Shaping a Digital World
Faith, Culture and Computer Technology
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“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?”

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 assault rifle
  - The automobile
  - The clock
  - 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*, pg. 13)

- “We shape our tools, and thereafter our tools shape us” (John Culkin)

- “The medium is the message” (Marshall McLuhan)
Some recent books which illustrate that computer technology is not neutral:

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?

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.*

Approaches to Technology

1) Rejection of technology
2) Indifference to technology
3) Embracing technology
4) Cultivating responsible technology
What does the Bible have to say about computer technology?
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.”

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”
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
Creational 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**
  - Coutesy, politeness, nettiquette
  - Issues in social networking and sociable robotics

- **Economic**
  - Stewardship: money, environment, human resources
  - E-waste, sustainability, green computing

*The creational norms are discussed in detail in *Shaping a Digital World* pp. 80-106.*
Creational Norms*

- 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.

*The creational norms are discussed in detail in Shaping a Digital World pp. 80-106.
Some contemporary computer issues that require the discernment of norms

- Technology and worship; technology and education
- Open and clear communication about technology
- Social networking and electronic communities; virtual worlds
- Social robots for child and elder-care
- Sustainable technology and stewardship; e-waste, safe working conditions, green computing
- Technology and aesthetics; human-computer interaction, user interfaces
- The digital divide; appropriate technology for developing countries
- Personal information and privacy; freedom of speech
- Intellectual property: patents, copyrights, open source
- Software in safety critical systems
- Computer games, “first person shooter” games?
- Robotics and warfare, lethal autonomous robots
- Faith in technology
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
Technology shapes us, but how do we shape it?

- Having a “perspective” is not enough...
  - We are called to be a “faithful presence,” also in the area of computer technology (James D. Hunter, *To Change the World*, Oxford University Press, 2010, p. 278)
  - “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, p. 68)
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Book website:

Companion website:
http://cs.redeemer.ca/shaping_a_digital_world/

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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 at the back of *Shaping a Digital World*. 