



# Computers, Artificial Intelligence, Virtual Reality

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**Institute for Theological Encounter with Science and Technology**

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# Computers, Artificial Intelligence, Virtual Reality

## Abstract:

That we are living in an electronic age is undeniable. Observe, if you will, young people of every stripe at any big city mall seemingly more attached to their iPods, camera phones and Game boys than to the world around them. But as we stare in disbelief at this disconnect from the reality we know, are we getting a glimpse of the reality to come when avatars and cyborgs are as common as the latest reality show on television?

Medieval traditionalists decried the anticipated loss of oral history when Gutenberg set up his printing press. The richness and sound of the human voice would be silenced they said with the arrival of the mute, cold printed word. But their fears were groundless for not only was oral tradition undiminished but the printed word brought a new dimension to the spoken word revealing an unimagined beauty and insight into the mind of the human being with the establishment of the new technology. Do we see a similar development with the electronic technologies pervading every aspect of life today? Are the young telling us to open our imaginations to possibilities for communication we had never before envisioned?

This meeting is not just a gathering of gray haired academics theorizing about the future; rather, the younger members of our workshop enriched the discussion sessions of the meeting on computers, artificial intelligence and virtual reality by contributing their lived experience with these “gadgets” and their valuable insights on the benefits as well as the dangers inherent in the misuse of these technologies...(See Discussion Sessions)

Several essayists covered the topic of the workshop: *Computers, Artificial Intelligence, Virtual Reality*, while other essayists reflected on the philosophical and theological implications of these technologies for the Church and society.

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## Foreword:

As we began the plenary discussion on *Computers, Artificial Intelligence and Virtual Reality*, it seemed as if we had bitten off more than we could chew. But it became clear very quickly, even within the first discussion session, that the essayists were clearly concerned with things broader and perhaps more significant than their specialties.

From the beginning of the meeting we discovered that Professor Loui was more interested in “expert systems” than we had supposed. Mr. Vallier was interested in bringing the internet and the computer more explicitly in line with Christianity while Doctor Beabout emphasized the connections that the internet might have with the virtue tradition. This in turn led to a discussion of an analogy of the development of the printing press and the rise of a literate culture rather than a continuation of an oral culture. What might occur in the future with electronic communication drew some beginning mention but the future was left deliberately vague. We simply don’t have the answers to these newer questions.

Sisters Carla Mae Streeter and M. Timothy Prokes concentrated on the theology involved in the development of the computer, the internet and virtual reality. Sister Carla Mae dealt with the initial stages of an approach to new cognitive science research while Sister Timothy showed a deep concern about the disembodiment of the human involved in “real virtual reality”, if I may so speak.

While much of the discussion centered on the internet there was some intensely interesting give and take on specific topics in Artificial Intelligence and Virtual Reality. A clear difference of opinion arose between Professor Loui and Doctor Joop Schopman on the use of artificial intelligence in developing expert systems, especially in the field of law and medicine. Concomitantly people gave voice to a recurring uneasiness that several different definitions of virtual reality were in use. This led to some valuable insights on the nature of virtual reality and consequently to the magnitude of the problems it would raise both for Christianity and indeed for the culture as a whole.

Doctor Paul Grabow kept recalling us from a possible overconcentration on the internet to concerns with virtual reality, especially with things like networked-communications and other hi-tech advances while asserting that the internet was at most yesterday’s problem. He was also quite properly concerned with the conjunction of electronics and biology at some future point. Quite possibly, and even quite likely, the day may come when the electronic revolution meets the biological revolution with totally unpredictable results. Doctor Grabow clearly felt that we ought to be ready to discuss in principle any effect of such a conjunction.

There was a lively discussion of the transition from an oral culture before the invention of the printing press to a literate culture after the invention. The Reformation spread throughout Europe at least in part with the help of the printing press. It was also noted that the change in authority (from the seer to the writer) culminated in the revolution we like to call the Enlightenment. The Enlightenment has now probably come on very hard times with the rise of Deconstructionism. This latter form of thinking, although it seems to have little to recommend it, may eventually trouble Enlightenment philosophy.

So far we have simply mentioned the contributions of the theologians, Sisters Carla Mae and Mary Timothy to the workshop. Sister Carla Mae’s contribution will be apparent to anyone who takes the time to read the discussion sessions. While her main topic was concerned finally with the Christian understanding of the nature of our final union with God she also spent a good part of her discussion on the way we develop interiorly. Truly, she has begun to create a new anthropology built on the twin foundations of cognitive science and Christian spirituality. It is only a beginning but, in my estimation, a very good one.

Sister M. Timothy Prokes presented a theological view of the development of virtual reality and its effect on individuals and eventually on the culture. In developing the notion of virtual reality she emphasized the

importance of the role of the body in everything we do. She also talked about the embodiment involved in the Incarnation-- God enfleshed even as we are - and its immediate expression in the Eucharist. The Incarnation is indeed a “marriage” of Christ with the Christian as well as the Church, his body.

Too many themes came up in the discussion for me to spend an appropriate amount of space on each in a Foreword. The ideal may be met in this case: each one will have to read the whole book to capture its essence. There is more expertise and wisdom in these sessions than can comfortably be included. Let me mention only a portion of one insight by Doctor Greg Pouch:

The redefinition of terms, in particular the redefinition of terms so that they do not correspond to God’s definition of terms, is more or less the basis of Original Sin. We have the serpent and Eve trying to form a committee to overrule God. They want to say whose semantics should govern good and evil. “Don’t we have as much right to declare what is good and what is evil as God Almighty, Creator of heaven and earth?”

Doctor Pouch’s discussion of Original Sin, the definition of good and evil, evoked a deeper exchange of views among several of the people in attendance. Let it suffice to give one last remark on the topic:

Knowledge of good and evil does not have us as its central feature. The knowledge of good and evil is like the knowledge of hot and cold. It doesn’t matter what we think about hot and cold. If we stick our hand into liquid nitrogen certain horrible things happen. If we stick our hand into molten steel other horrible things happen. Hot and cold exist independently of our knowledge of them. Good and evil also exist independently of our knowledge of them.

Finally, just let me say that the whole book should be read carefully. A careful reading of the text, especially the discussions, may yield a number of little gems about *Computers, Artificial Intelligence and Virtual Reality*. There are far too many to mention even in passing. That can also be said of spirituality and theology.

I would like to take this opportunity to thank our five essayists - Doctor Loui, Mister Vallier, Doctor Beabout, Sister Carla Streeter and Sister M. Timothy Prokes - for their essays and for their participation in the discussion that followed. I would also like to thank the attendees for their participation. I would finally thank Doctor Tom Sheahan for his judicious ways in moderating the Workshop and Sisters Rose Marie Przybylowicz, OSF and Marianne Postiglione, RSM for their tireless help in setting up and running the meeting.

I recommend the results to you all.

Robert Brungs, SJ  
Director: ITEST  
May, 2005