podcast is hosted by an ordained Zen practitioner, its episodes have the flavor of dharma talks.

The iPhone apps are more varied. *Buddha Quotes*, *Pocket Zen*, *Zen Quotes & Sayings*, *Access to Insight* and *Buddha Quotes with Music* all offer texts from Zen Buddhist canonical works, often served as daily notifications meant to keep Zen and Buddhist thought top-of-mind. *Buddhism by Pictures* offers a library of historical and contemporary Buddhism-inspired artwork from around the world (this app also offers quotes). Finally, *Meditation Timer*, *Sati* and *Brain Wave Zen Meditation* offer assistance to meditators.

Roman Catholicism

Roman Catholicism arrived in the Americas with the European colonization, and missionary efforts and immigration in the ensuing centuries bolstered the faith (Middleton, 2003).

Catholicism follows the teachings of Jesus, who lived and preached in the first century. Jesus was sentenced to death by crucifixion, then was resurrected and ascended into heaven. His story is recounted in the Gospels, which form part of the canonical Holy Bible (Aslan, 2013). Before dying, Jesus appointed his apostle Peter as leader of the faith community that followed Jesus' teachings, which became the Catholic Church. Since then, the Catholic Church has always had a pope, who is understood as Peter's spiritual successor (Richert, n.d.).

Catholic doctrine asserts that, in order to achieve salvation after our own deaths, we must love and serve God in life by living out the message of Jesus Christ, the divine Son of God

(Catholic Online, n.d.). Thus, practicing Catholicism is centered around belief. The importance of belief in Catholicism is further evidenced by its key ritual practices, the Holy Sacraments (Richert, n.d.). Of the Holy Sacraments, it will suffice to highlight Holy Communion (also called the Eucharist), which is practiced every time a believer attends Mass (after a period of study leading up to their First Communion). In Holy Communion, believers achieve communion with Jesus Christ through consuming Jesus' body and blood.

The Catholic information landscape. The Holy Bible is central to Catholicism (Bransfield, n.d.). The Bible includes the Gospels, which relate the story of Jesus Christ, and also a number of other books that have been canonized by the Catholic Church, including the Hebrew Scriptures (Hardy, 2014). Reading the Bible is understood to strengthen Catholic belief. Thus the Bible is read during Catholic services, and Catholics are encouraged to read the Bible on their own. In addition to the Bible, a number of ritual, apologetic, theologic and exegetic works are also fundamental to the Catholic information landscape—and such works have been part of the Catholic tradition since its earliest days (Maciá, 2002, p. 115). According to Rodney Stark (2014), theological works and religious commentaries are much more plentiful in Christianity than in other religions.

The other major branch of the Catholic information landscape is tradition, passed down through church services and catechism courses, which all Catholics are required to undergo. These traditions range from the grandiose, such as the performance of the rituals during Mass and the Sacraments, to the everyday, such as prayers before meals.

Like that of Zen, the Catholic information landscape is comprised of both physical and conceptual information modalities. In order to compare the extent to which Catholicism has

adopted new media technologies, the most popular podcasts and iPhone apps (Table 2) were examined, retrieved from the U.S. iTunes Store via the query “catholic.”

Table 2

Most popular Catholic podcasts and iPhone apps

Catholic Podcasts	Catholic iPhone Apps
Catholic Answers Live - Q&A	Laudate
SQPN: The Break	Catholic Calendar
Divine Office - Liturgy of the Hours	iMissal Catholic
The SaintCast	Catholic Mass Times
EWTN	Best Daily Prayers & Devotionals
Rosary Army Catholic Podcast	Catholic Short Prayers Lite
Catholic: Under the Hood	Catholic Bible Lite
The Catholic Underground	Confession: A Roman Catholic App
iPadre Catholic Podcast	iRosary
Catholic Stuff You Should Know	Catholic New American Bible

The majority of the podcasts (*Catholic Answers Live - Q&A*, *SQPN: The Break*, *EWTN*, *Catholic: Under the Hood*, *iPadre Catholic Podcast* and *Catholic Stuff You Should Know*) foster deeper knowledge of Catholic beliefs, especially relating to popular topics such as homosexuality and bioethics. Besides these, *The SaintCast* offers stories of the lives of the saints, who are revered in Catholicism for their embodiment of the teachings of Jesus Christ and often serve as models for emulation. *Rosary Army Catholic Podcast* features interviews and commentaries by a lay husband and wife. Finally, *Divine Office - Liturgy of the Hours* broadcasts daily prayer services for Catholics to follow, in accordance with the Liturgy of the Hours, a tradition that encourages Catholics to engage in prescribed prayers five times per day (United States Conference of Catholic Bishops, n.d.).

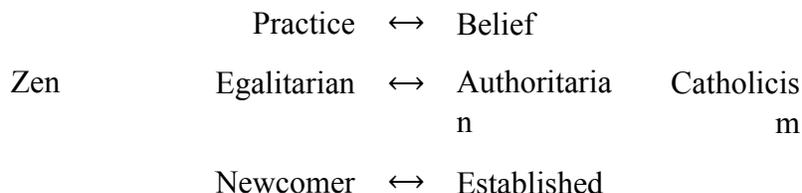
Four of the iPhone apps are meant to encourage private prayer: *Laudate*, *Best Daily Prayers & Devotionals*, *Catholic Short Prayers Lite* and *iRosary*. Two others are meant to aid private Bible study: *Catholic Bible Lite* and *Catholic New American Bible*. Three more are meant to supplement attending Church services: *iMissal Catholic* outlines the readings and prayers on any given day, meant to be used to follow along with while attending Mass; *Catholic Mass Times* helps Catholics locate services to attend while traveling; *Confession: A Roman Catholic App* is meant to be used as a script for Catholics as they undergo the Sacrament of Penance. Similarly, *Catholic Calendar* helps Catholics track the lunisolar calendar used by the Catholic Church to track feast days and liturgical themes.

What Factors Influence the Religious Information Landscape?

The above synthesis, though offering only a broad view of Zen and Catholicism and their respective information landscapes, allows the two religious information landscapes to be compared. We have seen that belief is most central to Catholicism, whereas practice is most central to Zen Buddhism. The Catholic Church is highly authoritarian, structured with the pope as its leader and a network of cardinals, bishops and priests beneath him, whereas Zen Buddhism is less structured and more egalitarian. Finally, in the United States, the Catholic Church was established long before Zen Buddhism, and currently has a larger proportion of believers. This is summarized in Figure 1.

Figure 1

Contrasting characteristics of Zen and Catholicism



Belief Versus Practice

Certain factors inherent in each religion are reflected, at least to some extent, in its information landscape. Zen, for example, is relatively less invested in written texts, and this is reflected in the most popular iPhone apps. The center of Zen is meditation practice, and we see three apps devoted to this. Historically, Zen was passed down from teacher to student via orality; apps that provide daily Zen sayings reflect this sort of exchange. For Catholicism, on the other hand, scripture is central; correspondingly, several of the most popular apps afford Bible access. Another major aspect of Catholicism is attending Mass and receiving the Sacraments; several apps are devoted to these purposes. Likewise, catechism is essential for Catholics, and there are numerous podcasts and apps that encourage study.

Virtually all the Zen podcasts surveyed are recorded broadcasts of dharma talks, which relate Zen teachings to contemporary issues in the community. Interestingly, this study revealed no recorded Catholic homilies available as podcasts. Why is this? While there are many possible reasons, there is one interesting consequence, which will be discussed below: The availability of Zen dharma talks as podcasts seems to afford online Zen practice, while the lack of the analogous Catholic content demonstrates preclusion of that possibility.

It may be the case that a religion molds its information landscape. More likely, though, is a co-evolution between the two. In the following section, we will discuss how religious

information landscapes and religious doctrine can change each other, especially through the introduction of new technologies.

Evolving Religious Information Landscapes

Technology changes things. For a recent example, consider the changes resulting from the profusion of smartphones and mobile broadband Internet in the past decade. However, technology can only affect society inasmuch as it is adopted (Stark, 2014). The adoption of new technologies by society presents a struggle for religious institutions: On one hand, embracing new technologies can ensure that believers have continued access to religious information and support the religion's missionary efforts; on the other hand, doing so may undermine tradition and belief. Thus, a religion's response to new technology can be motivated by internal factors. This section examines one particular technology—printing, for its tremendous and long-term impact on information access (Arthur, 2004)—showing, from a historical perspective, how Christianity and Buddhism responded to its advent and how that response affected their religious information landscapes.

Perhaps because of the Catholic focus on catechism, the Church has long focused on education and improving literacy. Early Christians “maintained unity through letters, with those from its original leaders—the apostles—later forming the Epistles of the Christian New Testament. ... Literacy was therefore a valuable skill to the early Christians” (Gnanadesikan, 2011, p. 235). However, the educational curriculum in Roman times disenchanted Christians with its predominantly pagan themes, and thus literacy was encouraged among the Christian clergy and monastics, but not among the lay population (Gnanadesikan, 2011). Beginning in the

Middle Ages, though, sustained efforts toward improving literacy were put in place (Maciá, 2002, p. 149). Catholics, in fact, founded the first universities (Stark, 2014).

With the onset of printing, at first, Catholic clergy and monastics invested in presses and published liturgical and theological works (Gnanadesikan, 2011, p. 256). But this technology also allowed the quick spread of Martin Luther's Ninety-Five Theses, thus sparking the Protestant Reformation. Luther harnessed the power of the press to spread pamphlets and books, including a translation of the Bible into German, allowing believers for the first time to access their sacred text in vernacular. Whereas before Luther, the religion of individual believers was mediated through priests, Protestantism presented a vision of a "priesthood of all believers" and encouraged believers to read the Bible for themselves. In ensuing decades, the Catholic Church responded with what is now known as the Counter-Reformation. In 1559, it harnessed the press to issue a list of banned books, effectively using book-making technology to clarify which books were inappropriate for Catholic readers; these bans were enforced in Catholic-run countries, including Spain and France (Gnanadesikan, 2011, pp. 257). Maciá (2002, p. 116) notes that the Church had practiced censorship against heretics ever since the Christianization of the Roman Empire. It was not until the 1960's that translations of the Bible were granted authority and that Mass could be celebrated in the vernacular.

From this case we can see clear effects on the Christian information landscape: The introduction of printing brought new possibilities, which led to a schism in the Church. Protestants saw a wider information landscape, while Catholics experienced one that was more limited.

Victor Mair (1994) cites a parallel case in the East, where the production of Buddhist texts, including the dissemination of information in vernacular languages, was symbiotic with the development of Asian printing technology. Buddhism was a burgeoning religion in areas where Confucianism was historically dominant, just as Protestantism grew against Catholic dominance. Modern evidence of this continuing practice can be seen in minority Buddhists engaging in missionary efforts via webinar—clearly harnessing new technologies in doing so (Tremlett, 2014, p. 123).

A religion's decision to embrace or reject new technologies can be based on tenets of faith, on their status as a newcomer or established religion in an area (which is tied to missionary efforts) and on issues relating to power across the larger society. As society approaches the wide democratization of information access, these issues continue to evolve.

An Application: Online Religious Practice

Religion is a social phenomenon, and it is traditionally practiced in colocated, in-person communities. However, technology has afforded changes to human communities, and it is possible that religious communities have changed as well. Speaking of religion in general, Paul-Francois Tremlett notes that modern technology gives “people the chance to read scripture through structured programmes, guided by commentary, translation notes and the chance to do so as part of a global community of readers” (2014, p. 118). He goes on to say that religion today “is defined less by local places of worship, and more by diverse virtual and physical spaces, where people are still able to assemble together to do religion” (Tremlett, 2014, p. 122).

This section explores the extent to which it is possible, given the religious information landscapes of Zen and Catholicism discussed above, for online practice to occur. That is, lived

religion on one's own, without an in-person religious community and without setting foot in a physical place of worship.

Online Zen

Regarding the extent to which new technologies afford changes to Buddhism, Venerable Pannyavaro gave an address at the German Dharmaduta Society in 2002, saying the Web should be seen “potentially as a base for an innovative online Dharma Community—a Cyber Sangha, that offers alternative social and spiritual values.” As described above, the information landscape of Zen Buddhism seems to present possibilities for just such an online community. Zenwest, for example, a Zen community in Victoria, British Columbia, accepts both local and remote members and associates, and offers online dharma talks, orientation videos, a blog and more—seemingly everything a solo believer would need to practice Zen.

Moreover, the Spring 2010 issue of *Buddhadharma: The Practitioner's Quarterly* took on solo Buddhist practice as a primary theme. In preparation for the issue, the magazine's editor issued a post (Deveaux, 2010) soliciting stories from online community members who practiced Buddhism on their own. In the comments, user Tim wrote, “I've practiced Zen Buddhism for years on my own, partly because it's something I want to do, partly because I simply don't have a Zen center in my town.” Similarly, user Jamie G. wrote:

Most of my practice has been done at home... reading almost everything I can get my hands on... books, blogs, and websites and listening to podcasts. ... Probably the most helpful thing I have found is internet access. It gives me opportunity to not only find reading material, but allows me to also interact with a any teacher or other practitioner who also has an internet presence.

Even more recently, the March 2015 issue of *Shambhala Sun* featured a section entitled “DIY Dharma,” which included practical tips for solo practice (Lief, 2015). Indeed, not only does the information landscape of Zen afford solo practice, but it is truly occurring.

As discussed above, this “liberal” nature of Zen may be due to factors inherent in the religion itself, Zen’s relatively egalitarian nature or the minority status of Zen in the United States. Additionally, the sparsity of Zen physical places of worship as compared to the numerosity of Catholic churches in the United States certainly has also played a role.

Online Catholicism?

The information landscape of Roman Catholicism, in contrast, does not seem to support the possibility of online practice. For example, the iPhone app *Confession: A Roman Catholic App*, is presented as an augmentation for believers receiving the Sacrament of Penance, not a method for receiving the Sacrament without seeing a priest. Many of the other apps surveyed above support the attendance of Mass and further catechism outside Mass, but they do not purport to replace attending Mass.

This is consistent with Catholic doctrine. Attending Mass is compulsory for Catholics, as it is the only way to receive the Eucharist. “Mass is the cornerstone of our faith life because of what lies at its heart: the Eucharist” (Hudson, 2003). A review of Yahoo! Answers² queries found using the search terms “catholic go to church” reveals the same unanimous opinion: You can’t be Catholic without going to church; Catholics must physically receive the Eucharist on a regular basis. One user specifically says, “No, you can’t do it online” (Tolstoyevsky, 2011). Why does

² Yahoo! Answers is a website that allows users to submit questions on virtually any topic to be answered by other users.

Catholicism seem to have such vital regard for in-person, communal religious worship, whereas other networks—even religious ones—do not? Is it simply a matter of tradition?

In the Buddhist world, there are numerous Internet sanghas. There are likewise a plethora of Internet churches for Protestant believers (a Google search for “internet church” reveals several pages of results). The closest thing in Catholicism is CatholicTV, founded in 1955 for television broadcast, which today broadcasts daily Mass online at <http://catholicTV.com>. While this does not afford two-way interactions, it does allow believers to attend Mass remotely. Interestingly, CatholicTV’s website makes no allusion to the insufficiency of Internet Mass, saying,

Priests celebrate the Catholic Mass each day at CatholicTV. The Sacrifice of the Mass is the source and summit of our Catholic faith, and is the center of CatholicTV's mission. Hear the words of the Gospel, reflect on the daily homily, and worship God in the Eucharist.

This description seems at odds with Catholic doctrine and popular belief. And yet, CatholicTV is associated with the Catholic Archdiocese of Boston, and it has been upgraded over the decades to leverage advancing technologies (Cummings, 2007), suggesting community support. If engaging with the Eucharist is not possible via the Internet, how can the existence of CatholicTV be explained? Is it meant only as a last resort for occasions when physically attending Mass is absolutely impossible? Or does it represent an impending change in the way Catholics practice their faith?

This change may already be underway. Pew Research Center (2013) reported that Catholic church attendance is at a four-decade low in the United States. In 1974, 47% of

Catholics reported attending Mass at least once a week; in 2012, only 24% did so. Among “strong” Catholics, attendance fell from 85% to 53%. Numerous believers, then, consider themselves Catholic yet do not attend Mass. Currently, such believers are seen as not conforming to Church expectations. How can they be brought back into the fold? What obstacles are preventing legitimate online Catholic practice?

Zen seems to afford online, location-independent belief, whereas Catholicism does not. Is this difference due to something immutable in the religion, or can Catholicism change while remaining authentic? Addressing these issues may prove pivotal for the Catholic Church in the coming years: Buddhism is flourishing in America, whereas Catholicism is receding.

Conclusion

This study began by introducing the information landscape as a concept. It went on to discuss the religious information landscapes of Zen Buddhism and Roman Catholicism, exploring how each is influenced by aspects inherent in the religion itself, as well as the emergence of new technologies. It then explored the extent to which, given these information landscapes, legitimate location-independent practice is possible in either religion, with the conclusion that such practice is both a possibility and a reality in Zen but not, at least for the time being, in Catholicism. In the face of declining Mass attendance, the Catholic Church might consider widely adopting new technologies that afford location-independent practice in order to re-engage believers.

A limitation of this study has been that it only presented an exploratory glimpse at the information landscapes of Zen and Catholicism, examining a small set of technologies.

Moreover, because young adults are most likely to download apps (Duggan, 2013) and use

podcasts (Edison Research & Triton Digital, 2014), this study was skewed toward young believers. Further investigation may reveal possibilities for worship that went undiscussed in this article by more thoroughly surveying these religious information landscapes. Next, as this study was United States–centric and primarily focused on two religions, further research should be done on other religions and in other countries. Yearley (1975, p. 426) described successes in leveraging typologies of religions for conducting sociological research; is there an opportunity to define typologies of religious information landscapes?

Further research on this topic should also examine the actual information behavior of believers as they navigate these information landscapes. To what extent are the possibilities discussed above manifested in the actual lived religions of believers? Research on believers who identify as Catholic but do not attend Mass may prove particularly fruitful.

The world of religion is evolving. The horizons of religious information landscapes are being broadened by wide access to information on the democratized stage of the Web. As Tremlett (2014) observed, religions can no longer be conceived as monolithic communities that congregate in particular physical spaces; today's religion takes novel forms and can occur anywhere. This change demands a new conceptual approach, which should “focus less on beliefs and meanings and much more on contexts, spaces, and media” (Tremlett, 2014, p. 125). In order to maintain vigor in this changing world, religious institutions should recognize and respond to these shifting landscapes in a thoughtful and informed manner.

References

- Arthur, P. (2004). The impact of the printing press. Retrieved from <http://courses.educ.ubc.ca/etec540/Sept04/arthurp/researchtopic/index.htm>
- Aslan, R. (2013). *Zealot: The life and times of Jesus of Nazareth*. New York: Random House.
- Bednar, T. (2004). We know more than our pastors: Why bloggers are the vanguard of the participatory church. Retrieved from <https://www.scribd.com/doc/47331/We-Know-More-Than-Our-Pastors>
- Bransfield, B. (n.d.). Bible at core of Catholic beliefs. Retrieved from <http://www.usccb.org/bible/understanding-the-bible/study-materials/articles/bible-at-core-of-catholic-beliefs.cfm>
- Catholic Online. (n.d.). Catholic facts and general knowledge. Retrieved from <http://www.catholic.org/prayers/beliefs.php>
- Cummings, C. (2007, June 27). Boston Catholic Television is moving. *The Boston Globe*. Retrieved from http://www.boston.com/news/local/articles/2007/06/27/boston_catholic_television_is_moving/
- Deveaux, T. (2010). Update—going it alone: What’s your experience as an unaffiliated Buddhist? Retrieved from <http://www.lionsroar.com/going-it-alone-whats-your-experience-as-an-unaffiliated-buddhist/>
- Dogen. (n.d.). Universally recommended instructions for zazen (Fukan zazengi). Retrieved from http://web.stanford.edu/group/scbs/sztp3/translations/gongyo_seiten/translations/part_3/fukan_zazengi.html

- Duggan, M. (2013). Additional demographic analysis. Retrieved from <http://www.pewinternet.org/2013/09/19/additional-demographic-analysis/>
- Edison Research & Triton Digital. (2014). The infinite dial 2014. Retrieved from <http://www.edisonresearch.com/wp-content/uploads/2014/03/The-Infinite-Dial-2014-from-Edison-Research-and-Triton-Digital.pdf>
- Fisher, K. E., & Naumer, C. M. (2006). Information grounds: Theoretical basis and empirical findings on information flow in social settings. In A. Spink & C. Cole, *New Directions in Human Information Behavior*, 8 (pp. 93–111). Berlin/Heidelberg: Springer-Verlag. doi: 10.1007/1-4020-3670-1_6
- Floridi, L. (2010). *Information: A very short introduction*. Oxford, UK: Oxford University Press.
- Gnanadesikan, A. (2011). *The writing revolution: Cuneiform to the internet*. Malden, MA: Wiley–Blackwell.
- Guzik, E. (2013). The search for meaning: Information seeking and religious conversion. *Advances in the Study of Information and Religion*, 3. Retrieved from <http://digitalcommons.kent.edu/asir/vol3/iss1/5/>
- Hamilton, M. (2001). *The sociology of religion: Theoretical and comparative perspectives* (2nd ed.). New York: Routledge.
- Hardy, G. (2014). *Sacred texts of the world* [Online Course]. Retrieved from <http://www.thegreatcourses.com/courses/sacred-texts-of-the-world.html>
- Hilgendorf, J. (2012). *A new myth for America*. Online: The Tribute Series.

- Hudson, D. (2003). 12 claims every Catholic should be able to answer. Retrieved from <http://www.catholiceducation.org/en/religion-and-philosophy/apologetics/12-claims-every-catholic-should-be-able-to-answer.html>
- Leswing, K. (2015, February 4). Android and iOS are nearly tied for U.S. smartphone market share. Retrieved from <https://gigaom.com/2015/02/04/android-and-ios-are-nearly-tied-for-u-s-smartphone-market-share/>
- Lief, J. (2013). DIY Dharma: You have everything you need. Retrieved from <http://www.lionsroar.com/diy-dharma-everything-need>
- Lloyd, A. (2006). Information literacy landscapes: An emerging picture. *Journal of Documentation*, 62(5), 570–583. doi:10.1108/00220410610688723
- Lloyd, A., Kennan, M. A., Thompson, K. M., & Qayyum, A. (2013). Connecting with new information landscapes: Information literacy practices of refugees. *Journal of Documentation*, 69(1), 121–144. doi:10.1108/00220411311295351
- Maciá, M. (2002). *El bálsamo de la memoria: Un estudio sobre comunicación escrita*. Madrid: Visor.
- Mair, V. H. (1994). Buddhism and the rise of the written vernacular in East Asia: The making of national languages. *The Journal of Asian Studies*, 53(3), 707–751. doi:10.2307/2059728
- McGuire, M. (2008). *Lived religion: Faith and practice in everyday life*. Cary, NC: Oxford University Press.
- Middleton, R. (2003). *Colonial America*. Oxford, UK: Blackwell Publishing.
- Narayan, B., Talip, B. A., Watson, J., & Edwards, S. (2013). Social media as online information grounds: A preliminary conceptual framework. *Lecture Notes in Computer Science*

(including subseries *Lecture Notes in Artificial Intelligence* and *Lecture Notes in Bioinformatics*), 8279, 127–131.

O'Brien, B. (n.d.-a). Buddhist scriptures: An overview. Retrieved from <http://buddhism.about.com/od/sacredbuddhisttexts/a/buddhist-scriptures.htm>

O'Brien, B. (n.d.-b). Zen 101: An introduction to Zen Buddhism. Retrieved from <http://buddhism.about.com/od/chanandzenbuddhism/a/zen101.htm>

O'Day, V. L., & Jeffries, R. (1992). Orienteering in an information landscape: How information seekers get from here to there (No. HPL-92-127). Retrieved from <http://dl.acm.org/citation.cfm?id=169365>

Pannyavaro, V. (2002). E-learning Buddhism on the Internet. Retrieved from <http://www.buddhanet.net/gds-speech.htm>

Pew Research Center. (2013). 'Strong' Catholic identity at a four-decade low in U.S. Retrieved from <http://www.pewforum.org/2013/03/13/strong-catholic-identity-at-a-four-decade-low-in-us>

Poston, L., & Poston, L. (2011). The Word and words in Abrahamic faiths. *Advances in the Study of Information and Religion*, 1, 1–21.

Richert, S. (n.d.). The seven Sacraments. Retrieved from http://catholicism.about.com/od/beliefsteachings/p/The_Sacraments.htm

Skovira, R. J. (2004). Using informational landscape as a model to understand information use and design within organizations. *Issues in Information Systems*, 5(1), 308–314.

Stark, R. (2014). *How the West won: The neglected story of the triumph of modernity*. Wilmington, DE: Intercollegiate Studies Institute.

The Pew Forum on Religion & Public Life. (2008). U.S. Religious landscape survey. Retrieved from <http://religions.pewforum.org/pdf/report-religious-landscape-study-full.pdf>

Tolstoyevsky. (2011). No, you can't do it online. You not only have to go to church, but failing to go to Mass every Sunday or missing Mass on any of the Holy Days of obligation is a mortal sin. People can call themselves Catholic and only come to Mass twice a year, but it's only a good idea if they're fireproof [Yahoo Answers Answer]. Retrieved March 28, 2015, from <https://answers.yahoo.com/question/index?qid=20101210161106AAWxi2e>

Tremlett, P.-F. (2014). Religion in new times. *Soundings: A Journal of Politics and Culture*, 57, 118–125. doi:10.1353/sdg.2014.0025

United States Conference of Catholic Bishops. (n.d.). Liturgy of the Hours. Retrieved from <http://www.usccb.org/prayer-and-worship/liturgy-of-the-hours/>

Veidlinger, D. (2010). History of the Buddhist canon. Retrieved from <http://www.oxfordbibliographies.com/view/document/obo-9780195393521/obo-9780195393521-0036.xml>

Wright, D., & Heine, S. (2004). *The Zen canon: Understanding the classic texts*. Oxford, UK: Oxford University Press.

Yearley, L. (1975). Toward a typology of religious thought: A Chinese example. *The Journal of Religion*, 55(4), 426–443.