


Information and Reality: Contributions from the Science and Religion Forum

with Finley I. Lawson, “The Science and Religion Forum Discuss Information and Reality: Questions for Religions and Science”; Niels Henrik Gregersen, “‘The God with Clay’: The Idea of Deep Incarnation and the Informational Universe,” Michael Burdett and King-Ho Leung, “The Machine in the Ghost: Transhumanism and the Ontology of Information”; Marius Dorobantu and Fraser Watts, “Spiritual Intelligence: Processing Different Information or Processing Information Differently?”; Matthew Kuan Johnson and Rachel Siow Robertson, “A Co-Liberatory Framework for Big Data”; Peter M. Phillips, “Digital Theology and a Potential Theological Approach to a Metaphysics of Information”; and Andrew Jackson, “Peacocke Prize Essay—Towards an Eastern Orthodox Contemplation of Evolution: Maximus the Confessor’s Vision of the Phylogenetic Logoi.”

DIGITAL THEOLOGY AND A POTENTIAL THEOLOGICAL APPROACH TO A METAPHYSICS OF INFORMATION

by Peter M. Phillips 

Abstract. In this article, I offer a background to digital theology and its methodology, exploring especially aspects of transhumanism and metaphysical enquiry. The article moves on to engage with several articles given at the Science and Religion Forum at Birmingham in 2022, especially the Gowland Lecture given by Professor Niels Gregersen and the Peacocke Lecture by Andrew Jackson. Both offer a metaphysical approach to information linked closely to the concept of Logos drawn from the Prologue of John—Jackson focusing on Maximus the Confessor’s exploration of phylogenetic *logoi*; Gregersen on a further development of “Deep Incarnation” through the title “God with Clay” drawn from Bonaventure. The article extends this engagement with John by querying the model of incarnation in “deep incarnation” but building on the Logos/*logoi* to set out some initial building blocks for an alternative metaphysics of information.

Keywords: digital theology; incarnation; information; John’s Gospel; metaphysics

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In this article, I will offer a brief introduction to digital theology as a precursor to some more critical thinking about a potential theological approach to a metaphysics of information, building upon aspects of digital theology, a reflexive approach to the interface between technology and theology. This article was originally presented at the Science and Religion Forum held in Birmingham (UK) in Summer 2022. Many of the articles presented there fed into the development of this article during the conference and since—[digital] theology is always done best in conversation (Bennet 2012).

DIGITAL THEOLOGY IS...

As the introduction to the *Oxford Handbook on Digital Theology* (Kurlberg, Chow, and Phillips forthcoming) will put it: “Digital theology is fundamentally faith seeking understanding in a digital age”. Anselm’s original definition of theology from the eleventh century (“fides quaerens intellectam”) is often misunderstood to suggest that philosophical or scientific enquiry should replace a less well-established faith. Actually, it points to a fundamental need for faith to take its place within the much larger practice of intellectual enquiry—for faith to be part of society’s self-understanding of the world in which we live—a form of contextual theology that explores how faith might seek understanding within the special context of the digital age. Although, perhaps, I would want to mess that around a bit and amplify the possibilities—faith seeking understanding of digitality (Kurlberg and Phillips, *Missio Dei* 2020); faith seeking data; faith seeking a grasp of the new world of digitality (Gorrell 2019; Phillips 2023); faith seeking understanding why our devices have become so much part and parcel of a new globally networked culture (Campbell and Garner 2016; faith seeking understanding of those left behind, excluded, cancelled from this culture; faith seeking understanding of digitality and the Jasperian limit situation it presents (Lagerkvist 2022); faith seeking understanding of the way these products/devices act as domestic extensions of the military-industrial complex as Philip Butler would surely put it (Butler 2019) and as we saw in the conference keynote presentation from Matthew Juan Johnson and Rachel Siow Robertson.

Digital theology is a theological grappling with conditions increasingly defined by the ubiquitous and sometimes awkward/risky/pernicious applications of digital technology (O’Neil 2017), itself seeming to be so often an active agent. Technology can be taken, like Ellul’s “technique” (technology as part of the larger military/industrial complex that forms an autonomous way of being for the world distinct from individual actions and indeed forcing those actions into particular patterns to reinforce the larger process—Ellul 1967), rather than a technology that needs to be written or crafted into being by human agents. But even pushing the agents to the

fore, as in Latour's Actor Network Theory, technology still seems to have some kind of essentialism—some form of originary technicity (Markham 2020; Lagerkvist 2022). Here, as in Christine Hine's *Ethnography for the Internet* (2015), technology is perceived as so central to the way we are that it drives its own ontology, even our own ontology. Digital technology is existential media (Lagerkvist 2022; Phillips 2023) and can only be perceived *in media res* rather than as something decoupled from our existence and explored as a separate fact (Couldry and Hepp 2016). As the UCL anthropologists recently proposed, the smartphone is now where we live (Miller et al. 2021). As such, digital theology could be branded as “contextual theology” or even as “constructive” theology in its attempt to bring Christian concepts into conversation with digital culture. But is digital the context or does the ubiquity of digital, the change which digital is forcing on us, in turn force us into constructing a new theology, a new metaphysics in a similar way to Floridi's conceptual creation of the “infospace” and what some regard as his metaphysical approach to information (Capurro 2010; Floridi 2002, 2013).

Although digital religion seeks to survey how religion is expressed in the digital (Campbell and Bellar 2023), digital theology is also interested in where God is in all of this—exploring both the social phenomena that appear when religion meets new media, but also seeking understanding of digitality's impact on us as human beings, as image bearers, as citizens of heaven. But digital theology is not just obsessed with human engagement with digitality and what it is doing to us (again the agency of technology—perhaps more worrying is what we are doing with it?). We are also engaged in how God and digitality co-exist—although is that on different planes—can we bracket together the transcendent and the ultimately mundane? Perhaps because G*d, our non-Aristotelian G*d, breaks the fourth wall of transcendence and because we, made in the image of G*d, create new worlds and indwell them (Graham, Phillips 2023), theologically we have to bracket them together since both transcendence and immanence are part of both divine and human existence. In this essay, I am going to focus on the practical and metaphysical implications of the digital age.

THE PANDEMIC AND DIGITALITY...

Of course, we saw that in the pandemic church (Campbell 2021). The Church enthusiastically (I think!) embraced digitality when church buildings were closed. We saw livestreamed services, night prayer, Bible studies. We saw the development of zoom church. We saw the shift toward Spiritual Communion—where the Eucharist was celebrated first in empty churches and then often at kitchen tables (the transcendent mixed with the mundane) but with only the officiating priest (and any on-site companions) receiving the elements whilst the congregation read

out a Cranmer-based prayer celebrating the fact that God could pass on the blessing without us actually consuming the bread and wine. Others jumped instead to full online communion—arguing that since God and not the priest consecrated the bread and wine, then distance and separation could not be an issue for God: bread and wine proximal to the celebrant was consecrated by God just as bread and wine proximal to members of the congregation was consecrated by God in their separate homes. God was the union, the connector, the quantum connection, between those present to each other online through Zoom or Facebook. Where two or three meet together in God’s name, God is there (for differing views, see Berger 2019; Burrige 2022; Schmidt 2020)

Of course, many opposed such online gatherings both in the church and in academia. Some have argued that on-site (rather than online) expressions of church were the only valid form of church—seemingly harking back to a Temple theology suggesting that God could and did manifest his presence only in the right kind of building, only when people were corporeally present in that building, almost as if God was allergic to manifesting his glory through a device; as if gathering to worship God were only possible through human structures and according to a human timetable.

But worship has always been mediated through technology: through architecture, sound and vision; through speech and song; through ritual, word, and liturgy (Byers 2013; Berger 2019; Dyer 2022; Phillips 2023). Over time we become less aware of new technology simply because it has become part of the mundane background—what once was bright and new, simply becomes part of the background. Digital technology is far more conspicuous at the moment because of its novelty and our wonder. But the application of digital technology seems to be different level of technology that relocates/redefines presence, challenges sacramental actions, promotes authentic online engagement with the divine rather than replicating offline engagement models. Although we also need to remember that it was Jesus who told the Samaritan woman that there would come a time when worship would not be geographically limited to Gerizim or Jerusalem—instead true “worshippers would worship the Father in Spirit and in truth, for these are the kind of worshippers the Father seeks.” (John 4:21). It is as if worship is not *geo*-located but *deo*-located. A sense that we connect with the divine wherever we are. A more Celtic, a less Western, a more ancient way of devotion?

But this seems not to be enough in the late pandemic church—where often churches remain less full than before the pandemic, where clerics call their people back to the empty pews through the pages of the religious press. Our churches, we are told sternly, is where God’s home is. Here is where we meet him. Of course, there are lots of issues around this in that it also means that we, the builders of such shrines, become brokers of God—God becomes a brokered God: “Come to our place because this is where

God lives.” In turn, we risk seeking to domesticate God. We put God in a stone zoo and almost sell tickets. But even here the building remains as a form of mediating technology and that technology, built by humans, tells us what they believed about God, how they thought God wanted to be mediated into their cultural/technological milieu. Or where they thought God wanted to be/could only be mediated. Of course, one of the key problems with this logic is the biblical plurality of God’s own (mediated) manifestations which are by no means limited to human temples or human timetables (Byers 2013; Dyer 2022).

This discussion of the metaphysics of technology pushes us toward a Metaphysics of Data or, more likely, a Metaphysics of Information: data are perhaps seen as raw and disorganized nuggets, points; but information might be seen as processed, organized data, and it is this information that offers the potential for a metaphysics that forms and informs. We need to build toward this metaphysics but first we need some building blocks to work with. So, let me indulge in some more conversation about the importance of the concept of reflexivity and interface within digital theology, before pushing on to some preliminary models of a metaphysics of information from both an ancient theologian and a contemporary scholar.

DIGITAL THEOLOGY AND REFLEXIVITY

Digital Theology is concerned with all things digital and all things theological (Phillips et al. 2019). It is about consciously, intentionally, proactively bringing a theological perspective into our study of contemporary digitality but also bringing a digital perspective into our theology.

Let us take transhumanism as an example.

As we heard in a couple of short articles at the conference in Birmingham (Burdett and Leung 2022; Wallace 2022), there are, of course, many different versions of transhumanism from the medical to the cryogenic to the digital (Cole-Turner 2011; Thweatt-Bates 2012; Tegmark 2017); creating cyborgized humans, uploaded humans, or potentially immortal humans. Kurzweil (2006) and Vita More (2018) urge us to slough off the restraints of carbon substrates and wetware. Elon Musk urges us to slough off the earth and head for the stars: to travel across the vast expanses of space as refugees from a world we have ourselves destroyed. Others urge us to climb into the freezer until the new lifegiving science arrives. Yet more postulate that we are already living in a Matrix-like computer simulation (Tegmark 2017). Sometimes the shift is from carbon wetware to silicon hardware, uploading our neural networks into a computer chip that we can insert into a borrowed or cyborg sleeve/skin as in Robert Morgan’s *Altered Carbon* (2002). Sometimes it means gene modification and upgraded biology. Although perhaps the blurring of cyborgs and humans is the most dangerous of paths in all of this (Lagerkvist 2022)—the refusal to accept

our limits and limitations as mortal beings and the assumption that we are just cyborgs in waiting: our brains dying to be uploaded into a computer so that when we are sentient cyborgs, as *Bladerunner 2049* tells us, this will allow us to be more human than humans. The ascent of humanity motif is strong in digitality. But even in *Bladerunner 2049* with its shift from cyborg rights to cyborg ascendancy, while cyborgs strive to ape humanity, humanity remains a bestial version of itself signified by the violence it pours out on nonhuman life forms and especially against both human and android women, as explored in my presentation at the Society of Biblical Literature Annual Meeting in 2020.

Transhumanism or posthumanism (Graham 2002; Braidotti 2013; Haraway 2016), then, has its many forms. Donna Haraway's recent conversations about the shift into the "Chthulucene" (i.e., "the era of the earthly ones"—an alternative to the human-centered "Anthropocene"; Haraway 2016, 2) move away from her classic exploration of the metaphor of the cyborg and begins to ask what a post-apocalyptic existence for humanity will look like—whether humanity will be hybridized with other creatures—morphed into a new existence as we reap the whirlwind of our obsession with carbon fuels carrying something of the past, some hint at our ancestry with us into the brave new world beyond the climatic chaos.

But what is humanity, that form which God shaped in clay and into which God breathed God's breath, God's ruach? What is humanity, God, that you are mindful of it? And what if, in fact, we are all cyborgs already, have always been cyborgs; that we have always been transhuman/posthuman, always been transitioning from one transhuman state to another. Humanity has always used exogenous materials to survive in hostile environments, to develop survival traits, to extend the range of viability—the earliest of our creation myths hark back to those struggles as Amber Case argues in her classic Ted talk: "We are all cyborgs." How much more will this be the case as medical assistance is inbuilt within us, as we outsource knowledge to computers, as we converse with quasi-sentient AI.

Transhumanism seeks to change the ontology of humanity, either by extending our expected lifespan, removing our mortality, or changing the substrate of our existence from carbon to silicon. These huge shifts are enabled by digitality—either in the development of new technologies such as cryogenics, gene therapy or AGI. But as we shift the make-up of humanity do we also change humanity's role as bearers of the image of God—do we alter our relationship with God. Or the metaphysical reality of our increased cyborgization? Are we as transhumans, transitioning posthumans, losing or loosing the image of God that was breathed into us according to the Genesis creation story, or (again) at the resurrection according to John and Luke—depending on what we mean by the breathing, by the imaging. Or are we creating a new image for God that we can

fit—a digital identikit—creating God in our image as I am myself prone to do: God the technologist, creator, initiator, and stabilizer of quantum reality. Does our progress (?) into transhumanism reflect the image of a technological, shape-forming, creator God? Or have we all gone too far with this technology? In a recent article, I explored what “Digital Being” might be by picking up some ideas in Elaine Graham’s article “Being, Making and Imagining” (Graham 2009), in which she develops from (or beyond) Heidegger, the concept of humanity recreating space, reimagining space, building new worlds within new spaces. Is this a more helpful depiction of the image of God—an image that gives us the ability to build new worlds rather than to rape the earth through our acquisitiveness?

We are obsessed with the concept of improving ourselves even while technology degrades the earth. We allow the tech industry to proclaim the innocence of algorithmic machine learning or mining bitcoin or online shopping, whereas in fact the server farms all need building, maintaining, cooling and together create more carbon-emissions than aviation. As Kate Crawford points out in *Atlas of AI* (2021), digitality continues the rape of the earth’s resources, often the very rarest resources through the most hazardous forms of mining, often to the detriment of the poorest of earth’s citizens. So, what is our theological response to this or indeed to the more pressing issue of the climate emergency or current extinction event? In what ways is the military-industrial complex guilty of denying the viability of the planet, of seeing the Genesis mandate as one of raping the earth rather than stewarding our planet and her resources?

TOWARD A METAPHYSICS OF INFORMATION...

One of the central tenets of my version of digital theology is that if we are scientists, technologists, we are so because we bear the image of a creator God who in the Trinity brooded over creation, fashioned it with love, informed it into being. John begins his account of the incarnated Word not in Bethlehem but at the beginning of things—an anarthrous beginning matching the Hebrew of Genesis 1.1 (Phillips 2006). The Logos is talked of as if the Logos were both qualitatively God (the famous NEB paraphrase: “what God was the Word was”), but in some sense separate from God—“with God,” “toward God,” “at God”. Whatever we think of the Jesus event, John and many Christian theologians who followed understood the incarnation as the ongoing ministry of the second person of the Trinity, the Logos or Sophia/Wisdom (Gregersen 2023; Jackson 2023). In his presentation at the conference, Niels Gregersen talked of this tradition as “deep incarnation”—a sense that the second person of the Trinity has always been the “God with clay”—not the God made of clay, constituent of clay, but rather a God who as with Gowland’s Cosmic Christ infuses creation with God’s presence (Gregersen 2015; Gregersen 2023). Picking

up on Bonaventure's exploration of the Logos as the mediating principle of God throughout all things, Gregersen develops the discussion of the Logos as divine information. As such, the idea of divine information will be returned to late in relation to Jackson and Gregersen's articles from the conference included in this section.

For John, this Logos was incarnated ("sarx egeneto") as Mary's child, a carpenter's son, a tradesman, a builder, a *tektōn*. However the world came into being, through Darwinian evolution, cosmic, divine or periodic creation, we are told again and again in our sacred texts that God was involved, that God initiated and preceded that event, that God maintains creation, re-creations, and new creations for eternity. It is not really a case of us trying to fit God into the gaps but rather to see God's overarching role in all that is. It is not that God pressed the button at the big bang. It is not that God wrote the equations of existence and went back to bed. It is not that God wrote the algorithm. God is the very ground of being, God both that which initiates quantum events, initiates difference, and God which informs the difference into being, and God which forms being, informs being with love.

In my own field of the Bible, our exploration of the Bible in the digital age focusses both on the format of the text (under glass, constant scrolling, hypertext) in contrast to physical Bibles (tactile, polysensual, fixed locations) and on the way we habitually read the Bible (or not) under such conditions, or how people use social media to express their own understandings of the text (Siker 2017; Phillips 2019; Dyer 2023). The Bible itself, as Michael Hemenway has put it, becomes an interface—where knowledge and meaning is forged, a space for meaning making, a place where divine creativity burns (Hemenway 2017, 2019). But such creativity needs the observer, the reader, the interaction (as in postmodern reader response theory where meaning is not resident in the text but in the reading process itself)—sign, signified and meaning. But rather than a reader reading a passive text, as Kierkegaard argued, the text itself is alive, a place of encounter between us and the divine—God addressing us (Kierkegaard 1991, 39.) Or, earlier, in Augustine's experience a text that cries out "tolle, lege—pick me up!"—it is quick and powerful and sharper than a two-edged sword (Heb 4:12). As a place of interface between God's word, God's Logos, and the one engaging, the Bible becomes part of the process of God's informing, or God's formation or information of being. So, Psalm 119 patterns God's words and statutes into the very life and breath of the scholar. Indeed, 2 Tim 3:16 talks of the Scriptures being God-breathed to (in)form the reader. This interface raises the potential of both sides of the interface being changed by the interaction—a God affected by God's own creativity.

In John 1, the Logos is presented as the Word which speaks to God (καὶ ὁ λόγος ἦν πρὸς τὸν θεόν), or is in conversation with God as Erasmus

translated it—“In the beginning was the Word and the Word was addressing the Divine, in conversation with the Divine, in relationship within the Divine” (Phillips 2006). In fact, such a concept of God’s word as a reflexive place of meaning, an interface, opens up the possibility of the Bible, the written form of the Logos of God (?), as a form of properly sentient technology linking to Andrew Jackson’s presentation on the Logoi. Although, perhaps not so much that the text is itself a sentient being, but that the interface of Logos and human agent certainly involves the interacting, mean-making between two forms of sentience—the divine Logos and the human being. Of course, Hemenway wants to push this even further by arguing that machines too can engage in such an interface and perhaps even create new discourses where new information is developed (Hemenway 2019).

A METAPHYSICAL ROLE FOR INFORMATION OR THE INFOSPHERE?

With the introduction of sentient technology, and of a God embedded in words, in a process of information, we already begun to talk about the role of divine information, the exploration of a metaphysics of information. In recent times, the name of Ludovico Floridi has become closely associated with “Information Ethics” and has strongly pushed the idea of all things as the “infosphere” (Floridi 2013). His work has also been challenged as creating a metaphysical role for data/information (Capurro 2010). In the article that Cappuro is challenging, Floridi (2002) argues for a theoretical foundation for computer ethics that challenges Kantian ethical assumptions. In the essay, Floridi sets up an argument within the strict confines of object-orientated programming (OOP), namely a computer operating model that organizes software design around data, or objects, rather than functions and logic. In OOP methodology, Floridi determines that a moral action can be described as a moral agent (a) acting upon a moral patient (p) and that within OOP and at a certain level of abstraction, both a and p are information objects in that both can be seen as a collection of structured data.

Floridi makes much use of this basic argument to show the problems with Kantian ethical arguments and to argue strongly that information packages can be moral agents and have the same moral value/dignity as moral patients—both packages have object-orientated moral status. However, there is a section of the article in which Floridi queries whether an able-bodied moral patient should have the same dignity as a brain-dead moral patient, or whether the dignity should pass on to the dead human. In other words, dignity seems to be associated with ability rather than nature—a precarious concept within a world in which we are trying to include difference rather than diminish those who are different from what some think of as perfection. Moreover, since the moral agent in the

setup is talked of as a computer program (or similar) and the moral patient is a woman, the argument is made forcibly that within the infosphere all informational packages need to be awarded the same dignity or moral worth—computer programs, computer intelligence, computer information should be afforded dignity and moral worth alongside all other forms of information (e.g., humans). It is this point which Cappuro argues against—namely that “value is not a property of things, but the effect of our relationship with others” (Capurro 2010).

There is a lot here that needs to be explored and, of course, Floridi has since written extensively on Information Ethics (Floridi 2013). But his exploration of the infosphere as the sum of all things seems to be tantamount to a form of metaphysical statement: information transcends in some way; it forms a basis of understanding that goes beyond our basic assumptions of how things are. Indeed, the argument that all things are digital offers a background metaphysics arguing that the information of the world is itself written in some form of digital programming—even if this is the basic on-off sequence of ones and zeroes. But it is also clear that Floridi does not mean anything that simple—rather in some way the “infosphere” incorporates everything as information packages and not just at a level of abstraction but in reality. In Floridi, there is no exploration of the presence of God in the “Infosphere”.

JACKSON AND LOGOI...

In his Peacock Essay given at the conference, Andrew Jackson takes Maximus the Confessor’s vision of the phylogenetic “logoi” as a precursor of a panentheistic or incarnational naturalism that could be valued in the further development of a theology of evolution (Jackson 2023). Here, too, we are in the world of metaphysics, this time definitely with God. Maximus, lived within a world in which the Logos was already associated closely with creation, building on both secular, Jewish and Christian philosophical thought, on John’s Prologue and Augustine’s equation between God’s ideas and the “logoi”. Maximus expanded on the nature of the “logoi” as, variously, divine ideas, predeterminations, wills or utterances. The “logoi” inform creation and “account for the amazing diversity and plurality of creation” (Jackson 2023). As such, Jackson talks of “logoi” as the “information content” of creatures that makes them intelligent beings. Moreover, these immutable “logoi” seem to be envisioned by Maximus as being connected to the Logos, radiating from the Logos and creating new “logoi” in the process—a form of evolutionary progression. But one which “taken to its logical conclusion”:

implies that (a) nothing is left to chance in the creation of a new ontology, and (b) that every creature is theophanic, revealing both God’s unfolding purposes, and God himself. (Jackson 2023, 6)

“Logoi” as the information content resembles, somewhat, Floridi’s argument that at some level of abstraction all things are information objects. Jackson is concerned about the reification of information while also mentioning the contingent reality of such information within a developing ontology: “The creation we see around us is not yet as it should be”, but is in motion toward its final summing up in Christ, which Maximus describes in one of his famous triads as a transition from “being” to “well-being” to “eternal being”—a kind of progressive ontology which only at its end will the Logos of God “accomplish the mystery of his embodiment” (Jackson 2023, 8).

Jackson’s award winning article shows how the Logos theology of the early Church offers a connection between creation and the purposes/actions of the Divine which seems to come back again and again to the role of information—God who speaks creation into existence, informs the development of that creation through his creative Word, through Hochmah/Sophia, through the Logos—an ongoing, evolutionary process of transformation informed by the potentially panentheistic embodiment of the Logos within the created ontology. The importance of Jackson’s article also lies in reminding us that information is not a new category. How God forms creation is through information, through Wisdom, through the Logos, through the embodiment of his Word within all things, through God’s own contingency and immanence in the work of the Trinity. Reflections on the metaphysics of information are not just a faddish theological response to the “infosphere” but rather part of a theological reflection deeply embedded within religious traditions.

GREGERSEN, INFORMATION AND CREATION...

Niels Gregersen has given his own account of God and information both in his keynote at this conference as well as in his 2013 article, “God, Information and Complexity”. Much of that argument is based on the concept of deep incarnation explored in a collection of essays that Gregersen both introduces and concludes (Gregersen 2015). But in his Gowland Lecture, Gregersen picks up new material to advance his understanding of the informational impacts of deep incarnation (Gregersen 2023).

Gregersen starts out with the concept of God as infinite—not as a God contained as a discrete entity but God as that which embraces, contains, everything within Godself (2013, 396). God is therefore the interface which holds within Godself all that is and was and will be, including all creatures, which themselves along with their experiences are incorporated into divine life. God both initiates quantum creativity and also engages and embraces the life it brings forth: a God who encompasses all.

Moreover, God must both engage with the creation which God encompasses and share something of the information of both elements of the ontology, so Gregersen asserts that:

- (1) Information entails difference—God not as one essence, as the pleroma, but God as a community of difference, as the Trinity. A God who in Godself expresses difference, the very difference that becomes part and parcel of the act of creation as an engine of difference—like Cartwright’s God of a dappled world (Cartwright 2014)?
- (2) Information that entails form and relational structure—God as a community of love with a continuous identity in and through temporal flux.
- (3) Information that entails semantic reference and communication—as the Logos.

So, first, Gregersen takes Bateson’s concept that information is “a difference that makes a difference” and Seth Lloyd’s argument that: “information and energy play complementary roles in the universe: energy makes physical systems do things. Information tells them what to do.” As such, an event therefore always entails energy transfer that causes change, but it also always entails information as the development of an interface that represents difference—the cell wall as a place of transference of information as well as nutrients, for example.

Gregersen also notes that this is represented in the Genesis account of creation where God creates by distinctions or differences, separating light from darkness, waters below from those above, distinctions between different animals, between different humans and between humans (made in the image and likeness of God) and other creations. God’s creativity is synonymous with quantum events—the ceaseless production of causally effective differences in the history of the universe. But prior to creation, God is already internally differentiated and it is this existential difference which is the enabling condition for God’s outward creativity—God’s being is to create (God’s being is to be the technologist). But that act of creativity is surrounded by love and acceptance—a sense of there being both a lover and a beloved which is both internal to Godself and part of the creation process which God as love initiates.

Second, information is about patterning and here Gregersen moves from God the creator to God the Logos who represents the divine Pattern, the divine DNA for creation, the divine informational resource (2013, 406). Such an argument is very close to Jackson’s article (see below) about Maximus’ reflection on the “logoi” and the Logos. This Logos, as divine DNA is submersed in all things—incarnate in everyone that they too might be brought toward love, received into the divine wholeness.

Third, information represents God's semantic engagement with all of creativity. God both knows and values God's creation through intimate engagement as evident in God's own internal mutual conversation and listening. Since all creation is encompassed by the infinity that is God, all creation therefore is part of this process of listening and being heard—part of the wider system of semantic information.

INFORMATION, DEEP INCARNATION AND THE JOHANNINE LOGOS...

"Deep Incarnation" has been a long-term project for Niels Gregersen, built on the work of Teilhard de Chardin and of the Church's theologians across the centuries (Lyons 1982), and not least through the Christ and the Cosmos Initiative set up by Bill Gowland. However, as someone who engages principally with the Bible, I would like the text of the Prologue to push us further. The Bible talks of God's creative Logos doing something more than informing creation or providing the information to form this new ontology and push it toward its proper end, its own Omega Point. John's Prologue maintains that the Logos is not only deeply incarnated in the incorporation of all creation within Godself, but that something changes ("egeneto") and the Word becomes incarnate ("sarx") as Mary's child. The scandal of John 1:14 is sometimes diminished within deep incarnation by re-translating "sarx" as "materiality" and seeing the role of the Logos as extending throughout existence—part of the all-embracing presence of God in "deep incarnation" (2013, 407). Robert Jenson's argument calls for a similar approach to the eternal embodiment of the Logos—the Logos can never be without flesh ("a-sarkos") since the Logos is part of the eternal Godhead that does not change (Jenson 2011). But in what way could that Logos then *become* flesh in John 1:14 or, in Philippians 2:6ff, "empty himself and took on the nature of a servant and became human form?" The verbs make it almost impossible to assume a continuation between Jesus and the Cosmic Christ.

Deep Incarnation fits well with de Chardin's Cosmic Christ model but undermines the specificity of the New Testament accounts of the incarnation of Christ. How is it possible, then, to see a (transcendent?) God, who encompasses all creation, to shift form and be enfleshed in that which is created in a specific form at a particular time? In other words, can we have a transcendent Logos (present in Godself), discussed in the Church Fathers' explorations of the *logoi* and the *energia* shaping, informing creation as God's information, life's DNA, the creative word echoing through the universe, but then also as the Word becoming flesh, immanent, incarnate in humanity, enabling humanity to experience God in the flesh, to educate both God and humanity through a shared concept of love, of community, of Trinity?

In the Logos, we may have the metaphysical essence of information itself. Godself filling creation with information, directing evolutionary development through the *logoi*. But in the jump from the eternal Word of God to the incarnate Jesus, this cosmic information shifts both shape and, potentially, essence: in Robert Jenson's terms a Logos a-sarkos becoming Logos en-sarkos: a Logos that knows both life and death, a Logos brought to life again and raised to the presence of God, wounded still (Jenson 2011): an information, a DNA, altered by its own experience as God within clay? If the Logos is information, then that information holds a history of change and agency—it has memory and a future.

So, what do we learn further from Gregersen's article delivered at the conference and developed further in this journal?

Building on the tradition of the early church and medieval theologians, Gregersen talks of the incarnation "of the divine life in the body and mind of Jesus of Nazareth" as "a microcosm of the cosmic Christ who is forever internally related to the material world at large" (Gregersen 2023, 2). There is much in this statement that we could pick over, but the basics are there that we see the work of the Logos maximally in the pervading and encompassing presence of the divine throughout all creation. This is where God embraces clay by an interpenetration of all creation into the essence of the divine. In turn, arguably, this macrocosmic interpenetration makes sense of microcosmic interpenetration of the divine into clay (Gregersen 2023, 7). Such a picture reflects a Stoic understanding of the work of divine reason, the Logos, as Gregersen points out (p. 4ff.), although challenged by other philosophies of the Greco-Roman era. Gregersen points to the influence of both Platonic and Stoic ideas within key theological traditions, including both Augustine in the fifth century and Bonaventure in the thirteenth.

One of my problems with the macrocosmic/microcosmic analogy is the tension it builds across God's essential embracing presence and the true perichoresis (as "interpenetration") of the divine presence. If it is true that the cosmic Logos (I do not think Cosmic Christ works since it picks up on personality issues of messiahship and anointedness that are not appropriate to a Stoic system) already embraces clay, then there is no need for Jesus to become clay because perichoresis/interpenetration with the cosmos means that he already embraces clayness. If indeed God is a universal concept that encompasses all of creation, then is that interpenetration not enough to communicate God's abiding presence (through the *logoi*?). In what way can the "divine self-incarnation in Jesus...unite the temporally evolving cosmos with God's eternal life...to communicate Godself to humans, and to bring about transformational processes within the world of creation" (Gregersen 2023, 7). Indeed, leaving behind the concept of God in Jesus rather than God as Jesus, was God's eternal work of embracing all creation so ineffective as an act of communication and embrace toward humans

as part of that creation that he still needed to do something so radically different and to become incarnate among them? What of Maximus and the logoi? What of God's own informational activity through the eternal Word?

As I have recently argued elsewhere (Phillips 2023), in their own contributions to "Deep incarnation" (Gregersen 2015), Richard Bauckham (in Gregersen 2015, 25–58) and John Polkinghorne (in Gregersen 2015, 355–61), from quite different positions, disagree with Gregersen's depiction of a God who seems to be impersonal, stretched out to encompass/exist alongside/with the universe rather than to be the personal identity who interacts with that universe and with humanity as one aspect of it. God seems to have no independence from creation, from quantum, from the process of being. God seems to be wholly identified with something co-existent with the universe/as the universe contrary to the biblical depiction of a God who is separate from that which God has created—a different ontology?—and who engages intimately with humanity on a much more personal way that Gregersen's God ever could. Similarly, the incarnation of the Logos, while still referring to the Logos enfleshed as Christ, focusses much more on the eternal implications on the Godhead. By becoming flesh as a human—or rather "the divine self-incarnation in Jesus" (Gregersen 2023, 7) (not "becoming human" insists Gregersen 2015), the Logos introduces materiality into the Godhead—all materiality. Just as the man Jesus is made of the dust of the stars, so this too is brought into Godself and God experiences through this materiality the presence of all life—all humans, foxes, sparrows, the grass. Intriguingly, Gregersen limits/omits an exploration of the historical life of Jesus—a point critiqued by others in the collection. But Gregersen counters that his opponents have focused too much on the person, the embodiment of Jesus even whilst the historical tradition has shown how little we know of who Jesus was and what he thought (*pace* the Quest[s] for the Historical Jesus). As such, he argues, we cannot really reflect on Jesus' own understanding of God or indeed on his inner relationship with God, on his motives or actions. The importance of Jesus, for Gregersen, it seems to me, is not in his earthly life, but in his role of eternally incorporating materiality into Godself. But if Gregersen's thesis of deep incarnation is right, then I am not convinced that incarnation as envisaged from the very beginning of the Christian tradition is necessary at all—indeed it tends to create inconsistencies with the very concept of deep incarnation.

Of course, the Gospels and Paul have a different story to tell. The devil is in the details, as it were. The Gospel opens with a Prologue singing the praises of a Logos who exists both in God, is the same as God, is all that Godself is, but is also separate from God, one with whom Godself is in conversation. The Prologue talks of the ministry of the Logos within creation, within the history of the created order, a life/ministry which the

created order does not recognize—a ministry that resembles many of the stories of divine Wisdom. But that life/ministry changes with the phrase ὁ λογος σαρξ ἐγένετο (John 1:14) which, through the specific vocabulary of ἐγένετο signals a change in state of the Logos, a change into flesh—the shift from the descriptive use of the verb “to be” in the opening verses, to the action verb of verse 14. The decision to ignore this shift of state, to eternalize it into God’s assumption of materiality into Godself, might be interpreted as excarnating Christ’s ministry—creates a virtual Christ whose ministry in Palestine is largely consequential, whose death on the cross means nothing, whose resurrection is without purpose. In a cosmic Christology, the historic Jesus is disembodied, excarnated, sublimated into the cosmic Christ. Moreover, the sheer genius of Jesus as the image of the invisible God is ignored and his exemplary role as the bearer of the image of God is shattered: his challenge to order, his inclusive love, his criticism of wealth, his love for the poor and the ordinary, his open commensality and call for reformation. Do we lose too much of Jesus’ materiality and the impact of God’s embodiment by our focus on the eternity of the Logos within the infinity concept of God? (see Johnson in Gregersen 2015, 133–57)

Somehow, I would argue, “deep incarnation” as a project needs to take seriously the incarnation of the Logos and build the life and teaching of Christ more consistently into the bigger picture of the role of Logos in the eternal work of the divine in embracing all things. The Logos, and indeed God, is personal, interactive, active. God indwells all things and God’s purposes, as Maximus points out, pushes the universe toward its “eternal being”. As I suggested earlier, data are perhaps seen as raw and disorganized, but information might be seen as processed, organized data. Information as the active Word/Wisdom/Logos of God is able to direct processes of change, making use of the data God has organized and disseminates through the ontology. Is this the relationship between God and information, God forming data into reason, God informing the world into being - not just an energy transfer moment but an informing, re-forming of the world of data? Not just in creation but in God’s ongoing creative activity, his sustenance of all that is and will be. God’s action in both quantum events and in their outcomes however random, however creative or destructive, but also God’s witness as love in all of this, communicating as love, as love in God informing the universe. Christ as the Logos incarnate, God’s conversational information fusing with flesh, both fully God and fully human. God’s cosmic data of love informed in a baby in Bethlehem and in a man spending years within the poor and in a man crucified. But, of course, as God incarnate, love made flesh could not remain dead, the information continued to be present in the cosmic reality of Christ.

There is something here too which ties in with French theologian Jean Luc Marion’s exploration of the way that God gives of Godself (Marion 2016). It is a gracious openness to the interface, to the interactivity. An

openness to change. Just as God gave his Logos as an interface with the world, so the Bible becomes another interface of gifting himself into the world. Something close to what those who espouse the Theological Interpretation of Scripture in their understanding of the Bible being a Christological metaphor, with aspects both divine and human. But Marion, I think, is pushing us further into a concept of a God who gives of Godself in all that God does. God offers his being into the world through the Trinity, through the Father who is informative love, through the son who is transformative Logos, through the Spirit who is empowering life. Indeed, Marion goes on to argue that the fulness of God's gift is in this overflow of information, this overflow of being which makes this interface truly iconic, truly pregnant with the presence of God.

WHERE NEXT?

With Jenson's help, "Deep Incarnation" answers some of the deep questions about the eternal incarnation of the Word. It does this though at the expense of many Christian theologians including the Gospel writers and Paul. It would be good to do some further work on tracing the history of the "Logos a-sarkos" model which Jenson rejects and see why he does so. But it would also be good to explore de Chardin's Cosmic Christ model and how he engages with the issue of the incarnation the Word, not least because of de Chardin's own reflection on being human. I remain convinced that Logos/*logoi* offer space for a fuller metaphysics of information. Although I am also aware of the danger of associating this field of study to one person of the Trinity at the expense of the others. We seem to have arrived at a space where there is energy and information—is there space too for a third distinctive quality, perhaps of creativity?

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