The Conversing God:
Exploring Trinitarian Information Transfer
from the Perspective of Gordon Pask’s Conversation Theory

Todd E. Marshall
Spring Arbor University

Author Note
Todd E. Marshall, SAUonline, Spring Arbor University

Todd E. Marshall is dean of SAUonline, Spring Arbor University

Correspondence concerning this article should be addressed to Todd E. Marshall,
SAUonline, Spring Arbor University, Spring Arbor, MI 49283

Contact: todd.marshall@arbor.edu
THE CONVERSING GOD

**Abstract:**

The traditional Christian belief in the Trinity states that God exists in three persons: Father, Son, and Spirit, and that people were created in “the image of God.” This is understood to mean that humans reflect the nature of God and His ability to communicate. This ancient Christian concept has implications not only for theology, but also for communication within Christian communities. The goal of this paper is to explore the ability of a modern information theory to shed light on this doctrine and improve communication within the Church. This paper seeks to bridge the gap between ancient theology and modern theory by asking the following question: “Can Gordon Pask’s conversation theory serve as a framework for information transfer within the Trinity and within Christian religious communities?” The author’s perspective is that conversation theory can be used as a framework for exploring knowledge creation and sharing within the Trinity and subsequently within the Christian community. These new insights are based on Pask’s conceptualization of psychological and mechanical individuals, entailment meshes, and consciousness. As these concepts create new perspectives, they have significance for communities who model their communicating on Trinitarian theology. This discussion will be based on theoretical, theological, and biblical evidence which demonstrates that conversation theory is compatible Trinitarian theology. Conclusions include implications for the process of creating and sharing religious knowledge from the individual and the corporate perspective.

*Keywords*: Trinity, Gordon Pask, conversation theory, conversing, theology, community
The Conversing God: Exploring Trinitarian Information Transfer from the Perspective of Gordon Pask’s Conversation Theory

Introduction

The purpose of this paper is to address the question: “Can Gordon Pask’s conversation theory serve as a framework for information transfer within the Trinity and within Christian religious communities?” To the best of this author’s knowledge, no one has yet attempted to juxtapose conversation theory and Trinitarian theology. As such, this discussion should be considered exploratory and experimental. The investigation of the topic will involve four points: a survey of conversation theory, an application of this theory to the Trinity, a survey of human nature in light of conversation theory, and the application of conversation theory to communication within the church. The paper is not intended as a polemic for the Trinity, but presents conversation theory as a framework for examining the orthodox Christian perspective of the Trinity.

Conversation Theory

Conversation theory was developed out of the work of Gordon Pask, a leader in the early cybernetic movement. Conversation theory is built on a constructivist epistemology that understands knowledge to be an organic product of an iterative process. The fundamental premise of conversation theory is that knowledge is created and shared through conversing. The full development of the theory is found in the primary works of Gordon Pask: Conversation, Cognition and Learning (1975a); The Cybernetics of Human Learning (1975b); and Conversation Theory: Applications in Education and Epistemology (1976).

Conversing as defined by Pask moves well beyond the metaphor of two people interacting to a deep theory about the interchange of meaning between two agents. He demonstrated that these
conversing agents could be people or machines (G. Boyd, 2001; Pask, 1962). Pask defines conversing agents as “P” or “M” individuals. The P-individual is the “psychological” voice that exists in a person’s mind. When people are conversing with themselves, it involves two or more P-individuals within their consciousness. They may be congratulating themselves, asking themselves “why,” or simply arguing with themselves about the best course of action. The ancient Greek proverb, “know thyself” is an example of this interaction within the self. Likewise, Martin Buber’s “I-Thou” relationships reflect the ability of a person to know and reflect upon their own existence (Buber & Smith, 2000). Pask refers to this ability to converse with self as the source of consciousness (Luppicini, 2008; Pask, 1979).

When we converse with another person, we do not have direct access to the P-individuals in their mind. Instead we are interacting with a “mechanical” or M-individual. This M-individual is the collected voices within the mind which are manifested through a person. These relationships are seen in Figure 1.

**Figure 1: “P” and “M” Individuals**

Besides the conversing of individuals at the P and M levels, Pask also theorized that the conversing process scales up. For example, if two groups or two companies, were to converse
THE CONVERSING GOD

with each other, each company would act as a collective M-individual, speaking as one for the M-individuals (like P-individuals within the group M-individual) who are members.

As agents converse, they create a network of interconnected topics and comments. These can be understood as nodes and links with the nodes being statements and the links being relational qualifiers. Pask refers to this product of conversation as an “entailment mesh” which is representative of a knowledge domain. If one were to remove the rabbit trails and irrelevant aspects of the entailment mesh, “pruning” in Pask’s terminology, the result would be an “entailment structure.” An example of the entailment mesh and entailment structure can be found in a typical online discussion forum. It contains logically linked statements about various topics and is created through the iterative process of forum participants conversing with each other. If one were to summarize and consolidate these interactions into an FAQ, that FAQ represents an entailment structure. It is a “pruned” “entailment mesh” resulting in an “entailment structure.”

Pask created a machine (CASTE) which allowed students to navigate such entailment structures which represented specific knowledge domains (Lee, 1984; Pask & Scott, 1973; Scott, 2000). It conversed with the student as a teacher might when a student asks questions and receives answers about a knowledge domain. The machine guided the learner through an entailment structure as a learning exercise. It was actually a precursor to hypertext navigation (Scott, 2000). Pask conceptualized two ways of navigating these entailment structures, represented by serialist and holist learning styles. The serialist and holist learning styles are fundamental to learning styles as understood by conversation theory (Pask & Scott, 1972; Pask & Scott, 1973). The serialist is the “step by step” learner and the holist is the “global” learner.

The process of creating knowledge through conversing is (by nature) a reflection of a constructivist epistemology. This means that knowledge is not like marbles buried in the yard:
THE CONVERSING GOD

preexistent, self-contained units of truth waiting to be discovered. Rather, they are more like beads that are picked up as a person moves through time and space which become nodes woven into an entailment mesh like a fishnet. Instead of knowledge being deposited into a person’s mind like marbles in a bucket, it is constructed as the person moves through time and space. These beads do not have meaning in and of themselves but only in context and in their connection to other nodes in the mesh. The result is that no two people have the exact same entailment mesh in their mind about a given knowledge domain and its relationship to the rest of reality. This may seem to be incompatible with orthodoxy or leading to the path of complete relativism, postmodernism, and a denial of religious authority. However, this is not necessarily the case as will be seen later.

The final concept from conversation theory has to do with negotiating meaning. Conversing occurs on at least two levels. The first, L0 (L zero), refers to negotiating the topic, nature, and form of the conversation. Once the L0 negotiation has been accomplished the conversing reaches the next level where meaning can be exchanged about a given topic. The second level, L1, refers to the actual negotiating concerning the topic of the conversation itself. When two participants interact and convey representations of meaning or conceptual labels, they are negotiating with each other in a cyclical, iterative fashion. In summary, there must first be L0 negotiating before higher levels of conversing can take place at an L1 level.

This has been a very brief overview of conversation theory. These explanations are simplistic in comparison to the primary works on conversation theory (Pask, 1975a, 1975b, 1976). However, Pask’s language tends to be obtuse, and he uses illustrations far afield from the domains of cybernetics and information theory. Therefore, it is suggested that when trying to understand conversation theory, one should begin with a glossary of Pask’s terminology.
THE CONVERSING GOD

(Glanville, 1993) in hand while reading overview articles (G. M. Boyd, 2004; Ford, 2004; Scott, 2001) as background before reading Pask himself.

The Nature of the Trinity

In Orthodox Christianity, the concept of the Trinity is that God exists in three persons: Father, Son, and Holy Spirit. The first formal statement of this conceptualization is found in the writings of the third century church father, Tertullian, and was formally adopted in 325 C.E. at the First Council of Nicaea. In both the Eastern and Western branches of the church as well as in Protestantism, the members of the Trinity are considered to be three separate but equal persons in one being. The three members of the Trinity are considered to be fully God yet separate in personhood. All members are equally God even though they have differing administrative functions. Variations from this viewpoint have been rejected as heresy. These include Arianism (Jesus and the Holy Spirit are not equal to the father), Sabellianism/Modalism (there is one God in three manifestations), Tritheism/Polytheism (three gods), and Partialism (Father, Son, and Spirit are three components of one God). There are other variations, but these are the most relevant for this discussion.

With relationship to conversation theory each member of the Trinity could be viewed as an “M” individual. Each member of the Trinity is a conscious, self-aware, person that can converse with Self, with other members of the Trinity, and with humans. This idea of three-in-one is a seen in various Christian symbols similar to Figure 2.
Figure 2: The Trinity: Three Persons in One

Father, Son, and Spirit are each self-aware, conscious persons who sometimes act individually and sometimes as one. A classic passage demonstrating the Trinity is the baptism of Jesus in Matthew 3:16-17. As Jesus is baptized, a voice (the Father) speaks from heaven, and the Spirit (like a dove) descends on Jesus. This individual identity is also seen when Jesus says “I do not speak of my own accord, but the Father who sent me commanded me what to say and how to say it” (John 12:4, all biblical quotes are from the New International Version). In this case the Father and the Son are acting as separate persons. Similarly, Tertullian understands Psalm 110:1, “The LORD says to my Lord: ‘Sit at my right hand until I make your enemies a footstool for your feet’” to refer to intra-Trinitarian conversing (Ratzinger, 1990). These texts indicate conversing between the persons of the Trinity. Ratzinger refers to the Trinity as a “dialogical Being who speaks using “I,” “you,” and “we” (1990).

From the perspective of Christian theology viewed through conversation theory, the members of the Trinity constitute a community where members converse with each other. If one were to use Paskian terms, the Trinity consists of three M-individuals who sometimes speak as one collectivized individual, the Godhead as collectivized group or M-individual. There are some reflections of this intra-Trinitarian conversing within the Bible.
THE CONVERSING GOD

Due to the limitations of this document, space will only allow the examination of a few relevant texts. The first is Gen. 1:26: “Then God said, ‘Let us make man in our image, in our likeness and let them rule over the fish of the sea and the birds of the air, over livestock, over all the earth.’” It is interesting to note that the Hebrew word for God here, Elohim, has a plural declension. The Hebrew verb, “make” is also plural in conjugation. “One sees how the phenomenon of intra-divine dialogue gives birth here to the idea of the person who is a person in an authentic sense” (Ratzinger, 1990, p. 442). While Jewish interpreters traditionally viewed this as God speaking to the angels, there have been various Christian authors who have viewed this as an Old Testament indication of the Trinity. A key interpreter here is Karl Barth who “has been very bold in seeing (here) a plurality within deity, a ‘unanimity of intention and plan’” (Clines, 1968, p. 68). In essence, the Father, Son, and Spirit were conversing as M-individuals and the result was a declaration of collective intention to create man. The early church interpreted this plural to be an indication of the Trinity although there are alternative interpretations which see this as a “plural of deliberation” referring to “the heavenly beings which surround God” similar to the Jewish interpretation (Westermann, 1984, pp. 144-145). Others speculate “God is addressing His Spirit” (Clines, 1968, p. 69). Similar indications of plurality are also found in Gen 3:22, “And the Lord God said, ‘The man has now become like one of us, knowing good and evil.’” Gen. 11 states, “Come, let us go down and confuse their language so they will not understand each other.” These last two texts point out the intra-Trinitarian conversing as the Godhead contemplates the meaning of the activities of man.

In any case, one can reasonably posit that there is more than one M-individual represented. As the members of the Trinity were conversing among themselves, the deliberation led to a decision and then a declaration: “let us make man.” These would be multiple, conversing
THE CONVERSING GOD

individuals participating in the deliberation(s) about the creation process. If these are taken to be the three members of the Trinity, it is compatible with orthodox doctrine. That is, the Trinity as three persons (M-individuals) who are each involved in the creation process. Other texts demonstrate the involvement of all three members in creation: the Father (1 Cor. 8:6), the Son (John 1:1-4, Col. 1:15-17), and the Spirit (Gen. 1:2, Job 33:4).

Concerning the issues of a constructivist epistemology and the Trinity, some may consider this epistemology to be diametrically opposed to traditional orthodoxy and its conceptualizations about truth and reality. However, if one understands the Trinity as a conversing community, then one could say that creation is the product of their conversing. From this perspective the Trinity is the all-powerful conversing community that co-creates and co-constructs reality based on intra-Trinitarian conversing. This is a constructivist epistemology leading to a constructivist ontology. The application and implications of this will be examined later in relation to the religious community.

The point here is not to solve the debate about the doctrine of the Trinity or Gen. 1:26, but to state that the conceptualizations of conversation theory are compatible with some well supported theological interpretations by renowned scholars.

The Nature of Humanity

Concerning the second part of Gen. 1:26, man is said to be created in the “likeness and image” of Elohim. Even though the term “man” is used here, one should understand that “[t]he image of God does not subsist in the male but in mankind, within which woman also belongs” (Clines, 1968, p. 95). In this text “[o]ne sees how the phenomenon of intra-divine dialogue gives birth here to the idea of the person who is a person in an authentic sense” (Ratzinger, 1990, p. 442), a conscious, self-aware, conversing being. The concept of being in God’s likeness is
THE CONVERSING GOD

demonstrated in the New Testament as well (1 Cor. 11:7, James 3:9). Just as each member of the Trinity has the ability to converse with the Self; humans have the ability to converse with the self because they are created in the image of God. While this is compatible with accepted interpretations of Gen. 1:26 (Clines, 1968; Ratzinger, 1990; Westermann, 1984), this (the ability to converse) is probably not the entirety of the meaning of being created in God’s likeness. However, it definitely is a part of that concept. At least one aspect of this indicates that God meant that man could also participate in the “I-Thou” relationship (Clines, 1968). As such, people (M-individuals) have the ability to converse with self as multiple P-individuals (voices) are conversing in their mind to create meaning and make sense of their environments. This conversing, as with remembrers of the Trinity, does not stop with the individual and his or her internal dialogue. It scales up to conversing among individuals and forms the basis of community.

The Nature of Community

Just as the Trinity is a collective or community of multiple M-individuals, people are designed to live in community and be conversing with other humans. Besides the implication of this in the nature of created man (Gen 1:26), Gen. 2:18 says “It is not good for the man to be alone,” implying the need for community. Moving beyond these two verses, many theologians view the Trinity as a basis and model for community (Boff, 2000; Bracken, 1974; Ware, 2010). The importance of the Trinity as a model of community is demonstrated through St. Gregory of Nazianzus (c. 329-390) whose viewpoint is that, “Apart from the unity-in-diversity of Father, Son, and Holy Spirit, God cannot be known in the full truth and reality of his being. There is no authentically Christian experience that is not, either explicitly or implicitly a Trinitarian experience” (Ware, 2010, p. 107). This is a commonly accepted teaching that Christian
communities are to model the fellowship and conversing that takes place among the members of the Trinity.

Jesus, when conversing with the Father, alludes to this in John 17:20-21, “My prayer is not for them alone. I pray also for those who will believe in me through their message, that all of them may be one, Father, just as you are in me and I am in you. May they also be in us so that the world may believe that you have sent me.” In this prayer there are two requests: unity among the followers of Jesus and unity between the Trinity and the followers of Jesus. This prayer is a profound statement of Jesus’ desire about the nature of Trinitarian oriented communities.

First, the interactions among His followers should be patterned on intra-Trinitarian conversing between Jesus and the Father. Second, Jesus is requesting that His followers be able to participate in conversing with the Father in the same manner that Jesus does (Figure 3).

![Figure 3: Three Levels of Conversing](image)

This indicates three sets of conversing relationships: among members of the Trinity, among members of the community, and among people and the Trinity.

This conversing is the basis for unity in community. While unity may not seem to be synonymous with conversing, one should consider the story of the Tower of Babel. In this case,
THE CONVERSING GOD

the people were united in hubris against the Trinity. The basis of this unity was that “the whole
world had one language and a common speech” (Gen. 11:1). Literally, the Hebrew means “one
lip and one tongue” which could be translated as “one language and one dialect.” This would be
the equivalent of being able to communicate at an L1 level with little or no need for negotiating
meaning at the L0 level. When this unity was used in opposition to God, He eliminated their
ability to converse with each other by confusing their language. At that point the ability to
negotiate meaning was taken away and even L0 negotiating was difficult (if not impossible).
When there is no conversing, there can be no unity. Circling back to the prayer of Jesus in John
17, Jesus desires that His followers experience the same unity among themselves that the Trinity
experiences among its members. This would not be possible without conversing as a means of
sharing meaning. Conversing may not guarantee unity, but without it unity cannot exist. No
conversing means no unity.

Implications for Trinitarian Communities

There are numerous applications of conversation theory to Trinitarian communities. The
following paragraphs will highlight a few applications. However, each one is worth a study in its
own right.

Conversing and the Faith

As mentioned, the product of conversing is an entailment mesh. As the church has
conversed with itself and its context through history, it has produced an entailment mesh. This
could be seen in Jude 1:3b as “the faith;” “I felt I had to write and urge you to contend for the
faith that was once for all entrusted to the saints.” In this case, “the faith” is understood as an
entailment mesh consisting of knowledge, beliefs, and practices. This uses the term faith as a
noun in the sense of collection of teachings that are accepted as truth. This should be
distinguished from faith as a verb which is synonymous with trust, belief, and assent. The Greek words for “faith,” noun and verb, are cognates similar to the words “belief” (noun) and “believer” (verb) in English. The first is the object (noun) of the second (verb). In this case, this is a person trusting in the veracity of an entailment mesh. This should not be confused with faith in the Trinity itself. One is a demonstration of trust in a person (Trinity). The other is a demonstration of trust in the information (entailment structure about a person) produced by the community or revealed by the Trinity. One should distinguish between the action of faith and the object(s) of faith. The object of faith can be the Trinity (a person) or the beliefs (entailment mesh) which represent a collected set of knowledge and teachings.

Conversing and Education

Since conversation theory postulates that knowledge is created and shared through conversing, then education and instruction in the church that reflects this could be seen in the conversing between instructor and student, mentor and disciple, or parent and child. The traditional catechism is a prime example of this method. In the catechism process, teaching is conducted through a question and answer process. If one describes a catechism in Paskian terms, it would be an “entailment structure.” That is, an entailment mesh (the faith), pruned into a formal statement of doctrine. Through the catechism process, the student is navigating this knowledge in a serialist fashion as opposed to a holist fashion. While catechisms have fallen out of favor with many churches, they have a demonstrated value in history for conveying religious knowledge. This aligns with Pask’s conceptualization of an entailment structure for a serialist approach to learning. From this perspective the community should represent religious knowledge in a manner that serves both the serialist and holistic learner.
THE CONVERSING GOD

The Gospels are not an outline of theology or doctrine. When looking at the teaching methods of Jesus, one often sees Jesus conversing with the people around him. There were sermons where He talked and people listened. In this case the listeners were conversing with themselves about His message. However, there were times when he conversed with those around him. The predominant method that Jesus used for conveying information and meaning was through conversing. This is in contrast with the Book of Acts, a historical narrative, and the Epistles which are more didactic, representing carefully constructed entailment structures. The examples of conversing between Jesus and the apostles demonstrate the construction of entailment meshes which record knowledge in a different manner than the Epistles. Often, the conversations in the Gospels lack interpretation or are in a “raw” form. In contrast, the teaching of the Epistles could be considered more like entailment structures where information takes a more processed form (that has been “processed”) and presents it in a more logical, didactic, and explanatory format.

Conversing with the Trinity

In Trinitarian communities, “the faith” includes the perspective that man has the ability to converse with God (see Figure 3). There are examples of this in the Bible beginning with Adam and Eve, through Enoch, Noah, Abraham, Moses, the patriarchs and many Old Testament characters. In the New Testament, Jesus, as a member of the Trinity, conversed with the 12 apostles, common people, political figures, and the apostle Paul.

While some practices of prayer may be formal recitations, declarations to God, or statements to God; there is also the concept of prayer as conversing with God as a situation where the person is speaking to God, and the Spirit is responding. John 17 is an example of prayer that is not a recitation of an accepted religious text. It demonstrates Jesus conversing with
THE CONVERSING GOD

the Father as seen by the informal tone and the expectation that the Father would respond to specific requests even though no immediate response from the Father is recorded. In this case the Father would be said to be conversing with Himself as He is listening the Son.

Conversing and Authority

Within religious communities, issues of authority are very important. In many ways, new movements in the Church are following a constructivist approach to the Trinity and the Bible. This has led to tensions and debates as to whether this approach from a philosophical and practical perspective is compatible with orthodoxy and religious authority. This leads to the question, “Is it possible to have a Trinitarian theology and constructivist epistemology?”

From the constructivist perspective, everyone builds their own representation of reality, entailment mesh, as they move through space and time. From this perspective, each person’s entailment mesh is unique, based upon the sum total of their conversations with self and with others. Because each person has their own unique entailment mesh, some have taken a presumptuous leap and concluded that there can be no authoritative entailment mesh and that all viewpoints are equally valid or true. In actually, the more logical statement would be that all viewpoints are equally invalid or false. From a practical perspective people do not consider every person’s individual entailment mesh to be equally authoritative. There are people whose entailment mesh may include pink elephants walking down the street. That may be their understanding of reality and they may act based on that understanding. However, others would consider that construction of reality to be false because they do not experience that to be valid or truthful. Likewise, one driver’s entailment mesh about the speed limit on a given street may conflict with that of the police officer who issues a speeding ticket. In this case, the officer would say that ignorance (an incomplete or faulty entailment mesh) is no excuse for breaking the law.
THE CONVERSING GOD

When a person’s entailment mesh is too far removed from the rest of the population, they may be considered insane, paranoid, or delusional. In terms of religious contexts, theological entailment meshes too far removed from the norm are considered heretical. For religious communities to function they must have some commonly agreed upon entailment structure which would be represented by a confession of faith, doctrinal statement, or rules of order.

In the world and in the Trinitarian community there is general acceptance that some entailment meshes, whether individual or shared, are more authoritative than others. If one considers creation as the co-constructed product (entailment mesh) produced by intra-Trinitarian conversing, then it is possible to have an authoritative entailment mesh. From this perspective perfection is found in the Trinitarian entailment mesh which can never be fully reproduced in the finite mind of a human, but can be shared through divine revelation. No human can fully duplicate another person’s entailment mesh in their mind, but they can experience it enough to work together, have some unity, and experience mutual understanding. Likewise, it is not really possible to find a Trinitarian community where every member agrees with all others on every single issue. It is not possible to have fully matching entailment meshes. However, there is enough of a commonly shared entailment structure for them to be conversing and demonstrating unity based on functional equivalency between individual entailment meshes.

Conversing and the Biblical Text

When reading a text, the reader is not conversing with the author. The author receives nothing back from the reader, and the author may have even been dead for centuries. Rather, the reader is conversing with the self about the book. These are multiple voices (P-individuals) within a single reader (M-individual) conversing about the text. From a Trinitarian perspective, there is also the ideal suggestion of the Trinity joining in the reader’s conversation. This is the
THE CONVERSING GOD

doctrine of illumination. It is the case of the Holy Spirit actually joining in that conversation as another voice that is not physically present, but joins the P-individuals conversing within the mind of the human reader. This could also describe certain cases of inspiration, visions, or dreams. This is seen in John 16:13, “But when he, the Spirit of truth, comes, he will guide you into all truth. He will not speak on his own; he will speak only what he hears, and he will tell you what is yet to come.”

Conversing and Language

Technical, religious language has its place and provides for richer conversing. However, if L0 negotiating cannot be achieved, then the community is in danger of being unable to exchange meaning internally or externally. An example of this change is seen in the relatively recent change from the Latin Mass to Mass in the colloquial langue of the congregation. This principle was also seen in the use of Koine Greek in the writing of the New Testament, the colloquial language of the Roman Empire. It was not essential to learn Hebrew or Aramaic first before non-Hebrews could hear the message of Jesus or convert. Christianity has demonstrated this over the past 2,000 years as many followers of the Trinity have sought to teach potential converts to read and write and in many cases have gone to great lengths to instantiate their sacred texts in the vernacular language even when these languages were not yet written.

Conclusion

This inquiry focused on four topics: conversation theory, the Trinity, the nature of man, and the implications of conversation theory to religious communities. The conclusion of this investigation is that conversation theory has conceptualizations which are compatible with orthodox Christian doctrine and can further research by providing a new framework for conversing about the implications of Trinitarian theology. Further investigation should look at
THE CONVERSING GOD

deeper philosophical layers to examine the relationship between the Trinity and constructivist epistemology to better understand its compatibility with orthodox Christian teachings about the Trinity and the Church.

References


THE CONVERSING GOD


THE CONVERSING GOD


**Biographical Sketch**

Todd Marshall spent nine years in Ukraine serving as library director, IT director, executive director, academic dean, and professor at Ukraine at Kyiv Theological Seminary and REALIS. Accomplishments in the CIS included the first online religious degree with U.S. accreditation and assembling one of the largest theological libraries. In 2006 he cofounded ServanTek, a nonprofit focusing on education and libraries in developing countries. He holds degrees in biblical studies (M.A./M.Div.), theology (Th.M), information science (M.S.L.I.S., M.Phil.), and a Ph.D. from the iSchool at Syracuse University. He serves as dean of SAUonline at Spring Arbor University in Spring Arbor, Michigan.