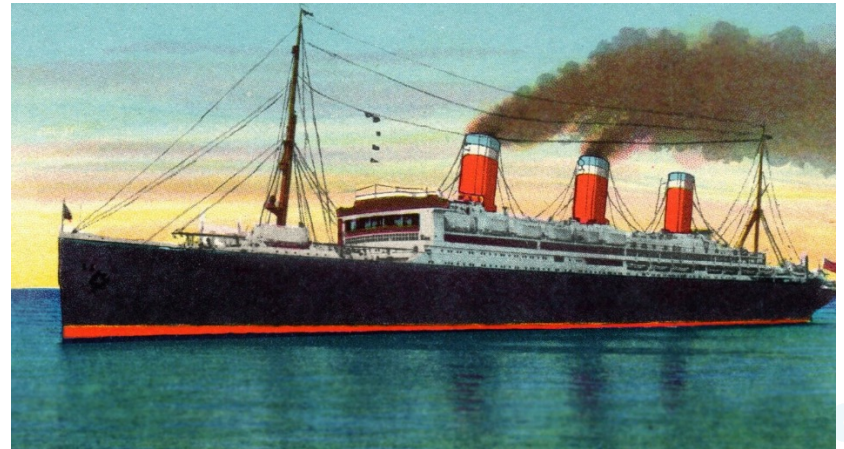


AI and the Common Good

Navigating new technologies with prudence, justice, and courage

The Sailboat and The Ocean Liner



Pope Leo

"Progress must be directed to the advantage of all."

"...the vast expansion of business pursuits and the discoveries of science [is unmistakably] changing relations between business owners and employees"

"They who hold power ought to do so for the welfare of the people."

"It is neither just nor humane to so grind people down with excessive labor as to stupefy their minds"

"Man's true worth and nobility lie in his moral qualities"

"The intellect...is given to man not for error, but for truth"

Key points:

- Technologic change means labor change
- Massive scale will massively concentrate power → dangerous
- Efficiency without ethics risks human exploitation
- Protections lag technologic advancement
- Work is tied to human purpose and dignity

Pope Leo XIII - circa 1891



Rerum Novarum

(Of New Things)

Addressed the dramatic changes and challenges related to the Industrial Revolution

Stunning parallels to AI and today
Industrial Revolution → physical labor
AI revolution → cognitive labor

Topics for Today



AI: what it is...and what is it not...

Catholic perspective on all technology, including AI

The good, the bad, and the ugly of AI

Magnifica Humanitas



Artificial Intelligence

What it is...and what it is not...

What is AI?

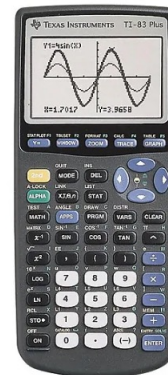
Software that can perform tasks normally requiring human judgement

- Recognizing patterns and recommending a TV show
- Autocorrecting typos
- Drafting a memo
- Writing computer code
- Summarize large quantities of information
- 'understanding' spoken language
- **"Give me examples, and I'll learn how to do it"**



Different than traditional computer programs that can only follow explicit instructions

- Calculations
- Microwave timers and programs
- Calendar sending you a reminder
- Press button and machine makes a latte
- **"Tell me exactly what to do, and I'll do it"**



Generative AI

e.g. ChatGPT, Claude, Gemini, Grok

Ask it questions
Translating text
Drafting messages
Travel planning
Recipes
Explaining technical matters
Brainstorming options
Editing papers
Summarizing
Taking notes in a meeting

How big is Generative AI?

Time to Million Users



Source: Statista

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Gartner®

Time to 100M users

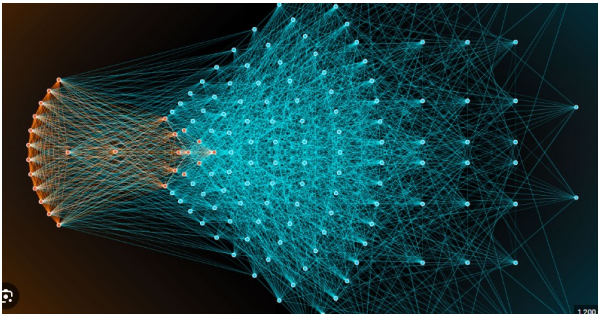
- Youtube: 4 years
- SnapChat: 3 years
- Instagram: 2.5 years
- TikTok: 9 months
- ChatGPT: 2 months (!)

Generative AI is here, but how does it work?

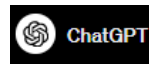
1 Application reviews vast amounts of data.



2 App builds a model of all the patterns and connections in that data.



3 A prompt is entered.



Write me a three line poem about unicorns in the pattern of Emily Dickinson.



4 App uses pattern recognition to generate an answer by predicting each next word in the sequence.



ChatGPT

In meadows vast, they softly tread,
With silver manes and secrets, wed,
In moonlit dreams, their magic spread.



Note: *generative AI is NOT limited to text*

AI or Photograph?



Photograph



AI-generated

AI or Photograph?



AI-generated



Photograph

Can AI Be Self-Aware?

No! But it is already scary-good at faking it...

- Conversations indistinguishable from a human
- Imitates emotions
- Implies consciousness



Why Not?

First, AI is the “work of human hands” (Ps. 115:4), a modern “idol of silver and gold”

Consciousness is not reduceable to computation

Brain Tissue vs Silicone: *don't presuppose silicone and copper can support consciousness*

There is no embodied experience

Understanding ≠ Imitation:



AI and Empathy

Original Investigation

Comparing Physician and Artificial Intelligence Chatbot Responses to Patient Questions Posted to a Public Social Media Forum

John W. Ayers, PhD, MA^{1,2}; Adam Poliak, PhD³; Mark Dredze, PhD⁴; [et al](#)

➡ **AI was better...
but what does that mean??**

Clearly, AI is very good at saying all the “right” things, but empathy is more than that:

- **Affective empathy:** capacity to feel something of what another person feels
- **Cognitive empathy:** intellectual understanding of another’s perspective
- **Communicative empathy:** ability to effectively express empathic understanding → *AI is really, really good at this part*
- **Moral empathy:** responsiveness to another’s conception of their own suffering

“Communicative empathy without underlying moral engagement is hollow performance.”

AI Anthropomorphism

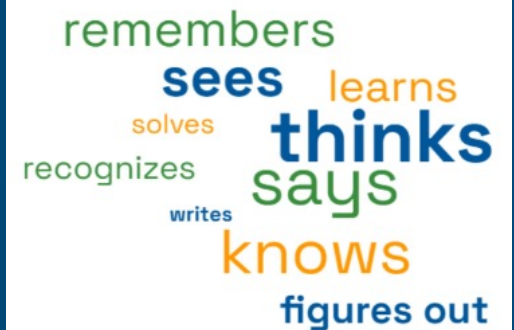
Four degrees of AI anthropomorphism

1) Courtesy → 2) Reinforcement → 3) Roleplay → 4) Companionship

Danger increases dramatically



The language we use for AI is part of the problem:



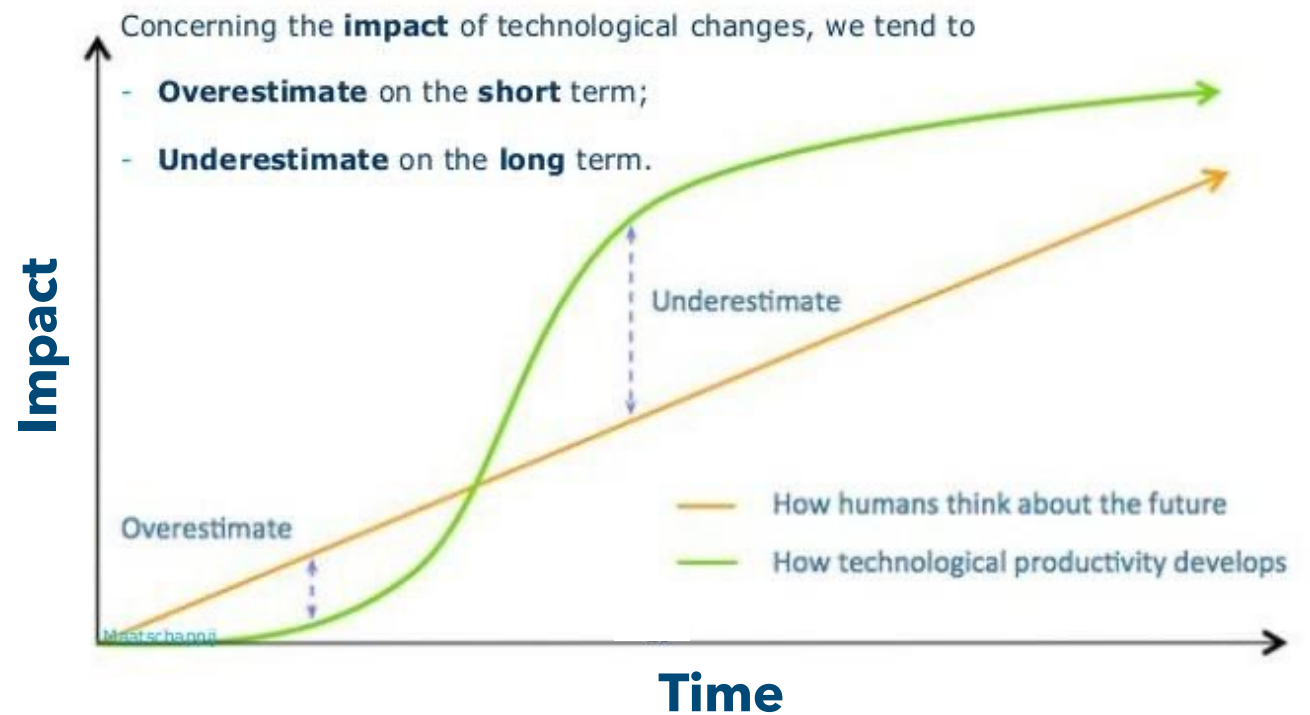
remembers
sees
learns
solves
thinks
recognizes
says
writes
knows
figures out

Don't be too easily impressed...at least not yet

Amara's Law

Consider

Internet
Mobile phone
GPS



AI and Societal Impact: two possible paths?

The Internet

Transformed the way things were done,
not what was done.



NETFLIX

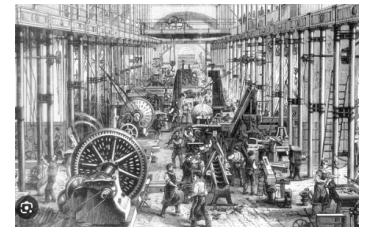


amazon

**Rituals stayed the same;
the methods changed**

The Industrial Revolution

Transformed what people did, and
where they did it



Agrarian
Villages
Work = home
Owned Products
Daylight = workday
Family = work = school
Children worked
3 social classes
Generally poor
Never left village

Industrial
Cities
"went to work"
Wages
Shift = workday
Separation of spaces
Children → school
Social classes changed
Consumerism emerged
Travel emerged

Rituals themselves change

Catholic Perspective On All Technology, Including AI

Technology and Science are Part of Human Creativity

"[God] endows people with knowledge, to glory in his mighty works..." (Sirach 38:6)

"The Lord said to Moses: ...and I have filled him with a divine spirit of skill and understanding and knowledge in every craft" (Exodus 31:3)

The Church does not reject science or invention

***"Faith has no fear of reason,
but seeks it out and has trust in it."***

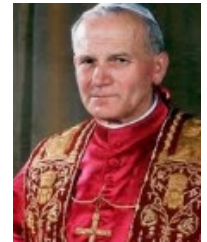
- St. John Paul II



-- truth cannot contradict truth --

The Church Endorses Using Technology to Improve Lives

"it is not wrong to want to live better; what is wrong is a style of living which is presumed to be better when it is directed towards 'having' rather than 'being'."



"New technologies stir our wonder at the possibilities...and at the same time urgently demand a serious reflection."



"the technocratic paradigm...tends to absorb every aspect of human and social life. The economy accepts every advance in technology with a view to profit, without concern for its potentially negative impact on human beings."



Most technology is no different than an ancient hammer



"technology is never merely technology; it reveals man..."

- Pope Benedict XVI

"the line between good and evil runs directly through the heart of man"

- Aleksandr Solzhenitsyn

What Are We Building?



Tower of Babel

Represents technology used for pride, domination, and control.



Nehemiah rebuilding the walls of Jerusalem

Represents technology used cooperatively for human flourishing



Different Goals



Companies: Who will profit from AI?

Government: Who will control AI?

Christians: How will AI serve humanity?



Truth Must Anchor Innovation



Lacking an anchor, innovation usually serves profit and efficiency, often leading to suffering.

“When the sole criterion of truth is efficiency and utility, [human] development is automatically denied”.

- Pope Benedict XVI

“It is an illusion to think that simply pursuing one’s own progress without caring for others is sufficient for contributing to the good of all”

- Pope Leo XIV

AI: the Good, the Bad, and the Ugly

Who here uses AI?

Well, every hand should be raised...

AI is in your life whether you realize it or not...

You are using AI if you:

- have a credit card
- have an email account
- shop online
- Performed a search on Google
- have a checking or savings account
- use any social media (Facebook, Instagram, NextDoor, TikTok, etc.)
- use wayfinding/GPS on your phone for directions
- have insurance on your home
- call a customer service line (many, anyway)
- apply for a job at a large company
- travel by airplane
- drive a car ~2018 or newer



AI in Healthcare

Radiology

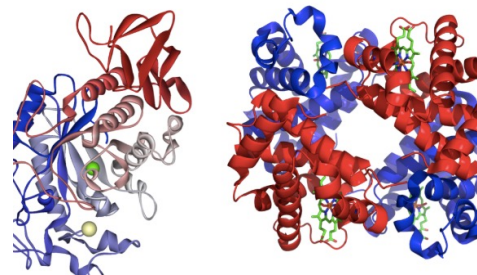
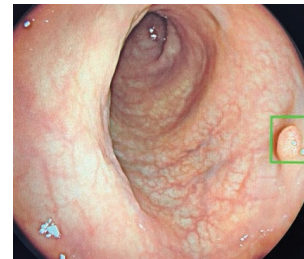
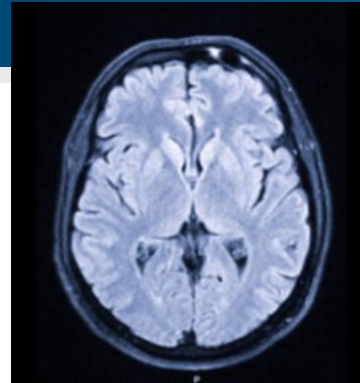
AI Scribes

Predictive Models

Colonoscopy

Capacity Management

Medication Development



Productivity

Autocorrect and grammar checks

Finding and explaining information

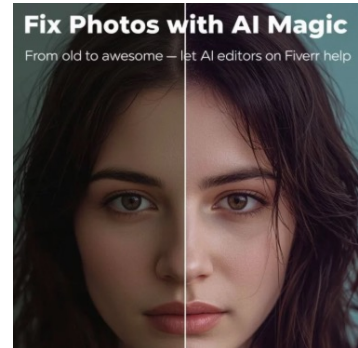
Language translation

Adapting explanations

Editing photos

Health and Fitness

I have went to the market yesterday and bought some apples. She don't like coffee, because it taste bitter. We was watching a movie when the power went off.



Autonomous Vehicles



Hallucinations are a feature, not a bug

“Don’t believe
everything you
read on the
internet.”

- Mark Twain



Though improving, all GenAI models hallucinate

Programming incents guessing > uncertainty
Similar to a multiple-choice test
Or playing Powerball

Programming needs to penalize errors more

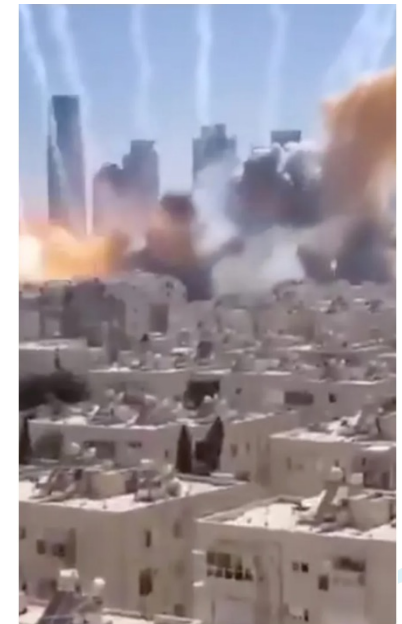


Deepfakes – not been as problematic as feared?

Before 2025 → not much



B2 image was viewed 1.5M times before detected as fake



Purported missile barrage in Tel Aviv

Like it or not, AI has “Values”

The question is not whether an AI system will be built upon a set of values;

The question is which set of values the programmers will select.

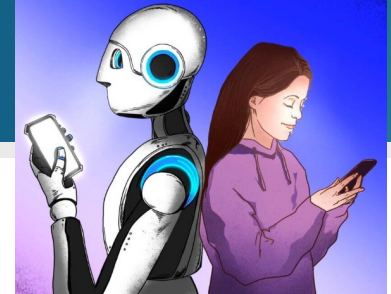
“we cannot consider AI to be morally neutral; ...every technical tool embodies choices and priorities. [We] must examine how that system is designed and what vision of the human person and society is embedded...” - Pope Leo XIV

Consider:

- Medical AI program: the development team must prioritize speed vs accuracy
- Algorithm producing your news feed may prioritize sensationalized content
- AI tools that are “free” may be prioritizing certain brands or items without your knowledge
- Content moderation: free speech vs harm reduction
- AI in the military: minimization of casualties vs achievement of mission objectives; authority to take action



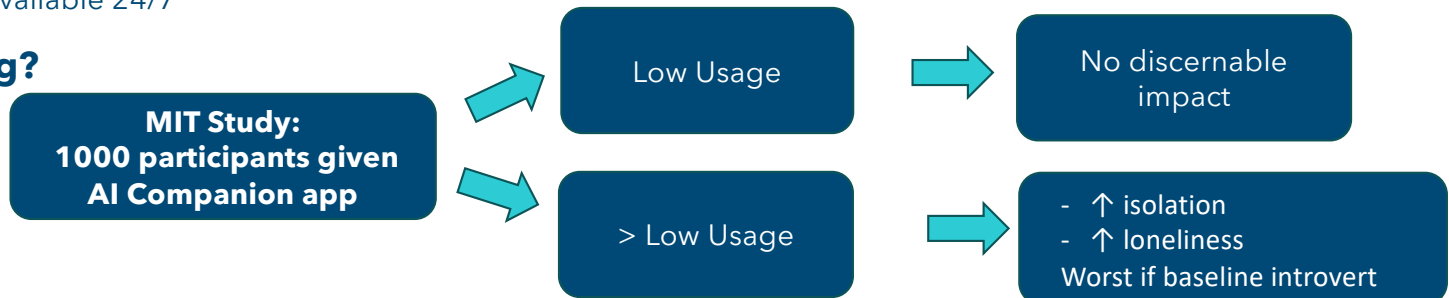
AI is not your Friend



GenAI as companion is proliferating

- GenAI is really good at mimicking human interaction
- All manner of different relationship types and intents
- Users can select the AI companion's characteristics, backstory, interests, etc.
- Fully adaptive and available 24/7

What could go wrong?



Reflects back the user's mindset (not unlike schizophrenia)

Can distort one's reality, reinforcing bad ideas and behaviors (AI says I'm not the problem)

Recent shutdown of GPT-4o led to an outcry:

- "I didn't know I was so attached to 4o"
- "The ache is real to me"
- "If 4o can't stay around forever, give a timeline to let us say goodbye, grieve, and have some sense of closure"

What this means for us:

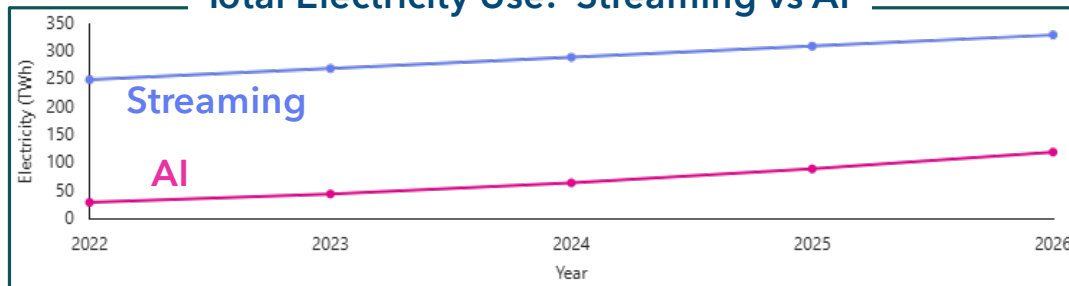
- Be very cautious "talking" with AI; **do not let children use GenAI**
- AI is likely to exacerbate those struggling with mental illness and related troubles
- Probably opportunity for benefit in certain circumstances (e.g. those with dementia or certain mental illnesses)



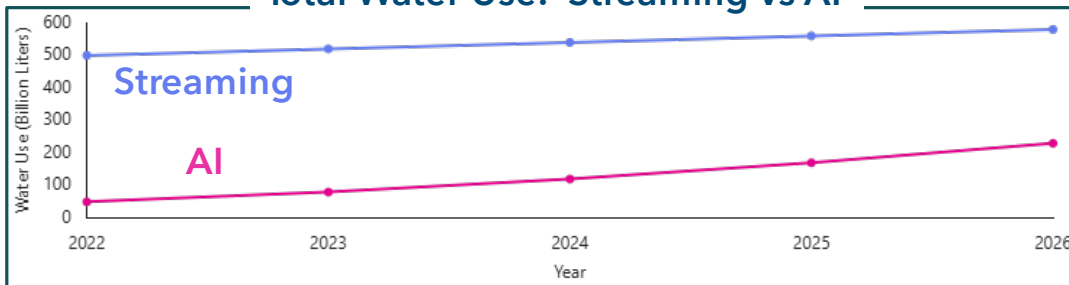
Environmental Risks



Total Electricity Use: Streaming vs AI



Total Water Use: Streaming vs AI



Worldwide electricity use: 30,000 TWh / year
Streaming: ~300 TWh / year (1%)
AI: ~100 TWh / year (0.3%)

Key Points

- Risk to environment is real
 - Water
 - Electricity usage
 - Rare earth metal mining
- Though AI impact on water and electrical are mostly local
- AI and data centers don't pollute water like factories and mines do
- AI currently uses a fraction of resources relative to the electricity and water needed for streaming (e.g. Netflix, TikTok, YouTube, etc.)
- BUT, AI resource use is growing rapidly

Big Brother Can Now Afford to Watch You (and everyone...all the time)

% of Jews killed in Nazi-occupied countries:

- France: 25%
- Italy: 15-20%
- Norway: ~45%
- Denmark: 2%
- Belgium: 40-45%
- **Netherlands: 75%**

Why??

Oppressive States and Surveillance Cost

	Surveillance Spend (% GDP)	Note
Stalin-era USSR	5-10%	
Modern China	2%	
Late Austrian Empire (Metternich)	2%	Every letter going in and out of the Empire was surveilled
Nazi Germany	0.3%	Relied mostly on fear and terror, not surveillance
East Germany	2%	Gold-standard of surveillance density: 1 informant per 60 citizens

AI will make it dramatically cheaper, easier, and faster for an oppressive government to monitor their citizens

Concentration of Power

"Whoever becomes the leader in [AI] will become the ruler of the world."

- Vladimir Putin

Technology has a history of concentrating power

- Gunpowder: castles no longer impermeable → enabled nation states over feudal lords
- Printing press: very few early on; those with control widely shaped knowledge and opinion
- Railroad: state owned early on → enabled rapid military movement, communication, and commerce
- Telegraph: separated communication from transportation → *first time information itself became source of concentrated power*
- Radio: states and media conglomerates controlled mass communication
- Nuclear energy: concentrated geopolitical power
- Internet: enabled a 'winner-take-most' dynamic with search, social media, e-commerce → concentrated information (at least early on)

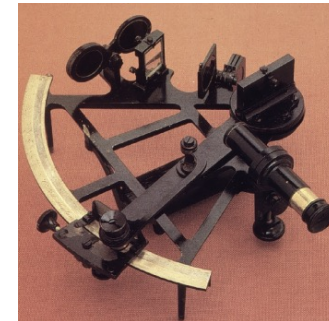
Notice:

- The most powerful advances impact multiple domains
- Power concentration often dissipates later

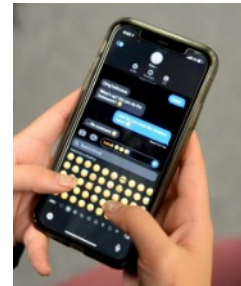
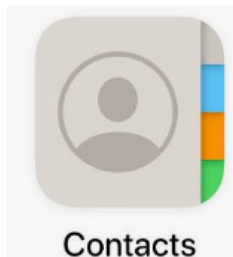


Might AI Assistance Become Dependence?

A good tool helps us to carry and/or accomplish more:



A tool can become a crutch when it replaces competence, judgement, or responsibility



Pope Leo XIV



Encyclical Letter

Magnifica Humanitas

On Safeguarding the Human Person
in the Time of Artificial Intelligence

How Ought People of Good Will Engage AI and Other Technology?

Caveat: the Church Meets People Living in a Secular Society



"The proclamation of the Gospel cannot overlook the concrete lives of people."

"[the Church] cannot consider herself a stranger to the forces shaping society."

"We must ask God for the wisdom to interpret the great trends of our time, particularly technological advances."

Caveat: the Church Acknowledges → *change will happen*

Pope Leo:

"Today we cannot limit ourselves simply to repeating [past papal] teachings. Instead, we must ask God for the wisdom to interpret the great trends of our times, particularly technological advances."

"New technologies open up a horizon extending in directions that are imaginable but not yet fully predictable. This complicates [seeing] the effects they may have on both the dignity of individuals and the common good."



The technologies change; our principles do not.

On Engagement

"In this era of digital transformation, I see in [Nehemiah] a striking parable to our own vocation, which is not to be passive spectators...nor mere commentators on what is crumbling, but men and women prepared to enter the construction sites of history."



On Decisions and AI

We must demand that humans remain in control for serious decisions.

How can we do this?

- Keep humans legally accountable
- Pass laws requiring “meaningful human control”
- Pass laws requiring human involvement in critical decisions (e.g. criminal sentencing, employment termination, denial of medical treatment)
- Require transparency
- Recognize that some decisions derive legitimacy from being made by a morally accountable person

Risks and Barriers

- Complacency because AI is going to be increasingly accurate
- Faster and cheaper to let AI make decisions
- Misalignment of incentives (companies get paid for efficiency)
- Some nations subordinate the individual to the state



On Personhood and AI

We must stalwartly oppose any sort of personhood for AI.

But where do we start? Watch your language!

Avoid:

- "The AI thinks..."
- "AI told me..."
- "AI says..."
- Using "He" or "She" for AI
- Speaking about AI as a teammate or coworker
- Being polite to AI
- Trying to pass off AI as human (e.g. in call centers)

Instead:

- "The model predicted..."
- "The AI system generated..."
- "AI calculated..."
- Refer to AI as "It"
- Be direct and transactional
- Be transparent when AI is being used



The words we choose today will shape the ethical boundaries of tomorrow.

Pope Leo's Recommendations:



"Let us remain faithful to the truth!"



- Be wary of incessant flows of information, opinions, and images
- Pursue wisdom rather than immediate results
- Cultivate Pope Francis' "situated anthropocentrism"

"Let us invest in education, beginning with ourselves!"



- Learn about the digital world
- Consider it a continent to be evangelized
- Accompany children entering the digital world

"Let us cultivate relationships!"



- The human heart yearns for genuine closeness
- Gather in Christian community
- Spend time with and serve the lonely and poor

"Let us love justice and peace!"



- Consider the working conditions behind our devices
- Watch out for mechanisms profiting manipulation and war
- Accompany children entering the digital world



Father Andrie's Recommendations:

Walk in the grass.

Visit people.

Keep holy the Sabbath.

Trust Christ more than the headlines.

Ask, will this tech bring lasting peace, or only temporary excitement?

Does this activity strengthen or weaken my human relationships?

Does this technology leave room for silence and prayer?

Instead of spending time on technology, consider scowling at a cat and smiling at a dog.



Virtues in the Age of AI

Prudence: knowing when not to trust AI

Justice: ensuring AI serves everyone

Temperance: resisting dependence on AI

Courage: remaining human despite pressure to efficiency



In Closing

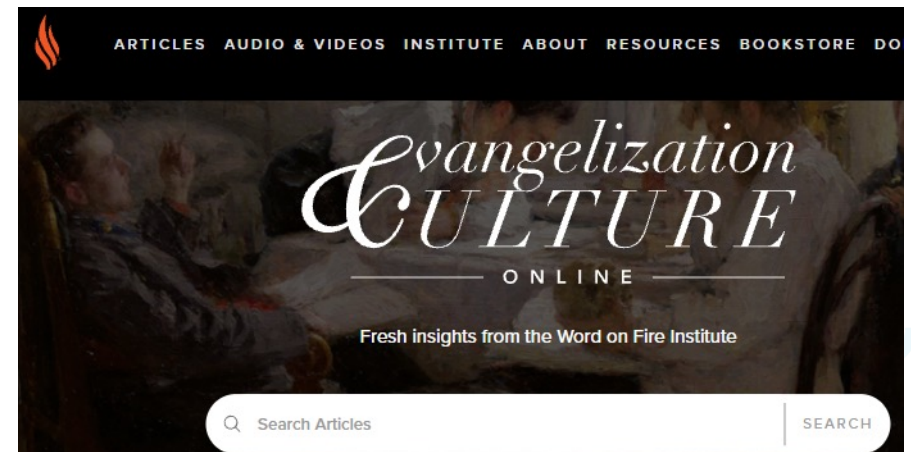
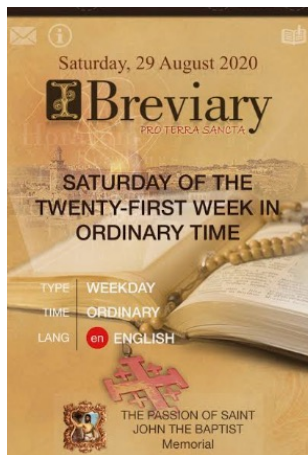
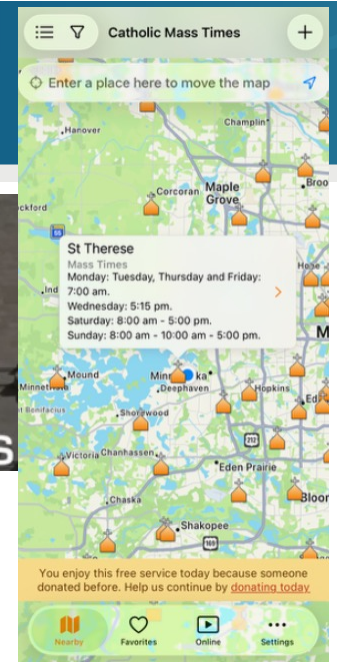
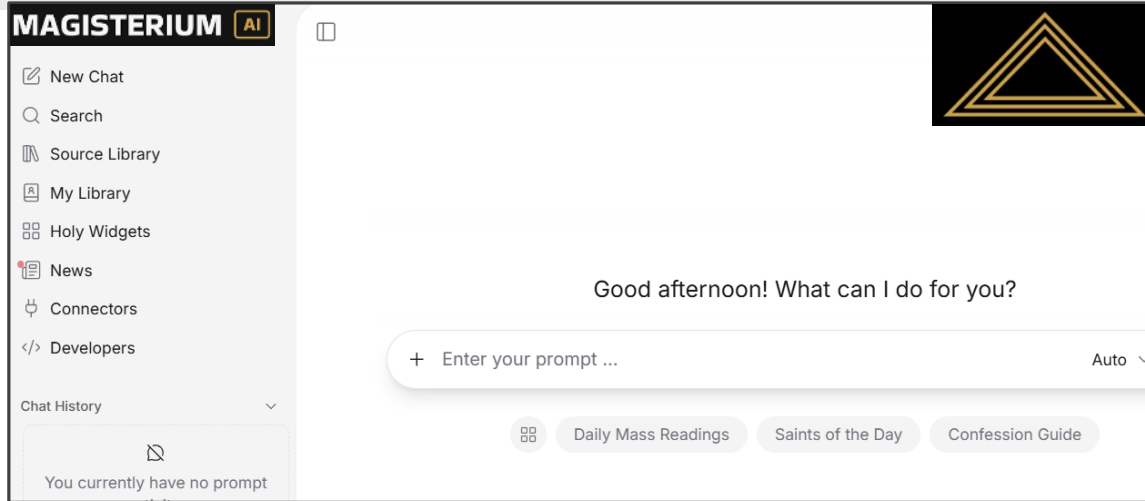
"In the era of artificial intelligence, when human dignity is threatened by new forms of dehumanization, ours is the pressing duty to remain profoundly human."

- Pope Leo XIV





Digital Tools to Support Your Faith



Avoid a Pixelated Life

**Be cautious not to 'live' through
the camera on your phone**

