

## THE TECHNOCRATIC IMPERATIVE AND THE INVIOLEABLE DIGNITY OF THE PERSON – THE TESCREAL BUNDLE IN LIGHT OF MAGNIFICA HUMANITAS

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### ■ ABSTRACT

Parts of the TESCREAL constellation and Pope Leo XIV's encyclical *Magnifica Humanitas* disagree about human dignity, and this article traces that disagreement through transhumanist, longtermist, and AI-safety writing, attending closely to embodiment, finitude, moral agency, and who owns digital infrastructure. Two understandings of human transcendence are at stake. The transhumanist projects discussed here locate transcendence in the technical modification of human capacities; Christian accounts of the *imago Dei* and *theosis* understand it instead as a gift – one that fulfils creaturely existence rather than replacing it. The closing sections bring the disagreement down to the ground: concentrated ownership in the AI industry, and Croatian and Hungarian institutions that depend on infrastructures they neither own nor can independently audit. Read this way, the political economy of AI is not a separate ethical application but part of the theological question itself.

**Keywords:** TESCREAL; Magnifica Humanitas; transhumanism; imago Dei; digital colonialism

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## Introduction

Discussions of artificial general intelligence often move from claims about computational performance to claims about human nature. Bostrom's account of superintelligence, for example, concerns what machines may be able to do, but it also encourages questions about which human capacities are reproducible and surpassable. Theological analysis becomes relevant at this point. If intelligence is treated primarily as measurable performance, embodiment, dependence, and finitude are likely to appear as constraints on an otherwise improvable system. This interpretation is not shared by all AI researchers, and the argument below does not attribute it to the field as a whole. It examines its influence within a specific group of intellectual and institutional networks.

Timnit Gebru and Émile P. Torres coined the acronym TESCREAL for an interconnected bundle of transhumanism, extropianism, singularitarianism, cosmism, rationalism, effective altruism, and longtermism. They trace overlapping networks of founders, funders, and advocates who present the pursuit of AGI as a project for humanity as a whole.<sup>[1]</sup> Neşe Devenot consequently calls TESCREAL the “court philosophy” of a global oligarchic class.<sup>[2]</sup> Ozy Brennan pushes back, calling the acronym a label for “a loosely connected group of beliefs” rather than a creed every person under it would sign.<sup>[3]</sup> He is right that

TESCREAL is no unified doctrine – but that criticism does not touch the recurring institutional connections Gebru and Torres document. So I keep the term, with its scope limited: patterns of funding, personnel, advocacy, and shared vocabulary, not complete doctrinal agreement. Disagreement among the seven traditions can coexist, on this usage, with their institutional convergence as an object worth analyzing.

I do not use TESCREAL as a neutral label its members would all sign – nobody would. What it does is name affinities a case-by-case account would miss: confidence in accelerated progress, a view of human nature as revisable, a fixation on existential risk, epistemic and financial authority concentrated in a handful of networks. Brennan warns this courts guilt by association, and I take the warning seriously enough to keep a movement's own claims separate from abuses committed in its name – not because fairness excuses what follows, but because a sloppy argument would hand TESCREAL's defenders a technicality to hide behind. My interest is not in giving this constellation its most flattering hearing. It is in who profits when a person's suffering gets redescribed as an engineering backlog, and who is told to wait.

Because the label carries more weight in what follows than a loose family resemblance can bear on its own, I state the criteria. I use TESCREAL for a constellation identifiable through

three analytically distinct forms of connection: a shared anthropological premise, that human nature and its limits are legitimate objects of technical redesign; a documented institutional overlap of funding, governance or personnel among the organizations advancing that premise; and a shared legitimating vocabulary in which the redesign is presented as a benefit to humanity as such. These are dimensions of connection rather than a single test to be passed, and different actors belong differently: a theorist may exhibit the first and the third and none of the second, while a firm may exhibit the second and the third without ever stating the anthropology at all. In each case I claim only what the evidence for that case supports, and where the distinction is material to the argument I identify which form of connection is at issue. Nothing here requires that any single actor exhibit all three. Three distinctions matter here and I try to keep them apart. Transhumanism is an anthropology; longtermism, a theory of moral priority; and existential-risk research is descriptive in a way strong longtermism is not. Market concentration in the AI industry is simply a fact about capital – it tells us nothing, by itself, about anyone’s ideological commitments. All the constellation names is a convergence, and that is all the argument below actually needs.

Pope Leo XIV’s 2026 encyclical *Magnifica Humanitas* supplies a framework for that judgment. It does not treat technology as an en-

emy of humanity and repeatedly recognizes scientific creativity as a gift capable of alleviating suffering. Its decisive question is whether technical power remains ordered to the person and the common good – a criterion joining anthropology to political economy, since technologies embody choices about what to measure and optimize, and control of platforms, data, and compute settles who makes them.<sup>[4]</sup> Antonio Marturano and Andrea Ciucci describe its treatment of artificial intelligence as a *res nova*, a genuinely new reality that reopens anthropological and social questions.<sup>[5]</sup>

A word about how I read the encyclical. Much of *Magnifica Humanitas* develops positions the magisterium already held: the technocratic paradigm comes from *Laudato si’*, the universal destination of goods from a century of social teaching, the account of dignity from *Dignitas infinita* and behind it *Gaudium et spes*. What is new is narrower and worth naming: the treatment of artificial intelligence as a *res nova* rather than one more instance of technology in general (MH §§4–5); the extension of the social function of property to models, platforms and data (MH §67); and the identification of data extraction as a form of colonialism (MH §178). The document also holds a tension it does not resolve. It welcomes technical creativity as a gift and warns that concentrated technical power evades oversight, and it supplies no criterion for deciding when a particular development has crossed from the first description to the

second. I read it as a framework to be argued with rather than applied, and where I extend it beyond what it states I say so.

My thesis is that the friction between TESC-REAL and *Magnifica Humanitas* is a conflict between two models of transcendence. Influential TESC-REAL currents seek an immanent transcendence produced by technical power: longer life, expanded cognition, artificial superintelligence, posthuman successors, a vast future civilization. Christian anthropology understands transcendence as received in relationship, and therefore as the fulfilment of creaturely life.

## 1. The TESC-REAL constellation and the technocratic imperative

The acronym compresses seven traditions: capacities expanded beyond biological limitation (transhumanism), self-transformation toward indefinite progress (extropianism), discontinuity produced by intelligence exceeding human performance (singularitarianism), posthuman intelligence spreading through the universe (cosmism), belief formation corrected against bias (rationalism), reason applied to doing the most good (effective altruism), and the long-term future as the major moral priority (longtermism).<sup>[6]</sup>

The connections are real without being total: existential risk links Bostrom's superintelligence to longtermist priority-setting, astro-

nomical future populations link longtermism to cosmism, effective altruism supplies the institutions for ranking causes and rationalism the culture of probabilistic reasoning. Disagreements remain, and *Magnifica Humanitas* itself resists treating the bundle as monolithic, describing transhumanism and posthumanism as an "archipelago" of islands joined by a common sea: the central role of technology and the aspiration to transcend the human condition (MH §§115–16).

### 1.1. *Human nature as a work in progress*

The Transhumanist Declaration states that humanity may broaden its potential by overcoming ageing, cognitive shortcomings, involuntary suffering, and confinement to Earth, and defends wide personal choice regarding life-extension therapies, reproductive technologies, and cryonics.<sup>[7]</sup> The prevention of involuntary suffering is a widely shared moral aim, and that is what makes it serviceable. The declaration borrows the moral authority of medicine and spends it on a program medicine never authorized. The shift occurs when the restoration of a patient's functioning gives way to an open-ended program for redesigning the species. The constituency is not hard to identify. Jeff Bezos put some \$3 billion into Altos Labs; Alphabet founded Calico for the biology of ageing; Sam Altman put \$180 million of his own into Retro Biosciences, whose advertised product is ten additional healthy years.<sup>[8]</sup> Private balance sheets are buying a science of

ageing on terms they set. These investments place the direction of longevity research under the influence of private capital, and unless access and public benefit are institutionally secured, whatever therapies emerge will be distributed through the markets that funded them and will reproduce the purchasing inequalities of those markets. That is what the annexation of a common problem looks like, and it is dressed in the vocabulary of medicine because that vocabulary commands a trust a balance sheet has not earned. The two anthropologies diverge over the end toward which intervention is directed, and over who is in the room when it is chosen – and in this room, the door is not open.

Bostrom states the more radical premise directly: transhumanists view human nature as “a work-in-progress, a half-baked beginning that we can learn to remould in desirable ways.”<sup>[9]</sup> Max More sets humanism, which relies on education and culture, against transhumanism, which applies technology to limits set by biological inheritance.<sup>[10]</sup> Taken to its end, the programme seeks states no longer describable as human.

Therapy and enhancement are not always technically distinguishable, but the distinction still carries moral weight as a question of orientation. Therapy receives the embodied person as the subject whose flourishing guides intervention. Radical enhancement reverses that relation by treating a preferred

capability profile as the standard against which persons are measured. Once a capability like that becomes normative, people who lack it risk being read as deficient, not simply as persons living with an unwanted limitation – which makes the standard itself, and whoever gets to set it, a moral question.

Michael Sandel argues that the drive toward genetic mastery can weaken our appreciation for the gifted character of human powers,<sup>[11]</sup> and his concern is not only about personal humility. Treat achievement as wholly self-produced, and institutions start reading undesigned limitations as preventable failures – meanwhile the successful have less reason to notice how much they owe to circumstance and to other people. Solidarity suffers for it. If every limitation looks preventable in principle, then whoever stays limited can be blamed for not obtaining the fix, and disability starts to read as an avoidable lapse from a preferred standard.

## *1.2. AGI, superintelligence, and technological salvation*

Singularitarianism pushes the logic of redesign further still. Bostrom defines superintelligence as an intellect greatly exceeding human performance in virtually all domains: an agent whose strategic and scientific capacities could displace human institutions outright.<sup>[12]</sup> Ray Kurzweil’s vision extends the transformation beyond Earth: humans merge

with machines, descendants spread through the cosmos, and consciousness awakens the universe.<sup>[13]</sup> Max Tegmark frames the horizon as “Life 3.0,” a stage of cosmic evolution in which agents redesign their software – culture and knowledge – and their biological hardware, so that body and mind become artefacts of deliberate engineering.<sup>[14]</sup>

The register is religious in more than a loose sense. There is an eschatology, the singularity; a damnation, extinction or misalignment; an elect community with its own canon and conferences; and a hoped-for transformation of matter and mind. The functions are those of a soteriology, performed by organizations that pay salaries and raise capital.

Gebru and Torres challenge the appearance of inevitability surrounding the AGI race. AGI, on their account, is an undefined aspiration whose safety cannot be tested as a bounded engineering system can, and institutions sustain the race by framing it as necessary to safeguard humanity.<sup>[15]</sup> The structure is circular. AGI is said to create existential danger, and the danger is then invoked to justify accelerating the institutions building it. The effect of safety discourse is to centralise authority precisely in the organizations whose ambitions most need scrutiny – and nobody has said who audits a warning issued by the party it protects.

*Antiqua et Nova* offers a related critique: calling machine output “intelligence” obscures

what is most distinctive about the human person, since AI is a product of human intelligence, not an artificial instance of it (AN §35). Models perform tasks that once required human cognition without exhausting the concept, which in human beings is embodied, historically situated, affective, interpersonal, and open to meaning. Reading a child a story. Sitting with an elderly parent through a night of pain. The encyclical reaches for the same examples.<sup>[16]</sup> The benchmark suites do not contain them.

### *1.3. Effective altruism and the abstraction of the future*

Effective altruism begins with a compelling intuition: direct resources where they alleviate the most suffering. Longtermism extends that impartiality across time. Hilary Greaves and William MacAskill defend strong longtermism, on which what most differentiates available actions is their effect on the far future.<sup>[17]</sup> Because future civilization could contain enormous numbers of lives, even small reductions in existential risk can, on this arithmetic, outweigh every conventional priority.

Longtermism is not a single position, and I should not treat it as one while insisting that TESCREAL is no doctrine. MacAskill’s own book grants that present generations hold claims which cannot be traded away wholesale, and the movement’s institutions fund

bed nets and deworming alongside speculative work on existential risk.<sup>[18]</sup> The objection here is narrower. It concerns strong longtermism, on which the effect on the far future is what most differentiates available actions, and it concerns what that premise does once it reaches an institution with a budget: the discount on the present becomes a rule rather than a temptation, and nobody has to defend it case by case.

Longtermism is right about one thing: short-term political thinking is a real failure, and future generations do have claims on us. Catholic social teaching has said as much for a while: *Laudato si'* insists that “intergenerational solidarity is not optional, but rather a basic question of justice” (LS §159). What longtermism adds on top of that is an exchange rate between the unborn trillion and the person standing in front of us — set, naturally, by whoever is doing the calculating.

Trouble starts once expected-value arithmetic converts hypothetical future lives into an aggregate so vast that existing persons shrink to a rounding error. Gebru and Torres argue this reasoning can legitimate whatever projects powerful institutions already favour, while marginalizing harms already observable.<sup>[19]</sup> Devenot goes further. Utopian narratives of this kind naturalize widening inequality by presenting elite control as necessary for civilisation’s future, and she cites Nick Beckstead’s claim that saving lives in wealthy

countries may matter more, since wealthy countries generate more innovation.<sup>[20]</sup> Allowing productive potential to govern the value of a life is philanthrocapitalism with a formula attached. Effective altruism markets itself as evidence-based generosity, and strong longtermism converts that generosity into a mathematics justifying almost any present cost against an imagined trillion-person future. This is the work philanthrocapitalism has always done: an existing concentration of private wealth comes to look like the most rational instrument of justice, and nobody in the room is paid to ask whether justice has anything to say about the concentration itself.

The Catholic objection is personalist. Future persons are real, and the person standing before me is still not a replaceable unit in an intertemporal welfare calculation. Calculation informs prudence. It does not tell me what I owe the woman in the next room.

## 2. Imago Dei: embodied dignity against the anthropology of optimisation

### 2.1. Dignity as a gift that precedes achievement

At the centre of *Magnifica Humanitas* is the biblical affirmation that women and men are created in the image and likeness of the triune God, willed for communion with God, others, and creation (MH §50). Dignity does

not depend on ability, wealth, position, or technological capacity; it is a gift that precedes achievement (MH §§50–51). *Gaudium et spes* had already taught that human beings, “created in God’s image,” are commanded to “subdue the earth” as stewards serving the whole person (GS §§12, 22). *Dignitas infinita* radicalises the premise for the digital age: dignity is “infinite,” inseparable from the human being “independently of, and before” any social recognition, untouched by disability, cognitive decline, or the absence of enhancement (DI §1).

This unsettles every ranking of persons by intelligence, productivity, health, or independence. Grounded in rational performance, dignity would make a stronger cognitive system worth more than a person with dementia; grounded in autonomy, it would count infancy and dependence as diminished personhood. The *imago Dei* establishes an equality nobody competes for and nobody can lose, which is why a woman in the late stages of dementia and the consultant who examines her stand in exactly the same place.

Preferential concern for the vulnerable is therefore the political test of whether a society recognises dignity as equal or only says so. Leo XIV puts the criterion sharply: a civilisation is measured by the care it offers rather than the power of its means, and by whether it can still recognise the other as a face rather than a function (MH §114).

## 2.2. *Embodiment and the refusal of digital dualism*

Transhumanist thought varies in its treatment of the body, and mind-uploading scenarios express a powerful dualist temptation. Bostrom lists the apparent advantages of becoming an upload: backup copies could improve life expectancy, and persons could be transmitted as information at the speed of light.<sup>[21]</sup> The scenario presupposes that personal identity is captured by a reproducible informational structure, a premise close to “dataism,” the reduction of the person, and of material reality generally, to information transferable to a more durable medium.<sup>[22]</sup> The scenario has no way to ask what the transfer leaves lying on the table, because everything it would leave there has already been defined by its premise as inessential.

The *imago Dei* belongs to the whole person. Roman Globokar stresses that dignity belongs to the indivisible person and is therefore inherent in the body, which participates in the person’s being in God’s image.<sup>[23]</sup> *Antiqua et Nova* treats corporeality as an integral part of identity and vocation (AN §9). The body is therefore never available as an instrument to be specified, and the phenomenology of embodiment arrives at the same conclusion from outside theology.<sup>[24]</sup> Germline programming has no living witnesses yet; its nearest analogue does. I have sat across from people working through irreversible medical

decisions taken about their bodies in infancy, before anyone could consult them, and I have never once heard gratitude for having been corrected. What I hear instead is grief — for a self that was settled before it ever had a vote. I offer these as impressions from a handful of conversations, not as evidence.

## 2.3. *Vulnerability, finitude, and the meaning of limits*

Reading the encyclical's treatment of vulnerability takes some care. It is not claiming disease is good, or that medical progress ought to stop. The warning is narrower than that: incapacity, ageing, and vulnerability are increasingly seen only as defects awaiting correction, when in fact humanity often matures through limits – compassion, dependence, and reconciliation only become intelligible within creaturely finitude at all (MH §§118–19). That perception does not simply arise; it gets manufactured and sold. An anti-ageing market needs customers who have accepted that an ordinary body is running behind schedule, just as an enhancement market needs parents who have accepted that an ordinary child is underperforming, and somebody books the revenue from that acceptance while someone older, poorer, or disabled pays for it – read as a problem awaiting a solution he cannot afford.

The International Theological Commission frames this balance well. Humanity, it

says, must neither censor fragility in favor of strength alone nor resign itself passively to limitation, ignoring what is inscribed in an intelligent and spiritual nature (QVH §1). Joseph Meaney works the same balance from the clinical side, where the boundary between restoring function and redesigning a person gets drawn case by case, patient by patient.<sup>[25]</sup> Reviewing *Quo vadis, humanitas?* for *Crkva u svijetu*, Ivan Bodrožić finds its chapters converging on a single demand – that development be “integral,” taking in body and soul, heart and conscience, reason and will together.<sup>[26]</sup>

Brent Waters is blunt about it: “being and remaining human requires that humans cling tenaciously to their finitude.”<sup>[27]</sup> That only sounds severe if finitude gets confused with avoidable misery. A creature who receives life, depends on others, and cannot master the future can still be faithful, still be hopeful. Total control removes risk, yes — but it also removes the ground on which promises get made and kept, whether in a hospice ward, a marriage, or the care of a parent who no longer recognises the child providing it.

## 2.4. *Created co-creators and the limits of creaturely making*

Aquinas locates the *imago Dei* in the rational soul's capacities of memory, intellect, and will, constitutive of the human being from creation (Aquinas, ST I, q. 93, aa. 4–7). *Gaudium et spes* affirms that human beings, through work

and technical skill, genuinely share in the Creator's ongoing activity. The Lutheran theologian Philip Hefner later reformulated this as the "created co-creator," in which technological creativity participates in God's continuing work while remaining bounded by the createdness it exercises (GS §§34–36).<sup>[28]</sup> The formula belongs to a Lutheran theology of vocation that grants freedom considerable scope, and its characteristic risk is not hypothetical. Once "co-creator" starts carrying all the argumentative weight, "created" shrinks down to a pious preface. Where the language of co-creation is detached from a prior account of creaturely limits, it supplies theological warrant for technological initiative without an equally determinate criterion of refusal. Hefner did not intend to license technological expansionism, and the risk described here belongs to the reception of the formula rather than to his own use of it. Genesis already tells the creature placed in the garden that he is a steward and not an owner, and no reformulation was needed to establish it. What the reformulation added was a warrant for initiative, and where that warrant travels without the limit meant to accompany it, the balance the formula was built to hold does not survive. "Co-creator" has moved a long way from "created."

*Magnifica Humanitas* rebalances the pair. Creatureliness is the standing condition of the maker and not the preamble to his license; technical skill is a capacity held on loan, exercised in dependence, and answera-

ble to the One from whom it comes. I read the encyclical's account of creaturely making as subordinating creative agency to the primacy of createdness and grace, so that technical capacity arrives as stewardship, with the accountability stewardship implies.<sup>[29]</sup>

The transhumanist devaluation of the body follows once the person is identified with an informational pattern: the biological body is recast as a hardware error, and material reality is reduced to code transferable to more durable media. Waters reads this move as a recapitulation of gnostic and Manichaean dualism.<sup>[30]</sup> The analogy works at the structural level and earns its place there. In both, the material cosmos is a defective enclosure, the true self an element alien to it, and salvation the extraction of that self from its bodily condition by superior knowledge – *gnosis* in one case, computational mastery in the other. Jeffrey Pugh has shown that the parallel survives the difference in mechanism, since both share the premise that embodiment is accidental to identity.<sup>[31]</sup>

### 2.5. *Theosis against "Life 3.0"*

The deepest conflict between the two anthropologies is soteriological. Transhumanism treats ageing and death as technical impositions to be conquered – More calls the conquest an urgent and worthy quest<sup>[32]</sup> – and there is something decent in the impulse underneath it: refusing to lose people to death

is, after all, what medicine is for. What the technological project does is take that refusal and turn it into an obligation of mastery, with salvation reduced to indefinite continuation.

What the tradition means by the transcendence of human limits has a precise name, and the contrast with “Life 3.0” is unintelligible without it. *Theosis* – deification, *θέωσις* – is the doctrine that the end of human life is real participation in the life of God, given by grace and never produced by nature or technique. Its scriptural warrant is 2 Peter 1:4, where believers become “partakers of the divine nature,” and its classical formulation is Athanasius’s: the Word “became human that we might become God” (2 Pet 1:4 RSV-CE; Athanasius, *De incarnatione* 54.3). The formula is deliberately shocking, and the direction of travel is the whole argument. Deification descends, and that direction is everything. God assumes flesh, hunger, exhaustion, the capacity to be wounded — that assumed materiality becomes the channel through which the gift arrives, so the body is both instrument of deification and its beneficiary. Maximus the Confessor makes the asymmetry explicit, and his terms carry it. Every creature has a *λόγος*, the principle of what it is, held in God and not at the creature’s disposal, and a *τρόπος υπάρξεως*, the mode in which it exists. Deification transfigures the mode and leaves the principle intact, which is how the fathers can promise participation in God without promising that the human being will stop being one.

The engineering program runs the operation backwards. It offers to rewrite what a human being is, and leaves untouched the mode — acquisitive, competitive, frightened of death — that made the rewriting look urgent in the first place. The deified person receives the whole of God without ceasing to be human, and the possibility that transhumanism files under defect is the very condition on which the gift can be received at all (Maximus the Confessor, Amb. 7). Norman Russell shows how consistently the Greek fathers guarded that distinction against any suggestion that divinization abolishes creaturehood.<sup>[33]</sup>

Catholic teaching receives the doctrine without hesitation: the *Catechism*, citing Athanasius and Aquinas, states that the Son of God “became man so that we might become God” (CCC §460). Western theology frames deification with different accents — created grace, infused justification, the beatific vision rather than the Palamite distinction of essence and energies — and holds the same ontological claim: the creature is really taken into the life of God and remains a creature. “Life 3.0” travels the other way. It defines the self as information first and then reclassifies the biology as substrate, an implementation error to be corrected or abandoned, which is why Tegmark’s program can promise everything while conceding that the body is expendable. In that description immortality becomes an engineering problem, of the kind that can be priced and scheduled like any other roadmap. The Church offers theosis

instead, and theosis has never been for sale. It asks more than an upgrade asks. It asks the cross, which is why the deification the fathers describe can be neither scheduled, nor capitalized, nor delivered on a roadmap.

This is not the first theological reading of transhumanism as a soteriology, nor the first to answer it from deification. Ronald Cole-Turner set Christian hope beside technological enhancement two decades into that debate;<sup>[34]</sup> Noreen Herzfeld holds that relationship rather than capacity is what the tradition means by the image of God;<sup>[35]</sup> Ted Peters has pressed the further question of whether an artificial general intelligence could bear dignity at all;<sup>[36]</sup> and the field now has its survey.<sup>[37]</sup> Brandon Gallaher comes closest to the ground of this section, mounting an Eastern Orthodox critique under the title “Technological *Theosis*?” and concluding that the movement is a counterfeit of deification, demonic in structure.<sup>[38]</sup> I take that judgment seriously, and the argument here is a different one. Gallaher reasons from the doctrine of deification as a whole. My claim turns on a single distinction inside it, and that distinction does discriminating work which a general appeal to theosis cannot do: deification transfigures the *τρόπος* and leaves the *λόγος* untouched, while the engineering program proposes to edit the *λόγος* and leaves the *τρόπος* as it found it. The difference between them lies in the direction of the operation, which is why Maximus is needed here and theosis in gen-

eral will not serve. The Western qualification carries weight as well. Read through created grace and infused justification, the claim holds for a Catholic doctrine of grace, and not only inside the Palamite frame in which the Orthodox critique is usually cast.

Resurrection is the gift of a transformed embodied life in communion with God. Classing death among the engineering problems yields instead a cybernetic eschatology: immortality inside historical time, by life-extension or mind-uploading, in which a person keeps going and nothing in him is healed. The two are not rivals for the same ground, and seeing why sharpens the objection. Theosis is eschatological: it lies beyond death and passes through it. “Life 3.0” works inside history and offers duration. So the program misdescribes itself in both directions at once. It promises an immortality that lies outside its reach, and the thing genuinely within its reach, more years and more capacity, was never what salvation meant. Dante coined the neologism *trasumanar* – “to transhumanize” – for the soul’s being drawn beyond itself by grace into the vision of God (Dante, *Paradiso* 1.70–72). Nobody engineers it. It is asked of a creature, and what it leaves at the end is a self crucified.

Carried through, such perfectionism threatens a real stratification of humanity: an enhanced minority above a majority unable to afford modification, denying the ontological equality of all human beings. Catholic social

teaching answers with the universal destination of goods, so that technological resources serve the whole human family, and the preferential option remains what it has always been, an option for the poor (MH §67; CV §32).

### 3. Algorithmic reason and the irreducibility of moral agency

#### 3.1. *From prediction to judgment*

AI systems identify patterns and generate predictions at scales unavailable to unaided human cognition, but their usefulness does not establish moral agency. *Antiqua et Nova* warns that a close equivalence between human intelligence and AI encourages a functionalism in which persons are valued by the tasks they perform (AN §34). Machine outputs are then described in anthropomorphic terms, while human intelligence is assessed primarily by its output. Both moves make the same mistake: reducing intelligence to performance, and losing sight of the embodied, relational conditions human judgment actually depends on.

Selecting an outcome under a formal objective is not the same thing as moral judgment. The latter means recognizing another person as someone to whom justification is owed, taking responsibility for a decision, staying open to mercy. *Magnifica Humanitas*, quoting Pope Francis, observes that automated systems used in employment, credit, or reputation do not know “compassion, mercy, for-

givenness, and above all, the hope that people are able to change” (MH §102). *Dilexit Nos* locates this capacity in the “heart,” where reason, free will, and conscience come together through self-giving love (DN §§9, 28). A scoring system can certainly be reconfigured to lower the weight given to an old default, and that will change an outcome — but it is not forgiveness, because nothing in the system recognizes an obligation or takes responsibility for releasing it.

#### 3.2. *Bias, opacity, and automated exclusion*

Ruha Benjamin shows how technological systems can reproduce racial hierarchy while looking objective — her term “New Jim Code” names the practice of encoding discrimination into systems marketed as neutral.<sup>[39]</sup> Virginia Eubanks finds a related pattern in social services: automated eligibility and fraud-detection systems subject poor people to forms of profiling that wealthier citizens rarely face.

<sup>[40]</sup> Embed a political judgment in a scoring procedure and its normative assumptions can become nearly invisible, both to the administrators running it and the people it affects. *Magnifica Humanitas* reaches much the same conclusion: algorithmic decisions about worthiness can hide exclusion behind an appearance of neutrality (MH §103). That makes error distribution a moral question, not just a technical one — a system whose false positives land disproportionately on people with

little access to appeal reproduces an existing inequality even where the formal rule is neutral on its face. Bender and colleagues push the concern further, into large language models, whose training can reproduce dominant stereotypes while fluent output tempts users into mistaking pattern-based generation for understanding.<sup>[41]</sup>

### *3.3. Responsibility cannot be automated*

Full moral causality belongs to persons, so responsibility for AI has to stay traceable – across design, training, procurement, deployment, appeal (AN §44). And “human in the loop” does not mean much if that human lacks the time, the authority, or any realistic power to reject what the automated system recommends.

*Magnifica Humanitas* insists that the decision to use force cannot be delegated to opaque or automated processes and must remain under effective human control (MH §§199–200). No increase in targeting speed resolves the moral problem of authorising death. Building on the criteria the encyclical sets out at §§199–200, accountability can be restated as five working conditions: an identifiable decision-maker, an intelligible justification, independent oversight, a meaningful avenue of appeal, and the power to remedy harm.

Algorithmic governance and strong longtermism share a temptation toward abstraction.

Persons are represented through variables suited to optimization – necessary for policy, dangerous the moment the variable is mistaken for the person. In the encyclical’s formulation: if the human being is treated as something to be perfected or surpassed, it becomes easier to regard some lives as less worthy, and to load the vulnerable with the “necessary sacrifices” of species improvement (MH §117).

## **4. The political economy of AGI and digital colonialism**

### *4.1. Technology is never neutral*

*Laudato si’* describes the technocratic paradigm as a mode of power that treats reality as material available for manipulation (LS §§101–14). *Magnifica Humanitas* applies this analysis to AI by directing attention to the people and institutions that design, finance, regulate, and use technical systems (MH §104). Ethical evaluation must therefore include ownership, labor, infrastructure, and institutional purpose. A model embodies prior decisions about what it will measure and what it will ignore. For example, a credit model may estimate default risk and a hiring model may predict performance, but neither model determines whether that objective is justifiable or how the costs of error should be distributed. Those questions are decided before training begins.

## *4.2. Concentrated power and the privatisation of the future*

I want to name names, because the abstraction Leo XIV warns against – development driven by “private, often transnational, parties that are endowed with resources and the capacity to intervene that surpass those of many Governments,” power that, “concentrated in the hands of a few... tends to become opaque and evade public oversight, increasing the risk of distorted forms of development that give rise to new dependencies, exclusions, manipulations and inequalities” (MH §5, §§95–96) – has a short, identifiable list of addresses. OpenAI, Microsoft, Alphabet, Meta, and Anthropic control the compute and the models, and are gaining increasing control over the regulatory conversation that will decide what AGI means and on whose terms it arrives. Look at the financial architecture, which is public record: Microsoft holds a 27 per cent stake in the restructured OpenAI Group PBC, valued at roughly \$135 billion, against which OpenAI has committed to purchase some \$250 billion of Azure capacity.<sup>[42]</sup> Anthropic – the youngest of the five, and the one that most insistently offers safety as its rationale – is capitalised the same way: Google committed up to \$40 billion in cash and compute in April 2026, much of it flowing back to the investor as purchased cloud and TPU capacity.<sup>[43]</sup> These figures will have moved by the time this is read, but the arrangement they illustrate has held across successive rounds: capital and compute cir-

culating inside the same small set of balance sheets, which makes the laboratories’ independence from the platforms largely a matter of corporate form.

The same circulation runs through the politics. Drafting the General-Purpose AI Code of Practice, the European Commission invited model providers to dedicated workshops with the working-group chairs, while more than 350 civil-society organizations, academics, and small firms were confined to written questions submitted through a polling tool.

<sup>[44]</sup> The firms that build the systems help write the rules that govern them. Sam Altman, Elon Musk, and Peter Thiel move between building these systems, warning about their dangers, and shaping the politics around both, without changing institutional position. The philanthropy funding the field’s self-scrutiny has the same shape. Open Philanthropy, renamed Coefficient Giving in November 2025, is effective altruism’s largest funder and has directed more than \$4 billion in cumulative grants, some \$50 million of it to technical AI-safety research in 2024 alone.<sup>[45]</sup> That money builds an infrastructure of expertise whose accountability runs to a handful of donors. FTX collapsed in 2022, and Sam Bankman-Fried was convicted on seven counts of fraud and conspiracy and sentenced to twenty-five years and some \$11 billion in forfeiture. A criminal conviction settles nothing about a moral philosophy, and I am not offering it as one’s refutation. What the collapse exposed, rather,

was how far the movement's moral authority and its access to capital had become entangled with a handful of personal fortunes<sup>[46]</sup> – Bankman-Fried, remember, had marketed his firm's profits as a vehicle for utilitarian good.

Underneath all this Shoshana Zuboff finds the economic mechanism: technology corporations claim human experience unilaterally as free raw material, convert it into behavioral data traded in what she calls “behavioral futures” markets, and end up with an asymmetric “instrumentarian power.”<sup>[47]</sup>

The AGI narrative only magnifies this power. Once a small group believes it is building a system that will determine humanity's survival, democratic delay starts to look irresponsible, and technical expertise slides smoothly into political authority.<sup>[48]</sup> Leaders here can be entirely sincere about safety and the structure can still be a problem, because the same organizations end up defining the threat, developing the risky capability, and presenting themselves as its indispensable governors.

A caution is due about what this actually establishes. Three relations could in principle connect the anthropology of the preceding chapters to the balance sheets of this one — direct ideological transfer, where a stated premise turns into policy; institutional overlap, where the same people and money move through both; and structural correspondence, where an industry's incentives simply

happen to reward what the anthropology recommends. What the evidence assembled here establishes is the second, robustly, and the third, plainly. Not the first — I make no such claim, nor does the argument need it. An institution can carry assumptions it has never once articulated, and a structure often selects for them more reliably than any manifesto could.

#### 4.3. *Data colonialism*

Nick Couldry and Ulises Mejias call it data colonialism – the appropriation of human life through converting it into data for extraction – and the analogy to historical colonialism captures something real: the seizure of resources, and the social relations imposed to make that extraction look natural.<sup>[49]</sup> Michael Kwet extends this into digital colonialism proper, where control of software, cloud services, and surveillance infrastructure lets powerful firms and states dominate digital ecosystems across the Global South.<sup>[50]</sup> Shakir Mohamed, Marie-Therese Png, and William Isaac add a further point: a decolonial analysis has to examine epistemology, not just ownership.<sup>[51]</sup>

*Magnifica Humanitas* uses language that is remarkably similar. Colonialism, on its account, now appropriates data and turns personal lives into exploitable information — health data, genetic maps, demographic profiles all become strategic resources that guide markets and decide whose needs count. Without

control by the persons the data describes, the digital age simply becomes “colonial in another form” (MH §178). Raffaele Russo reads the critique through fiscal policy: for him, the encyclical’s condemnation of digital colonialism gives theological grounds for digital service taxes and public regulation of data ownership, so value extracted from user data does not escape into private, transnational hands.

<sup>[52]</sup> The demand is that the persons a dataset describes recover the power to govern its use.

## 4.4. Digital dependency and the Central European periphery

This is not only a Global South problem, and the point holds from where I write. Croatia and Hungary host only a small share of the hyper-scale cloud and foundation-model infrastructure on which their institutions increasingly depend, and which decides how their citizens’ data are processed. Installed European data-center capacity sits in a handful of hubs — Frankfurt, London, Amsterdam, Paris, Dublin, with Milan and Copenhagen growing — while Central and Eastern Europe holds a small and late-arriving share of it.<sup>[53]</sup> Most of the cloud regions, the foundation models, and the moderation contracts sit in Ireland, the United States, or wherever compute happens to be cheapest that quarter — which means a Croatian university, hospital, or ministry adopting a large language model is renting cognition from an infrastructure it does not own, cannot audit, and could not replace if it had to.

Jakub Eberle and Linda Monsees describe the resulting condition precisely: the states of the Union’s (semi-)periphery possess formal regulatory agency and very little structural capacity, so digital sovereignty operates there as a vocabulary of ambition.<sup>[54]</sup> The AI Act sharpens the asymmetry as much as it corrects it. The region gains a regulatory voice through the AI Board. At the same time, the technical content of compliance is settled in harmonized standards drafted in CEN-CENELEC working groups whose experts are drawn overwhelmingly from large firms, and where the resources for sustained participation are unevenly spread across member states.

<sup>[55]</sup> Regulating what one does not produce is a weak position, and weaker still when the rules acquire their operational meaning from the regulated.

Subsidiarity gives this a normative edge the sovereignty literature does not supply. If higher authorities are to support rather than replace the agency of persons and intermediate bodies, the question for Central European institutions is not only what Brussels should demand of Google, but what our own universities, dioceses, and public bodies are actually doing to retain any agency at all. So ask directly. Which Croatian or Hungarian diocese has refused to route parish, catechetical, or personnel data through a platform whose terms it cannot negotiate? Which university in this region runs and audits its own model instead of renting cognition from Redmond

or Mountain View? I do not know of one. If a reader does, I would like to be corrected, publicly and soon.

Two qualifications belong here. By Central Europe I mean the member states of the region that host little of the infrastructure they use, and the claims below are drawn from Croatia and Hungary, where I can read the sources; I do not extend them to Estonia or Poland, whose trajectories differ. Nor is the choice unconstrained: energy prices, the scale economics of data centers and the market power of three cloud providers narrow what any single institution can do. That constraint is real, and it is not the same as an excuse. What it explains is why building is hard, not why so few have tried. What follows is therefore a diagnosis drawn from public records, offered so that an institution which has in fact done otherwise can refute it.

The expertise is not what is missing. HR-CLARIN, coordinated from Zagreb and joining the Institute of Croatian Language, the university computing center and the national library, has built Croatian corpora and language technologies for years, and the Hungarian Research Centre for Linguistics has trained Hungarian-language models on national supercomputing capacity and released them for research use.<sup>[56]</sup> What has not followed is institutional. What I have not been able to find is any corresponding institutional move: a diocese, hospital or university in either country

that owns or governs the systems it actually runs on. The region can build. On the evidence available to me it has left the building to others, and I put that forward as a claim to be tested rather than a finding to be assumed.

Call this an infrastructure gap and the description already absolves it. Where an institution has a realistic alternative and takes administrative convenience without asking what it costs in governance, the failure sits closer to sin than to shortfall: the acedia of institutions that could build capacity and choose comfort instead, dressed up as prudence – the noonday listlessness the desert tradition described as the abandonment of a demanding love for an easier inertia<sup>[57]</sup> – and a quieter, corporate cousin of the pride that assumes someone else – Brussels, Redmond, Mountain View – will do the work of stewardship on our behalf. In the tradition, acedia names exactly this: the sloth that declines the labor love requires. Here that labor is the governance of the instruments through which a local church now teaches, counsels, and keeps the records of the people entrusted to it.

Before it is a distribution of competences, subsidiarity is a test of institutional courage. A diocese that hands its catechetical and personnel records to a platform whose terms it cannot negotiate, and whose underlying systems it cannot independently audit, has consented to be governed by someone it will never meet, on behalf of people who trusted

it to know better. That is what a betrayal of subsidiarity looks like when nobody has to sign anything and nothing is due today. The one refusal that would count is available and unexercised: episcopal conferences that refuse – not “consider,” refuse – to route pastoral, catechetical, and personnel data through platforms whose terms they cannot negotiate. Behind that refusal lie the unglamorous conditions that make it possible: computing capacity a university can run and audit itself, Croatian and Hungarian corpora held under public or academic license, auditability written into what Catholic schools and hospitals are allowed to buy. None of this substitutes for European-level regulation. It is the layer subsidiarity assigns to the institutions closest to the people affected, and it is the layer where, so far as the public record shows, this region has not acted. These questions mark an empirical gap that research on Catholic and public-sector procurement in the region should close. If our own universities and dioceses refuse to assume the material risk of housing and governing their own digital intelligence, how far must we include ourselves in the diagnosis of digital colonialism?

#### *4.5. Hidden labour and material extraction*

The material infrastructure of AI connects model development to mineral extraction and outsourced moderation. Kara documents the conditions under which cobalt

is extracted in the Democratic Republic of Congo, including the labor of children in unsafe pits.<sup>[58]</sup> Perrigo reports that Kenyan contractors earning less than two dollars per hour classified descriptions of child sexual abuse, torture, and suicide so that a chatbot would not reproduce them; several workers later described the work as traumatizing.<sup>[59]</sup> *Magnifica Humanitas* addresses both forms of extraction. Section 173 discusses workers who perform the hidden labor behind apparently frictionless AI services, while §178 describes health data, genetic material, and epidemiological records drawn from the Global South as “new rare earths.” These cases involve different labor and ownership relations and should not be collapsed into a single process. Together, however, they show that services described in the language of intelligence and automation depend on geographically displaced forms of physical and psychological risk.

Kate Crawford likewise describes AI as an industrial system organized through mineral extraction, energy, logistics, and state power.<sup>[60]</sup> Magalhães and Couldry show how projects presented as philanthropy can expand corporate data extraction by making assistance a route into datafication.<sup>[61]</sup> These accounts raise a question about the frameworks used to rank social impact. Strong longtermism can reduce the relative weight of present harms when they are compared with very large future populations. Effective-altruist

institutions may translate that priority into funding decisions, while the AGI race adds a claim of urgency. This does not show that longtermist organisations caused the conditions of cobalt extraction or content moderation. It shows how a moral framework can make such existing harms less decisive in institutional priority-setting. The trauma of a Nairobi moderator and the injury of a Congolese miner can be acknowledged while still receiving little practical weight in a calculation dominated by astronomical future value.

## 5. Solidarity, subsidiarity, and a civilisation of love

### *5.1. Solidarity and subsidiarity as criteria of innovation*

*Magnifica Humanitas* presents solidarity as a recognition that each person's future is bound to the future of all (MH §§73–74). *Fratelli tutti* adds that digital connection can coexist with polarization, “digital violence,” and social isolation (FT §§42–50). Put together, these claims mean higher productivity alone cannot serve as an adequate measure of social benefit — a technology serves solidarity only when access to its benefits and exposure to its burdens get assessed together. Subsidiarity, in turn, asks a different question: whether higher authorities and powerful private actors support the agency of persons, families, and intermediary institutions, or displace it. In digital systems a platform or mod-

el provider can wield practical authority over employment and access to services, which is exactly why transparency, avenues of appeal, and the capacity to remedy an erroneous decision count as requirements of subsidiarity, not optional add-ons to an efficient system (MH §§68–72).

### *5.2. The civilisation of love as an institutional project*

*Magnifica Humanitas* describes the “civilization of love” as charity expressed through structures of justice — a phrase that gains economic teeth once the encyclical extends the social function of property to patents, algorithms, platforms, and data (MH §67). Benedict XVI had already made a similar move, applying the universal destination of goods to technological development and warning that technique without ethical direction “sees only itself” (CV §§70, 74). In the digital sphere, this tradition requires legal and institutional arrangements that protect persons rather than treating efficiency as a sufficient criterion. This article's analysis points to three requirements in particular: public capacity to audit systems that affect rights, an effective procedure for contesting algorithmic harm, and governance of sensitive data by institutions accountable to the people it represents. Together they give more determinate content to the encyclical's claim that AI should serve a human community of shared rights and duties (MH §§186–87).

## Conclusion

This article has made the case that the disagreement between *Magnifica Humanitas* and the TESCREAL currents examined here cannot be reduced to simple acceptance or rejection of technological innovation. What is really at stake is the end toward which innovation is directed, and the account of the person by which that end gets judged. The transhumanist and longtermist texts discussed here do not add up to a single doctrine, but they converge at specific points: human capacities can become objects of redesign, measurable intelligence can acquire a normative priority it has not earned, and very large future populations can shrink the practical weight of present claims almost to nothing.

The distinction between *logos* and *tropos* in Maximus does real work clarifying the theological disagreement: Christian deification transforms the mode of creaturely existence without ever treating human nature as material for replacement. That does not resolve every question about therapy or enhancement, but it does rule out the assumption that technological transcendence and *theosis* offer alternative routes toward the same goal. The institutional analysis adds a separate but related conclusion, showing substantial overlap among AI devel-

opment, concentrated infrastructure, and privately funded systems of expertise — though not that every corporate policy derives directly from TESCREAL doctrine. Put more narrowly: the existing political economy rewards forms of centralization and abstraction that happen to correspond to the anthropology criticized in the theological sections above.

For Croatian and Hungarian institutions this argument raises an empirical question — about procurement, data governance, and audit capacity — that public documentation is not yet detailed enough to answer: how far can universities, hospitals, and dioceses actually exercise meaningful control over the systems they use? Research on these institutional practices could test the diagnosis of digital dependency offered here, and qualify it where it goes too far. What the immediate normative requirement asks for is modest but concrete: that institutions be able to say where sensitive data are processed, who can audit the systems involved, and what remedy exists when an automated decision causes harm. Solidarity and subsidiarity stay useful criteria precisely because they tie those practical questions back to the equal dignity and agency of the persons affected (MH §129).

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- [15] Gebru and Torres, “TESCREAL Bundle,” conclusion.
- [16] MH §114, which reaches for the same domestic examples: “Reading stories to a child, offering company to an elderly person and arranging a home so that it is welcoming are simple gestures often rooted in family life.”
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- [18] William MacAskill, *What We Owe the Future* (New York: Basic Books, 2022).
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- [22] Cf. Tegmark, *Life 3.0*, chap. 3, on substrate-independent minds.
- [23] Roman Globokar, *Bioetika* (Ljubljana: Teološka fakulteta Univerze v Ljubljani, 2025), 136.
- [24] Jürgen Habermas, *The Future of Human Nature* (Cambridge: Polity, 2003), 53–63, distinguishes being a body (Leibsein) from having a body (Körperhaben): human beings can act upon their bodies, yet they never encounter embodiment merely as an instrument, since the lived body is the precondition of agency, perception,

vulnerability, and relation. On that basis he argues that genetic programming by another alters the symmetry among moral agents, because the designed person confronts an irreversible intention embedded in the conditions of her own identity. The asymmetry is permanent: she can revise her opinion of the choice, and she can never occupy the position of someone about whom it was not made. The argument is philosophical rather than theological, and it reaches the claim made here — that the body participates in the person rather than housing her — from premises Christian anthropology does not have to supply.

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