Blessed are They Who Have *Not* Seen, and Yet Have Believed

In the Gospel for the Sunday after Easter, the Apostle Thomas (who was absent previously) is invited to inspect Jesus' wounds, and then believes in His resurrection. Jesus says "Because you have seen me, you have believed; blessed are they who have *not* seen and yet have believed." That has been a guiding principle for Christians ever since.

There is a similarity here with the way science is done, and hence a special message for scientists in this Gospel narrative. We know that it's not feasible to personally repeat every experiment that underlies the laws of physics, chemistry and biology; we take someone else's word for it all the time. We learn first from textbooks and later by reading the scientific literature, confident that someone else could repeat an experiment, to challenge the claim. The vast majority of scientists merely hear about scientific advances, trusting in the word of others. Dependence upon reliable witnesses is essential to getting anywhere in science.

Nearly all of the progress of science is taken for granted. Do you ever think about the way a satellite conveys a phone call from your cell phone to someone else's? Do you see anything happening at a microwave tower? If you swallow a pill, do you understand the details of how the medicine works its way into an organ that needs it? The answer is "No" to all three of these (and countless similar questions).

Actually, a lot of faith is required just to get out of bed in the morning, but nobody even thinks about it. Every day we make life-dependent decisions like trusting that an overhead roof will not collapse. Relying on the competence and good will of other people is second-nature, such as when driving in traffic on a freeway at high speed. "Of course" it will all work out okay.

It's our mental faculties that permit us to function well above a primitive level. The benefits of modern civilization accrue because we believe (in technology) even though we haven't seen. These same faculties are used to grasp religious concepts, to commit to beliefs. Christ invites us to do so, with His words "blessed are they who have not seen and yet have believed."

Within Christianity, we build our lives upon the reality of Jesus' resurrection. As we associate with one another, that's in the "of course" category. But when we interact with people in the outside world, especially non-believing scientists, it's not so easy. Sometimes hostile opponents will speak dismissively of *all* religious belief, failing to recognize the extent to which they rely on belief in the testimony of others.

The art of defending our Christian beliefs is a matter of showing that it is reasonable to believe in Jesus Christ. That is made easier by explicitly recognizing the role that faith plays in everyday life.

Thomas P. Sheahen

Director, ITEST

In This Issue…

Announcements

Creation Lens
Exploring the World, Discovering God

**New Marketing Strategies:
Visits to Catholic Elementary Schools**

Even in the "Digital Age" where Twitter, Facebook and texting seem to have the upper hand in spreading the message, we still hear that personal contact often trumps electronic or print media. Many times that is true. We decided to test this out with one of the marketing strategies we devised for **Exploring the World, Discovering God (EWDG),** our faith/science lessons,(Pre-K-Grade 8), concentrating on grades 5-8. Starting on the local level aided by a grant from the Our Sunday Visitor Institute, grantor of the entire project, Cheryl Harness, ITEST's executive assistant and editor of EWDG Grades 5-8 lessons, and Sister Marianne, RSM, Associate Director hit the road! Armed with delicious pastry rings for each school from a local bakery, colorful bookmarks, brochures, a sample lesson from the program and a lot of enthusiasm, they "cold called" four to five selected Catholic Elementary schools one morning each week. After identifying ourselves we presented the pastry gift first and then asked to see the principal to briefly describe our faith/science lessons.

Since late January we have visited over 30 schools and have been received graciously by principals and staff. Even though we have blanketed the schools with information about the project through e-mail and hard copy correspondence, nothing seems to have "awakened" interest in the program more than this particular strategy. Or, maybe it was the pastry rings!! In a short 10-15 minute period we were able to describe the program and how it could benefit the students and teachers in that elementary school. At the same time we offered to do a 45 minute presentation/workshop for the teachers and staff on the program itself, showing how it could be used most effectively in their school. To date we have given presentations at five schools for faculty and staff and look forward to offering many more. *(See photos on pg.16)*

Second Renewal Notices

We mailed the notices in March and now wait in hope to hear from those who may have put the letter in a file and forgotten about it. So, we ask you to renew as soon as possible for calendar year, 2013. Dues remain the same at $50.00 per year, and we accept checks and credit cards: MasterCard and Visa **only.** We would gladly accept any widow's or widower's extra "mite" you "might" slip into the offering as well. Your membership dues are tax deductible.

A Plea to our Members

Our Quarterly Bulletin makes its way to our members through two pathways: hard copy, via regular mail, and e-mail attachment. Approximately two-thirds of our members receive the bulletin via e-mail attachment; whereas, the other one-third of members receive it via hard copy. We are appealing to the minority one-third to consider moving to the party of two-thirds. Seriously though our mailing costs to send a 16 page bulletin are rising almost exponentially. And the future does not bode well for decreasing mailing costs. However, if you are a dues-paying member and prefer to receive a hard copy of the bulletin, we will certainly and happily accede to your wishes. Current research shows that most newsletters and bulletins are routinely sent digitally. If you would agree to change your preference from hard copy to e-mail attachment (all in color), please contact Sister Marianne at mariannepost@archstl.org and your preference will be duly noted.

Thoughts on Technology and Flourishing
by Paul C. Grabow, Baylor University

1. Introduction

Flourishing and technology are rather difficult concepts because even working definitions can be controversial. Flourishing has been discussed and debated over the millennia and technology has become so firmly embedded within most societies that objective discussion is often difficult. But we must have some definitions and a framework to deal with the concepts. So, several assumptions and definitions are presented before we consider the connection between technology and flourishing.

Without argument, we will assume the following: that foundational truth, beauty, and goodness exist as eternal verities that are more than "concepts"; that morality is based on norms of behavior that are tied to moral imperatives; and that humans are created in the image of God but are fallen creatures. All play a role in various aspects of flourishing.

2. Flourishing

Flourishing can be viewed in terms of "levels", where the lowest represents "basic" flourishing (e.g., food, shelter, clothing, and good health) and the highest represents, what we will call, "deep" flourishing. Intermediate levels would then represent several increasing realizations toward deep flourishing. This structure is similar to Maslow's "Hierarchy of Needs" (Maslow. 1943), with Physiological needs and Self Actualization needs at the bottom and top of his hierarchy, respectively. However, flourishing involves more than needs and the purpose of Maslow's hierarchy (i.e., to help explain how needs motivate behavior) does not really help us understand flourishing. So, we will assume a hierarchy but without indentifying specific levels between the extremes and the substance of our hierarchy will not be based on Maslow's levels (with one exception).

Here we will associate basic flourishing with "meeting basic physical needs" (i.e., adequate provision for food, clothing, shelter, and health), similar to Maslow's Physiological level. However, we will define deep flourishing with the realization of the "good", as used in Genesis (i.e., the Hebrew word, *tov),* where its use

indicates that creation was not only beautiful, but that it was profoundly valuable, most fitting, full of integrity. (Edgar. 2010) We also assume without argument that "This level of goodness has its deepest resource in God Himself." (Edgar. 2010) Furthermore, we will extend this to include truth and beauty, eternal verities, both of which are tied to *tov.* Consequently, as one moves from basic flourishing toward deep flourishing, truth, beauty, and goodness become more fully realized.

Deep flourishing ennobles (in the best sense of that word), it does not simply inflate (making us something we are not), and it allows us to become who God created us to be – not in the limited sense of "self-actualization" (Maslow's top level) but with a significant role within the created order. In addition, deep flourishing includes moral behavior that benefits the created order, individually and corporately. Consequently, deep flourishing is more like "tending the garden" rather than simply "being fulfilled" or "realizing your full potential"; and it is not simply equivalent to "getting in touch with your inner self" or gaining "spiritual peace" (recognizing that the word "spiritual" is used in so many ways today).

Since we have avoided Maslow's hierarchy, it may interest you to know what (Maslow. 1943) does not contain. It does not acknowledge moral imperatives as a motive for human behavior (other than to treat it as an "exception" within the hierarchy), nor does it recognize God or the fallenness of humans. Although, Maslow does assume various "freedoms" (as well as fairness, honesty, and orderliness), there is no mention of virtue or truth other than to recognize that some "stand up for truth at great personal cost" (Maslow. 1943) -- again, as an exception to the hierarchy. The concept of "meaning" is treated simply as part of a "search": a desire to understand, to systematize, to organize, to analyze, to look for relations and meanings." (Maslow. 1943) And his concept of meaning does not appear to be tied to any transcendent reality. Furthermore, there is no reference to the verities of truth, beauty, and goodness, in the classical sense of those words, and no connection to God the Creator. Therefore, our concept of deep flourishing has no significant connection to the substance of Maslow's hierarchy.

3. Technology: Obstacles

Before we define what we mean by technology, it is helpful to acknowledge some difficulties with the word.

Obstacle 1: The word itself creates confusion because it encompasses so many concepts: from basic tools to complex systems; and from physical machines to organizational methods. A clock represents technology, but so does a time table or the organizational structure of a university. Consequently, significant conversation concerning technology often becomes difficult.

Obstacle 2: Since almost everyone is reasonably familiar with some form of technology, it is hard to be objective – especially when we "know it so well". In a sense, we are all "experts" – but experts who often do not agree. Also, we have been altered by technology and, more importantly, technology has become part of us so that it has, to a significant extent, become indistinguishable from how we think and act (i.e., our being). And any negative evaluation of the technology "that we hold dear" can be taken personally.

Obstacle 3: Discussions of technology often focus on the question, "Is technology good or bad?" This is unfortunate because it effectively scuttles real discussion and it leaves out "middle ground", creating a false dichotomy. An evaluation of technology cannot be reduced to an either-or because technology is too complicated to be simply voted up or down. Also, the good/bad question usually generates significant heat but very little light. Everyone has their own set of anecdotes and priorities, and the conversation often degenerates into a test of wills where no one really "wins".

4. Technology: Definitions

The word technology can be traced to the ancient Greek concept of technê, something created (i.e., an artifact) and not occurring naturally. Importantly, technê included the knowledge or discipline used to create the artifact and it was assumed that the artifact had a purpose and a meaning that originated "beyond" the person who produced it. (Feenberg. 2003)

Let us now consider two views of technology using a scheme from Andrew Feenberg, who classified technology using two binary attributes: 1) whether or not it is autonomous and 2) whether or not it is value-laden (where the opposite of autonomous is controllable and the opposite of value-laden is value-neutral). Although the scheme has four categories, we will consider only two here: Instrumentalism and Substantivism[1].

Instrumentalism views technology as neutral and humanly-controllable . A simple hammer would easily fit this view, where the user has complete control over its use. However, it is a common view today even for relatively complicated technology. According to Feenberg, instrumentalism

> "… does not realize objective essences inscribed in the nature of the universe, as does technê. It now appears as purely instrumental, as value free. It does not respond to inherent purposes, but is merely a means serving subjective goals we choose as we wish. For modern common sense, means and ends are independent of each other." (Feenberg. 2003)

Since means and ends are independent, this implies that technology cannot be held responsible for anything that happens. Responsibility can only be assigned to the user.

Substantivism, on the other hand, views technology as both value-laden and autonomous – in other words, technology is not neutral and not controllable. Consequently, choosing a particular technology involves accepting (intentionally or not) the values inherent in that technology. Jacques Ellul (Ellul. 1964), Martin Heidegger (Dreyfus. 2004; Heidegger. 2004), and George Grant (Grant. 1969; Grant. 1986) essentially represent this view. According to Feenberg,

> "Heidegger argued that modernity is characterized by the triumph of technology over every other value. Where the Greeks took technê as the model of *being* in theory, we have transformed *being* technically in practice. Our metaphysics is not in our heads but consists in the real technical conquest of the earth. This conquest transforms everything into raw materials for technical processes, including human beings themselves." (Feenberg. 2003)

In other words, humans, in their relationship to technology, have become part of a "standing reserve" (Heidegger's term), essentially in the service of technology. For example, when I use an airport are my purposes being served by the airport or is the airport being served by my presence at the airport? An airport needs passengers to be an airport.

5. Technology: Effects

Heidegger (1889-1976) , Ellul (1912-1994) , and Grant (1918-1988) each argued that the use of technology significantly shapes society as a collective social reality that goes far beyond the notion of instrumental worth. Technological goals, structure, values, and deficiencies become those of society; what technology can/cannot know becomes what society can/cannot know; and what technology considers moral becomes society's definition. Therefore, technology does not simply provide "things" for us to use – it produces changes in us, often without our approval or awareness.

Heidegger saw technology as ontological, worrying "that calculative thinking may someday come to be accepted and practiced as the only way of thinking".(Dreyfus. 2004) Such thinking often manifests itself as an over-reliance on deterministic rules and procedures (rather than basing decisions on basic principles that are applied on a case-by-case basis), even in situations that do not lend themselves to mechanical solutions.

Ellul warned that "… an autonomous technology is in the process of taking over the traditional values of every society without exception". (Ellul. 1964) Tradition is built up over time based on the values of those involved, but technology (what Ellul calls "technique") has no real interest in tradition or the values that it contains. And the autonomous nature of technology can push us in directions that run counter to those values.

Grant was concerned about the homogenizing processes of technology, "where classification rules, identifies and differences can appear only in its terms". (Grant. 1986) And similar to Heidegger's concern about calculative thinking, Grant wrote that "… technical reason has become so universal that it has closed down on openness and awe, questioning and listening".(Grant. 1969)

It is not uncommon to dismiss their viewpoints as "too negative". But that is really not fair or accurate. As Dreyfus said of Heidegger, he was not in "reactionary rebellion against technology", and he did not view technology as a problem that must be solved "but an ontological condition from which we can be saved". (Dreyfus. 2004) As for Ellul, he responded to his critics by saying, "I am neither by nature, nor doctrinally, a pessimist, nor have I pessimistic prejudices. I am concerned only with knowing whether things are so or not." (Ellul. 1964) And Grant, according to Arthur Davis, "never turned away or sought to escape from the modern world." (Davis. 1996) Rather than flee from technology, he confronted it and tried to describe it for what it is, separate from what technology claims to be. In other words, all three attempted to uncover the true nature of technology, technological thinking, and technological behaviour – wrestling with the intersection between human societies and technology.

6. *Technology and Flourishing*

Several observations can be made concerning technology's ability to foster human flourishing, especially deep flourishing. First, technology can provide a form of flourishing, but one that is primarily limited to more basic flourishing, such as clean water, stable food source, medical care, and shelter. This is not insignificant, but basic flourishing is not sufficient for truly deep flourishing.

Second, technology cannot represent the organic, which is a particular problem with respect to beauty. The best that technology can do is to abstract from the organic. And an abstraction, by definition, is never the real thing. A simulation of the tree in my backyard – complete with acorns falling in October – will never be the living/organic thing.

Third, technology really cares nothing for the past. It is grounded in the present – even though it relies on what the past produces and it may affect the future. Its ethics is primarily utilitarian and it does not really recognize or value inherent worth. Consequently, this gets in the way of purpose and meaning, both of which require the notion of value that is not bound by utility.

Fourth, technology is unable to create or even recognize foundational truth, beauty, or goodness for what it really is. The best that technology can do is to transmit truth, beauty, or goodness, which all arise from some foundational source. Transmission is not insignificant but the transmission is not the real thing; at best, it is only an approximation.

Fifth, technology too easily causes hubris – both within its creators and its users. Users can do "great things" with technology – and then conclude it was they (rather than the technology) who did great things. Creators, too, can become prideful in their creations – forgetting that they themselves were also created.

Sixth, technology cannot redeem our fallen nature. Try as we may, no technology can successfully treat this condition.

7. Summary

Some flourishing can and should be addressed by technology. Technology can provide order, efficiency, and capabilities – expanding the possibilities and comforts of our lives. It has cured disease, improved water supplies, shielded us from weather, improved crop performance, provided expanded opportunities for cultural enrichment, and allowed us to explore outer space. However, technology can easily take us in directions that we may not wish to go, and can actually impede deep flourishing, because the goals of technology are not the goals of deep flourishing. In particular:

> Technology does not recognize inherent worth; it only recognizes instrumental worth. Deep flourishing, however, is very much tied to inherent worth.

> Technology is substantially rooted in itself. But, deep flourishing requires a rootedness within time and space that gives meaning and purpose that transcends the self. Technology is unable to understand or provide that kind of rootedness. The best that technology can do is illustrated by HAL's response in the movie "2001 a Space Odyssey".

> "I'm using all my capacities to the maximum. What more could a rational entity desire?"(Kubrick. 1968)

Finally, deep flourishing must be connected to the source of truth, beauty, and goodness – God Himself – who is also the fountainhead and the norm. So, let us pray that this would be made known.

> "O LORD, allow us to behold the One who is true, beautiful, and good. Make us a sanctuary that others may see the truth, beauty, and good of the triune God. By Your spirit, through Your Son, and for Your glory, may they see You, for there is none like You. True are you, O LORD. Beautiful are You, O Savior. Good are You, our Rock and our Redeemer. Amen."(Reeder. 2010)

End Notes

1 Note: This is not the Substantivism of economics, as described by Karl Polanyi.

Bibliography

Davis, Arthur. *George Grant and the Subversion of Modernity: Art, Philosophy, Politics, Religion, and Education.* Toronto ; Buffalo: University of Toronto Press, 1996.

Dreyfus, Hubert. "Heidegger on Gaining a Free Relation to Technology," *In Readings in the Philosophy of Technology.* Edited by D. M. Kaplan. Oxford: Rowman & Littlefield, 2004, 53-62.

Edgar, William. "A Conspiracy of Goodness." *Tabletalk,* 2010, .

Ellul, Jacques. *The Technological Society.* New York: Knopf, 1964.

"What is Philosophy of Technology?" in Simon Fraser University [database online]. Vancouver, British Columbia, Canada June 2003 [cited 2008]. Available from http://www.sfu.ca/~andrewf/komaba.htm.

Grant, George. *Technology and Justice.* Notre Dame, IN: Notre Dame Press, 1986.

Grant, George. Technology and Empire. Scarborough, ON: Harper-Collins, 1969.

Heidegger, Martin. "Question Concerning Technology." In *Readings in the Philosophy of Technology.* Edited by D. M. Kaplan. Oxford: Rowman & Littlefield, 2004, 63-79.

Kubrick, Stanley. "2001 a Space Odyssey." (1968).

Maslow, Abraham. ""A Theory of Human Motivation"." *Psychological Review* 50 (1943): 370-396.

Reeder, Harry. "The Triune God: Good, Beautiful, and True." *Tabletalk,* September 2010 .

Paul Grabow, PhD
Brief Biography

Paul received a BA from Luther College, Decorah, Iowa in mathematics and physics and an MS and PhD from Northwestern University in computer science. Prior to graduate school he taught high school math and science, first at the American School in Ft. Dauphin, Madagascar and then at St. Augustine's College, Nassau, The Bahamas. Since 1990 he has been on the computer science faculty at Baylor University in Waco, Texas where he teaches software engineering, "Computers in Society" and the "Cultural Impact of the Computer."

Email: Paul_Grabow@baylor.edu

This Saying is Hard; Who Can Accept It?

by Dr. Tom Sheahen

The Church's liturgical cycle emphasizes the Gospel of Mark once every three years; but since that Gospel is short, some of the space in "ordinary time" is filled in by the sixth chapter of the Gospel of John. In 2012 that covered the month of August. John 6 starts off with the multiplication of the loaves and fishes, and then goes on to where Jesus lays down the saying that drove so many disciples away, about the need to eat his flesh and drink his blood.

Spread in fragments over several Sundays, it's easy to forget what a watershed event that was in Jesus' ministry, and indeed for the entire history of Christianity. Reading the entire sixth chapter at one sitting brings it into sharper focus.

In *Mere Christianity*[1] and other writings, C.S. Lewis reminds us that the choices presented to us by Jesus are sharply restricted: Lewis insists that you have to choose: either Jesus was a raving lunatic, a fake/impostor/ magician, or was exactly what He said about Himself: the Son of God, the Messiah. You can't just see Jesus as a "Nice Guy" who dispensed good advice about living kindly; that's not one of the options.

A true follower of Jesus chooses the third option, and that's what the disciples of the earliest days did, committing their entire lives to following Jesus; fortunately there is a good record of their witness comprising the New Testament. Over many centuries, Christians have laid down their lives to honor that vision. Happily, there are even some examples to the present day. We can take inspiration from their examples and resolve to emulate their commitment, buying the entire package that Jesus set before his followers such a long time ago.

But it's still a "hard saying." Today, the great majority of people feel squeamish about either the "fake" or "lunatic" label, and instead wiggle into the "nice guy" stance through whatever excuses they can manage. Foremost among those is to assert that Jesus was only speaking figuratively, and that's where we find most Protestants and cafeteria catholics. It's *really* convenient not to buy the whole package, especially some of the morality requirements, and this "hard saying" is the ideal bail-out point.

Why didn't Jesus offer people more choices? Couldn't He have offered the gathered crowd a "maybe" option? Why did He have to demand such a total commitment with an outrageous phrase like "unless you eat the flesh of the Son of Man and drink his blood ..." ?

Maybe it was because He could foresee what was ahead, and knew that those with only a 90% commitment wouldn't be able to withstand the difficulties that would confront them. When Peter said "Master, to whom shall we go? You have the words of eternal life," that decision to remain expressed his complete commitment, a product of Peter's total faith in Jesus. In the *Acts of the Apostles* we learned how it turned out.

The lesson of the sixth chapter of the Gospel of John is about making the commitment to follow Jesus. Having frequently demonstrated to the crowds how amazing is the higher level of reality in which He functioned, Jesus decided it was time to put before them the challenge of total commitment, expressed via the "hard saying."

The words of Jesus have been discussed for 2000 years, mainly along the lines of figurative vs literal, symbolic vs real. At the Last Supper, Jesus spoke with clarity; he didn't say "this *symbolizes* my body." Given the opportunity to say something else, Jesus chose not to. His final line "Do this in remembrance of me" was a clear instruction to the apostles.

2000 years later, the instruction is unchanged. The apostles and other early disciples copied Jesus precisely, not hesitantly. With the passage of centuries came more sophisticated interpretations, and terms like "form" and "substance" were applied. After still more centuries came science and the recognition that bread and wine are composed of atoms and molecules. Through all the years, through all the advances in understanding, the underlying *reality* of Jesus' presence has remained the central focus of belief. We grasp that reality through faith, not by direct scientific observation; intrinsic to this way of thinking is the recognition that what is really there is *more* than just the atoms and molecules we detect with our scientific instruments.

The atoms and molecules are regarded as merely the "accidental" properties, not the *real* substance. Aided by faith, we assert there *is* a higher reality, of much greater significance. And we don't mind that such reality is inaccessible to scientific probing.

However, when your livelihood and career centers around scientific measurements, it's no minor thing to let go of them and move beyond. Scientists in academic settings face a special temptation, because other faculty assume that the scientists have the proof for the atheistic beliefs they've adopted on the presumption that "science shows...." The pressure to idolize science is strong.

For a clear-thinking scientist, the options can be delineated with particular sharpness.

If you believe that the world of space & time, atoms & molecules, is (in Carl Sagan's phrase) "all there is, ever was, or will be," you walk away from everything about Jesus – the whole thing, not only chapter 6 of John's Gospel. With David Hume[2], you reject *all* miracles. In that framework, no other miracle is admissible: 5 loaves and 2 fish are going to feed maybe a few dozen people, not a multitude of thousands; end of story. To maintain consistency, you *must* reject it all; the "nice guy" option is not available, as C.S. Lewis explained.

On the other hand, a scientist who realizes that his own science is limited and doesn't account for everything is humble[3] enough to be open to the notion of a greater existence encompassing more than just atoms in the space-time coordinates. The *real* is more than merely what we can see or comprehend with our senses, language and mental constructs.

Every scientist can say "my endeavor is to study nature, to find *natural* explanations for the phenomena I observe." Regarding those things that do *not* yield to such inquiry, what should a scientist conclude? Some scientists say "that's all there is; there can't be more. So I *choose to believe* that a scientific explanation will come along *manana*." Meanwhile other scientists say "I have reached the boundary of science, and this is something that lies outside it. I acknowledge that reality, which belongs to a higher domain."

The central difference between the two viewpoints pertains to being closed or open to the reality of the human spirit, to an ability to reach beyond the mundane realm of conventional existence based on atoms and molecules. When Jesus said "no one can come to me unless the Father who sent me draw him," he was drawing attention to that difference.

So why don't more scientists feel that draw? Or accept it? Or, of the scientists who *do* genuinely believe in Jesus, why is it so hard to find them? The count of publicly visible scientists following Christ seems pretty sparse. Why? Doesn't the Father call scientists as much as others?

Perhaps the trouble begins with the very structure of scientific knowledge being confined by limits. At square one we all agree that the scientific method seeks *only natural explanations* for phenomena. A scientist correctly states "we don't know..." when confronted with something that cannot be explained within the boundaries of science. However, the urge is strong to extend the grasp of science beyond its limits. Because science has done so well in the past, it's a tempting "leap of faith" in one direction to assume that science will always eventually find a natural explanation for anything at all. "My present field of expertise is sufficient for me, and others can fill in all that I don't know." That's a fine prescription for ignoring the Father when He calls.

Being open and alert for the possibility of the Father's call makes all the difference in the world.

The opening sentence of the Nicene Creed says that God is creator of all things *visible and invisible*. This expresses our belief that we exist in a way that is *more* than just the *visible* world, the world accessible via our scientific instruments. God created *more*. There *is* a world of the spirit, and we're not limited to just our material bodies. Therefore, one ancillary point is that *science doesn't tell the whole story*.

Pope John Paul II spoke of religion purifying science from idolatry and false absolutes. Pope Benedict XVI has drawn attention to the false absolute of *Scientism*, the unwarranted belief that science can account for everything. The first of our beliefs stated in the Nicene Creed makes a commitment to openness, distinguishing our way of framing the universe from that of believers in the supremacy of science.

This point merits some underlining: you can choose either believing in the supremacy of science or believing in the

supremacy of God. To stop at "science only" leaves you with an accurate view of *part* of reality. Believing in God doesn't undermine the science, but extends understanding into a realm that science cannot comprehend. That requires faith. The absence of mathematical rigor and the inability to explain it using conventional language pose an obstacle for scientists, but not one that is insurmountable. In his book, *New Proofs for the Existence of God,*[4] Robert J. Spitzer, S.J., reinforces the wisdom of moving beyond science alone. A scientist has to make the decision to step *beyond* the boundary of science in order to grasp more of what God created. That's not "instead of" science; rather it's "beyond" science.

Once *that* transition is in the rear-view mirror, the consecutive sentences in the Nicene Creed are within reach. John Polkinghorne's *The Faith of a Physicist*[5] has each chapter corresponding to a line in the Apostle's Creed. The consistent logic of further decisions about Jesus Christ is adequately explained in C.S. Lewis' *Mere Christianity*. The "complete package" hangs together for one who acknowledges the existence of a higher reality, who then finds Jesus present within that higher reality.

Making the personal commitment, accepting Jesus Christ as Lord and Savior, really does change a person's life. It is certainly possible for everyone, including scientists, to make the transition to thinking and living at that higher level, although not all do so. The "hard saying" still gets in the way, because appearances bear so strongly upon our senses, and can only be overcome via a commitment of faith. The call of the material world constantly tugs against the call of the Father. The intellect has to keep reminding the senses that they don't have the whole picture. Over time, as the evidence supporting the higher reality grows, it becomes less difficult. But when you're trained to observe with a scientific slant, does it ever become easy?

Was it even easy for the Apostles? As Peter expressed it in the Gospel, "to whom shall we go?" That doesn't sound like an easy choice. The enthusiasm comes only in the next sentence, "You have the words of eternal life." That's a motivation to make a commitment, a reason to "buy in," in modern jargon.

Many saints have written about the need to listen anew for the Father's call every day, to renew their commitment to Jesus again and again. That's unfamiliar ground for most scientists, who think in terms of graduating or writing a report or publishing a paper and then moving on to another stage. Odd, but Jesus didn't leave us that option either. All of His sentences that end with "come follow me" begin with a total commitment. To be a follower of Jesus, the only adequate response to that "hard saying" is to accept it.

That commitment is accompanied by an obligation to "Go and teach all nations ...". In every age, the problem recurs of how to best communicate with others who are initially dismissive of our beliefs. Is there some variety of dialog that can adequately convey *why* we hear and respond to the call of the Father? Therein lies the present-day challenge.

End Notes
1 C.S. Lewis, Mere Christianity, (Macmillan: 1943)
2 David Hume, pp. 114-16. in An Enquiry Concerning Human Understanding, L. A. Selby Bigge, ed. (Oxford: Clarendon Press, 1902),
3 J. M. Templeton, The Humble Approach, (Templeton Foundation Press: 1995)
4 R. J. Spitzer, S.J., New Proofs for the Existence of God (Eerdmans: 2010)
5 J. Polkinghorne, The Faith of a Physicist, (Fortress Press: 1996)

At least for a while said Elrond, "the road must be trod, but it will be very hard. And neither strength nor wisdom will carry us far upon it. This quest may be attempted by the weak with as much hope as the strong. Yet such is oft the course of deeds that move the wheels of the world: small hands do them because they must, while the eyes of the great are elsewhere."

- From The Fellowship of the Ring by JRR Tolkien

Who Decides What Is Best for the Patient?
Cost Equations, 'Quality of Life' Ratios and Generalizations Threaten Real People
by Denise Hunnell, MD

WASHINGTON, D.C., March 13, 2013 (Zenit.org) - There is an interesting juxtaposition of articles in the Feb. 27, 2013, issue of the *Journal of the American Medical Association* (*JAMA*). The first piece is a moving account of a medical student's 90-year-old grandmother undergoing a hip replacement. The medical student describes her grandmother as smart, energetic, and sassy. However, after six months of worsening hip pain and an increasing reliance on either a cane or a walker, her grandmother was ready to take the plunge and have surgery. But not every orthopedic surgeon was willing to take on a nonagenarian for such major surgery. One doctor suggested to her that it would be better to live out the rest of her years with some hip trouble than to submit to the risks of surgery followed by weeks of rehabilitation. This physician had only just met this elderly woman, yet presumed to know what was in her best interest better than she knew herself.

Clearly he had underestimated the strength of this woman. She did have the surgery, and endured six weeks of vigorous rehabilitation. And then she strode into her surgeon's office without pain and without the use of a cane or walker. She had triumphed over both her hip ailment and the naysayers who were ready to write off her remaining years.

In this same issue of *JAMA*, is an article by Drs. Jon Tilburt and Christine Cassel on the merits of parsimonious medicine. The dictionary definition of parsimonious is "frugal to the point of stinginess." The authors explain that their intention is to eliminate wasteful and ineffective diagnostic and treatment modalities, which makes the idea of parsimonious medicine more palatable. There are countless medical practices that have little value yet have worked their way into common use. For example, whole body CT scans are widely employed to screen for hidden illnesses in patients who have no symptoms to suggest the presence of a disease. Pap smears are useless for women who have had complete hysterectomies yet thousands are done every year.

The American Board of Internal Medicine (ABIM) Foundation developed an initiative called "Choosing Wisely" to help medical practitioners identify low value and ineffective interventions. In cooperation with this endeavor, a broad coalition of medical specialty organizations have compiled lists of interventions to be avoided.

In theory, the practice of parsimonious medicine as described by Tilburt and Cassel seems to be a reasonable approach to the ethical practice of medicine. The authors take great pains to distinguish parsimonious medicine from the rationing of medical care. Parsimonious medicine is about maximizing the benefit and minimizing the harm for every individual patient. In health care rationing, beneficial therapy or diagnostics are withheld from one patient category in order to redistribute the resources to another patient category. In the former, medical interventions are being evaluated and judged as to their worthiness for the patient. This is entirely ethical. In the latter, patients are being evaluated and judged as to their worthiness for care. This is ethically unacceptable in routine medical practice.

Of course, the devil is in the details. There are many who would argue that a hip replacement in a 90-year-old woman is both ineffective and wasteful. My own great aunt suffered from congestive heart failure due to ischemic heart disease. She underwent coronary artery bypass surgery when she was in her late 80s. She subsequently lived to be 102, leading a very active life with minimal medications and only routine medical care. Should she have been denied heart surgery because the average woman of her age does not benefit from such aggressive therapy? Does an extra 15 years of life for an octogenarian justify medical care? Many medical professionals would argue that both the 90-year-old grandmother and my 87-year-old great-aunt had lived long enough and were no longer entitled to expensive medical care. But as medical student Kelly Sloane asks in the first article, "When did old age become a crime punishable by death?" Age

alone should not be grounds for denying medical care.

Drs. Tilburt and Cassel write:

Thus, the practice of parsimonious medicine, were it to become widespread, could have the additional collateral benefit of freeing resources that could be used to provide care for those who are currently disadvantaged and underinsured or uninsured. But those potential consequences are not the primary ethical basis for parsimonious care—concern for individual patients is the primary focus.

Unfortunately, current health care reform efforts have lost sight of the individual patient. While purportedly aiming to improve medical care, broad generalizations are applied in a one-size-fits-all manner to every patient. For example, a 48-page report by the British Lancet Oncology Commission offers recommendations to reduce the costs of cancer care. Among these is the radical assessment that disease-free survival (DFS) and progression-free survival (PFS) are not adequate endpoints for cost effective cancer therapy. The only statistic that matters is overall survival (OS) or cure rate. This means that therapy that merely puts cancer in remission or prevents it from progressing but does not attain a cure is not cost effective. In other words, it may be considered wasteful to extend the life of a cancer patient if he is going to die of his cancer eventually.

The authors of the Lancet report also hold up the British National Health Service National Institute for Clinical Excellence (NICE) as the model for determining who receives care. Under this system, patients are reduced to a number that represents the number of "quality" years they are expected to survive. This is not the same as life expectancy. Quality years are years that they are expected to live with minimal disability and to need minimal outside care. The patients are allotted £30,000 per quality-adjusted life years (QALY). If the therapy exceeds this amount, it is denied. They also note that

in the United States, the Patient Centered Outcome Research Institute (PCORI) that was established by the Affordable Care Act can potentially do the same thing, but has not yet been given the legislative authority to make such definitive care recommendations.

Unlike the advocates of parsimonious medicine, these physicians put reducing costs above the well-being of individual patients. They claim that requiring care or assistance with the activities of daily living reduces, if not negates, the value of life. They seek to usurp the authority to make choices about medical care and ignore the uniqueness of each patient and each medical situation. Such a system denies patients their right to weigh the burden of, for example, cancer therapy against the benefits of additional weeks, months or even years of life. Yet, like Drs. Tilburt and Cassel, this group of oncologists asserts they are acting in the best interest of patients.

Clearly, many physicians and other health care professionals think they know what is best for patients. But generalizations are really bell-shaped curves and there will always be outliers. The intrinsic dignity of each patient must be respected, which means every patient deserves to be evaluated in light of his own unique individual circumstances. Health care providers have a duty to educate, inform and guide patients with regards to medical options. In the end, however, it is the patient or his designated surrogate who must weigh the burdens and the potential benefits of care and decide what is in his best interest.

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Denise Hunnell, MD, is a Fellow of Human Life International, an international pro-life organization. She writes for HLI's Truth and Charity Forum.

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Small Colleges and Massive Open Online Courses:
Holy Apostles Setting a Trend for Catholic Schools

by Dr. Sebastian Mahfood, OP, Jason Braun, and Nicole Iovine

The first Massive Open Online Course (MOOC) offered through Holy Apostles College & Seminary launched in the fall of 2012 and brought together 64 participants - including a former Air Force officer and pilot, a Dominican Sister, a retired air traffic controller, high school teachers, guidance counselors, professors and deans - from all across North and Central America to create a massive learning experience, despite the relatively small enrollment.[1] To bring this about, Holy Apostles College & Seminary partnered with two major enterprises - the Catholic Distance Learning Network of the Seminary Department of the National Catholic Educational Association and the Edvance360 learning management system. Even with these partnerships, it seemed that the college was a small barque trying to sail into an ocean navigable only by the larger ships of places like Stanford and MIT. Each of those schools was able to register over 160,000 students for free into a single course (the "massive" part of the label) that was, for the most part, largely automated with participants themselves answering one another's questions. What Holy Apostles was aiming for, though, was not quantity but some quality in the offering that it made. It is a small college setting, and the kind of community that Holy Apostles advances is one that is intimate and highly collaborative in terms of the relationships faculty seek to foster with their students.

The attempt of Holy Apostles to launch a MOOC, then, resonates with what W. Joseph King and Michael Nanfito have written about the value of small colleges when considering "how they can use MOOC technology to continue creating and sustaining their collaborative tradition."[2] They further argue, "Take the 'massive' out of 'massive open online course' and you have a course delivery program/support model highly useful to liberal arts colleges for outreach and engagement." Size, in this case, really does not matter – what matters is the attention given to cultivating a community of learners regardless of the content that calls them together in community. A small school promoting a learning community that contains far fewer students can have a higher retention rate as it shepherds, even pastorally, a larger remnant of them through a learning process that will help them advance their life goals.

But retention isn't really the gold standard here, either. The gold standard is relationality. After all, why retain people in a MOOC if the organizers aren't going to find some meaningful way to relate to them?

According to *The MOOC Model For Digital Practice*, "it is the relational and role-based aspects of the MOOC that are perhaps the greatest departure and adjustment for course participants. Schooling trains us, even in spite of progressive pedagogies, towards a relational status quo where power and knowledge still inhere in the role of teacher."[3] The HACS MOOC was developed around this relational approach that fosters collaborative learning. The course was designed so that participants share their experiences and ideas from which everyone can learn. The former air force pilot has something to teach, for instance, to the current theology professor. This happens in a MOOC, in part, because the assignments help participants design activities for the courses they teach and allow a trial run with fellow MOOC-mates before those activities are used with live students. This approach allows people to learn from the instructor and

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fellow participants. In this setting, the instructor serves in a facilitatory rather than in an authoritative role. This relational approach also lends itself to pivoting in slightly different directions depending on student backgrounds, interests and abilities. For instance, in our MOOC we

reorganized the discussion groups as the course went on not only in response to the shrinkage that happens in any MOOC, but also in response to the interest in different tools and methods that was sparked by the students as they got into the material. When the post-secondary theology professors wanted to work in a group all by themselves on the Teach Research Design modules, for instance, we regrouped them to enable them to do that.

More than its simply pursuing a higher retention rate, then, the small school can actually provide a service to help its learners advance in specific areas of the careers they are at the moment of their enrollment pursuing. The larger MOOCs, while designed to foster collaboration among the students who register into them, are primarily content-specific in a way that advances a student's understanding of part of an academic or practical discipline, like MIT's "Circuits and Electronics" course. Courses like these have to be predicated on the sink-or-swim model since at each exam one demonstrates that one has or has not developed a working understanding of the material. It does not matter how collaborative the students are with one another from one exam to the next if any given student is not able, on his or her own, to demonstrate competency within each module at the end of it. It is for this reason, perhaps, that Rebecca Rosen, a senior associate editor at *The Atlantic,* observed that Stanford, with around 160,000 registrants in its first MOOC, had only a 20% completion rate while MIT had only a 4% completion rate in its first course and UC Berkeley, to toss in another example, had only a 7% completion rate. [4] She explains, however, that we should not worry about this since "the low rate of success is a sign of the system's efficiency." With the bar set so low for entry and the standards raised so high for success, the merit-based MOOC proves its sea-worthiness precisely because of its low success rates.

Perhaps, though, we can do better, not only in general, but also in particular. Better for the work-at-home mother with a master's degree she achieved online who wants to one day teach online herself but needs the credential in online teaching and learning to make a credible case for herself at her first job interview with the director of an online undergraduate program. Better for the full professor at a theological school in the south who understands his school is moving in the direction of distance learning following the 2012 Biennial Meeting of presidents and rectors of the member schools of the Association of Theological

Schools where the accrediting body abolished its residency requirement for academic MA programs. Better, that is, for people with specific needs or interests who want to succeed but need the relationality that only small schools (and small MOOCs) know how to provide.

Perhaps, then, we can measure success not through our high dropout rates but through, like King and Nanfito have suggested, our focusing on the methods of collaborative engagement that smaller institutions do best. Small barques can often outmaneuver large ships, after all, as the English navy demonstrated in 1588 when it was confronted by the Spanish Armada and, with a little help from Divine Providence, perhaps, routed the invader and won the day. This time, though, it is a little Catholic barque setting sail in waters where much larger ships are already taking up a lot of space that may help establish the bar for MOOCs being implemented by theological schools – and partly because it is producing better returns in two areas:

1. In the first area, Holy Apostles College & Seminary saw a 25% completion rate of its fall 2012 offering of the CDLN's certificate in Online Teaching and Learning. It saw a 50% completion rate of its fall 2012 offering of the CDLN's certificate in Teaching Research Design. The numbers it enrolled were far fewer than those in the mega-ranges – there were only 64 enrollments in the OTL MOOC and only 16 enrollments in the TRD MOOC. These smaller numbers enabled the MOOC director, Dr. Sebastian Mahfood, OP, the MOOC instructor, Mr. Jason Braun, and the design team at Edvance360,[5] who provided free use of its learning management system and ongoing technical support for the MOOC participants, to readily respond to the learning needs of the participants who had the opportunity to talk to one another and to ask the MOOC organizers questions at any time.

2. In the second area, Holy Apostles College & Seminary focused on specific needs of secondary and post-secondary educators in terms of helping them advance their abilities in online teaching and learning and in teaching research design to the students with whom they were concurrently working. Even if the secondary and post-secondary schools are not yet pursuing distance learning initiatives, the tech-

nology and pedagogy that the course demonstrates provides the teachers with skills and dispositions useful in their face-to-face teaching and learning environments. Many teachers, furthermore, understand the frustration of not feeling adequate in the step-by-step articulation of how to go about teaching students how to design their research projects, so the second MOOC provided that service, and it did so with one set of modules specifically targeting secondary school teachers and another set of modules specifically targeting post-secondary school teachers.

In short, what Holy Apostles College & Seminary focused on was providing a specific credential, which gave learners a certificate of completion (along with Continuing Education Units if they were Catholic school teachers) that would have the effect of immediately advancing them a couple of significant steps in their careers.

In the spring of 2013, Holy Apostles College & Seminary, having learned a great deal from its first experience, will once again offer this MOOC

In the spring of 2013, Holy Apostles College & Seminary, having learned a great deal from its first experience, will once again offer this MOOC, and persons interested in registering for the two certificate offerings may do so at http://www.hacsmooc.cc, which also provides a full description and course syllabus. As an added bonus to attract people who would rather have simply a spiritual journey, Fr. William Mills, professor of sacred scripture in the Master of Arts in Theology program at Holy Apostles College & Seminary, has developed a MOOC entitled

"A Lenten Journey with Jesus," which will begin on Ash Wednesday and conclude with the Resurrected Christ on Easter Sunday. For persons interested in experiencing low-stress and high-dividend courses, Holy Apostles College & Seminary, in partnership with the Catholic Distance Learning Network and Edvance360, may have the right offering for you.

Endnotes

1   See www.hacsmooc.cc for the full description of this Massive Open Online Course, which was, in the fall of 2012, divided into two parts – one on Online Teaching and Learning, designed by Dr. Mary Beckmann of the Catholic Distance Learning Network, and the other on Teaching Research Design designed by William Badke, associate librarian for Associated Canadian Theological Schools and Information Literacy at Trinity Western University, Langley, BC, Canada. In the spring of 2013, a third part is going to be offered that will provide a spiritual journey. It is entitled "The Lenten Tour of the Holy Land," designed by Fr. Bill Mills who teaches sacred scripture at Holy Apostles College & Seminary.

2   W. Joseph King and Michael Nanfito, "To MOOC or Not to MOOC?" Inside Higher Education, November 29, 2012, Available online at http://www.insidehighered.com/views/2012/11/29/essay-challenges-posed-moocs-liberal-arts-colleges

3   Alexander McAuley, Bonnie Stewart, George Siemens and Dave Cormier, "The MOOC Model for Digital Practice," 2010. Available online at http://www.elearnspace.org/Articles/MOOC_Final.pdf

4   Rebecca Rosen, "Overblown-Claims-of-Failure Watch," The Atlantic, July 22, 2012, Available online at http://www.theatlantic.com/technology/archive/2012/07/overblown-claims-of-failure-watch-how-not-to-gauge-the-success-of-online-courses/260159/

5   Among the folks from Edvance360 (located online at www.edvance360.com) who provided assistance were Cathy Garland, Vice-President of Marketing and Sales, Nicole Iovine, Project Manager, and Susie Snow, LMS Trainer.

"For believers, for us Christians, like Abraham, like Saint Joseph, the hope that we bring is set against the horizon of God, which has opened up before us in Christ. It is a hope built on the rock which is God."

"God's face is that of a merciful father who is always patient. A little bit of mercy makes the world less cold and more just."

"Let us never forget that authentic power is service, and that the Pope too, when exercising power, must enter ever more fully into that service which has its radiant culmination on the Cross."

- Pope Francis

In Memoriam - ITEST Members

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

Evelyn Billings, MD
From Catholic News Service

Dr. Evelyn Billings, who with her husband, John, pioneered research that led them to develop a form of natural family planning supported by the Catholic Church, died February 16 after a short illness. She was 95.

The method, known as the Billings ovulation method, allows women to monitor periods of fertility through close examination of naturally occurring physiological signs, and use that information to prevent pregnancy or space births.

Evelyn Billings co-wrote "The Billings Method" with media journalist Ann Westmore in 1980. It has since undergone seven new or revised editions, 16 printings, and has been translated into 22 languages. According to the World Organization of Ovulation Method Billings, known as WOOMB, women in more than 100 countries practice the method.

Billings and her husband, who died in 2007, were among 40 founding members named by Blessed John Paul II to the Pontifical Academy for Life in 1994. She was one of just five women.

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Margaret McClear, PhD

McClear, a lifelong educator and retired professor of Spanish and Latin American studies at East Texas State University (now Texas A&M University) died in 2012 following a lengthy convalescence. She was 91. She taught first at St Louis University where she met and befriended a number of Jesuits, among them, Father Robert Brungs. After leaving St. Louis University she and Father Brungs corresponded often; she supporting his work with ITEST and he supporting her in her teaching. She was a vibrant teacher whose classes were among the most popular at East Texas State where she taught for 21 years. Students who gathered often at her home sought her counsel and friendship throughout their lives.

Her long convalescence was often filled with pain, a topic discussed in her letters to Fr. Brungs. In a letter to her in 2001, Fr. Brungs points out the redemptive effect of suffering in both their lives. "Do you even think that you might be alive to teach the enduring love of God to others? You certainly teach me. Or did you ever think that you're still alive to speak of the infinite love of the Son and the love of his mother to others? To me your letters speak of the great love you have for them (former students, friends, family)—and I suspect that it is more than reciprocal…I would gladly trade all my education for a "course" in love. That is ultimately what we are called to do—to love with all our hearts. And to me, you do that."

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Francis J. Pollnow

Long time ITEST supporting member, friend and business advisor to Father Brungs and ITEST, Frank J. Pollnow died in April, 2012. He graduated from the University of Notre Dame in 1942 with a BS degree in chemical engineering. Upon graduation he served as an office in the U.S. Naval Reserve. Thereafter, he joined Vestal Labs, a St. Louis-based chemical specialties manufacturing concern founded by his father, Francis J. Pollnow, Sr. Rising through the ranks he eventually became vice president and director of DuBois Chemicals and subsequently of the Chemed Corporation from which he retired in 1980 and continued to serve as director emeritus. Mr. Pollnow was preceded in death by his wife of 53 years, Georganne Funsten Pollnow.

Among his other offices were: president of the White House Retreat, Inc. and former chairman of the board of the St. Louis University School of Divinity. He was a member of the Serra Club and the St. Vincent DePaul Society.

Creation Lens
Exploring the World, Discovering God

New Marketing Strategies: Visits to Catholic Elementary Schools
(See article on pg.2)

Cheryl Harness and Carol Henderson Powell, Principal, of St Louis Catholic Academy

Cyndi Hasten, Principal of Assumption Parish School and Sr. Marianne

Cheryl Harness and Gregg Sturgill, Principal of St. Francis of Assisi School

Sr. Marianne and Beth Bartolotta, Principal of St. Justin School and Sr. Marianne

Sister Marianne and Melissa Brickey Director of Operations at De La Salle Middle School

Sharon Lenger, Principal of St. Simon School and Cheryl Harness