# Looking Ahead – Information Studies in the Workplace Help Us Design For the Future

Carol Tenopir
University of Tennessee
ctenopir@utk.edu
web.utk.edu/~tenopir/

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# Subject Discipline and Workplace Influence Patterns

- Medical faculty with research, teaching, and clinical responsibilities read more journal articles than any other faculty group
- Medical practitioners read more from personal print copies and spend the least amount of time per article reading
- Engineers in non-university workplaces read fewer journal articles than others, but spend more time per article

# Another Lesson Learned

- Technologies will be adopted quickly by a majority of users within a discipline IF those technologies help them get their work done better or faster. Old ways (like reading from print) remain important if they are more convenient or quicker

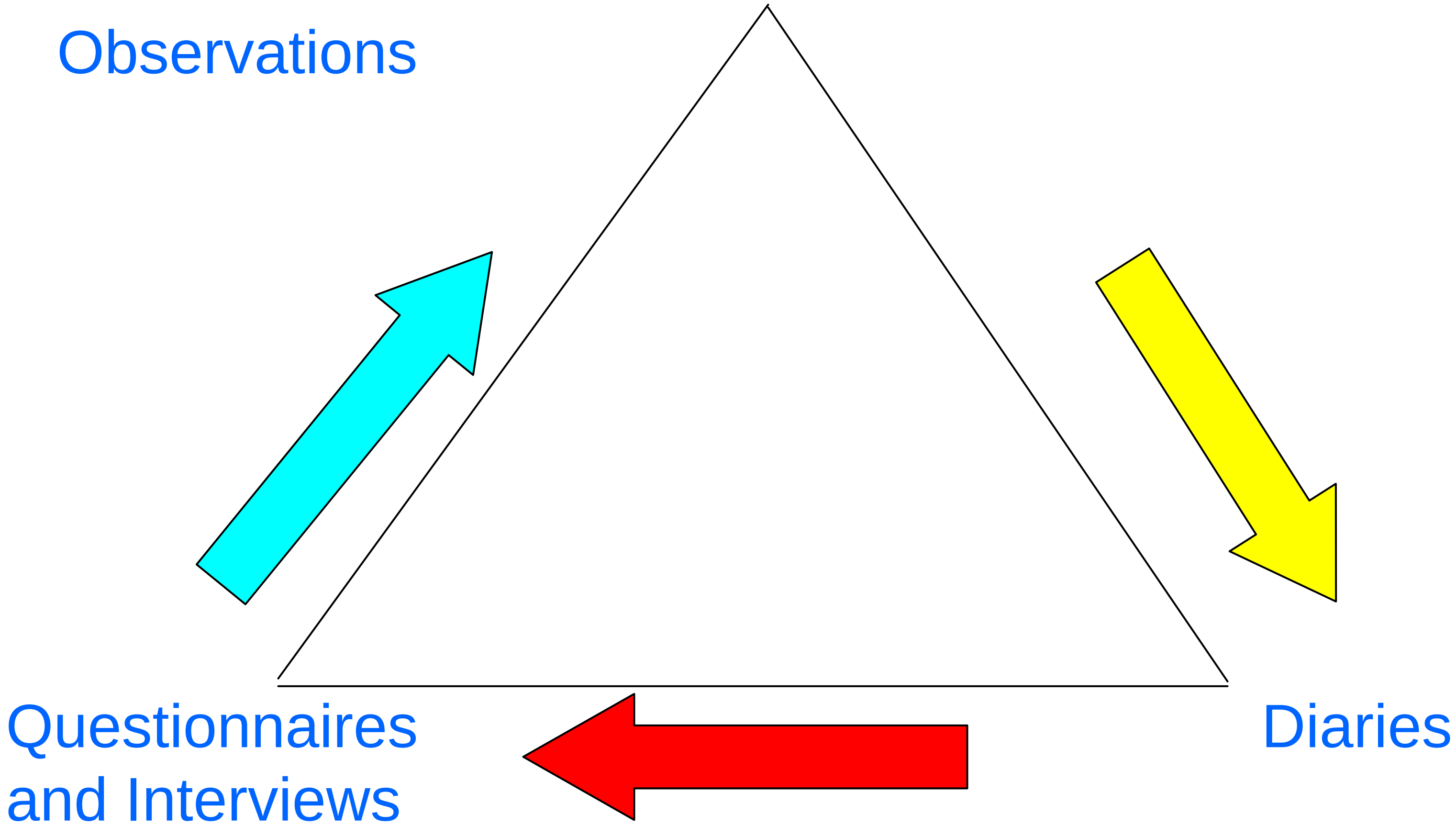
# IEEE Study of High Tech Engineers in Corporations

- Eight (8) companies in the U.S, India, and China
- Team at the University of Tennessee, Center for Information Studies including Suzie Allard of SIS and Ken Levine of Communication Studies
- Collaboration with the University of Mysore and Tsinghua University

# CSA field test of Tables & Figures Indexing Prototype

- Tables and figures indexing system that became CSA Illustrata: Natural Sciences
- Nine (9) organizations in Europe and the U.S.
- Sixty (60) natural scientist researchers
- A team at UT Center for Information Studies including Robert Sandusky of UT SIS and Margaret Casado, instructional librarian

# Learning About Users and Usage



# IEEE Ultimate Goals

1. To identify ways high tech engineers use communication and information in their work;
2. To identify differences and similarities in the U.S., India, and China use and communicate information;
3. To gether information that will help in the design of future information products and services

# CSA Study Key Research Questions for Tables & Figures (T&F)

1. What do scientists currently do with T&F?
2. How might they use a T&F index?
3. How effective is T&F searching?
4. How might T&F searching impact practice?
5. What features are most useful?

1. Researchers and engineering practitioners use many sources of information and choose the source and format that works best for them. The categories of most trusted sources haven't changed much, but the formats have often changed

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- How
- Who
- When

# External Information Use

- Not much use of alerting services
- A few trusted trade journals or web site services
- Web sites found by search engines were perceived to be more up-to-date
- Not a lot of use of scholarly information
- In India more emphasis on the quality of the brand
- Science researchers still rely heavily on journals

2. Interactivity and intercommunication are a natural behaviour in many fields

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3. There are some differences in communication behaviour that are geographically based, but more differences based on discipline and task.

# Similarities and Differences

- American high tech engineers in particular spend too much time on non-productive meetings
- Multitasking is commonplace
- European scientists and American scientists use information sources and rely on journals with similar patterns
- Satisfaction went up when the library has fully implemented links to a robust journal collection
- Task or purpose of information use is a bigger predictor of search, browse or other

4. Multiple levels of granularity are needed

# 1. Journal Issue


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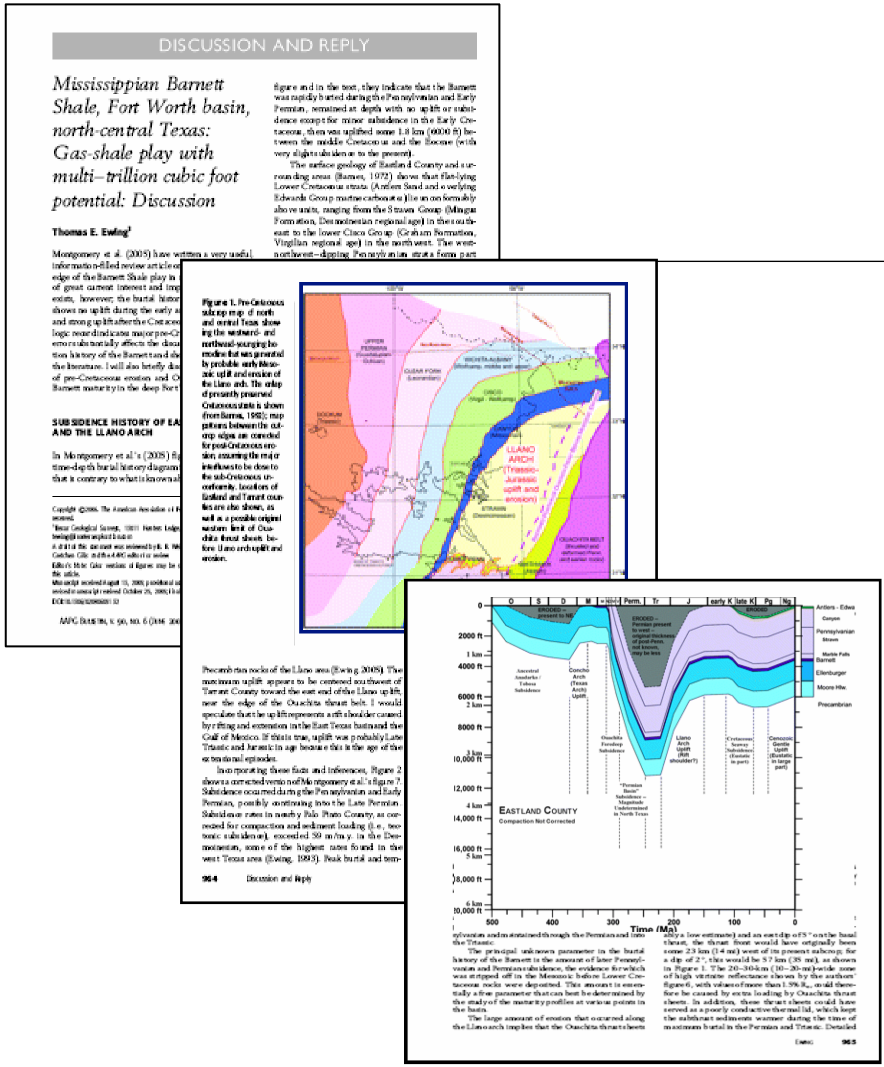
# 2. Article Granularity



DISCUSSION AND REPLY

*Mississippian Barnett Shale, Fort Worth basin, north-central Texas: Gas-shale play with multi–trillion cubic foot potential: Discussion*

Thomas E. Ewing[1]

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# 3. Objects granularity: Extract and index figures


DISCUSSION AND REPLY

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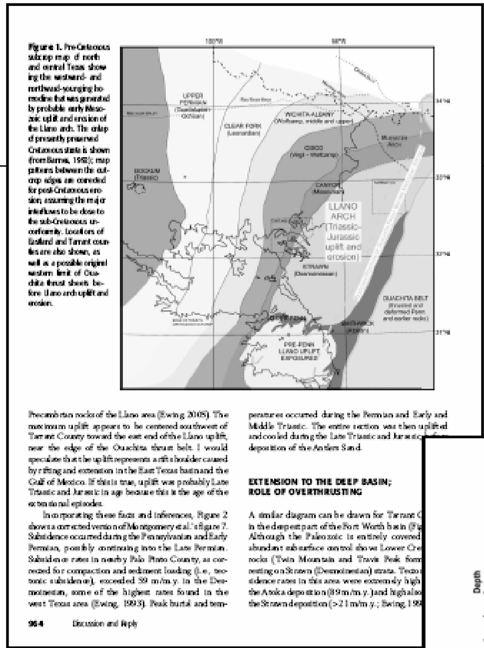
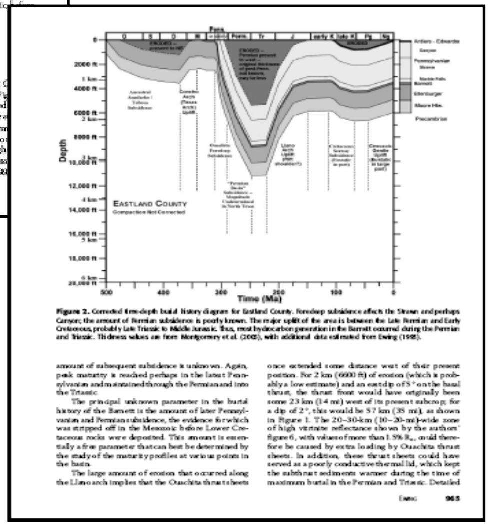
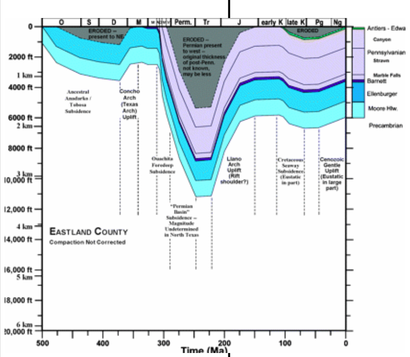
Thomas E. Ewing

SUBSIDENCE HISTORY OF EASTLAND COUNTY AND THE LLANO ARCH


EXTENSION TO THE DEEP BASIN; ROLE OF OVERTHRUSTING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# Potential Uses and Purposes

1. To find relevant articles they would not otherwise find
2. To retrieve and use images
3. To compare their work with others'
4. To support analysis

# Potential Use: To retrieve and use images

- It would be useful “when looking for information difficult to retrieve in written form”
- Specific instances noted:
  - “looking for geologic maps of a specific area”
  - “for a quick assessment of photographic quality in cytogenetics research”
  - “when I need a specific graph, map, photograph, or figure that would be for presentations or teaching”

# Potential Use: Engineers

- Engineers often just need to check a fact in a table or a stock quote for their company of their competitors
- Engineers' work is focused on task
- Efficiency may improve if only they get what they need

# What do these findings mean for future information products and services?

1. Incorporate internal knowledge and shared communication with external sources and search
2. Provide tools that allow granular identification and extraction of information
3. Provide immediate distribution of selected information, but older important too
4. Provide discipline based tools
5. Quality filters are important