Revolutions in Science and Technology Paradigms

Printing Press, Internet

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Revolutions in technology paradigms
Printing Press and Internet

Rudimentary printing press

- Traced back to 868 C.E. in China
- Individually written scrolls, monographs

- Could not be perfected to allow mass production of documents, books
- Each page carved into wood, with each letter intricately and individually crafted

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Printing Press and Internet

Moveable type printing press

- Invented by German Johann Gutenberg, about 1445
- Facilitated era of mass communication

- Made possible the mass production of books, flyers, pamphlets, other print material
- Gutenberg's first major print job was 200 copies of Bible in Latin
  - 48 copies, or substantial portions, survive

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Printing Press and Internet

Moveable type printing press

- Presses spread rapidly across Europe
- Initially, not subjected to restrictions or controls

- Encouraged increased literacy
- Enabled sharing of ideas, information
- Bolstered middle class
- Challenged existing order

Printing Press and Internet

Moveable type printing press

- Challenged existing order
- Provoked efforts to restrain, control content

- Dissemination of ideas and information perceived as threat by
  - Ruling monarchs
  - Church hiearchy
  - Upper class

Printing Press and Internet

Internet, World Wide Web

- Concept originated in about 1957
- U.S. military sought ways to facilitate, expedite

- Explored ways to facilitate, expedite communication between researchers
- Sharing of information
- Collaboration about findings, implications

Revolutions in technology paradigms
Printing Press and Internet

Effects new technologies

- Printing press
- Internet

- Literacy among masses
- Attempts to control content and form of expression, communication

Revolutions in technology paradigms
Printing Press and Internet

Effects new technologies

- Political systems

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Printing Press and Internet

Effects new technologies

- Church

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Effects new technologies

- Cultural

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Printing Press and Internet

Effects new technologies

- Social order

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Effects new technologies

- Political systems

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Printing Press and Internet

Effects new technologies

- Economic

Revolutions in technology paradigms
Printing Press and Internet

Effects new technologies

- Political systems

Revolutions in technology paradigms
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Effects new technologies

- Spread of knowledge, ideas

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Printing Press and Internet

Effects new technologies

- Rule of law

Revolutions in technology paradigms
Printing Press and Internet

Effects new technologies

- Sedition
- Blasphemy
- Religio-Moral Heresy
- Defamation
- Privacy