The Boat & the Church, from Sermon 75 of the Homilies of Saint Augustine of Hippo, likely delivered in Carthage circa 395.

Meanwhile the boat carrying the disciples — that is The Church — is rocking and shaking amid the storms of temptation, while the adverse wind rages on. That is to say, her enemy The Devil strives to keep the wind from claming down. But greater is He who is persistent on our behalf, for amid the vicissitudes of our life He gives us confidence. He comes to us and strengthens us, so we are not jostled in the boat and tossed overboard. For although the boat is thrown into disorder, it is still a boat. It alone carries the disciples and receives Christ. It is in danger indeed on the water, but there would be certain death without it. Therefore stay inside the boat and call upon God! When all good advice fails and the rudder is useless and the spread of the sails presents more of a danger than an advantage, when all human help and strength have been abandoned, the only recourse left for the sailors is to cry out to God. Therefore will He who helps those who are sailing to reach port safely abandon His Church and prevent her from arriving in peace and tranquility? What really has to be guarded against is the boat going off course and turning back. This happens when people give up hope of heavenly rewards, and turn under the distorting pull of greed to things that can be seen but pass away. You see, people who are being troubled and tempted by their passions, and yet keep their sights on the realities of the inner life, do not despair like that, but pray for their offenses to be forgiven and remain determined to win through and sail across the rage and fury of the sea.
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Potter and Clay

Dean M. Riley

How glorious it is to live in an "information age." We are surrounded by it, driven by it, and have created whole new technological avenues to access it. We crave it daily, hourly, and minute by minute. Information infuses the way we live, it guides our choices, and it is an ever-present part of our lives—the search for it is a near constant activity, so much so that it drives internet search companies to gigantic financial success, just because they help people find what they are looking for.

Yet this age can be frightening, as well. How do we keep from drowning in a sea of information? An estimate in March 2008 placed the amount of information on the internet at 281 Exabytes (2.25 x 1021 bits or 281 billion Gigabytes). Can you imagine what that will be in ten years? How does one find relevant information when there is so much available? How do we determine what information has value, and what does not? Do we really have a good understanding of what good information is?

We can begin with a basic understanding of information theory—a theory that tells us more about the world we live in, about our minds and thoughts, and also, if understood properly, about God.

If you would like to find someone to blame for this information flood other than Bill Gates, you might consider Dr. Claude Shannon. Shannon was a mathematician and the pioneer of modern infor-
mation theory, educated at the University of Michigan and MIT. In 1949, he and Dr. Warren Weaver co-wrote The Mathematical Theory of Communication, which many consider the cornerstone of modern information theory. Weaver wrote his portion with less mathematics and condensed Shannon’s formulae into three components:

1. Technical (“Did you hear me?”),
2. Semantic (“Did you understand me?”), and
3. Behavioral (“What will you do?”)

Shannon wrote the book for engineers and those working with telephone systems. Over time, other disciplines began applying Shannon’s theory to electrical engineering, biology, genetics, physics, neurobiology, economics and more.

Due to its complexity, many believe that “information” cannot be defined, including Shannon himself. So others have devised ways to understand this intricate concept, and the way their views contrast provides us with some interesting questions to answer about the way we view research and information.

Dr. Brenda Dervin, a professor in the Communications Department at Ohio State University, calls her theory “sense-making.” She believes that humans walk a fence between ordered reality and chaos, where information cannot be designed or organized. That fence-walking leads her to believe that humans are not so much information-seekers and finders as they are information designers. Humans will invariably walk between both states.

Dervin postulates that we all walk that fence within a space-time continuum, viewing information as “external” to one’s self. Think about the experience of going to the library and locating one resource you need, or going to the grocery store to purchase a gallon of milk. Yet the reality is that we bring our entire internal lives into any search. Everything that we know, including our education, experiences, and beliefs affect how we search—the research process is inherently dynamic, because the things for which I search today (and all that I know today) can change tomorrow because of something I experienced, read, or heard after my initial search. New terms and concepts will alter future searching patterns.

Consider the experience of berry-picking. The picker finds ripe or useful berries and plucks them one-by-one to add to the basket. J.S. Ottaviani says that each search has the potential to produce useful
information—so we find the pieces one-by-one just as one picks berries, with the knowledge that not all of them will be ripe. Today's researchers often believe they can create that one all-encompassing search query that will perfectly yield everything needed. But this is not how things play out—what happens instead is that we wander into the great digital forest to do our "digi-gathering" and "digi-hunting." As we gather our "digi-berries", we must remember that seemingly useless results along the way can still be fruitful if they yield new search terms, subject headings, etc. which can be used for search refinement. We need to add these types of berries to our basket.

Others, like Michael Buckland, see information as external and sees three principal uses of "information:" as process, as knowledge, and as thing. He contends that the evolution of language only adds to the confusion among people. Buckland sees anything that is informative as a "thing"—a tree, a brook, a rock—in an attempt to preserve an "objective" character to data. There must be objective things (i.e., information) which exist independently of the searcher.

While Buckland sees an independent world, Dervin sees a world in a specific moment in time. She argues that information is tied to a specific perspective. The moment a "searcher" is involved, information becomes inextricable from that moment. Yet as Buckland says, "Human beings do things with [information] or to it."

These two seemingly disparate beliefs actually work well together when viewed from a theological perspective. God is the creator of all things and we are created in His image, and so Dervin's theory helps "give shape" to research just a human potter gives shape to a lump of clay. On the other hand, Buckland's theory reminds us that there is an external nature to information just as God Himself is beyond and above anything in this universe.

It has always struck me that The Word was not understood until He came to us in the flesh. God is capable of working in a specific moment in time, yet is not bound by the rules of that moment—and hence, His ability to turn the dust into life, the mundane into the miraculous—and so, as His children, we can turn information into understanding.
The attitude of scientists toward the question of how information guides our lives is a fascinating trend as well. Dr. Werner Gitt, the Christian retired director and professor at the German Federal Institute of Physics and Technology, believes that information is at the root of all activities of living organisms down to our DNA. Gitt contends that ultimately, “information” has an element of purpose to it—toward the ultimate purpose, according to Gitt, that we know God. It may be that Shannon did not include this idea in his elements because, for him, this would have merely been a measure of statistical success—a sign the message was received without errors, and the transmission was successful. Recall the story of Philip and the Ethiopian—when man receives God’s word, when he hears and obeys, that is the definition a successful transmission.

One modern example of this is a convert to Christianity who is also a scientist at the top of his field—geneticist Francis Collins, the current director of the National Institutes of Health and former head of the Human Genome Project, who had an interesting answer to a question posed by Charlie Rose a few years ago. Rose asked Collins if he can “define his God,” to which he replied:

Can I define my God? I would hesitate to put into words the character God the Creator, because it seems as if one is already narrowing the definition of what must be, by its nature, indefinable. Whatever vision one has of God, it must by definition be too narrow. Even Richard Dawkins says that if there were a God, it would be so incredible, none of us would be able to describe him. Well, I’m with you on that, Richard.

I grew up in a home where faith was not practiced, and I was an atheist by the time I was in graduate school, studying quantum mechanics at Yale. Then I went to medical school and encountered life and death in a much more real fashion, not a hypothetical one, and realized that I had never really done the work necessary to make a decision about whether God was a real plausibility or not. Along the way I realized that atheism is the least rational of all the choices. It is the assertion of a universal negative, as Chesterton said, and scientists aren’t supposed to do that.

Then I began a two year process of looking for information, of asking ‘why do believers believe anyway, what is all of this?’, thinking I
was going to strengthen my disbelief—only discovering along the way, that I went the other way.

Why is it important to have a working understanding of information in the 21st century? Once we find information, what do we do with it? And how do we avoid drowning in this sea?

Immanuel Kant, in his famous essay “What Is Enlightenment?”, wrote: “If I have a book to serve as my understanding, a pastor to serve as my conscience, a physician to determine my diet for me, and so on, I need not exert myself at all. I need not think, if only I can pay: others will readily undertake the irksome work for me.” Avoiding this attitude is vital to the survival of 21st century students who live in a much smaller world, but one where information’s flow is more unceasing than ever. It has been said that what we gain in speed, we lose in accuracy—in a life that moves so fast, we must not make the mistake of leaving God out of the information question.

Information gives form to our ideas, it adds flesh to the bones of thought—and in putting our thoughts into form or shape, we engage in a process as old as time—pulling together elements as the Creator, navigating a formless, chaotic universe. In our own small way, as we adapt and navigate this flood, we imitate this act by giving shape to clay. In a sense, we become information apprentices. We must retrain and renew our minds. Information can be a step toward gaining wisdom and helping us better understand our Creator and His creation, or it can be a barrier, a distraction.

As we progress farther into the twenty-first century, telling the difference between information and understanding will be all the more critical. We must remember our purpose as we navigate. Remember that Christ’s lordship is over all, including information. Remember the men of Issachar, who David gathered as he prepared to battle King Saul, and who, the writer of First Chronicles tells us, understood the times and knew what Israel should do. Should we not do the same?

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