The purpose of this seminar is two-fold: first, to explore how research is carried out on the artifact of technology within the Information Systems (IS) discipline. Particular attention will be paid to contemporary and emerging technologies. Second, the seminar will provide basic grounding in Information Technology (IT) including history and current ‘hot’ topics. A secondary purpose of the seminar is to explore the teaching of and teaching with technology. Issues in relation to teaching and using technologies and their impact on learning, incentives and evaluation will be discussed.

To establish the technological context and encourage a level playing field in terms of knowledge, upon starting the course, a 60-minute exam will be held in the first class. Much of the material should be familiar to the average IS student; background material will be provided before the exam to clarify and supplement existing understanding. The exam will cover such fundamental topics as:

- History of digital computing, including components such as CPU, storage etc;
- Software concepts, including operating systems, application packages, etc;
- Telecommunications and networks, including typologies, protocols, etc;
- Internet, including history, design, etc.

The course will start off in a traditional research seminar mode. Research on the technology artifact will be examined covering material under the following headings:

- Design science
- Software engineering
- Databases
- Telecommunications and networks
- Internet

Towards the end of the course, the focus will tighten on ‘hot’ technology topics (see assignment 1). Each student will discuss a chosen topic and the rest of the class will provide potential research ideas related to the topic. Ahead of the class discussion, the student leading the discussion will provide relevant material to enable a fully informed discussion by the class. The topics could be drawn from but is not limited to the following list:

- Hardware such as voice recognition, mobile computing, biometrics, interoperability, etc;
- Internet topics such as web services, XML, .NET, Internet II, EAI, etc;
- Major applications such as ERP, CRM, data mining, knowledge management, SCM, etc;

The course will end with students presenting research proposals on a technology (see assignment 2).
TOPIC CALENDAR

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<td>Research proposal presentations</td>
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READINGS

Background for Exam
In terms of the structure of the exam, you will have 4 questions from which you will respond to 3. Each of the four questions will have two parts; the first part will ask something specific about some aspect of technology and the second will ask something about the implications of that technology for information systems. An example might look like:
Describe Moore's Law. What are the implications of Moore’s Law on technology and its uses?

http://www.eingang.org/Lecture/
http://www.isoc.org/internet/history/
http://www.forthnet.gr/forthnet/isoc/short.history.of.internet
http://www.w3.org/History.html
http://www.pbs.org/nerds/timeline/
http://cesp1.phy.ornl.gov/ov/node8.html
http://www.eingang.org/Lecture/difference.html
http://www.intel.com/research/silicon/mooreslaw.htm
http://www.redherring.com/insider/2003/02/moore021003.html
http://www.webbconsult.com/hist-time.html
**Technology Review**


**Databases I**


**Databases II**

Video conference with Ramesh Venkatraman, Kelley School of Business, Indiana University.


**Telecommunications**


**Internet**


**Design Science**


**Software Engineering I**


**Software Engineering II**


**Teaching with technology**

BMGT 808: ASSIGNMENT 1
TECHNOLOGY BRIEFING

The purpose of the assignment is to brief the audience on a new, emerging or “hot” technology. The briefing will describe the characteristics of and bound the technology. The briefing will also focus on the implications of the technology for Information Systems (IS).

One (possibly 2) “articles” will be distributed prior to the briefing. The article will, at the least, outline the chosen technology. The article also may discuss its implications for IS but this is not a must. The article does not have to be a research article; it could be a web page/site, newspaper or magazine article or even video clip.

The briefing itself will consist of a 10-minute presentation (the time will be strictly enforced). It is suggested that around 3-6 slides could be utilized to support the briefing.

After each briefing, a 20-minute discussion will occur. The discussion will assess the implications of the technology for IS. Moving beyond the briefing, the discussion will also dissect possible avenues of research in relation to the chosen technology.

As an example of articles, consider the following relating to speech recognition:
http://www.out-loud.com/

Deliverables:
- Short e-mail briefly describing technology and pointing to (or attaching) article due before class on October 13.
- Chosen articles to be distributed in class (or in e-mail) on October 27.
- 10 minute briefing (on November 3 or 10).
- One hard copy of slides at briefing.
The purpose of the assignment is to propose a research study that is focused on a particular technology artifact. You will prepare a research proposal and present it to the class. You will also submit your proposal for suggestions. The proposal must be based on your own original ideas.

Your proposal should address the following concerns:
- What is the technology artifact you are proposing to study? [Introduction]
- Why should we study the artifact? [Introduction]
- How has it been studied in the literature? [Background or Literature Review]
- How will you study the artifact? [Research Method or Design]
- What results might you expect to find? [Results]
- What are the limitations of your proposed study? [Results]
- What is unique, new and valuable about your proposed study? [Discussion/Conclusions]
- If your study produces the results you expect, how have you contributed? [Discussion/Conclusions]

The technology chosen for the research proposal does not have to be the same as that chosen for the technology briefing.

**Deliverables:**
- One page outline on chosen technology artifact and proposed study, due October 27.
- 7-10 page (single spaced, 1” margin, 12 point font) research proposal due December 1.
- 15-minute presentation (for either December 1 or 8).
- One hard copy of presentation.