

From Polarization to Prudence: Encounter in an Age of Algorithmic Personalization

By Patric Peters

Author Bio: Patric Peters is a third-year doctoral student in Theological Ethics at Boston College. Patric is interested in the relationship between eschatology and ethics, especially as it relates to ecological thought. He is also interested in the intersections between ecclesiology and ethics, particularly the relationship between synodality and ethical discernment. Patric is from Bowling Green, KY.

Introduction

Artificial intelligence (AI) is increasingly shaping contemporary life. While AI refers to a multifaceted and rapidly developing set of technologies, today's AI often operates via machine learning, which uses algorithms to find patterns in data, learn, and improve over time.¹ One application of machine learning is the personalization of digital environments like social media feeds (Facebook timelines, YouTube recommendations, TikTok's "For You" page), personalized news aggregators, targeted advertisements, and even the outputs of large language models (LLMs) and chatbots. These digital environments generate curated feeds of information to maximize engagement, which in turn generates further personalization.² Ultimately, they shape how persons engage the world, acquire knowledge, and relate to others. Indeed, as "the milieu in which we live and move and have our digital being," these algorithmically-personalized environments even act as structures of sin that dispose persons

¹ As the AI Research Group for the Center for Digital Culture of the Dicastery for Culture and Education attests: "There is no simple, universal definition of 'artificial intelligence' that is simultaneously uncontroversial and nontrivial." Instead, the research group considers AI as corresponding to a range of technological developments within the last century. While AI is often discussed as replicating human intelligence in different ways (for example, in problem-solving), in fact AI that corresponds "to the broad capabilities of a human brain," or what is called Artificial General Intelligence (AGI), is not yet a present technological reality.

A.I. Research Group for the Center for Digital Culture of the Dicastery for Culture and Education of the Holy See, *Encountering Artificial Intelligence: Ethical & Anthropological Investigations*, ed. Matthew J. Gaudete et al. (Pickwick Publications, 2024), 17, 21.

² Indeed, through the sifting of vast amounts of data, such algorithms "generate a personalized social media feed of stories, status updates, recommendations, and advertisements." Anna Floerke Scheid, "Social Media Algorithms, Christian Extremism, and Catholic Ethics for Faith-Based Advocacy to Build a Culture of Encounter," *Political Theology* 25, no.1 (2025).

to vicious ways of coming to know reality.³ Thus, they raise pressing ethical questions relating to the formation of persons and communities. Drawing on Catholic social teaching, particularly the language of “structures of sin” and Pope Francis’s call for a culture of encounter, this paper argues that algorithmically-personalized environments constitute a set of contexts and conditions that distort how persons come to know reality. In response, the retrieval of Thomas Aquinas’ virtues for knowing well can supplement the notion of encounter and articulate the latter as the locus of coming to know reality.

The paper proceeds in three parts. Part I explores algorithmic personalization as a structure of sin by identifying its accompanying challenges. Part II turns to Thomas Aquinas to retrieve a virtue-based account of knowing well, focusing on prudence—especially its associated virtue of *euboulia* (good deliberation)—and on *studiositas* as the well-ordering of the desire to know against the vice of *curiositas*. These virtues illuminate how knowing well is a function of interpersonal encounter with others. Finally, in Part III, the paper argues that a culture of encounter must be sustained by virtues for knowing well. It proposes that Thomas’ account of virtuous knowing offers a medieval contribution to an especially modern problem.

I. Algorithmic Personalization: The Eclipse of Encounter

Algorithmic personalization affects how people engage reality and encounter each other. Fundamentally, algorithmic personalization indeed *personalizes* reality to the individual digital user. Instead of engaging a shared informational space, individuals inhabit personalized environments shaped by otherwise invisible algorithmic processes. One study found that such personalized environments “significantly biases information, leading to learners’ limited information search, decreased learning accuracy, and overconfidence about

³ Scheid, “Social Media Algorithms,” 6.

inaccurate responses.”⁴ Thus, these algorithmically-personalized environments habituate the person’s ways of knowing and reasoning for the worse.

Algorithmic personalization creates digital “filter bubbles” in which users inhabit informational worlds that can differ drastically from those of others. These digital bubbles “remove from the user’s field of vision anything that is considered unsuitable or superfluous to their presumed desires and needs.”⁵ Two individuals may encounter entirely different representations of events, priorities, or concerns. This fragmentation disrupts a shared information space, making collective discernment of the truth difficult, and ultimately hampering the very functioning of democratic society. An increasing exclusive preference for one’s own views endangers “collective problem solving, democratic decision making and, in extreme cases, even social coexistence as a whole.”⁶ When people are increasingly forming their own personalized, digital worlds, social cohesion is severely hampered.

Because engagement-driven algorithms surface content that aligns with a user’s existing preferences, they reinforce ideological boundaries instead of introducing diverse viewpoints. This narrowing of information hardens attitudes, and it reduces the capacity for dialogue. Social media’s tendency to exacerbate differences of opinion on everything from pop culture to religion and politics is evident to the most casual user or observer of social media. Indeed, a chief concern about personalization is that it can “reinforce false beliefs by guiding its users to a knowledge space of highly correlated perspectives.”⁷ Over time, polarized information can reshape not only opinions but social identity more broadly, as users

⁴ Giwon Bahg et al., “Algorithmic Personalization of Information Can Cause Inaccurate Generalization and Overconfidence,” *Journal of Experimental Psychology: General* 154, no. 9 (2025): 2503, <https://doi.org/10.1037/xge0001763>.

⁵ Ermelinda Rodilosso, “Filter Bubbles and the Unfeeling: How AI for Social Media Can Foster Extremism and Polarization,” *Philosophy & Technology* 37, no. 2 (2024): 74, <https://doi.org/10.1007/s13347-024-00758-4>.

⁶ Melanie Magin et al., “Common Core in Danger? Personalized Information and the Fragmentation of the Public Agenda,” *The International Journal of Press/Politics* 27, no. 4 (2022): 888, <https://doi.org/10.1177/19401612211026595>.

⁷ Bahg et al., “Algorithmic Personalization of Information,” 2505.

come to see the world through opposition and “othering.” This is clearly the case in American partisan politics for example, which has become increasingly polarized with no small part played by social media. Indeed, as Christopher Bail notes, the “social media prism,” as he calls it, “distorts how extremists see themselves and others, which creates a self-fulfilling prophecy that pushes people further apart.”⁸

Algorithmic Personalization as Structure of Sin

This tendency towards fragmentation and polarization indicates that algorithmically-personalized environments operate as structures of sin, precisely by viciously shaping how persons engage reality and encounter others. Attentive to both the magisterium and theological developments of the notion, Connor Kelly posits a structure of sin as “an institution or collective practice that either socially idealizes or economically incentivizes actions seeking exclusive self-interest(s) at the expense of the common good.”⁹ In her recent article on social media algorithms and extremism, Anna Floerke Scheid follows Kelly’s definition and identifies social media in particular as structures of sin.¹⁰

Because “algorithms that presently govern social media operate as structural sin,” a *structural* response is needed.¹¹ What is this solution? For Scheid, the culture of encounter championed by Pope Francis provides precisely the “social environment we need to cultivate” to respond to modern social ills. In particular, the culture of encounter can “assist us in enacting solidarity that resists structural sin,” especially as it is “consolidated through

⁸ Christopher Bail, *Breaking the Social Media Prism: How to Make Our Platforms Less Polarizing* (Princeton University Press, 2021), 56.

⁹ Connor Kelly, “The Nature and Operation of Structural Sin: Additional Insights from Theology and Moral Psychology,” *Theological Studies* 80, no.2 (2019): 301, <https://doi.org/10.1177/0040563919836201>.

This definition is especially relevant for its inclusion of collective practice as a kind of structure. While the focus on institution is common in sociological discussions on structures, the inclusion of practices—from theological and virtue ethics—emphasizes the formation of agents’ dispositions. After all, the influence of structures is not always reducible to social roles; collective practices are another means by which “social groups exert causal power.”

¹⁰ Scheid, “Social Media Algorithms.”

¹¹ Scheid, “Social Media Algorithms,” 5.

particular social media algorithms.”¹² Rather than fostering encounter, algorithmically-personalized environments eclipse it, limiting dialogue and shared experience with the other. Scheid’s emphasis on encounter highlights an important and integral feature of our coming to know reality: we do so—we come to know and reason about the world—by engaging others. At the same time, Scheid’s account invites a deeper appreciation for how such encounter actualizes the human person’s ways of knowing, such that the formation of the individual—precisely in her processes of knowing—remains an indispensable feature of fostering a culture of encounter.

The Culture of Encounter—Aided by Thomas Aquinas

Algorithmically-personalized environments affect not only what people know but the habits through which knowledge is pursued. As structures of sin, they contribute to a culture of exclusion, eclipsing human relationships, and by extension denigrate the endeavor of knowledge-seeking. Thus, the call for a culture of encounter also calls for a renewal in ways of knowing well. What is needed is a framework that can diagnose how algorithmic personalization hinders ways of knowing while also indicating a way forward. Enter Thomas Aquinas. His account of the virtues, especially prudence, *euboulia*, and *studiositas*, can illuminate the challenges of algorithmic personalization and contribute to our understanding and practice of personal encounter as locus of human knowing.

II. Virtues for Knowing Well

Thomas offers an account of how human beings come to know truth well and can therefore contribute to the ethical challenges of personalized digital information environments. Through his account of the virtues and their accompanying vices, Thomas treats the internal dispositions that promote (or obstruct) right reasoning. When it comes to

¹² Scheid, “Social Media Algorithms,” 4.

algorithmically-personalized environments and their accompanying challenges, two elements of Thomas' virtue theory are especially illuminating: (1) the virtue of prudence, particularly its related virtue of *euboulia*, and (2) the virtue of *studiositas*, especially as it contrasts with the vice of *curiositas*. Prudence and *euboulia* enable well-ordered reasoning, and *studiositas*, in turn, orders the desire for knowledge. Importantly, Thomas himself regards the search for truth to involve relationships with others. After looking at Thomas' understanding of the relevant virtues as explicated in the *Summa theologiae*, this part will then consider how these virtues can strengthen the notion that "true wisdom demands an encounter with reality," which, as Pope Francis says, in turn demands communication that can guide us "to generous encounter with others, to honest pursuit of the whole truth, to service, to closeness to the underprivileged and to the promotion of the common good."¹³

Ordering Reason: Prudence and *Euboulia*

Prudence, as Josef Pieper once proclaimed, is the "mold and mother of all virtues."¹⁴ For Thomas, the virtue of prudence belongs to and perfects the practical intellect, for it concerns things to be done and not only known (the latter of which regards the speculative intellect).¹⁵ Following Aristotle, Thomas identifies prudence as "right reason applied to action."¹⁶ Importantly, prudence is not mere cautiousness but instead engenders a robust ethical life. As a virtue, it is the perfected ability of discerning and discovering, of deliberating and deciding. It finds and chooses fitting means for sought-for, good ends. For prudence to operate well, the person must be able to engage reality, which, beyond mere

¹³ Francis, *Fratelli tutti* [Encyclical Letter on Friendship and Social Fraternity], The Holy See, October 3 2020, sec. 205, https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20201003_enciclica-fratelli-tutti.html.

¹⁴ Josef Pieper, *The Four Cardinal Virtues* (University of Notre Dame Press, 1990), 22.

¹⁵ Thomas' account of prudence in the *Summa Theologiae* is a comprehensive one. Like the other virtues, he considers various questions in relation to the nature of the virtue itself, as well as its "parts" or components, its associated virtues and vices, as well as the associated gift and beatitude.

¹⁶ Thomas Aquinas, *Summa Theologiae*, trans. by Fathers of the English Dominican Province II-II, q. 47. a. 2.

access to data, includes deliberation, consultation and counsel, and, ultimately, encounter with other persons.

The virtue of prudence includes three different acts: deliberation, judgment, and command. Critical for our discussion is deliberation, which most directly corresponds to knowing and reasoning well—processes hindered by algorithmically-personalized media—and, as will be developed below, occurs through encounter with other persons. Indeed, Thomas sometimes equates deliberation with counsel of others.¹⁷ Thomas names *euboulia* as an associated virtue (or “potential part”) of prudence. *Euboulia* differs from prudence insofar as the former specifically refers to the perfecting of deliberation. As deliberation is ultimately for the sake of command, so *euboulia* “is directed to prudence as to a principal virtue.”¹⁸ This virtue of good deliberation is illuminated by Thomas’ description of bad deliberation—the vice of hastiness or precipitation. Thomas considers the image of precipitation as a physical movement, in which something is “brought down from above” in a disorderly fashion.¹⁹ Applying this image to prudence, Thomas imagines reason at the summit, with the aimed-for action at the base. With due deliberation, the practical reason proceeds orderly. When this does not happen—and is instead rushed or done rashly—then deliberation is not done well. With this contrast, *euboulia* is expressed as a careful and well-ordered activity of reasoning that does not short-circuit the endeavor of truth.

***Euboulia* as Encounter**

Prudence, says Pieper, “presupposes knowledge of reality.”²⁰ Knowledge of reality, in turn, calls for encounter with others. A closer look at Thomas’ account of deliberation can help us see why this is. Thomas identifies several components or “integral parts” that work to perfect prudence. These are not separate virtues but necessary constituents for the virtue’s

¹⁷ Aquinas, *Summa Theologiae*, II-II, q. 49 a. 6, ad. 3.

¹⁸ Aquinas, *Summa Theologiae*, II-II q. 51 a. 2.

¹⁹ Aquinas, *Summa Theologiae*, II-II q. 53 a. 3.

²⁰ Pieper, *The Four Cardinal Virtues*, 10.

proper functioning. Five integral parts are associated with deliberation—memory, understanding, shrewdness, docility, and reason. While not explicitly treating the notion of encounter, Pieper elaborates three of these—memory, docility, and shrewdness—in a way that highlights the importance of attending to those “concrete realities which form the ‘environment’ of concrete human action.”²¹ This requires the “patient effort of experience” and the avoidance of any kind of “short-circuiting.”²² Pieper’s elaboration of Thomas ultimately expresses how deliberation (and therefore prudence) for the latter indeed requires encounter with the other.

First, prudential reasoning requires the accurate appropriation of reality, which Pieper calls a “true to being memory.”²³ This memory is one that accepts and appropriates reality without alteration. The falsification of memory is the most “insidious way for error to establish itself” and manifests through “retouches, displacements, discolorations, omissions, shifts of accent.”²⁴ Pope Francis similarly considers falsification and relates it to today’s digital media, in which “everything can be created, disguised and altered.”²⁵ Encounter with other persons corrects our alterations of reality, allowing our prejudices to be reshaped according to the experience of the other. A “true to being” memory, then, indicates a prioritization of truth that is preserved without self-serving distortions. By this memory, engagement with others is no threat to our egos but an opening up to the truth of the matter, whatever it may be, even if it challenges our preferences and presuppositions.

While encountering other persons helps cultivate a memory that is “true to being,” docility indicates the very act of encountering others as a way of ascertaining what is in fact true to being. For Thomas, docility refers to the willingness to be taught by others. It must be

²¹ Pieper, *The Four Cardinal Virtues*, 10.

²² Pieper, *The Four Cardinal Virtues*, 13-14.

²³ Pieper, *The Four Cardinal Virtues*, 15.

²⁴ Pieper, *The Four Cardinal Virtues*, 15.

²⁵ Francis, *Fratelli tutti*, sec. 47.

developed by “carefully, frequently and reverently” consulting the “teachings of the learned.”²⁶ According to Pieper, docility refers to the “kind of open-mindedness which recognizes the true variety of things and situations to be experienced,” and, significantly, “does not cage itself in any presumption of deceptive knowledge.”²⁷ On the other hand, closed-mindedness at its basis is a “resistance to the truth of real things.”²⁸ This accords with the challenges of algorithmically personalized media, which indeed form “cages” of “deceptive knowledge.” Instead of accessing reality in its wholeness through encounters with others, these media enable everyone to “cling stubbornly to his or her own ideas, interests and choices,” as Francis laments.²⁹ Docility, then, is central to prudence as locus of encounter. It is more than mere consultation, for it allows one’s understanding to be shaped in openness to the other.

This openness to what the other has to say is stifled by reactionary knowing, or when new information, instead of being carefully appropriated, is quickly dismissed or rashly embraced. Shrewdness or *solertia*, or what Pieper summarizes as “clear-sighted objectivity in unexpected circumstances,” mitigates this reactionary knowing and can indirectly promote encounter.³⁰ *Solertia* does not directly concern others, but we can consider its relation to encounter by way of foil. If by shrewdness one can decide for the good “with open eyes and clear-sighted vision,” then its import for algorithmically-personalized environments become apparent; for in these environments, persons tend to “close [their] eyes by reflex and then blindly, though perhaps boisterously, take random action.”³¹ In this latter description, Pieper is contrasting *solertia* itself, but it just as well applies to the rashness of digital media use. *Solertia* or shrewdness, then, can be seen as something otherwise hindered by our self-

²⁶ Aquinas, *Summa Theologiae*, II-II q. 49 a. 3.

²⁷ Pieper, *The Four Cardinal Virtues*, 15.

²⁸ Pieper, *The Four Cardinal Virtues*, 16.

²⁹ Francis, *Fratelli tutti*, sec. 201.

³⁰ Pieper, *The Four Cardinal Virtues*, 14.

³¹ Pieper, *The Four Cardinal Virtues*, 16.

isolating and “caging” through algorithmic personalization. It is instead facilitated through encounter with others.

These components of reasoning well for Thomas demonstrate that openness to and engagement with other persons is necessary for discerning reality as it is. Far from being merely about a perfection of a personal (i.e., individual) power, then, Thomas’ virtue of prudence is meant to be fostered in interpersonal relationships. It is by encountering others that good deliberation and reasoning—the virtue of *eubolia*—is embodied.

Ordering the Desire to Know: The Virtue of *Studiositas*

Encounter is served by well-ordered ways of knowing, typified by the virtue of *eubolia*, but it also requires well-ordered ends and, more generally, a well-ordered desire for knowing, in the first place. Therefore, our understanding of encounter as locus of good prudential reasoning can be supplemented by another of Thomas’ virtues: *studiositas*. While prudence indicates the endeavor of knowledge-seeking, *studiositas* or studiousness indicates the desire for knowledge. In Thomas’ treatment, the latter is associated with the virtue of temperance and not directly with prudence. Still, *studiositas* plays an important supporting role in prudence. Indeed, along with prudence and *eubolia*, it can be considered as another crucial virtue for knowing and reasoning well.

In a time of “doom-scrolling” and constant notifications, the call for temperance is as relevant as ever. Without temperance, users of algorithmically-personalized media become habituated in ways that undermine prudential reasoning. Temperance for Thomas is principally about moderation in pleasures of touch and does not directly relate to knowledge. However, when considering temperance’s associated virtues, Thomas indeed identifies studiousness among them. While Thomas only dedicates one question in the *Summa*

Theologiae on this virtue, it can also be explored through a consideration of its associated vice, *curiositas*.³² To this vice we now turn.

The Vice of *Curiositas*

More than just specifying a kind of knowledge, curiosity indicates an attitude accompanying the endeavor of knowledge-seeking. It is a “particular ordering of affections,” even a “particular intentional love.”³³ Because of this, Thomas says that the desire for knowledge “may be right or wrong.”³⁴ Sinful or vicious knowing occurs incidentally, either on account of the knowable object or the knower herself.³⁵ For, although knowledge is itself good, a person can misuse this knowledge for evil. She can also desire knowledge in an inordinate way. Regarding the latter, Thomas lists four ways this happens: first, by preferring a “less profitable study” over one’s obligations; second, by “superstitious curiosity,” where one learns from those she should not; third, by desiring to know creatures apart from God; and fourth, by attempting knowledge above one’s capacity, by which one is likely to err.³⁶

Especially relevant for the discussion of knowledge’s relationship to encounter are the first and third ways, with the former ultimately being understood in relation to the latter (i.e., by desiring to know creatures apart from God). While Thomas does not go into detail about how persons desire knowledge “without referring [their] knowledge to its due end” in God, his reference to Augustine is revealing. What is especially envisioned is “empty and perishable curiosity.”³⁷ Writing with this Augustinian understanding in view, Paul J. Griffiths encapsulates *curiositas* as an appetite “for the ownership of new knowledge” that is “dominated by sequestration.”³⁸ Instead of approaching knowledge as participation in the

³² Aquinas, *Summa Theologiae*, II-II q. 167.

³³ Paul J. Griffiths, *Intellectual Appetite: A Theological Grammar*, (Catholic University of America Press, 2009), 20.

³⁴ Aquinas, *Summa Theologiae*, II-II q. 167 a. 1.

³⁵ Thomas Aquinas, *Commentary on the Sentences* III, trans. Christopher Decaen and Beth Mortensen, d. 35, q. 2, a. 3, <https://aquinas.cc/la/en/~Sent.III.D35.Q2.A3.qa1.C.2>.

³⁶ Aquinas, *Summa Theologiae*, II-II q. 167 a. 1.

³⁷ Aquinas, *Summa Theologiae*, II-II q. 167 a. 1.

³⁸ Griffiths, *Intellectual Appetite*, 21.

truth of God—meant for the enjoyment of all—the curious seek to “own, possess, or dominate what they hope to know.”³⁹ In his own taxonomy of types of curiosity, W. Bradford Littlejohn identifies this “possessive curiosity” as one that naturally follows when we “cease seeking to know the world in relation to God.”⁴⁰ Instead of seeing knowledge as a gift that participates in God—again a good that “belongs to all of us in common”—curiosity here yields a self-referentiality that takes “delight not in the object of knowing but in the act of knowing it.”⁴¹ This, in turn, tends to a superficial knowing that objectifies the world, such that one can then “move on to the next possession.”⁴² This connection between possessive and superficial knowing, in turn rooted in a more basic self-referential knowing oriented away from God, implicates Thomas’ first way of inordinate knowing (“when a man is withdrawn by a less profitable study”), insofar as such lesser-knowing distracts us from a more intimate relationship to what (and who) we come to know.

Studiositas as Encounter

³⁹ Griffiths, *Intellectual Appetite*, 21.

⁴⁰ Littlejohn, “Addicted to Novelty,” *Journal of the Society of Christian Ethics* 37, no. 1 (2017):184-185, <https://doi.org/10.1353/sce.2017.0000>. While not directly following Thomas’ taxonomy, Littlejohn’s list can indeed supplement the former. According to Littlejohn, our knowing errs in three ways: “in the objects of our knowledge, the mode of our knowledge, and the end of our knowledge.” While he offers a comprehensive taxonomy, here we focus on those aspects especially relevant to the discussion on encounter. Regarding the objects of knowing, we can err through “arrogant curiosity,” whereby we seek knowledge we either cannot or ought not to know, such as the future or theological mysteries. This echoes Thomas’ fourth way in which the desire of knowledge becomes inordinate, namely by attempting knowledge beyond one’s capacity. There is also what Littlejohn calls “meddling curiosity,” like prying and gossiping, as well as “distracting curiosity,” which is similar to Thomas’ first way. Regarding errors in the mode of knowing, Littlejohn identifies “intemperate curiosity,” which is knowing with “too feverish a desire,” and again echoes Thomas’ first way, in which lesser knowledge is pursued over a more pressing matter. Then there is “impertinent curiosity,” which is a disrespectful attempt to know things with more certainty than is justified; this is “driven by hatred of the unknown” more than love for knowledge. The mode of knowing can also err through “shallow curiosity,” which is content with a “superficial grasp” and is akin to an “intellectual promiscuity.” This is near Thomas’ third way, for knowledge is not appreciated in relation to God but is instead, as Thomas quotes Augustine, “empty and perishable curiosity” (II-II q. 167 a. 1). Finally, Littlejohn considers ways in which the ends of knowing are distorted. He names “possessive curiosity” as the primary culprit here. Such curiosity delights in the act of knowing itself—that is, in a way that selfishly takes the knowledge as one’s own. “Either we love the world for the sake of God,” Littlejohn posits, “or we will come to love it for our sake” (187). This approximates Thomas’ very first consideration of the possibility of using knowledge for an evil end—for example, when one studies that “they may take pride in their knowledge” (II-II q. 167 a. 1).

⁴¹ Littlejohn, “Addicted to Novelty,” 187.

⁴² Littlejohn, “Addicted to Novelty,” 188.

Ultimately, *curiositas* stifles the human person's ability of "reaching reality and truth."⁴³ For, instead of perceiving reality as it is, curiosity "builds itself a world according to its own image and likeness."⁴⁴ Here Pieper considers the "restlessness of a perpetual moving picture of meaningless shows."⁴⁵ Were he alive today, Pieper could just as well use the image of "doomscrolling." With the mindless engagement of social media pushing algorithmically-personalized content—post after post, video after video, the person does not intentionally or prudentially engage reality but instead passively receives a digitally-curated world. If this "illusory world threatens to overgrow and smother the world of real things," then what is called for is the virtue that enables a true encounter with reality: *studiositas*.⁴⁶ As the moderation of the desire to know, studiousness is the antidote to and opposite of what was said above about curiosity.

As Griffiths underscores, *studiositas* is a desire for knowledge that coheres with the to-be-known object's being as *from* God and *for* all. Studiousness is an "appetite for closer reflexive intimacy with the gift," especially as "open to and participatory in the giver."⁴⁷ This means the studious, in their desire to know, seek an intimacy with what is known; moreover, they do so in recognition of their creaturely commonality, which in turn makes cognitive intimacy possible, in the first place. The studious are "committed to treating the intellectual commons as indeed common," says Griffiths, "and not as a field of conquest, a set of objects to be sequestered."⁴⁸ While Griffiths' treatment implies other persons in this "intellectual commons," the theme of encounter can further elucidate his understanding of *studiositas* as involving interpersonal exchange in coming to know reality. "Together we can seek the truth in dialogue," says Pope Francis, which "patiently [embraces] the broader experience of

⁴³ Pieper, *The Four Cardinal Virtues*, 202.

⁴⁴ Pieper, *The Four Cardinal Virtues*, 201.

⁴⁵ Pieper, *The Four Cardinal Virtues*, 201.

⁴⁶ Pieper, *The Four Cardinal Virtues*, 202.

⁴⁷ Griffiths, *Intellectual Appetite*, 21.

⁴⁸ Griffiths, *Intellectual Appetite*, 21.

individuals and peoples.”⁴⁹ For the late pontiff, this discernment of truth is a function of the culture of encounter, through which differences contribute to the pursuit of truth. He frequently considers the image of a “many-faced polyhedron,” which

can represent a society where differences coexist, complementing, enriching and reciprocally illuminating one another, even amid disagreements and reservations. Each of us can learn something from others. No one is useless and no one is expendable. This also means finding ways to include those on the peripheries of life. For they have another way of looking at things; they see aspects of reality that are invisible to the centers of power where weighty decisions are made.⁵⁰

“For they”—those on the margins—“have another way of looking at things,” he says. This openness to others is precisely what *curiositas* is *not*, for it looks for the self-possession of knowledge, often at the expense of others. Indeed, “a new lifestyle is emerging,” observes Francis, where we “exclude all that we cannot control or know *instantly* and *superficially*.”⁵¹ While *Fratelli tutti* does not consider *studiositas* or its vice, it is hard to read a statement like this without thinking of the discussion so far!

III. Beyond Our Algorithmically Curated Worlds

“We name the vicious tendencies of our technologies not so that we can abandon them but so that we can regain the perspective and self-awareness to cultivate virtuous habits in the use and application of them.”⁵² With these words from Littlejohn, this paper likewise posits that the culture of encounter, enriched by Thomas’ account of virtues for knowing well, can assist in the virtuous use of modern AI technologies. After all, algorithmically-personalized environments encompass modern life. Instead of abandoning them altogether, we users must recognize their effects on the ways we engage reality—ultimately fostering

⁴⁹ Francis, *Fratelli tutti*, sec. 50.

⁵⁰ Francis, *Fratelli tutti*, sec. 215.

⁵¹ Francis, *Fratelli tutti*, sec. 49, emphasis mine.

⁵² Littlejohn, “Addicted to Novelty,” 192.

fragmentation and promoting polarization. As symptoms of structures of sin, these challenges foster a culture of exclusion by promoting self-serving knowledge-seeking over the common endeavor of truth-seeking.

While the culture of encounter championed by Pope Francis indeed emphasizes relationality as indispensable for discerning truth together, this encounter can be better supplemented through the retrieval of Thomas' virtues for knowing well: the virtues of *eubolia* (well-ordered ways of knowing) and *studiositas* (well-ordered desire for knowing). Together they offer a united path for knowing and reasoning well. *Euboulia* perfects deliberation by fostering important aspects of prudence like docility and memory that require engagement with others. *Studiositas* orders the desire for knowledge away from possessive *curiositas*. These virtues enable the person to proceed in an algorithmically-personalized world, cultivating a way of engaging curated digital environments that is subordinate (and in service) to personal encounters with others.

Algorithmically-personalized environments engage individual users—on one's individual phone, computer, etc.—yet they indicate much larger social contexts and conditions that are transforming how persons relate to each other, both off- and online. After all, they indicate, as Scheid put it, “much of the milieu in which we live and move and have our digital being.”⁵³ They are forming us often without us realizing it. They shape how persons communicate and engage each other and do so to the detriment of coming to know reality. This calls for the promotion of and participation in alternative practices that can counter the vicious effects of algorithmic personalization. For example, church communities can embody practices of encounter that facilitate virtuous ways of knowing. Indeed, the Catholic Church's own endeavor of synodality is often discussed in terms of encounter.⁵⁴

⁵³ Scheid, “Social Media Algorithms,” 6.

⁵⁴ Sylwia Mikołajczak, “Synodality as a Form of Interpersonal Communication within the Roman Catholic Church,” *Verbum et Ecclesia* 46, no. 1 (2025), <https://doi.org/10.4102/ve.v46i1.3460>.

Ultimately, addressing the vices embedded in algorithmically-personalized technologies will require the cultivation of virtues while promoting and participating in alternative collective practices, such as synodal discernment within ecclesial communities, to counter the culture of exclusion and advance the coming to know reality together.

Bibliography

- A.I. Research Group for the Centre for Digital Culture of the Dicastery for Culture and Education of the Holy See. *Encountering Artificial Intelligence: Ethical & Anthropological Investigations*. Edited by Matthew J. Gaudete, Noreen Herzfeld, Paul Scherz, Jordan J. Wales. Pickwick Publications, 2024.
- Aquinas, Thomas. *Commentary on the Sentences*, Book III. Translated by Christopher Decaen and Beth Mortensen. <https://aquinas.cc/la/en/~Sent.III.D35.Q2.A3.qa1.C.2>.
- Aquinas, Thomas. *Summa Theologiae*. Translated by Fathers of the English Dominican Province. 1920. <https://www.newadvent.org/summa/>.
- Bahg, Giwon, Vladimir M. Sloutsky, and Brandon M. Turner. “Algorithmic Personalization of Information Can Cause Inaccurate Generalization and Overconfidence.” *Journal of Experimental Psychology: General* 154, no. 9 (2025). <https://doi.org/10.1037/xge0001763>.
- Bail, Christopher. *Breaking the Social Media Prism: How to Make Our Platforms Less Polarizing*. Princeton University Press, 2021.
- Francis. *Fratelli tutti*. Encyclical Letter on Friendship and Social Fraternity. Holy See, 2020. https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20201003_enciclica-fratelli-tutti.html.
- Griffiths, Paul J. *Intellectual Appetite: A Theological Grammar*. Catholic University of America Press, 2009.
- Kelly, Connor. “The Nature and Operation of Structural Sin: Additional Insights from Theology and Moral Psychology.” *Theological Studies* 80, no. 2 (2019). <https://doi.org/10.1177/0040563919836201>.
- Littlejohn, W. Bradford. “Addicted to Novelty: The Vice of Curiosity in a Digital Age.” *Journal of the Society of Christian Ethics* 37, no. 1 (2017). <https://doi.org/10.1353/sce.2017.0000>.
- Magin, Melanie, Stefan Geiß, Birgit Stark, and Pascal Jürgens. “Common Core in Danger? Personalized Information and the Fragmentation of the Public Agenda.” *The International Journal of Press/Politics* 27, no. 4 (2022). <https://doi.org/10.1177/19401612211026595>.

Mikołajczak, Sylwia. "Synodality as a Form of Interpersonal Communication within the Roman Catholic Church." *Verbum et Ecclesia* 46, no. 1 (2025).
<https://doi.org/10.4102/ve.v46i1.3460>.

Pieper, Josef. *The Four Cardinal Virtues*. University of Notre Dame Press, 1990.

Scheid, Anna Floerke. "Social Media Algorithms, Christian Extremism, and Catholic Ethics for Faith-Based Advocacy to Build a Culture of Encounter." *Political Theology* 26, no. 1 (2025): 1-29.

Rodilosso, Ermelinda. "Filter Bubbles and the Unfeeling: How AI for Social Media Can Foster Extremism and Polarization." *Philosophy & Technology* 37, no. 2 (2024).
<https://doi.org/10.1007/s13347-024-00758-4>.