

Information Seeking Behavior of
Scientists in the Electronic
Information Age:
Astronomers, Chemists,
Mathematicians, and Physicists
by C.M. Brown

Christopher Maier
INLS 279: Bioinformatics Research Review
2004-09-14

Setting The Stage

- 1999 - Internet use becoming widespread
- Primary importance placed on refereed journals in print
- Prediction that, with Internet, all scientific dissemination will eventually take place electronically
- How valid is this assumption?

This Article

- Survey of scientists at the University of Oklahoma (Norman, OK)
- How have these scientists' information needs and seeking habits been affected by the changing electronic information environment?
- Determine course the scientific libraries must take in the future to accommodate these changes

Different Disciplines, Different Information Usage

- Chemists - “continuous and on-demand” needs, rely heavily on current journals
- Mathematicians - older material more important, in addition to monographs
- Physicists and Astronomers - current journals, as well as reliance on pre-print archives

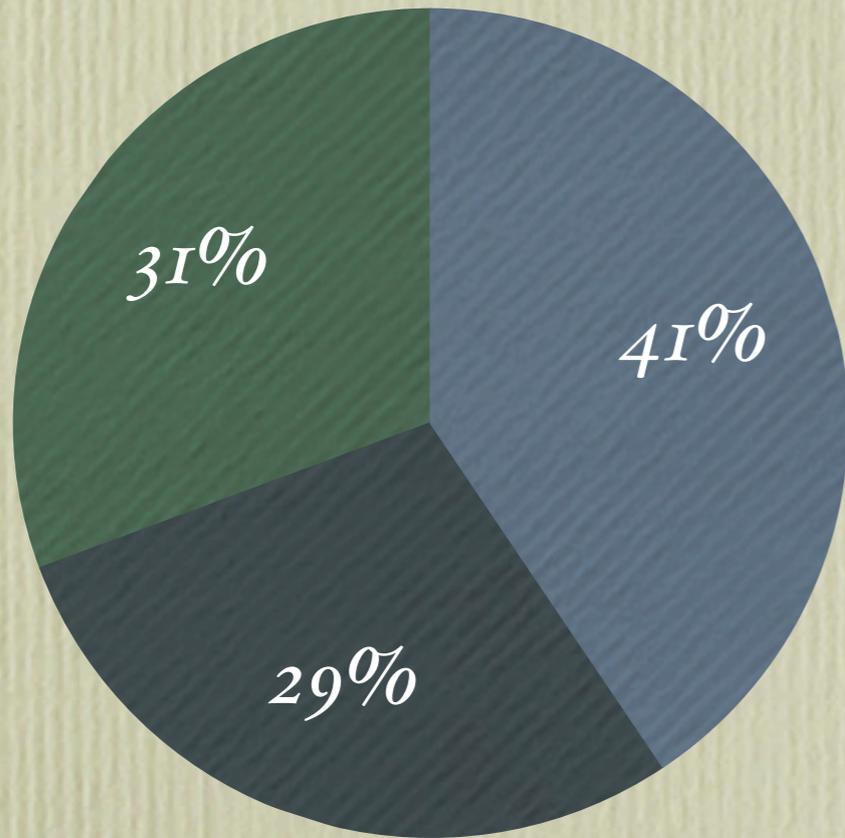
The Survey

- Email questionnaire
- How do you use the library in general, the university library system in particular, indexing/abstracting tools at the university?

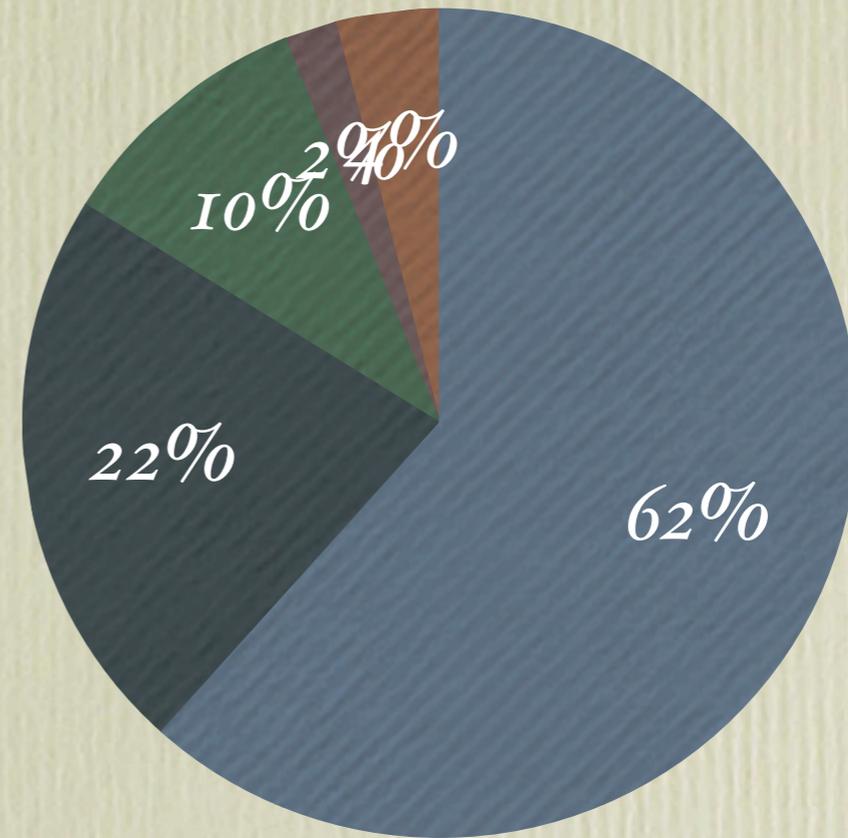
The Respondents

- Chemistry / Biochemistry
- Mathematics
- Physics / Astronomy

- Professor
- Associate Professor
- Assistant Professor
- Visiting Professor
- Other



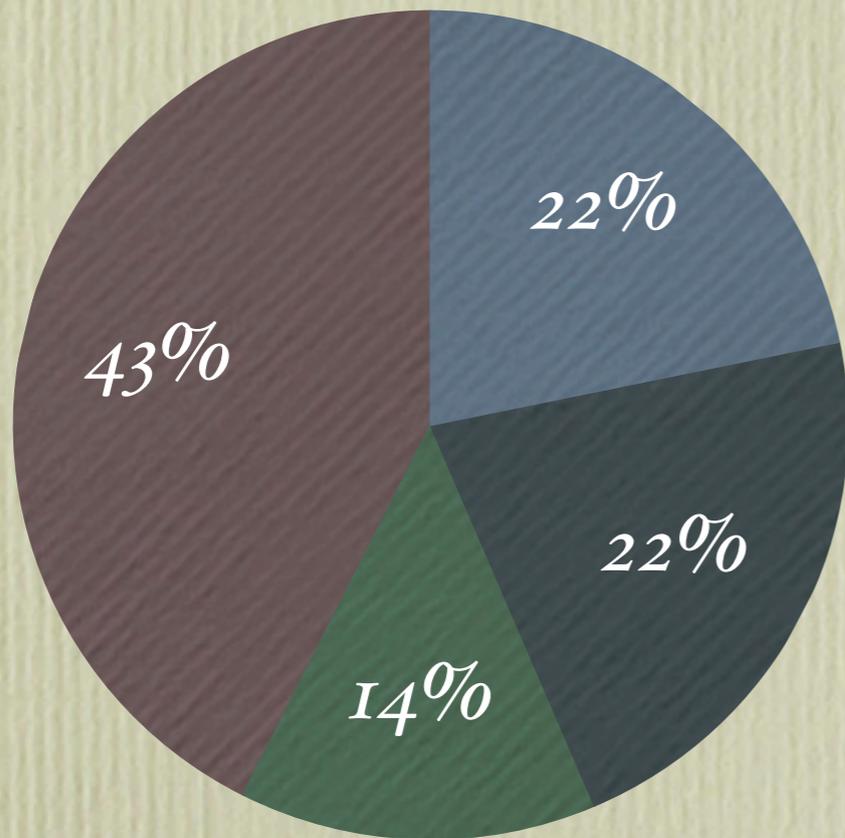
Field of Study



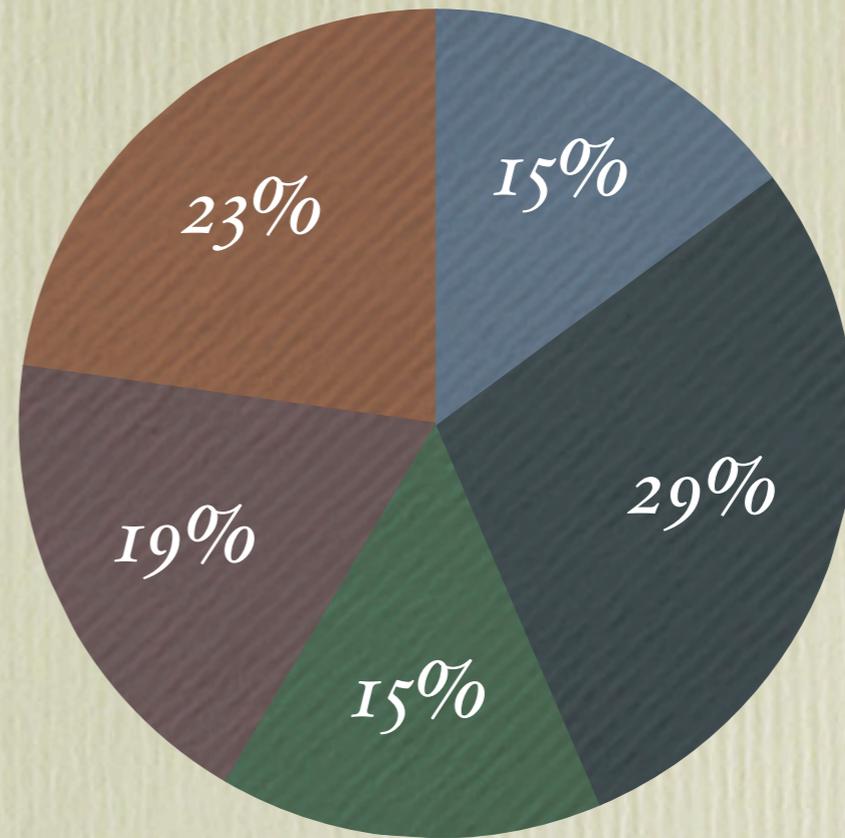
Position

- 0 - 5 Years
- 6 - 10 Years
- 10 - 15 Years
- > 15 Years

- 0 - 5
- 6 - 10
- 11 - 15
- 16 - 20
- > 20



Years at OU



Publications / Year

Library Resources

- Chemistry / Mathematics Library
 - 70,000 Volumes, 500 Journal Titles
- Physics / Astronomy Library
 - 35,000 Volumes, 185 Journal Titles

Current Information

- Chemists use current awareness services
- Mathematicians and Physicists / Astronomers use personal communication and conference attendance

Less Recent Information

- Article Citations are important for all
- Personal communication important for Mathematicians
- One mathematician commented on the desire to have bibliographic service in electronic form

Index and Abstract Tool Usage

- Chemists - Many used printed CA, few used Medline, while some used outside services at personal
- Mathematicians seemed to use an array of print and electronic services
- Physicists / Astronomers use services provided by OU infrequently

Obtaining Articles

- Everyone photocopies from the library
- Non-Chemists request reprints from authors
- About 2/3 of all researchers favored print over electronic format
- Comment: electronic format preferred only if “printable”

What do the researchers *want?*

- Generally pleased with existing library services
- Want access to all available electronic journals and bibliographic sources
- Personal searching of titles, abstracts, and full text, followed by download and hard-copy printout

Conclusion

- “science librarians must be aware of how the scientists they serve prefer to access information”
- “a primary goal ... should be to obtain access to as many appropriate electronic bibliographic finding aids and databases possible”

Conclusion Concluded

- Remember: this is at one institution, talking with 49 researchers. Your mileage may vary.
- Also, it was in 1999. Internet is a lot different now.
- Take home message, though: Don't assume behaviors - actually investigate! Results may surprise you.