



Institute For Theological Encounter With Science and Technology

Volume 55 - #4

Fall 2024 Bulletin

Opening Message

Albert of Lauingen was a 13th-century German Dominican. He was born in Bavaria around 1200 and died in 1280. An encounter he experienced with the Blessed Virgin Mary moved him so much that he entered the Dominican Order. Albert influenced the Church's stance toward Aristotelian philosophy brought to Europe by the spread of Islam. Thomas Aquinas would study under Albert, whose boundless interests prompted him to write a compendium of all knowledge: natural science, logic, rhetoric, mathematics, astronomy, ethics, economics, politics, and metaphysics. It took 20 years for Albert to complete his explanation of learning. He defended the mendicant orders and preached the Crusade in Germany and Bohemia. Ultimately, in canonizing Albert, the Church seems to point to his openness to truth, wherever it may be found, as his claim to holiness.

He was beatified in 1622 by Pope Gregory XV and canonized and recognized as a Doctor of the Church in 1931 by Pope Pius XI. Saint Albert, a Doctor of the Church, is the patron of scientists and philosophers.

As we release this bulletin on the feast of Saint Albert the Great, I am challenging you to take a few minutes and list three to five communities that you belong to. Then come back and continue reading this introduction.

~~~~~ *Pause here.* ~~~~~

Was one of the communities that you listed the church or something to do with faith? Two of the four brief articles at the end of this bulletin are reprints from our founder Father Brungs' writings. The other two brief snippets are by a long-time ITEST member, Dr. Blaschke. Each of them has a connection to faith.

The two feature articles are on human embryonic stem cell research and AI scapegoats and the future of work. They provide insights on how faith and science are intertwined. What role will AI play in our lives and work?

The member spotlight on Father Kevin FitzGerald, SJ focuses on his journey and involvement with ITEST. It is a remarkable account of how ITEST played a role through encounters with various scientists.

Now that you've completed the list of your community memberships, is ITEST or another faith community among them? You may want to retrace your "steps" and reflect upon that question.

I hope you enjoy this edition of the *ITEST Bulletin*. Send us your feedback with a Letter to the Editor.

Ralph Olliges, Ph.D.  
Editor, *ITEST Bulletin*

On behalf of the ITEST board and administration, I'm delighted to extend our gratitude to Dr. Ralph Olliges for his five years of service as the editor of our quarterly bulletin. His commitment to the production of quality content has increased ITEST's profile both domestically and internationally and has honored the memory of Fr. Robert Brungs, SJ, our founder.

— Dr. Sebastian Mahfood, OP, Director of ITEST

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**Announcements**

**ITEST Webinars**

**Watch our most recent ITEST webinars on demand.**

| Date     | Title                                                                                            | Presenters                                                           | Watch/Register link                                                                                           |
|----------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 08/17/24 | A New Understanding of Quantum Mechanics: Back to Aristotle & Aquinas                            | Sebastian Mahfood, OP, PhD<br>Kenneth Francis<br>Robert Kurland, PhD | <a href="https://faithscience.org/quantum-mechanics/">https://faithscience.org/quantum-mechanics/</a>         |
| 10/12/24 | Brain and Artificial Intelligence—A Tale of Two Computers, but only One Made in the Image of God | Robert C. Koons, PhD<br>Terrence Lagerlund, MD, PhD                  | <a href="https://faithscience.org/tale-of-two-computers/">https://faithscience.org/tale-of-two-computers/</a> |

**Register now for these webinars.**

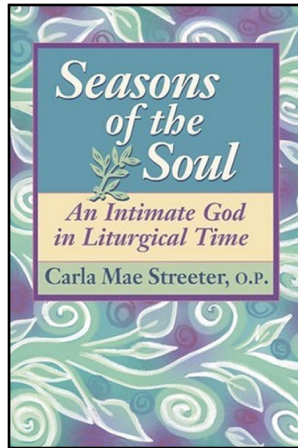
|          |                                                                               |                                                       |                                                                                                                       |
|----------|-------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 11/16/24 | Christ, Science, and Reason: What We Can Know About Jesus, Mary, and Miracles | Fr. Robert Spitzer, SJ, PhD<br>Thomas P. Sheahan, PhD | <a href="https://faithscience.org/christ-science-reason/">https://faithscience.org/christ-science-reason/</a>         |
| 12/14/24 | Black Holes and Free Will: How Faith and Science Rely on One Another          | Mattheus Uijtewaal, PhD<br>Bishop Everard de Jong     | <a href="https://faithscience.org/black-holes-and-free-will/">https://faithscience.org/black-holes-and-free-will/</a> |

**Watch all previously recorded ITEST webinars at [www.faithscience.org/news-and-events/](http://www.faithscience.org/news-and-events/).**

**Important Announcement**

ITEST is pleased to announce that **Christopher Reilly, ThD** has accepted the role of **ITEST Associate Director**.

Learn more about Dr. Reilly at <https://faithscience.org/board-of-directors/>



**Book Recommendation**

**Seasons of the Soul:  
An Intimate God in Liturgical Time**  
By Sr. Carla Mae Streeter, OP

The seasons of the soul are the seasons of the liturgical calendar. The liturgy is about a relationship, and Sr. Carla Mae’s gorgeous images, poetry and prose describe how the liturgy is a means of deepening our relationship with God communally. The material comes highly recommended by RCIA coordinators as a perfect introduction to how the liturgy is the place where a loving God invites us — individually and as a body — into an ever more intimate experience of the Trinitarian relationship. Learn more at:

<https://enroutebooksandmedia.com/seasonsofthesoul/>.

**In Memoriam**

We ask your prayers for the following ITEST member who recently died and entered Eternal Life.

**Albert J. Pallmann, PhD July 25, 2022**

**Robert E. Slocum, PhD August 2024**

We also ask your prayers for ITEST members who are ill. May they feel the restoring hand of the Lord.

We welcome your feedback regarding this issue of the *ITEST Bulletin* or any ITEST activity. Write a letter to the editor at [ITEST@archstl.org](mailto:ITEST@archstl.org) or mail to: ITEST, 20 Archbishop May Dr, St Louis, MO 63119



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*ITEST Bulletin* - Ralph Olliges, PhD, Editor, Sister Marianne Postiglione, RSM, Senior Editor  
Sheila Roth, Managing Editor ISSN 1073-5976 • Copyright © 2024

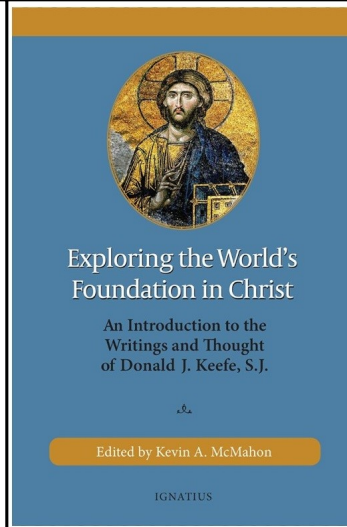
Announcements (continued)

Exploring the World's Foundation in Christ: An Introduction to the Writings and Thought of Donald J. Keefe, S.J.

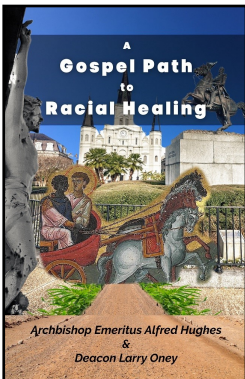
edited by Kevin A. McMahon

Check out this new book which highlights the work of Father Donald J. Keefe, SJ, a long-time supporter and member of ITEST. Father Keefe was a very good friend of ITEST founder, Father Robert Brungs, SJ. At past ITEST conferences and workshops, Father Keefe often made presentations on covenant theology. A "wisdom figure" of ITEST, he died in 2018. This book is edited by Kevin McMahon, one of Father Keefe's former students.

Buy this book at <https://ignatius.com/exploring-the-worlds-foundation-in-christ-ewfp/>.



Fr. Donald J. Keefe, SJ



ITEST Membership Renewal

Membership renewal notices have been mailed, and we thank those who have already renewed. As a paying ITEST Member, you receive monthly email newsletters, free entry to webinars, and opportunities to network with others who are attentive to faith/science issues. Members with current renewal status receive both printed and digital copies of the quarterly ITEST Bulletin.

After seven years of stable membership dues, we needed to raise the dues slightly to \$95 per year. We will never let financial hardship keep you from being a member of ITEST. If your resources are limited, simply send a note with whatever you can afford.

Are you able to make an added donation above the \$95 dues? Thanks to a matching gift from two of our benefactors, your additional gift will be **matched up to \$10,000** in donations, thus doubling your gift. Would you consider adding **\$100 or more** to help ITEST meet our mission?

The first 100 members to renew their membership will receive the book, *A Gospel Path to Racial Healing* by Archbishop Emeritus Alfred Hughes and Deacon Larry Oney. Learn more about this book at <https://enroutebooksandmedia.com/gospelpathtoracialhealing/>.

Renew your ITEST membership online at [www.faithscience.org/membership-information/](http://www.faithscience.org/membership-information/)

Or mail a check payable to ITEST to:  
ITEST  
20 Archbishop May Drive  
Saint Louis, MO 63119

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## Member Spotlight

Father Kevin FitzGerald, SJ

After decades of involvement in the issues that arise at the intersection of faith and science, I am sometimes asked if my career was the one I envisioned when I entered the Society of Jesus after graduating from college in 1977. The fascinating reality that lies behind my answer to this question is that I did enter the Jesuits hoping for a vocation that would allow me to bring my faith, and the richness of the Catholic Intellectual Tradition, to a career in the burgeoning field of molecular genetics. However, I had no clue at that time as to the expanse of new knowledge, technologies, and ethical quandaries this particular intersection of faith and science would involve, and how I would be called to participate in national and international projects and discussions intent on exploring and determining how best communities and nations might pursue the development and use of this rapidly expanding field.

It was early on in my formation as a Jesuit that I encountered ITEST at St. Louis University. During my first months at SLU, I was invited by Fr. Robert Brungs, SJ to join the group and their discussions regarding the intersection of faith and science, even though I had just begun my philosophy studies and a Master's program in biochemistry. As a physicist, Fr. Brungs understood the challenges I would face in pursuing a career in science as a Jesuit, and so he wanted me to be part of a group that embraced that intersection of faith and science. What ITEST gave me was a wonderful community of scholars, all committed to a constructive dialogue about how faith and science could be better integrated so that each might better serve the needs and goals of people everywhere. Our discussions gave me the opportunity to



see how what I was learning in my philosophy and biochemistry programs could be applied to the real world issues that both faith and science were being challenged to address. I met scholars who helped me continue to deepen my education in philosophy, theology, and molecular biology. Through my doctoral studies in molecular genetics and in bioethics, and continuing to today, I have benefited greatly from my membership in ITEST.

My early career interactions with the scholars at ITEST meetings also turned out to be great practice for me for several of my future in-

volvements, including serving as:

- Committee member for the American Association for the Advancement of Science (AAAS) Dialogue on Science, Ethics and Religion,
- U.S. Department of Health and Human Services Secretary's Advisory Committee on Genetics, Health, and Society,
- Pontifical Council for Culture's Science and Technology Consultors, and
- Pontifical Academy for Life (the bioethics advisory group of the Vatican).

No matter the venue, when experts are gathered to determine policies regarding the potential uses of developments like cloning, stem cell research, and genetic information and treatments, it is imperative that at least some of the experts present have experience in aligning the goals of both the scientific and faith communities in order to achieve policies that will protect and benefit all the communities involved.

ITEST gave me my start in gaining that experience. ■

The Rev. Kevin T. FitzGerald, SJ, PhD, PhD serves as the inaugural chair of the Department of Medical Humanities in the School of Medicine. He is the John A. Creighton University Professor, and an associate professor in the School of Medicine, Department of Medical Education, at Creighton University. He received a PhD in molecular genetics and a PhD in bioethics from Georgetown University. His research efforts focus on the utilization of reflection in medical education, the investigation of abnormal gene expression in cancer, and on ethical issues in biomedical research and medical genomics.

Father Kevin currently serves on the ITEST Board of Directors.

## Retrospective Analysis of Human Embryonic Stem Cell Research

by A.F. Kertz, Ph.D.

In 1998, James A. Thomson and a team of scientists at the University of Wisconsin derived embryonic stem cell lines from human embryos in the blastocyst stage (*Science* 6 November 1998, 282:1145-1147). The University of Wisconsin subsequently maintained rights to these lines so that other users had to pay fees. This illustrated two key issues about human embryonic stem cell lines—they could be patented, and other users would have to pay fees. Consequently, other scientists wanted to develop their own human embryonic stem cell lines in order to avoid paying fees or to be able to patent and financially benefit from their own lines. In contrast, adult stem cells have not been considered to be patentable.

The major moral and ethical issue is that killing existing embryos, or cloning and killing cloned embryos, is not justified for it is intrinsically evil to kill innocent human life, even if for an ostensible good. This is consistent with the Hippocratic Oath (“First, Do No Harm”), the Nuremberg Code, and the Helsinki Declaration—which both require consent by human beings before research can be done on them.

About 20 years ago, Embryonic Stem Cell Research (ESCR) was posited to be the frontier of human research which would lead to cures for all sorts of intractable diseases. But scientists did not know how to control when embryonic stem cells differentiated into the various body tissues. Private capital sources deemed this area was too risky to fund with limited probability for success, so proponents needed to find or develop government funding. But, since there were significant moral and ethical issues in creating human embryonic clones which would be killed in the process of doing this research, states such as Missouri were not favorable to allowing, much less funding, this research while California created a ten-year \$1 billion bundle to do so.

Another ethical issue was the procurement of human eggs in order to clone a human embryo that would match the projected patient. Generally, it is considered unethical to pay women to donate such eggs because they may be indigent, college students (young ova are particularly prized), or unaware of possible medical consequences. In the Korean Hoax, 20% of the women had medical complications, and one woman won a \$1 million judgment in Korea.

### Amendment 2

A 2006 ballot initiative (Amendment 2) surfaced in Missouri which professed that women were protected

by this amendment. But in a shell game, an ESCR facility could pay clinics for human eggs for which the clinics paid women. And then women were limited to \$50,000 in damages from oocyte donation complications. Only the Attorney General of Missouri would be allowed to represent them, and the court would be in the county/city where the laboratory is located.

Scientists’ interests in ESCR were to study the growth and development of human embryos, use the embryo to evaluate pharmaceuticals, and for clinical treatment of diseases. Since each of these uses endangers or kills human embryos, this creates an ethical issue. However, if the clinical treatment of human diseases could become a reality, or at least a possibility, no matter how remote, then this proposition might be saleable to us mortal humans. Thus began the marketing of ESCR as a viable means to “cure” a host of intractable human diseases. And, after all, we have family, friends, neighbors, and even ourselves who could benefit by such cures.

But in the body of the amendment, cloning was redefined to mean that it only resulted if that embryo was implanted and a live birth occurred.

In November 2006, this initiative which professed to ban human cloning was to be voted on in Missouri. Proponents of ESCR wished to remove the uncertainty of doing such research in Missouri. The Official Ballot Title language was deceptive, and among several claims was that it would ban human cloning. But in the body of the amendment, cloning was redefined to mean that it only resulted if that embryo was implanted and a live birth occurred. Rather conveniently, this allowed taking ESC at days five to seven, which would kill the embryo. The term “embryo” was not used as it sounded too human, so blastocyst was used instead. Blastocyst simply defines the stage of the embryo in its development. The language allowed initiating a pregnancy, but not for the birth of a human being!

In the June 17, 2005, issue of the weekly journal *Science*, two bio-ethicists from Stanford University addressed major limitations of ESCR:

- 1) institutional research oversight,
- 2) nonmedical oocyte (egg) donation, and
- 3) misconceptions of therapeutic use.

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They strongly stated that there is no “therapeutic” use of embryonic stem cells, and this is “*misleading donors and subjects into believing that research is therapy.....Also, it is nearly certain that the clinical benefits of the research are years or maybe decades away. This is a message that desperate families and patients will not want to hear.*”

This use of misleading terminology was acknowledged in a subsequent letter in the September 16, 2005, issue of *Science*. The letter’s authors *actually offered and recommended terminology to use*, which fit the classical approach of re-definition in order to obfuscate, de-humanize, and de-sensitize people to this research area. The rationale for this approach was to “*...result in clearer debates and will not so easily mislead the uninformed.*” In fact, it does mislead the uninformed. The authors of this letter were William Danforth of Washington University in St. Louis and William Neaves of the Stowers Institute for Medical Research in Kansas City, the two major proponents, contributors, and would-be beneficiaries of the ballot initiative to imbed in the Missouri Constitution the right to clone an embryo, to kill that embryo, and to conduct ESCR in Missouri.

In September 2006, former Senator Jack Danforth rather timely published a book, *Faith and Politics: How the “Moral Values” Debate Divides America and How to Move Forward Together*. In a touching chapter on the impact of his youngest brother Don’s death from ALS, Senator Danforth rather forthrightly said he would have done *anything* (my italics added) to have prevented his brother Don’s death.

### The Live Debate

With massive funding (about \$30 million), the Amendment 2 campaign became a juggernaut with Senator Danforth headlining TV commercials. On Saturday, December 10, 2005, I found myself driving to a local TV studio for a live “debate” on *The Jaco Report* with Senator Danforth. Initially the Archbishop of St. Louis had been invited to participate vs Senator Danforth. But instead, the Archbishop requested that I be the other participant. It was with some trepidation that I approached the task, for Charles Jaco was a grizzled veteran and former foreign correspondent who could be quite crusty. It was obvious who the rookie was, and even the studio setting favored Senator Danforth. His key points were:

- A blastocyst (clearly the term embryo or anything else sounding human would not be used) was just a bunch of cells smaller than a period on the end of a sentence.
- They were just cells in a Petri dish—which he con-

veniently pulled out of his pocket.

- He was pro-life. Would you rescue a 3-year old girl in a lab or a bunch of blastocysts in a Petri dish?
- And how could you not want to use ESCR to cure a litany of intractable maladies that afflict all of us?

Additionally, he cited a litany of scientific organizations, patient groups, disease organizations, scientists, medical doctors, and Nobel Prize winners who were ardent supporters of ESCR. He also denigrated adult stem cell therapies despite major successes.

I countered that human life begins at conception or inception (cloning). At conception, a zygote (embryo at the one-cell stage) becomes a self-developing human being with its full genetic base. That life would continue unless nutrition and environment were not suitable. I repeated this several times, and at one time used a dairy cattle analogy. (I had completed my PhD at Cornell University in animal nutrition and physiology on a project studying growth and development of cattle.) In many cases, I noted, we no longer export cattle but rather cattle embryos.

There was considerable peer pressure in scientific and medical circles to either support ESCR or keep quiet and stay on the sidelines.

In the ensuing interactions, Mr. Jaco posed the question to me as to whether those embryos were really life? I responded, why would anyone buy cattle embryos if they did not expect to get cattle? I had the last comments and painted the picture of scientists wanting to do embryo research that resulted in their deaths. They cleverly tied into engendering hope from people or family, friends, and neighbors who had these horrible diseases. There was considerable peer pressure in scientific and medical circles to either support ESCR or keep quiet and stay on the sidelines.

### The Ensuing Election

Opinion polling showed about two-thirds of those surveyed supported Amendment 2. Missourians Against Human Cloning formed, and a cadre of scientists and medical doctors enlisted to make presentations to various church, civic, and other organizations to inform them about Amendment 2 and why Missourians should oppose it. Among those speakers were a valiant handful of Washington University scientists and medical personnel who jeopardized their academic careers and spoke out against that amendment. Senator Danforth’s TV ads repeatedly aired in which he professed that he

*Continues on page 7*

was pro-life, and that ESCR was needed to provide “cures” for a litany of horrible diseases.

As the November 2006 election drew nearer, grass roots opposition to Amendment 2 began to develop through churches, Missourians Against Human Cloning, other organizations, word of mouth, and emails. The allure of Amendment 2 began to diminish. One representative of Missouri Coalition for Lifesaving Cures commented publicly in frustration about the “multi-headed beast” with which they now were confronted. Amendment 2 narrowly passed with about 51% of the vote. A post-election analysis found that 30% of people who voted for Amendment 2 did so because they believed it banned human cloning. But as noted in a *Science* analysis of this narrow passage, that narrowness failed to remove the uncertainty of doing ESCR in Missouri even though it was now legalized in the state’s constitution.

### Letter to the Editor

*Letters to the Editor* had been a key part of educating the public since letters are among the highest read sections in newspapers, and since there is such bias in favor of ESCR in most of the media. I sent several letters to the editor that were intended to be published in response to articles or letters about ESCR in St. Louis area and Columbia, Missouri newspapers. I wrote the following letter in response to another letter that was previously published. The Editor would not acknowledge my letter, much less publish it (or any other letter of this persuasion). I finally engaged the ad business people of the newspaper and purchased an ad which was my letter below.

It is heart-rending to read of type 1 diabetes afflicting a child. However, it is equally of concern how such victims and families have been so misleading about human embryonic stem cell research (ESCR). The wheels have come off that wagon, which is one reason ESCR has sought federal funding.

In July 2007, ES Cell International, which had begun in Singapore seven years prior with much fanfare, ceased ESCR due to investors losing interest because “the likelihood of having products in the clinic in the short term was vanishingly small” (*Science* 20 July 2007).

In November 2007, ordinary human cells were reprogrammed into embryonic-like stem cells (rated number 2 as the journal *Science*’s Breakthrough of the Year and *TIME* magazine’s first among the 10 Best Scientific Discoveries of 2007). This also led Dr. Ian Wilmut, who cloned Dolly the sheep, to decide to terminate his ESCR. He also indicated that

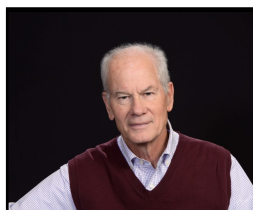
these researchers “...may have achieved what no politician could: an end to the embryonic stem cell debate.”

In September 2008, researchers at Harvard University overcame “a major obstacle to using a promising alternative to embryonic stem cells, bolstering the prospects of bypassing the ethical and political tempest that has embroiled hopes for new medical treatments.” *TIME* rated this the number 1 Medical Breakthrough of 2008.

Researchers at Harvard and Columbia “using a new method, one that doesn’t require embryos at all, involved reprogramming a patient’s ordinary skin cells to behave like stem cells, then coaxing them into the desired tissue-specific cells.” *Science* rated this reprogramming of cells their 2008 Breakthrough of the Year.

The University of Texas Medical Branch found that umbilical cord blood stem cells could be coaxed into becoming insulin-producing cells. Meanwhile, there were no clinical trials using human embryonic stem cell therapies while the number of clinical trials using adult stem cell therapies with varying degrees of clinical success treating over 70 diseases, had increased nearly four-fold since August 2006 to 3,840 on December 26, 2011. Since then, the NIH stem cell clinical trials research link is no longer operative.

The first axiom of medical research (Hippocratic Oath) is to “First Do No Harm.” Reliance on ESCR requires the sacrificial killing of human embryonic life. To do so now, more than ever, in light of successes using adult cells without genetic and other limitations of embryonic human stem cells, bespeaks a callous disregard for human life, poor public policy in providing federal funding, and engenders hope in people with hype that is not merited. ■



Al Kertz is currently Executive Vice President of the American Registry of Professional Animal Scientists. He continues work in his area of dairy cattle feeding and management as the 2001 founder of ANDHIL LLC. He received BS and MS degrees from the University of Missouri, served two years active duty in the US Army, and received his PhD in animal nutrition and physiology from Cornell University. That was followed by dairy research, technical service, and consulting for the various US and international Purina companies. He also has served as Chair of the Public Policy Committee of the Missouri Catholic Conference.

## AI Scapegoats and the Future of Work

by Greg Miller

*“In work, the person exercises and fulfills in part the potential inscribed in his nature... Work is for man, not man for work.”*

--Catechism of the Catholic Church, 2428

I had a friend who once asked his father to tell him what the meaning of life was. Pausing to reflect for a moment, his dad looked him in the eye and simply said, “To work.” My friend’s father also did not believe in pants, as I discovered by his penchant to answer the front door adorned in bedsheets (*My Little Pony*, if you were wondering) like a Roman senator of old.

Our Catholic faith has a rich theology of labor, interweaving human creativity and skills into our relationship with God and others. We work because we are made in the image and likeness of God, that wonderful, creative love-laborer. We work because it binds us to each other, both in the necessity of our interdependence (you are indeed your brother’s keeper) and as the means of sustaining individual and family life and developing our personal abilities. Work, properly conducted, expresses and cultivates our dignity.

Genesis tells us our choice to sin means we must work harder than God intended. While there still would have been the wonderful, energizing creative act had Paradise not been tainted, we all know the sting of drudgery and frustration that taints even the happiest career.

It is then little surprise that the nature of AI-assisted work provokes speculation on what it means for work to be distinctly human. Some technologists imagine a utopian future where we outsource the most unpleasant of tasks to AI and reclaim ever more weekly time for leisure, family interaction, and hobbies. To others (doubtless my pants-less friend’s father), the thought of all that free time might provoke paroxysms of terror. One man’s utopia is another’s dystopia.

That our collective “AI moment” is forcing us to examine the nature of work and its place in human life may actually be a blessing.

Over the summer my 9-year-old son took an interest in the old Don Knotts movie, *The Ghost and Mr. Chicken* (1966). You may question the quality of my parenting in allowing him to indulge in a movie de-

void of great artistic or comedic merit, but I was just pleased to see he’d developed an interest in the mysterious and supernatural, and to have an innocent point of entry to it. Amidst the wasteland that is modern media, the “Family Movie” section at the library is sometimes our friend, and in this instance, also provoked an unexpected occasion to reflect on the intersection of human work and technology.

There is a scene in the movie in which characters are taking an elevator, “driven” by a uniformed operator, who couldn’t help but strand his passengers between floors. I found myself wondering how many elevator operators found themselves jobless as a result of advancements that bestow the giddy rush of newfound agency upon little children today. A [Wired magazine article from March 2010](#)<sup>1</sup> provides an overview of the surprisingly controversial history of elevators:



- Elevators, like AI, were met with initial resistance from the public. The fear was that mechanical failure on descent would take the lives of countless hapless passengers.
- The first commercial elevator safely went into operation in 1857.
- Without the humble elevator, our skyscraper festooned megalopolises would be untenable realities.
- The first elevator operators’ union was formed in 1917, and the country had tens of thousands of operators, “most of whom were black.”

How many of those operators felt like slaves to a machine, tethered to it by economic necessity, I wonder? How many of us feel that way today, behind our com-

<sup>1</sup> <https://www.wired.com/2010/03/0323otis-elevator-first/>

Continues on page 9



puters for hours a day? As a school principal, I certainly spent more time behind a computer than I wished to.

History shows us new technology brings about widespread job disruption. The McKinsey & Company consulting firm has projected AI could replace 800 million jobs worldwide by 2030. Big consulting has been wrong in big ways with a great degree of frequency. Still, if you pick your poll, anywhere from 30% to 74% of workers have expressed anxiety that AI will replace them.

But what are we *really* anxious about? Is it loss of the means to provide for our families, a loss of a sense of worth and purpose, or a loss of our excuse to not do the other worthwhile things we should be doing?

When President Lincoln formed the Department of Agriculture in 1862, an estimated 90% of Americans were farmers. Today around 2% hold that profession. The world did not go up in flames, nor do I hear droves wishing a return “to the land.” The same is true of the automobile and what it did to countless farriers, stable hands, carriage-makers, etc. It is true that labor disruption from AI may be more rapid than the century-long shift away from small agriculture and horse-and-buggy. But let us address the scapegoats in our midst and cut through some propaganda.

Businesses *are* engaging in AI scapegoating, instituting hiring freezes or layoffs “due to AI.”

Businesses *are* engaging in AI scapegoating, instituting hiring freezes or layoffs “due to AI.” Some small companies gained some pretty great global publicity by running with the claim that they eliminated most of their customer support staff and “replaced them with AI.” This was later revealed to have been a media stunt by a company already in deep fiscal trouble.

Generative AI provides a glorious opportunity for any overextended and inefficient business to lay off workers, as many companies do during economic down-cycles, while presenting the illusion they are at the cutting edge of technological implementation. No less a giant than IBM announced suspension of 7,800 new hires as it “sought to use AI” in their place. Of course, this does nothing to inculcate trust between employer and employee and throws fuel on the fire of class warfare.

On the other hand, I have seen a few articles wherein a freelancer laments a decline in work since the inception of consumer AI. Many of these freelancers are photographers, voice actors, or other creatives. Some voice actors were paid by AI companies for voicework only to discover Text-To-Speech (TTS) AI cloned their voices without their knowledge or consent. The labor contracts specifically guaranteed this would not happen. This is theft and breach of contract and should be dealt with as such.

But with less specific suspicions some freelancers have advanced concerning AI replacement, I think we must consider the general economic conditions in play since Covid. Inflation is terrible. Higher interest rates make easy money a thing of the past, leading to less investment and speculative spending. We ought not rush to attribute AI causation where there is merely chronological correlation. And for every story of job loss, there is a story of a freelancer that has used AI to increase output or quality and greatly magnify their income. All technology offers an opportunity to acquire new skills.

It’s been suggested that the most insidious form of AI scapegoating may be the tendency to succumb to laziness. Many educators seem to have a particular fear that young people will skip developing a skill or competence because they can instead have AI fake it for them. I think part of that mentality comes from an overly pessimistic view of youth. Perhaps “Brave New World” and other dystopian novels have too long dominated academia, and the Gospel has not.

Aldous Huxley once said, “People will come to adore their oppression, to love the technologies that undo their capacity to think.”

Huxley died in 1963. He did not have in mind the personal computer, smartphones, social media, or AI. Digital technologies are not the only types of tech that enslave people and undo critical thinking capacities. Alcohol does that to millions and has for far longer. We have countless other drugs that do.

Mediums for the transmission or expression of knowledge (books, radio, TV, the internet, AI, and even art) have always been able to be used for ill by the lazy or malicious. Yet would we consider burning all our libraries because some use books to plagiarize or poison the minds of others? How many millions were slaughtered because of *Mein Kampf* and *The Communist Manifesto*? How many hundreds of millions have been saved because of The Bible?

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It is right to point out that AI will affect us differently than books do. When I was a campus minister, the prevailing statistic was that young people were using Facebook about an hour and forty minutes a day. Contrast this with some of today's AI. Google recently spent \$2.5-\$3 billion to license the technology of Character.ai which allows users to create AI personas of celebrities or fictional characters and interact with them. The service has 206 million monthly visits and 9 million daily active users, who have an average session lasting 29 minutes. This is significantly less than the one hour and forty minutes of early Facebook users.

One of the first things I had students do with AI in February of 2023 was use Character.ai to analyze their business models for a 10th grade personal finance class. Some had an AI version of Elon Musk critique their plan. Others with a fashion or music business chose AI versions of musicians or famous designers.

Unlike the endlessly scrolling social media pages and the autoplay of video streaming services that ensnare so many, AI has rate/use limits, even at paid user levels. This is because it is more expensive to run. AI has revived the "stopping cues" inherent in older technology like books (chapters, end of episode). People are currently using AI predominantly for the completion of discrete tasks, not mindless entertainment. We can hope the first generation of AI natives will thus avoid the addictions so many social media natives succumbed to.

I suspect much of the fear of knowledge-based technology stems from the hermeneutic of suspicion prevalent in our post-Christian culture. "Bias," "fake news," "hallucination," — pick your buzzword — there is a temptation to feel our information or view is correct and the "other side's" is wrong.

Many saints seemed to find it profitable to regard others as better than themselves. I think we ought to try challenging our own biases, viewing the people

around us with charity rather than with suspicious pessimism, and trusting that they can use technology in more positive ways than we think.

I'm starting to lose track of the times I've used YouTube to do a repair on a dryer, refrigerator, A/C, or car, probably to the tune of several thousands of dollars saved. I have learned skills and developed confidence that would have been outsourced to a professional twenty years ago.

Huxley's dimly pessimistic view of humanity in "Brave New World" shifted and improved as he aged. He would eventually come to comment, "Man approaches the unattainable truth through a succession of errors."

Work will shift, but it will not cease to exist—it is nearly infinite, as the capacity for the development of our God-given abilities is nearly inexhaustible.

So it will be with AI. Work will shift, but it will not cease to exist—it is nearly infinite, as the capacity for the development of our God-given abilities is nearly inexhaustible. AI cannot take from us what God has given. We can use it to form or deform our work, just as we can allow resistance to AI to be a scapegoat to excuse our failure to develop new skills and expressions of creativity. We cannot entirely take away the human tendency to abuse our world and misuse our tools, but we will, through a succession of errors, certainly take some of the peril from them as we improve safety and output.

We Catholic Christians know that Truth is not entirely comprehensible, but contrary to Huxley's claim, Truth is attainable, and the more deeply we invite Christ to animate us, the Holy Spirit to inspire us, and the Father to bless us, the more we can avoid sin and scapegoating, of AI, but especially of each other. ■

*We cannot presume a priori that [AI's] development will make a beneficial contribution to the future of humanity and to peace among peoples. That positive outcome will only be achieved if we show ourselves capable of acting responsibly and respect such fundamental human values as "inclusion, transparency, security, equity, privacy and reliability."*

— Pope Francis  
December 15, 2023

The following reflection pieces were composed by Dr. John A. Blaschke, MD, long-time ITEST member and supporter who died in 2020. Dr. Blaschke who received his medical degree from the University of Oklahoma College of Medicine specialized in Rheumatology. He defied the stereotypical view of scientist/physician as coldly logical, inflexible, robot-like and data-driven. The following essays are a perfect blend of the scientific and the artistic – prayers from a scientist in love with the beauty God created.

### **Beauty and Photosynthesis**

Our condo is on the second floor directly facing the ocean. It overlooks a pool and walkup bar that is dramatized by a continuous flowing sheet of water from a pool on the roof of the bar. The waterfall into the swimming pool is an arresting sight and sound. From our open deck we see the Pacific Ocean framed by coconut palms. At high tide we are less than 75 yards from the shoreline. Thus, we are treated to a continuous sound of surf, an ongoing sight of sandpipers scurrying in front of advancing/retreating waves, and fleets of Pelicans cruising close to the water, all part of the attraction and mystery of the ocean. The distant line on the horizon, demarcating sky and ocean, air and water, is itself, mysterious. Dark blue of the water contrasts with the light gray blue of the sky. We can never reach this line; it will always retreat into the distance in front of us, even if we were to approach at Mach 3 speed. At sunset, as the sun sets, slowly at first, then rapidly in the final moments, it is this line which provides the seeming watery grave into which the sun disappears. At these moments I am filled with awe and a strong sense of God's creative power. His power is infinite of course, but what comes to my mind is the delicate balancing of the many forces God has provided for man whom he loves. The sun is the epitome of those forces which provide man with food, protection, and safety.

The size of that immense red orange globe in its final minutes is impressive and inspires one's thoughts that everything in life is dependent on the twelve hour flight of the globe. All plant life in the world is dependent on the photosynthesis powered by the Sun's photons. The visible light spectrum is just a portion of the vast electromagnetic forces produced by the sun. But man and animals are dependent on the foods that arise from photosynthesis in green plants throughout the world.

Lord, thank you for photons, light, and your orderly plan. These distracting thoughts cross my mind while at the same time I am almost breathless with the sheer beauty of the moment. The flaming orange orb paints the surrounding sky with every hue of pink, lavender, rose, and finally, to cool grays. Even when the sun sinks below the horizon in an accelerating fashion, and everyone has looked for the green flash, and failed to see it, the sky remains vivid oranges and pinks and lavender and finally the blues. That is when I say a prayer in the secret part of my mind; thank you Lord for the privilege of being here; thank you for the source of energies from the sun on which so much of our material world is dependent; thank you for the beautiful spectacle of the setting sun which lifts our spirits in joyful praise. ■

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### **Take off your Shoes**

The periodic table of the elements is an orderly listing of all the known elemental substances that are the building blocks of every structure, plant, and animal on planet earth. For generations, high school students have first gazed on this table of the elements in the form of a large chart hanging on the wall of their school science or chemistry class. From the lightest element Hydrogen to the heaviest Lawrencium, the table, first proposed by Mendeleev in 1869, classifies all the elements in groupings according to the atomic number of the nucleus and the electron energy levels which surround it. Mendeleev's genius lay in the fact that he saw the logic of a natural plan in arrangement of the various elemental atoms based on atomic

weight and chemical valency. His discovery postulated that some elements not yet described would be found to fill empty spaces in his table. The orderly sequences of the elements each building on a fundamental atomic core, with atomic weights and mass is evidence of, proof of, and praise for God's creative transcendent power. When you think about it, every atom, element, and molecule is part of a holy and sacred creation. Thus, this morning walking the beach, I realized I was walking on Holy Ground. The element Silica, number 14 in Mendeleev's table, is the chief component of a grain of sand. The shore that I am treading today is an unending mass of sand. Thoughts

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about the immensity and infinite numbers of grains of sand bordering the oceans of earth, and found abundantly everywhere speak loudly to me of God's loving presence. Further reflection this morning leads me to the conclusion that I am walking on Holy

Ground. Like Moses and the burning bush, I hear a whispered voice, "Take off your shoes, you are standing on Holy Ground." Barefooted, I pray, "Our Father who art in heaven...." ■

### **From "Dotage" to "Anecdote"**

(Opening message *ITEST Bulletin* Fall, 1992)

by Fr. Robert Brungs, SJ

...I long for more spontaneity in the perception of life and, most especially, in its living. God did not give us a world where everything would fall into recognizable patterns if only we could find the correct theory. He did not set up a world where reason was the dominant end and means. I believe in my heart that he set up a world open to my (and everyone else's) spontaneity, passion, and love. I see more clearly and yearn for more deeply a world where beauty is at least as important as reason—and vastly more important than logical planning. We

talk about a world where we shall plan the direction of our future growth and, indeed, from time to time it seems as if we are working out ways of achieving that. Perhaps we should think about that and ask ourselves if we want to live in a neat, planned world or one messy with surprises. I personally will opt for the surprising world over the planned one. I'd like a world where we make a spontaneous contribution to the growth of the Kingdom, even if it's no more than an unplanned moment of awe before the beauty of a flower or a sunset or a person. Or God. ■

### **Faith/Science Interface**

Excerpt from *Written in Our Flesh: Eyes toward Jerusalem*

by Fr. Robert Brungs, SJ

If the goal of the faith/science dialogue is evangelization, we cannot be defensive about the church's centrality to human history and to the cosmos. If the church is not the center of God's plan for his creation there is no sense in belonging to it. If the goal is simply to dialogue (to talk, but not to evangelize) then I believe we can forget Christ's mandate to "preach the Gospel to the whole world." I am old-fashioned enough to believe that our actions speak louder than our words. If our love for the church and for Christ is not apparent, all our intellectual attainments and our eloquence will have little long-term effect. St. Paul in Corinthians mentions "Booming gongs and clashing cymbals." In dialogue, whether with the National Academy of Sciences or graduate students, "passionate belief" will (or at least should) carry more weight than abstract intellectualisms. Belief, and the hope it generates, is more appealing than intellectual argument. Hope is an attractive virtue.

I can think of no purpose for the faith/science dialogue other than our evangelical duty to preach the Good News in season and out of season. Evangelization is a privilege and duty imposed on us in baptism and enabled in confirmation. By the fact of our bap-

tism, we are sent to "preach the Word who is God." We don't need ordination or any other sacrament to give us a mandate to teach. The clergy never were meant to be the only evangelists in the world nor are they the most important ones. To raise up evangelists we have to inform them of their baptismal obligations; we have to show them that that is a part of our lives – without apology. We must let them know that they need no permission from anyone to fulfill an obligation.

We have to convince ourselves and them that teamwork is critical. As an ITEST member mentioned at the ITEST 25th Anniversary Convention, "an army without a general is a rabble, a general without an army is ridiculous." Evangelization must operate at all levels of the dialogue and, as Vatican II and subsequent papal encyclicals have stated, they will operate effectively only "in community." Faith/science dialogue is a cultural movement, requiring many inputs and many interests and skills. It demands faith, hope, and love – and love is still the greatest of these. After all, Saint Paul teaches that "it is love that makes the building grow." ■