

Towards a Christian View of Computer Science

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Agenda

- The Grand Challenge
- The Pervasive View
- An Alternative View
- Observations

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Non-Christian Christians

We participate mentally as non-Christians, using the current concepts and categories, no matter what our private beliefs may be

- Nancy Pearcey, *Total Truth*

The Grand Challenge

Reclaim the scholastic high ground

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Reclaim the scholastic high ground by revisiting and reforming the guiding philosophies of the various academic disciplines in order to bring them in line with a Christian worldview

Fulfilling the Challenge

...it is up to Christians who practice the relevant discipline to develop the right Christian alternatives.

- Alvin Plantinga

Advice to Christian Philosophers

Assumptions

- Two communities
 - Christian
 - Scholarly

- There are many research questions
 - Some of interest to scholars
 - Some of interest to Christians
 - Some of interest to both

“Easy” Disciplines

- Physical Sciences
 - Materialistic Naturalism

- Social Sciences
 - Modernism vs. Postmodernism

A Christian Approach to Engineering?

- Concrete, pragmatic field
- Concrete, pragmatic practitioners

- My suspicions
 - Secular and sacred views are not orthogonal
 - Some views are more open to Christian influence

A More Modest Goal

- Reconsider computer science
 - A perspective that encourages interaction with the Christian worldview

- This talk is
 - A vision statement
 - A work in progress

What this Talk is Not

- Abolishing the sacred/secular in our work practices
- Philosophical questions
- Christian applications of technology
- Ethics

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The Pervasive View

Computer Science is the discipline that studies the mathematical principals (e.g., algorithms, formal languages, data structures) that govern electronic computing machines

Characteristics of the View

- Developed during the height of modernism (late 1800s-1940s)
- Machine oriented
- Highly successful research agenda
- NOT directly in conflict with a Christian world view

So . . . What's the Problem?

I'm sorry Dave, I can't answer that

- Popular Angst
 - *2001, A Space Odyssey*
 - *The Matrix*
- Derived from a series of bad philosophical assumptions
 - Materialistic Naturalism
 - Monism

Popular Angst

Given the pace of advances such as IBM's latest super chip, one has to wonder how much longer we have until science fiction turns into science fact, and then how soon it will outpace the sci-fi and possibly lead to different – not-so-positive – outcomes.

Motley Fool Article about IBM's 500 GHz Chip

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An Alternative View

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Computer science is the discipline that studies the role of computational devices in people's lives exploring how existing computers might be improved and new devices developed in order to expand our capacity to work and to improve the human experience

Characteristics

- Human centered
- Necessarily interdisciplinary
- Partially successful research agenda

It cannot be denied that there has been a general contracting of the area of personal life. Material betterment has gone hand in hand with spiritual decline.

- J. Gresham Machen

Characteristics

- Human centered
- Necessarily interdisciplinary
- Partially successful research agenda
- NOT “distinctively” a Christian perspective
 - BUT open to be influenced by the Christian worldview

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Observations

■ Advantages

- Focuses on humans rather than machines
- Re-prioritizes key research agendas
- Reduces academic fragmentation

■ Open Questions

- A more formal method
- Pedagogy
- Analysis of current technology

Concluding Remarks

- Shift in understanding computer science
- Not fundamentally a Christian/anti-Christian issues
- Better supports a distinctively Christian voice in computer science