Digital Libraries

Reference Interviews

Week 8   KAN Min-Yen

What is a reference interview?

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What is a reference interview?

○ Process where the user comes to the reference desk and asks for information

- What type of information do people ask for?

- What are the characteristics of a reference interview?

- What factors lead to a "successful" reference interview?

- How do we evaluate reference interviews?

RI as a process: a first point of view

User comes to the reference desk	→	The user asks a question	→	The librarian answers it

RI as an information transfer process

- Check whether a (human) system provides the user with a right answer
  - Complete
  - Accurate and timely

- What is the percentage of questions answered correctly?

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Why only 55%?!?

Some explanations:

- easy questions may have been eliminated (e.g., no direction queries).
- questions may have been time-sensitive and/or unusually difficult.
- Murfin (70) shows that librarian often misinterprets the question asked.
- Gives definitive answer without verifying with user's need.

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One reference interview

- The librarian:
  - I think it went all right from my viewpoint because I didn't have to really interact too much. She seemed capable, she seemed to know what she was doing. I felt she had found what she wanted because she said she had what she needed. She seemed to be capable of handling it on her own.

    - Radford (99)

- Would you say that this was a successful interview?

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One reference interview

- The student:
  - I felt like she couldn't help me on my subject. Isn't that she didn't know the answer, but I felt that she didn't want to [help]… she looked like she did not know what I was talking about, a blank stare and also almost like irritated.

- Would you say that this was a successful interview?

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RI as an communicative art

- When a group of MLS students were sent on a mission to the library to ask a question…
  - 60% said that they might ask another question in the future
  - 30% said that they wouldn't bother asking the librarian even if they have an information need

- No matter what form the reference interview takes on, a form of interpersonal communication takes place
  - Is not and cannot be free of relational dimensions
  - 1 good encounter ≠ 1 bad encounter

When attempts to find information fail, patrons *may* choose to approach the reference desk. If they do, the librarian becomes the *human* interface or mediator between the library and the users' need.

- The critically important moment when users approach and engage the librarian can be the point at which the complexities of the library are gently explained, fears are calmed, and information becomes accessible.

- If help is withheld, given grudgingly, hurriedly, or in a condensing manner, the encounter becomes the point at which the library appears even more inaccessible. Users can be left feeling confused, frustrated, and sometimes personally defeated or humiliated.

- paraphrased from Radford (99)

Question Negotiation

- Anomalous State of Knowledge (ASK)
  - A state in which the user "is unable to specify precisely what is needed to address their need"

- To help the librarian understand the needs of the user, Taylor (68) uses 5 question filters
  - Subject
  - Objective and motivation
  - Personal characteristics of the inquirer
  - Anticipated or acceptable answers

- Escalator Questions

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Types of queries in RI

- Directional
  - *e.g.*, Where are the photocopiers?
  - 30-50% of all questions
  - 1 minute or less

- Ready reference – "factoid" questions
  - *e.g.*, Who is the prime minister of China?
  - 50-60%
  - 90% can be answered using standard references; 10%

- Specific-search
  - *e.g.*, Where can I find information on sexism in business?
  - 20%-40%
  - Depends on sources available

- Research Questions
  - *c.f.*, information ecology
  - very low frequency
  - Depends, but generally longer and more challenging (and fun)

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What about web search?

In a recent study at Yahoo!, Rose and Levinson categorized three broad areas:

- Navigational
    - Go to a website
    - E.g., `aloha airlines`
- Informational
    - Learn something
    - E.g., `2004 election dates`
- Resource
    - Download something / view something
    - E.g., `kazaa lite`

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Question Variability

- The question alone does not determine its type
  - Aspects of the user
    - (adult, child, professor, student under deadline)
  - Scope of the query
    - (just for fun, winning a bet, for research)

Other ways of classifying questions:

• Known items versus unknown (actual known item correctly formulated?)

• Data retrieval versus document retrieval (c.f., ready-reference vs. specific search)

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RI as a doctor consultation?

- Yes
  - Patient may have self-diagnosed condition (formulated question), but physician needs to check whether it is right (question answer would actually meet users needs).

- No
  - Reference librarians have to deal with demand flow, most doctors have set appointment times.

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Finding and evaluating materials

○ Once understood, the query has to be transformed into a search strategy

- *e.g.*, does the scope of the query imply an article, a book or a bibliography? Do I need to do a catalog search?

○ Once material is found, is it actually appropriate to the user?

- *e.g.,* is the material suitable for citation in a high school report or research publication?

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Available sources in the library

- Access
  - Bibliography
    - *e.g.*, controlled bibliographies & (union) catalogs
- Source
  - Encyclopedias
  - Fact Sources
  - Dictionaries
  - Biographical Sources
  - Geographical Sources
  - Government Documents
  - CD ROMs
  - Online Databases
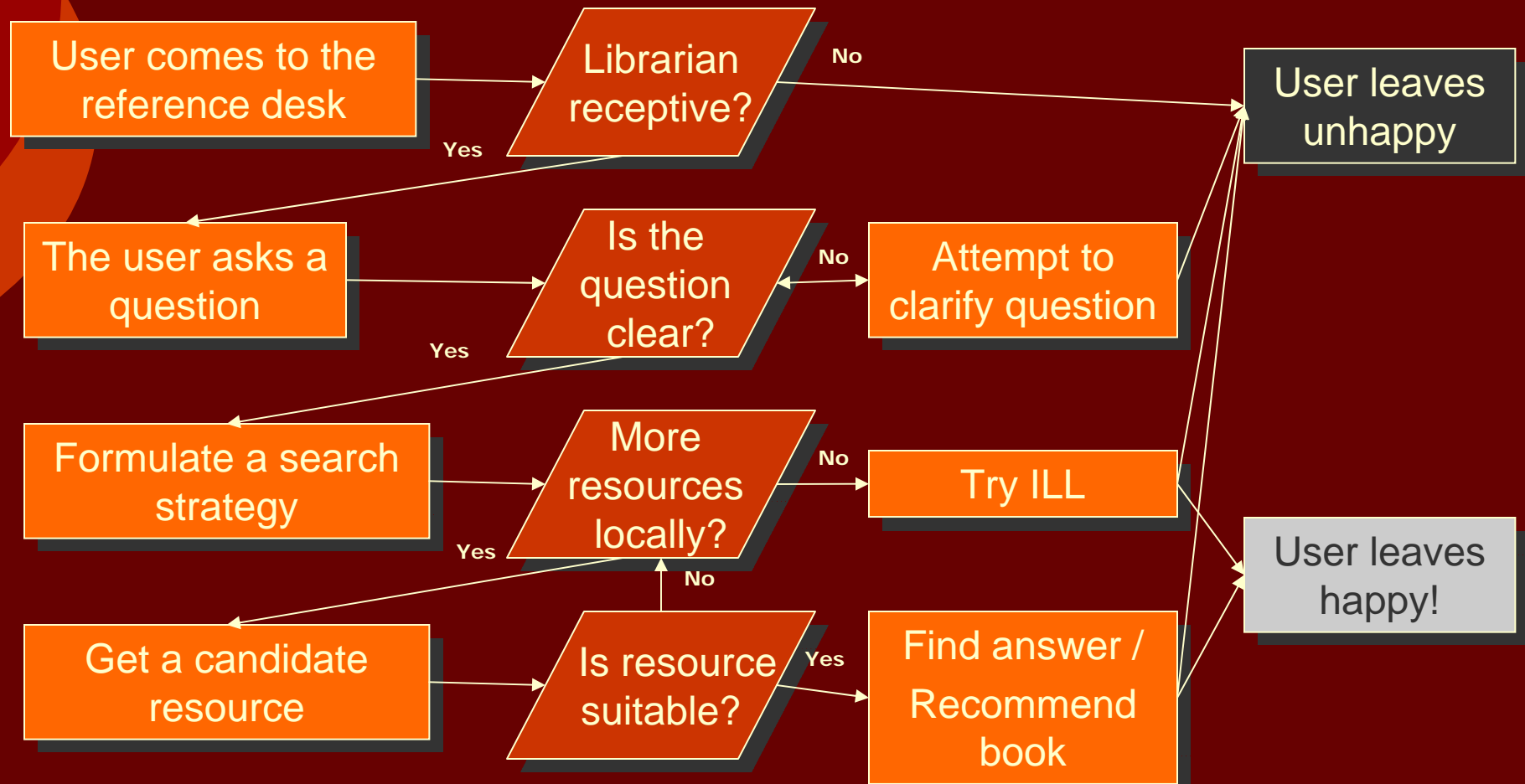 - The Web

The Information Chain

- Primary sources
  - Conference proceedings, journal articles
  - Monographs
- Secondary
  - Collections
  - Indices
- Tertiary
  - Encyclopedias
  - Reviews

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Evaluating a source

Many criteria to consider, but:
- Purpose
- Authority
- Scope
- Audience
- Cost
- Format

RI as a process: revised game plan

User comes to the reference desk → Librarian receptive? — No → User leaves unhappy

Librarian receptive? — Yes → The user asks a question

The user asks a question → Is the question clear? — No → Attempt to clarify question

Is the question clear? — Yes → Formulate a search strategy

Attempt to clarify question → User leaves unhappy

Formulate a search strategy → More resources locally? — No → Try ILL

More resources locally? — Yes → Get a candidate resource

Try ILL → User leaves happy!

Get a candidate resource → Is resource suitable? — No → More resources locally?

Is resource suitable? — Yes → Find answer / Recommend book

Find answer / Recommend book → User leaves happy!

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Transition into the DL

No matter what the technology is, the goal remains to answer questions

-*William Katz (Reference services guru)*

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A Librarian's Lament

We have enticed the academy into cyberspace…without us.

We have proven the value of library resources…but not the librarian

- R. David Lankes
(Director of Institute of Information Systems,
Syracuse University)

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The state of digital reference

- Question Answering systems
- AskA services
- Cutting edge trends

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TREC Question Answering

○ The state of the art system question answering system gets about 60-80% of "factoid" ready-reference questions answered correctly.

- TREC competition results (02)

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Ask-A services

- Question Triage
  - Sorting and routing questions

- Ask A services
  - Differ on
    - Cost: Fee or free
    - Turnaround time
    - Area of expertise
    - Rating / Feedback on experts

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What is Digital Reference?

- a.k.a. "AskA" services

- Internet-based question-and-answer services that connect users with experts and subject expertise.

- Connect *people* with *people*

Ask Jeeves®
Ask.com

why is the sky blue

Ask

Search: ⦿ **Web** ○ Pictures ○ News ○ Products

Do you want to know:

Why is the sky blue? Ask

Web Results

New Scientist: The Last Word Science Questions and Answers
'Why is the **sky blue**?' 'ask a scientist' Fun and educational science trivia. New Scientist celebrates the questions that everybody asks...
From: www.last-word.com/

Blue Sky - Why is the Sky Blue?
Why is the **Sky Blue**? Learn about the atmosphere and how light scattering makes the **sky** look **blue**. Plus, get great science projects to do.
From: www.sciencemadesimple.com/sky_blue.html

Exploratorium: Science Snacks: Blue Sky
Now you can explain why the **sky** is **blue** and the sunset is red...
From: www.exploratorium.edu/snacks/blue_sky.html

Coventry City
Coventry City Football Club, **Sky** Blues, Highfield Road...
From: www.ccfc.co.uk/

Blue Sky Communications Ltd.
Blue Sky specialises in web design, development and internet hosting services for IBM's Lotus software.
From: www.bluesky.co.uk/

Bad Science
About well understood phenomena which are persistently presented incorrectly by teachers and writers.
From: www.ems.psu.edu/~fraser/BadScience.html

Why is the sky Blue?
Why is the **sky blue**?
From: math.ucr.edu/home/baez/physics/General/BlueSky/blue_sky.html

Blue Sky Studios, Inc.
Blue Sky Studios is a first class computer animation studio dedicated to creating high end character animation and visual effects for the commercial....
From: www.blueskystudios.com/

Blue Skies and Blue Haze: resulting from selective scattering by air
...molecules all throughout the atmosphere, so our eyes register it as **blue** light coming from all directions, giving the **sky** its **blue** appearance.
From: ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/opt/air/blue.rxml

Why is the sky blue?
Why is the **sky blue**? A semi-detailed explanation. By Matt McIrvin...

Related Searches

> **Makes Sky Blue**

> **The Sky Is Blue**

> **Blue Sky Airlines**

> **Color Sky Blue**

> **Blue Sky Frog**

> **Sky Look Blue**

> **Sky Blue Pictures**

> **Prism**

> **Blue Sky Laws**

> **Color Sky**

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Cities	News	Sports & Fitness	General
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Your knowledge is valuable! Respond to new Questions and get involved in interesting topics.

1 — SmartBox™ — Customer View

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Your Company
LOGO

Live representatives are online and standing by!
Meet them on-screen and get answers to your questions in real time.

Type your question and click the yellow button.

Customer types question here

Customer clicks button to send question to rep

Click Here!

■ POWERED BY Expertcity's DesktopStreaming™

Close Window

2 — HelpAlert™ — Representative View

HelpAlert
File Community Help

ID#   Posted   Left   Replies Status
761006   15:24:58   110   3   posted

Customer's question displays in rep's HelpAlert InBox

Question 7610
15:24:58: Bob
" How do I conf
with my systen
15:25:00: Rece
15:25:10: **3** rep

Reply

Question
" How do I configure your software to work with my system?"

Customer's question displays

Time
[   ] minutes

Send   Cancel

3 — ChatLink™ — Representative View

ChatLink - Microsoft Internet Explorer

Rep can access remote-assistance tools via ScreenSharing

ChatLink
File ScreenSharing Tools Help   expertcity DesktopStreaming

Start ScreenSharing
End ScreenSharing
Focus to ScreenSharing F10

Push

re| | help you today?
customer: I need some assistance in using your product. Can you help me?
rep: Absolutely. May I share your screen?

Rep can send a Web page to customer's browser

Chat Box displays conversation between rep and customer

Send

free 0:31

Rep types message to customer here

Close Window

Start | Inbox - Micros... | Reference Inte... | 7 Internet E... | « 6:43 PM

Virtual Reference Desk Network

Use collaboration to enhance the expertise pool

○ This service provides support to AskA services by accepting out-of-scope and overflow questions.

○ When a subject-specific service gets questions out of its scope, it forwards them to the VRDN.

○ If a question cannot be addressed by another member, it is handled by a VRD core librarian.

But does it matter?

- Sloan (02)'s statistics
  - Types of questions ($n = 877$)
    - Research questions – 30%
    - "I need five articles for…" – 20%
    - Known item questions – 8%)
    - Ready reference questions – 14%
    - Library use questions – 8%
    - Library technical questions – 9%

  - Wait time
    - 63% of users waited fewer than 30 seconds
    - 73.5% in one minute or less

Heading in the right direction for the future?

- Question session as a data object to be studied and statistically analyzed.

- Collaboration strategies to bring users to experts 24/7.

- HCI studies and chat/email/dialog toolkits to make user interactions seem more polite and pleasant.

- Melding of automatic methods with manual ones.

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References

○ Virtual Reference Desk
(conferences proceedings also online)

- http://www.vrd.org/

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Why "seeking"?

- Don't want to limit to "retrieval"
- IR: match query to documents.
- Seeking as the larger context:
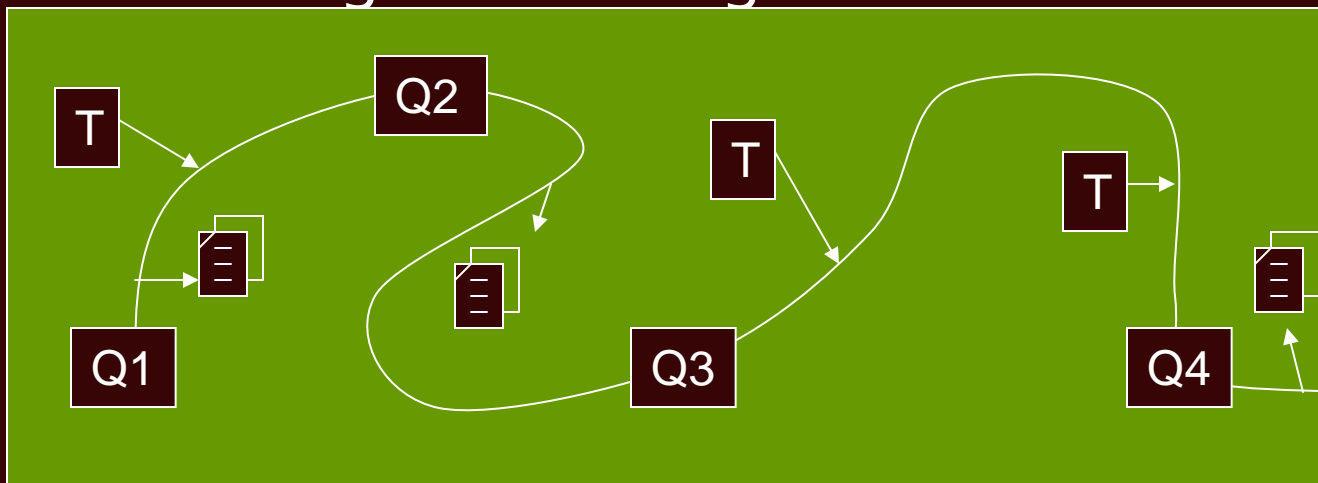
- We'll revisit IR later in another lecture

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Information Need

- Taylor's (68) model of need

  - Visceral: The actual, but unexpressed need

  - Conscious: (ambiguous) need, not necessarily verbalized

  - Formalized: *e.g.,* a search statement

  - Compromised: Adapting the question to the resources at hand (the information system)

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Berry Picking

"… picking blueberries in the forest. The berries are scattered on the bushes; they do not come in bunches. One must pick them one at a time…"

- paraphrased from Bates (89)

- The nature of the query is an *evolving* one

- The nature of the search process is such that it follows a *berrypicking* pattern

- The query is satisfied not by a final set of documents but by *references and information accumulated over the search period.*

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Information Foraging

○ Techniques that expert searchers use:

- Footnote chasing (a.k.a. backward chaining)
- Citation searching (a.k.a. forward chaining)
- Journal run
- Area scanning
- Subject search in bibliographies and indices
- Author search

To think about: How well does LINC support these functions? How about Google?

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Vocabulary Problem

The fact that a user is looking for something means that they don't know what exactly they are looking for (otherwise, they wouldn't be looking in the first place)
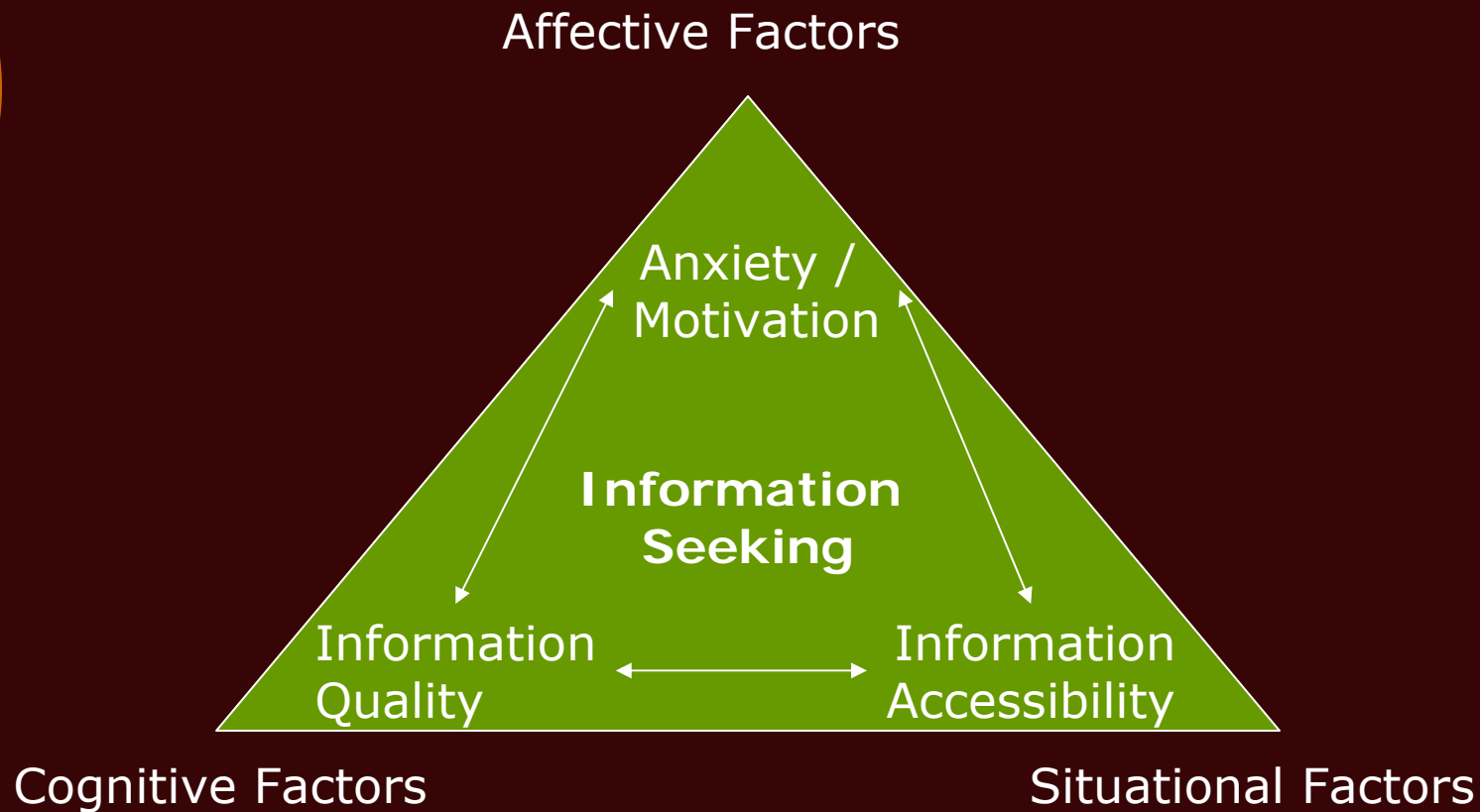
- paraphrased from Belkin *et al.* (82)

- Therefore, they may not be using the right vocabulary to express their needs.

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Anomalous State of Knowledge

○ means that the seeker realizes that there is a gap or lack of knowledge in some area: an ASK.

- Partial or even incorrect search results can alter the ASK and change the seeker's perception.

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Three aspects of Information Seeking

Affective Factors

Anxiety /
Motivation

**Information
Seeking**

Information
Quality

Information
Accessibility

Cognitive Factors

Situational Factors

From Choo *et al.*, 00

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Cognitive Factors

○ Selecting a source that is most relevant and useful

- Purpose
- Authority
- Scope
- Audience
- Cost
- Format

Affective Factors – Kuhlthau (93)

- Initiation: uncertainty
- Selection: optimism
- Exploration: confusion/frustration/doubt
- Formulation: clarity
- Collection: sense of direction and confidence
- Presentation: satisfaction or disappointment

Intervention

Level of stress uncertainty

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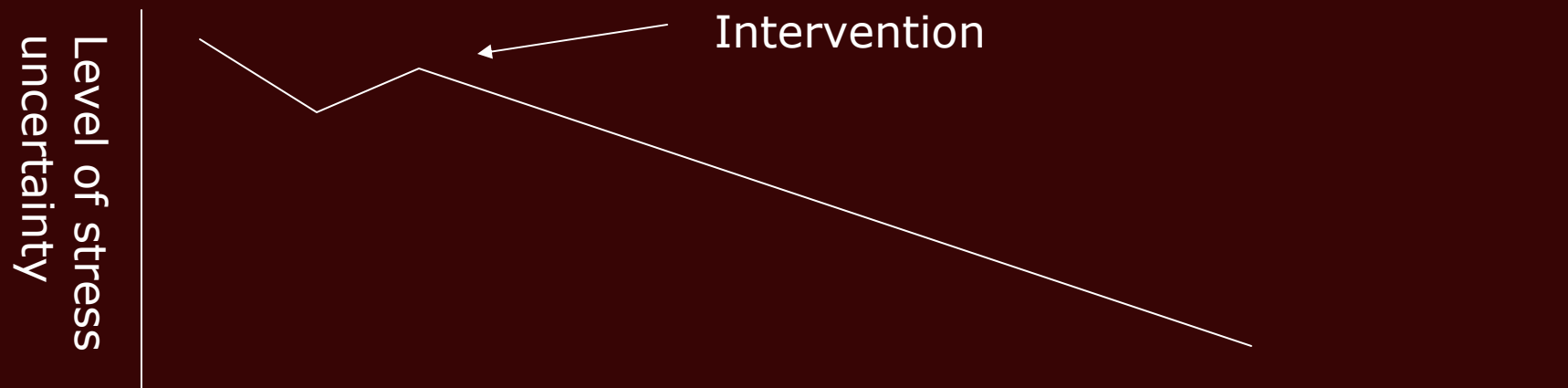
Implications of Kuhlthau (93)

○ Users tend to try to move towards certainty

○ Vague, invitation mode transforms to focused, indicative mode

○ Corollaries:
- Too much redundant information = boredom
- Too much unique information = anxiety
- Unfocused search without selection/formulation gives information overload = anxiety

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Situational Factors

Often the most important situational factor:

Perceived source accessibility

○ Principle of Least Effort – Zipf 49
- Rural libraries get less utilized than urban ones
- RBR / ILL services / acquisition library features rarely used

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Dimensions of Accessibility – Culnan (85)

○ Physical / Automated library

- Physical (gaining access to the store):
  Location, location, location!

- Interface (translating a need to the store):
  Catalog use, organization of library

- Informational (retrieving potentially relevant information):
  Locating the book, article
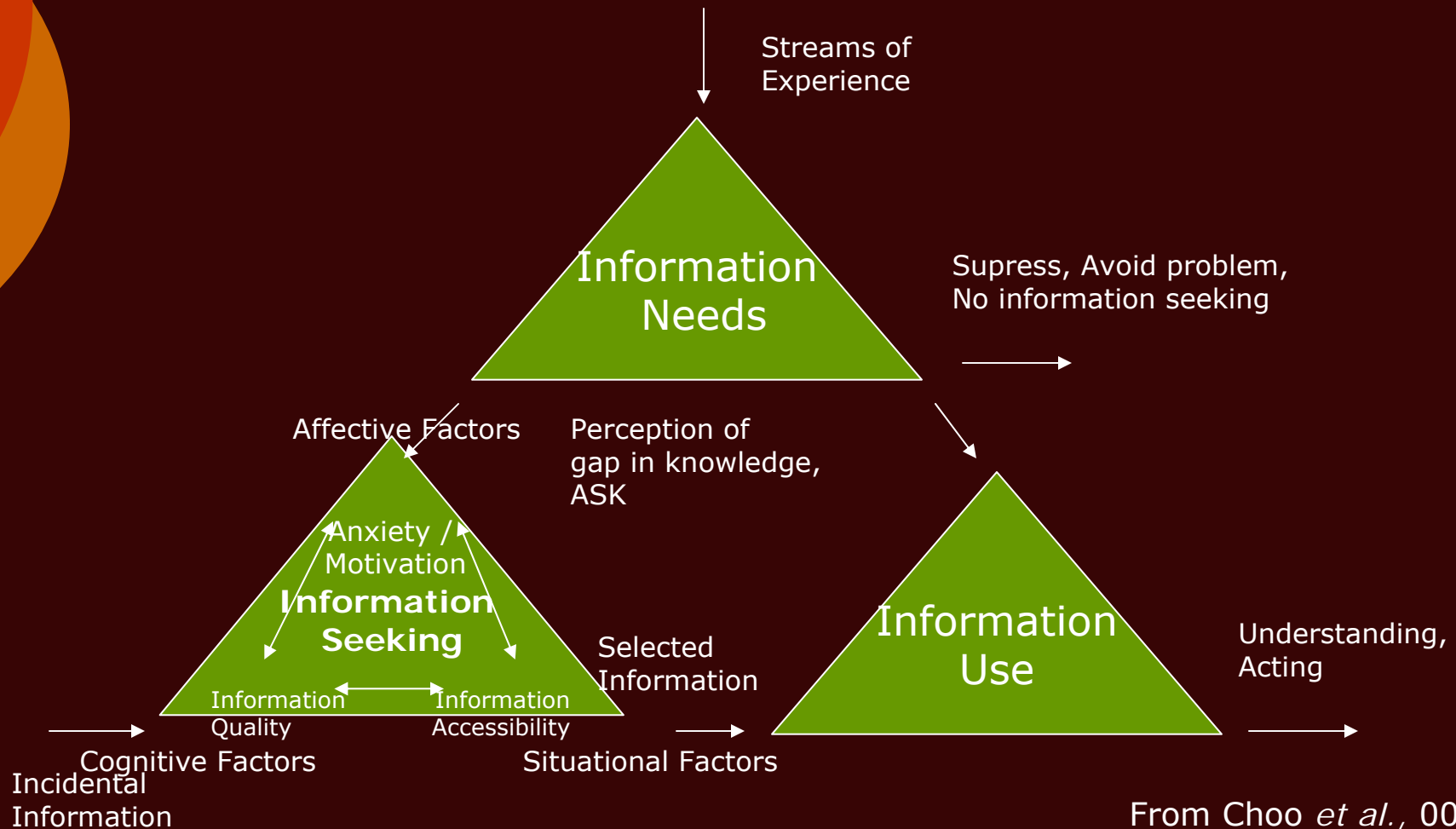
What about the digital library?

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Quality is (often) secondary!

○ People often access easily accessible material first irrespective of quality

○ But informed professionals accept ideas from sources in proportion to their technical quality

But what about the uninformed?

Putting the models together

Streams of
Experience

Information
Needs

Supress, Avoid problem,
No information seeking

Affective Factors

Perception of
gap in knowledge,
ASK

Anxiety /
Motivation

**Information
Seeking**

Information
Use

Understanding,
Acting

Selected
Information

Information
Quality

Information
Accessibility

Cognitive Factors

Situational Factors

Incidental
Information

From Choo *et al.*, 00

29 Sep 2004

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