Shaping a Digital World

Faith, Culture and Computer Technology

InterVarsity Academic Press, 2013.

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Tertullian and Technology

"Does the ancient Christian faith still have anything to say to a fast-paced modern world shaped by such technology? Tertullian, a father of early Christian literature, once posed the question, "What does Athens have to do with Jerusalem?" When it comes to computer technology, we might well ask, "What does Silicon Valley have to do with Jerusalem?" In a nutshell: **what do bytes have to do with Christian beliefs?***"*

Public domain image from
http://en.wikipedia.org/wiki/Tertullian

Derek C. Schuurman, *Shaping a Digital World*, InterVarsity Academic Press, p. 11.

Approaches to technology

- Two different philosophies of technology include:
  - **Technological Determinism**
    - technology is an autonomous force beyond our control
    - The *technological imperative*
    - "Resistance is futile"

  - **Instrumentalism**
    - The assumption that every technical artifact is just a neutral tool

Technology is Value-Laden

- Technology is not neutral, it is **value-laden**
- How are the following technologies "not neutral?"
  - The automobile
  - The clock
  - The light bulb
  - The smartphone

Technology is not "just a tool" - it has both
Structure* and *Direction

Technology is **not** Neutral

"Embedded in every tool is an ideological bias, a predisposition to construct the world as one thing rather than another, to value one thing over another, to amplify one sense or skill or attitude more loudly than another…"
Neil Postman, *Technopoly*, p. 13

"The medium is the message"
Marshall McLuhan

"We shape our tools, and thereafter our tools shape us"
John Culkin

Computer Technology is also not neutral

- Sherry Turkle, *Alone Together: Why We Expect More from Technology and Less from Each Other,* Basic Books, 2011.

- Nicholas Carr, *The Shallows: What the Internet Is Doing to Our Brains,* W. W. Norton, 2010.

- Gary Small, *iBrain: Surviving the Technological Alteration of the Modern Mind,* William Morrow, 2008.

- Cathy O'Neil, Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy, Crown, 2016.

Some Helpful Questions

- What does technology make possible? What do we gain with digital technology?

- What does technology make impossible (or more difficult)? What do we lose?

See: Andy Crouch, *Culture Making* (Downers Grove, IL: InterVarsity Press, 2008), pp. 29-30.

Computer Technology is a distinct *cultural activity* in which human beings exercise *freedom* and *responsibility* in *response to God,* to unfold the **hardware** and **software** possibilities in **creation** with the aid of *tools and procedures*, for *practical ends or purposes*.*

* From *Shaping a Digital World,* IVP, 2013, pg. 23. Definition derived from the definition of Technology provided by Monsma et al, *Responsible Technology*, Eerdmans, 1986, p. 19.

Approaches to Technology*

1. Rejection of technology
2. Indifference to technology
3. Embracing technology
4. Cultivating responsible technology

* Based roughly on the categories sketched by Richard Niebuhr in *Christ and Culture*, Harper & Row, 1975.

What does the Bible have to say about computer technology?

?

Images by Derek Schuurman

A Biblical Perspective on Technology?

- The Scriptures are a guide and teacher that, like "spectacles," help us to see more clearly (John Calvin)

- We can apply *Biblical themes* to guide us with computer technology

  - **Creation**

  - **Fall**

  - **Redemption**

  - **Restoration**

Creation

- Computer technology is part of the **latent potential** in creation
- We are given a **cultural mandate** (Gen. 1:28)
- God created humans **in His image**
- Creation is complex and diverse; avoid **reductionism**
- God establishes a pattern of **sabbath rest**
- Creation has **limits**, **laws** and **norms**

Delight in Computing

- We can also delight in God's creation and in computing:

> *"Why is programming fun? What delights may its practitioner expect as his reward? First is the sheer joy of making things. As the child delights in his mud pie, so the adult enjoys making things, especially things of his own design. I think this delight must be an image of God's delight in making things, a delight shown in the distinctiveness and newness of each leaf and each snowflake."*

Frederick P. Brooks, *The Mythical Man-Month: Essays on Software Engineering*, Wiley, 1995. p. 7.

Fall

- After the fall, creation fell under a curse
  - "the whole creation has been groaning..." (Rom. 8:22)
    - How are computers affected by the fall?

- Computer technology is a **human cultural activity**
  - sinful human beings misdirect technology
    - *structure* and *direction*

Technicism

- **Technicism** is the secularized faith in technology as savior or rescuer of the human condition
- This is a form of **idolatry**
  - looking to created things rather than to the creator
- Modern day "Tower of Babel"

Pieter Brueghel the Elder (1526/1530–1569)
[Public domain] via Wikimedia Commons

Redemption: All things in Christ

For in him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things have been created through him and for him. He is before all things, and in him all things hold together. And he is the head of the body, the church; he is the beginning and the firstborn from among the dead, so that in everything he might have the supremacy. For God was pleased to have all his fullness dwell in him, and through him to reconcile to himself all things, whether things on earth or things in heaven, by making peace through his blood, shed on the cross. (Col. 1:16-20)

- "All Things" includes computer technology!
- We are called to be **agents of Shalom**
  - How do we shape **responsible technology**?
    - Discerning Biblical norms and creational norms as guide rails: Cultural, linguistic, social, economic, aesthetic, juridical, moral and faith norms

Design Norms*

- Cultural Appropriateness

  - design ought to fit the culture into which it is introduced

  - Should alleviate burdens, preserving what is good

- Communication

  - Clear, understandable

- Social

  - Courtesy, politeness, nettiquette

  - Issues in social networking and sociable robotics

- Economic

  - Stewardship: money, environment, human resources

  - E-waste, sustainability, green computing

*These norms are discussed in detail in *Shaping a Digital World* pp. 80-106.

Design Norms* (continued)

- ## Aesthetics
  - Delightful harmony, tools that work well and pleasing to use
  - Form and function should be in harmony
- ## Justice
  - Design ought to respect the rights of all users
  - Privacy, intellectual property, copyrights
- ## Ethics
  - Show due care for persons, customers, workers
  - Assistive technology, reliability and safety, robo-ethics
- ## Trust
  - Trust, dependability, reliability
  - Placing our ultimate trust in God rather than technology

All these **norms** are summarized in *love* and *care*. They are not exclusive, they work together. They bring *Shalom* nearer.

*These norms are discussed in detail in *Shaping a Digital World* pp. 80-106.

Computer Technology and the Future

- Two common viewpoints regarding technology and the future:
  - **Optimists**: trust in technology
  - **Pessimists**: despair and technology
- There will be a new heaven and the new earth - everything will be made new!
  - Technology in the new heaven and earth
    - Will there be computers there?
  - Creation begins in a garden but ends with a "garden city"

  "They will beat their swords into plowshares and their spears into pruning hooks. Nation will not take up sword against nation, nor will they train for war anymore" - Micah 4:3

Concluding Thoughts: the Heart

- ## Having a "perspective" is not enough...

"Being a disciple of Jesus is not primarily a matter of getting the right ideas and doctrines into your head... rather, it's a matter of being the kind of person who loves rightly..."

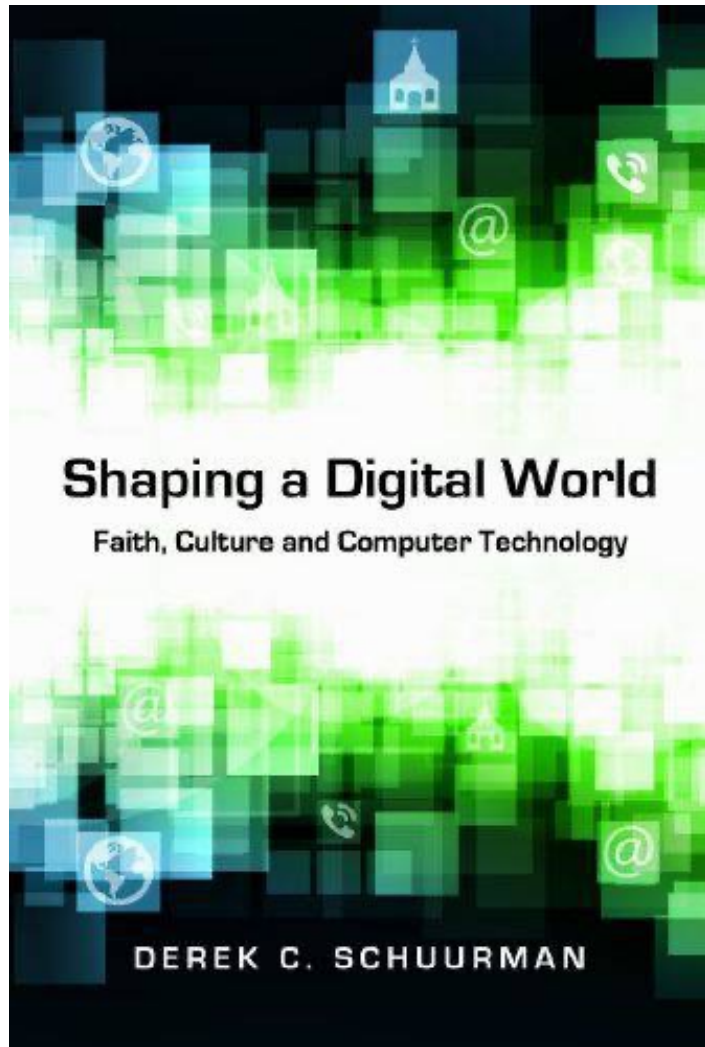Jamie Smith, *Desiring the Kingdom*, Baker, 2009, p. 32-33

"If we would have our creation be true, beautiful, and good, we have to attend to our hearts."

Fred Brooks, "The Computer Scientist as Toolsmith II", *CACM*, March 1996.

Above all else, guard your heart, for everything you do flows from it. (Proverbs 4:23)

Saint Augustine, painting by Philippe de Champaigne, 1650

Book website:
https://www.ivpress.com/shaping-a-digital-world

Companion website:
https://cs.calvin.edu/shaping_a_digital_world/

Questions

- Can you think of ways in which a smartphone is not neutral?
- In what way is computer technology "part of creation"?
- In what ways has the Fall effected computing?
- Does being a Christian make a difference in how we use and shape computer technology?
- How can you be a faithful presence in helping to shape the digital world?

Additional discussion questions can be found on the companion website and at the back of *Shaping a Digital World*.