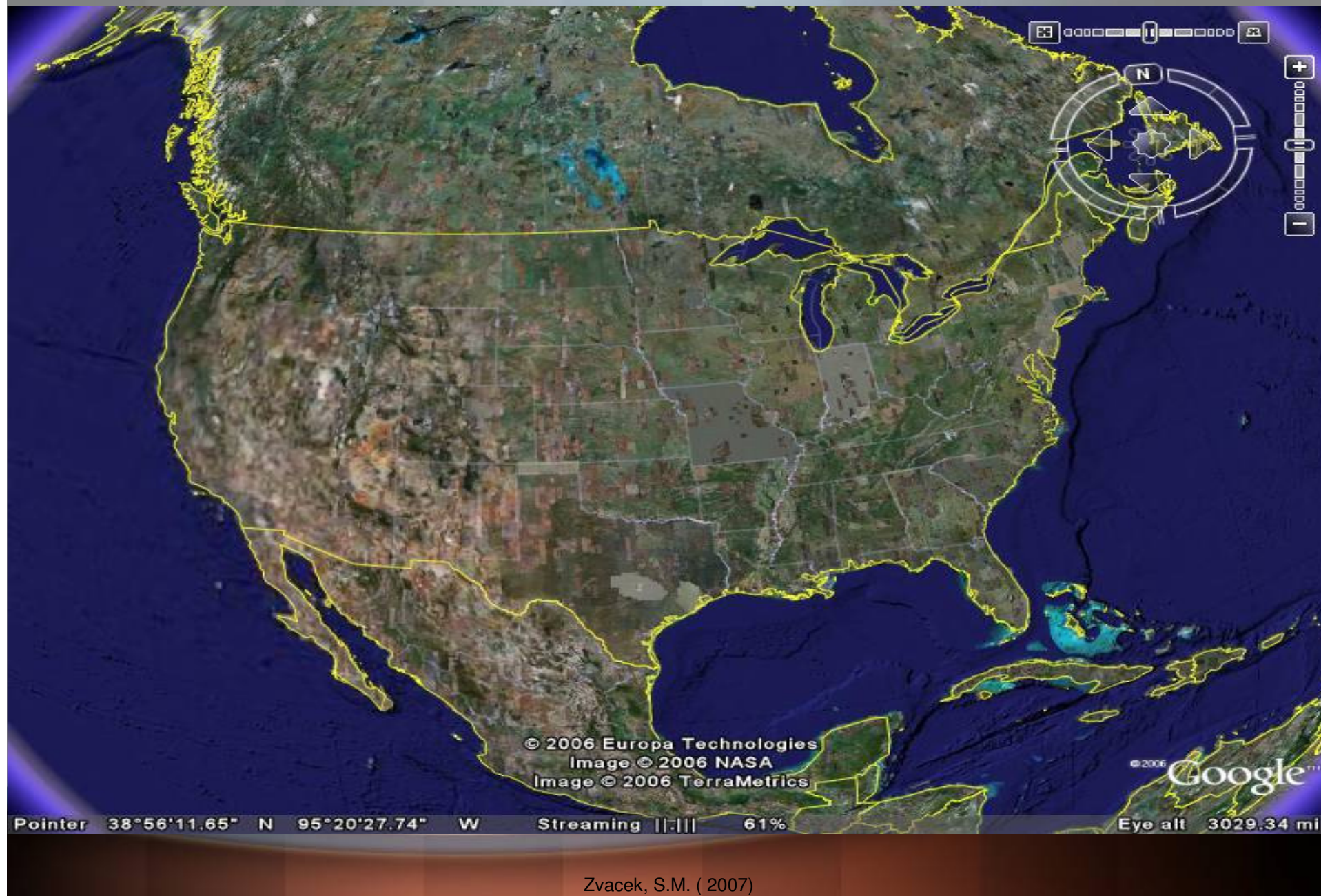


Beyond Button Pushing: Integrating Technology Literacy into Our Teaching

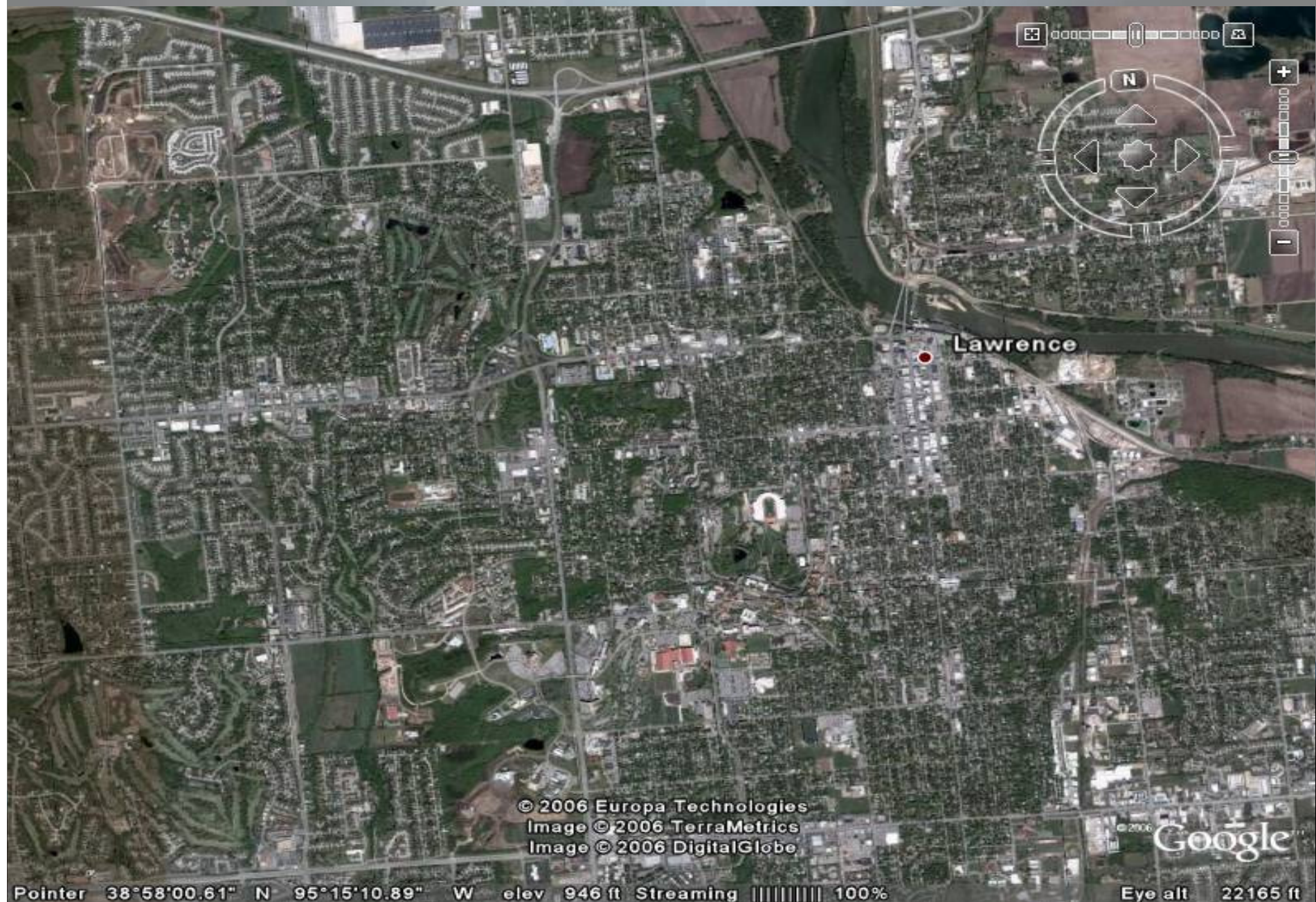
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Google Earth



The Center of Everything



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Topics

- What is technological literacy?
- Why is technological literacy important?
- What tech literacy skills should students have?
- How can we integrate those skills into our teaching?

An "Old" Definition (1996)

From the United States
Department of Education:

"Computer skills and the ability to use computers and other technology to improve learning, productivity, and performance."

Defining Elements (newer)

- Using technology “responsibly, creatively, and effectively...”
- In order to “... communicate, solve problems, and access information.”
- The ability to “create, manage, and evaluate information...”
- And to “develop lifelong learning skills”

Why is this important?

- Improved decision making
- Increased civic participation
- Narrowing the digital divide
- Support of a modern workforce

Are students technologically literate?

- We would like them to be “tech-skeptical” users – strategic in their technology use
- However, our students are “tech savvy” – in a task-specific manner
- And ... many consider themselves “sophisticated users” of technology

“Whaddya mean, I ain’t sophisticated?”

- Many students exhibit unrealistic expectations and “extraordinary confidence” in search engines
- Credibility of web-based sources is rarely questioned
- And ... The more technology experience they have, the less skeptical students are about online resources

Tech Literacy Skills

- Relevant Skill Sets
- Conceptual Knowledge
- Intellectual Capabilities

Relevant (Hands-on) Skill Sets

Students should be able to use (well):

- Communication tools
- Word processing
- Spreadsheets
- Databases
- Internet search engines

Conceptual Knowledge

Students should understand:

- Basic concepts related to digital technology
- Network structures and data organization
- Societal issues related to technology
- Ethical issues dealing with privacy rights, intellectual property, etc.
- What technology cannot do

Intellectual Capabilities

- Students should be able to:
 - Engage in reasoning and problem solving
 - Manage complexity
 - Collaborate with others
 - Evaluate information and information sources

Hands-on Skills in Coursework

- Expect students to submit work in a digital format
- Ensure that students are aware of institutional resources for learning about technology tools
- Utilize a variety of technologies for teaching
 - Communication tools
 - Provide course content online
 - Assess learner progress with online tools

Conceptual Issues

- Explore how technology has enabled advances in your discipline
- Discuss the organization of information in scholarly resources used in the course
- Examine the limitations of relying heavily on technological tools
- Discuss ethical issues relevant to technology use in your discipline

Helpful Starting Points...

- A neat site from the UK

<http://www.vts.intute.ac.uk/detective/index.html>

- Cornell's site about Facebook

<http://www.cit.cornell.edu/policy/memos/facebook.html>

Intellectual Strategies

- Model for students the evaluation of resources, and hold students accountable for resource evaluation in their work
- Use teaching strategies that present “messy” problems with more than one right answer
- Require students to collaborate with others in online environments

Intellectual Strategies (cont.)

- Challenge students to explore how their point of view may be different than someone else's and why
- Expect students to provide real-world examples to support their ideas
- Develop communication protocols as a collaborative activity with students

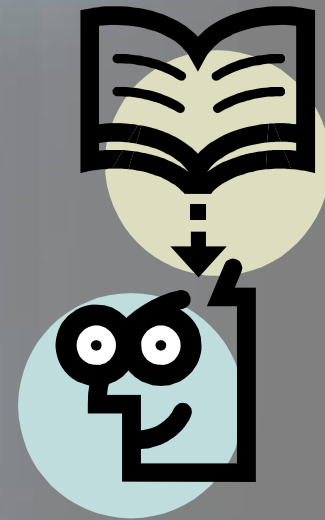
Ideas to Ponder...

- These intellectual skills are not the exclusive domain of any one disciplinary area, nor related only to technology use.
- Technology can be a catalyst for the improvement of teaching and learning – because we reconsider long-held ideas about learning environments, students, teaching, and learning.

Summary

- It is not our job to protect students from the influence of technology nor to encourage them to accept it without question.
- It *is* our job to equip students with the skills that will enable them to use various technologies (current tools and those yet to be invented) appropriately and effectively.

Questions?



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