

## Introduction

1. Welcome. My name is Tim Clancy S.J., I am a Jesuit philosopher and theologian whose research, writing and teaching lies at the intersection of the Philosophy of Religion and the Philosophy of Technology. In this introductory video lecture I offer a general overview of the history of the co-evolution of religion and technology with a particular focus on communication technologies: speech, writing and recent computer mediated communication networks such as the internet and social media.
2. Religion and technology may seem like strange bedfellows. Advocates for each are too often dismissive of the other. Proponents of religion worry that technology undermines faith while proponents of technology worry that religion undermines science. What could religion have to do with technology? What could technology have to do with religion? How could they cross-fertilize each other?
3. I begin from the recognition that both religion and technology are (1) universal and (2) unique to the human species. Religion is found across all human cultures throughout the full history of *homo sapiens*. In the words of Mircea Eliade *homo sapiens* is *homo religiosus*. Technology likewise pervades all human culture and even predates our species. *Homo sapiens* has always been *homo faber*. In the words of Marshall McLuhan, technology is “the extension of man;” its breakout, defining characteristic.
4. Are these two truths related? Now by “technology” I do not mean simply *using* things in one’s surroundings *as* tools. Many species modify their environment for their benefit. By technology (1) I rather mean *making* tools for *future* use, including (2) making tools to make other tools. It is this behavior that sets *homo sapiens* apart. I take (3) the definition of “religion” from its Latin root, re-ligio, to rebind. (4) Religion is about reconnecting to what one holds sacred, that is, (5) what one holds most meaningful, what constitutes the horizon of value and the ground of meaning that orients one’s identity, that gives one’s life its direction and purpose.
5. What we hold sacred situates us in relation to all that surrounds us, it connects us with what lies beyond us, enabling us to understand, how everything relates to us, turning our universe of mass and energy into a meaningful cosmos, the reality around us into our common home.

6. In ordinary life however we too often feel disconnected: estranged from one another, dissociated from the world around us, alienated even from our selves. As a threat to a meaningful life, these feelings are the opposite of the sacred, they are demonic. Religion seeks to battle, if not exorcize our demons.
7. Traditionally this demonic character of the human condition is thought to have been the result of an original fall from grace into sin, (1) from unity into multiplicity, (2) from cooperative belonging into cynical self-centeredness.
8. More recently, however, since the rise of industrial technology, this lost wholeness has gone from a nostalgia for a lost paradise
9. to a projected future technological millennialism, or more recently yet,(1) into a transhuman utopia.
10. Other traditions express this same general notion of religion as reconnection in the ideal of enlightenment, an awakening from the illusion of separateness, to rediscover our primal identity in reality as a whole, be that understood objectively as ultimate Being, subjectively as ultimate consciousness or beyond both in an undifferentiated awareness of an ultimate nothingness, in any case in a transcendence experienced as *more* real, *more meaningful* than our ordinary, everyday secular lives.
11. The narrative arc of this first series of lectures on the co-evolution of religion and technology will follow the evolution of one branch of technology in particular-- communication technology. For it is language that exponentially enhances cooperation, learning, and reasoning. And yes, language and reason too are universal and unique to our species. The human species has traditionally been defined in the words of Aristotle as *zōon logon echon*, the animal possessing *logos* both in the sense of word and logic.
12. For, it is through language that we are able to stabilize our experience into discrete beliefs and concepts that we can then reflect over and communicate to others. Language was effectively our killer app, the new adaptation that enabled its newest evolved species, *homo sapiens*, to transcend the episodic consciousness of its *homo erectus* ancestors and Neanderthal cousins. Language was what enabled *homo sapiens* to deliberately draw upon their past experience rather than to simply be conditioned by it, to better coordinate mutual cooperation, as well as to imagine a different future, and so to plan ahead and problem solve. The result was that *homo sapiens* outcompeted earlier hominids to

extinction and eventually so dominated and transformed the planet that today *homo sapiens* is the principal driver of global evolution overall. Beginning with the industrial revolution, planet earth has entered a new geological age, the Anthropocene.

13. In tracing the history of this co-evolution, I will focus upon four fundamental modes of communication: mimetic, oral, literate and virtual
14. The first, prior to the rise of speech itself, is imitation, or mimetic communication. Humans imitate not only the behavior of others but their perceived feelings and desires as well, thanks to mirror neurons in our brains. (1) It is our uniquely imitative nature, far surpassing that of any other species, that has enabled human evolution to accelerate far beyond the pace of biological evolution. (2) I shall be speculating on how religion can trace its own roots to mimetic communication as well, both in archaic rituals such as rhythmic drumming, shouts and dance as well as in communal feasting and hallucinogenic trances.
15. Secondly, oral communication, speech, enhances mimetic communication exponentially. (1) So too *religious* speech enhances mimetic ritual through embedding it and thereby us in story and song.
16. Thirdly, literate communication first emerged as a means for preserving and disseminating oral thought. Early Bronze Age scribes put in writing the sacred stories and rituals of their society. They were a small elite serving in court and temple, as priests and scholars, bureaucrats and diplomats. (1) Such early scribal literacy however was still closely tied to oral speech. Scribes wrote down what they heard, dictated to them by rulers or recited by storytellers, to store and disseminate and then read back aloud to a different audience. Full, free standing literate culture arises only when literacy extends beyond court and temple to people who begin to write down their *own* thoughts, especially thoughts critical of religious tradition and current state governance.
17. This shift from hybrid to fully literate reasoning and identity constitutes what Karl Jaspers has coined the “axial revolution.” (1) It is characterized by a shift from first order stories and aphorisms to (2) second order theoretical systematization, justification and critique. (3) It also involves a shift from a communal identity grounded in reputation and status to a (4) more independent-minded individual identity grounded in a private interior life. So too axial religions focused on individual conversion and personal immortality.

18. Writing by hand however still restricts literacy and so literate reasoning to a relatively small elite. The introduction of paper and print into Europe extended literacy to the urban classes generally. (1) This enabled the rise of literate discussion and debate in tracts and periodicals, undermining the scribal monarchy of obedient subjects in favor of a self-governing democracy of informed citizens.
19. However urban literacy also precipitated the splintering of Christianity into a vast array of competing sects. Religious authority itself became increasingly decentralized by becoming fully textual, based on the plain sense of Scripture, accessible to any reader.
20. Religious ritual also receded in importance as mass access to the Scriptures enabled the word of God to address every Christian (2) individually in the interior privacy of their “true self.” Communal worship remained but its object was less the community than the individual, with congregants offering one another inspiration and support for their own unmediated, intimately personal relationship with Christ.
21. The steam-powered rotary press at the dawn of the industrial age further radicalized this turn to the individual by disseminating mass literacy and so mass individuality throughout society. (2) Photography similarly disseminated images earlier restricted to those who could afford painters while (3) factories could mass produce what was previously the product of artisans and sculptors.
22. The invention of electronic mass communication beginning in the middle of the nineteenth century crossed yet another threshold. Writing had enabled the extension of communication across space and time. But texts are objects that need to be transported. Electronic media enabled such communication beyond earshot to be instantaneous irrespective of distance or size of one’s audience.
23. Radio enabled entrepreneurial pastors to broadcast their sermons to the masses where each could listen in the privacy of their own home.
24. The microphone enabled tens of thousands of people to attend a single religious service,
25. while the advent of television after the Second World War, enabled people around the whole *country* and later the entire globe to experience religious revivals wherever they were held while still feeling a personal relationship with their celebrity preachers.

26. I close by introducing the technology that inspired this website in the first place (1) and which will be the subject of three other series of video lectures—(2) that of the computer and especially internet-enabled “virtual” communication technologies.
27. Speech can be silenced. Texts can be put down...or burned, but virtual communication is ubiquitous. And as we are often cautioned, whatever is uploaded onto the net, stays on the net. (1) Whether it be an intentional post or a casual cell phone call, where you are can be tracked on a Global Positioning Grid accurate to a few feet and how you are, can be monitored increasingly by health apps on smartwear. The dream of living off the grid is no longer possible or perhaps even conceivable. It is the contemporary analogue of the literate Enlightenment thought experiment of children raised by wolves.
28. Marshall McLuhan had argued that the printing press precipitated an explosion of information. (1) His disciple, Jean Beaudriard argued that virtual technologies are creating an information implosion. We no longer need to look for data, we are overwhelmed by it. What counts as knowing today is (2) less our oral recall of words of wisdom or (3) or what we can prove through literate reasoning but (4) our ability to access, manage and use effectively and efficiently, whatever information or skill we need whenever and wherever we need it.
29. In the industrial age, the speed of technological evolution had opened up a generation gap, where the wisdom of the elders had become increasingly obsolete by the time their children reached adulthood. (2) Thomas Friedman has written that the “generation gap” has today shrunk to less than ten years, indeed that in today’s virtual age technological advances have accelerated to the point where fully mastering a digital device may take longer than its shelf life. Today we are not only lifelong learners but “perpetual newbies.”
30. Oral identity is communal, your reputation is public. Literate identity is individual, your thoughts and feelings are your own, and private. Digital identity is networked, never fully public on any given media, but never fully private either. The networked self is not communal in the oral sense of face to face nor individual in the literate sense of the solitary thinker or the independent artist. (1) In a subsequent series of lectures on virtual ontology we shall explore how the virtual self is a network of personae in a web of

relationships on an array of platforms, (2) and at the same time a node in those wider networks in which it is embedded.

31. In a third and fourth set of lectures we shall explore what virtual religion and virtual theology is beginning to look like in what some are already calling the “second axial age.” What will be the spiritual needs of the emergent virtual self? And what will these new virtual technologies and the network ontology they are creating have to teach religious thought and practice? Having explored how religion and technology have co-evolved up till now, we will be in a position to speculate and extrapolate on what may lie ahead for both, as we no longer simply seek to find our place but increasingly change our place in the cosmos.
32. Let me end with a couple important caveats. That religion and technology co-evolve does not entail that one can serve as the metric for assessing the other’s “progress.” Technology ought not to be the measure of religious depth or holiness any more than religion ought to be the measure of technological power or efficacy. Oral religion is not necessarily more “primitive” and virtual religion not necessarily more “enlightened.” A technological advance in power and efficiency may yet be religiously demonic just as new religious rituals need not be more inspiring. The point is that the two are symbiotic, each stimulating and responding to the other.
33. It will also be important to keep in mind that later communicative technologies typically enhance rather than replace earlier ones. When we learned to read, we did not stop talking. On the contrary we had more to talk about. (1) So too as texts move online, and every reader becomes a potential writer, and every writer a potential publisher, there are more books available than ever before.
34. So too with religion. (1) Religion has its roots in mimetic ritual. (2) Speech did not eliminate sacred rituals but rather enhanced them through story and lyrics. (3) So too the written Gospel only enhanced and disseminated its oral proclamation. (4) In future videos we shall be exploring how virtual religious practice online and the networked theology that is emerging can further supplement and enrich the lives of digital natives, rather than supersede or replace literate, oral and mimetic religious thought and practice.
35. Thus, mimetic, oral, literate and virtual technologies and religions ought not to be seen as steps on a ladder or points on a parabola, but rather a sequence of nested, porous spheres.

Subsequent spheres are best seen not as donuts, with earlier technology and religion rendered obsolete but rather as skins creating new contexts for traditional practices.

Buckle up. Its going to be a wild ride.

Suggested books for further reading:

Beaudriard, Jean, *Simulation and Simulacra*

Bellah, Robert: *The Evolution of Religion*

Friedman, Thomas, *Thank You For Being Late*

Latour, Bruno *We Have Never Been Modern*

McLuhan, Marshall, *The Gutenberg Galaxy*

Ong, Walter, *Orality and Literacy*

Taylor, Charles, *A Secular Age*