#### **SERIALS BY THE NUMBER**

#### DONALD W. KING RESEARCH PROFESSOR SCHOOL OF INFORMATION SCIENCES UNIVERSITY OF PITTSBURGH

#### 13TH NORTH CAROLINA SERIALS CONFERENCES OPENING PANDORA'S BOX: MANAGING THE CHAOS OF SERIALS RESOURCES

CHAPEL HILL, NC APRIL 15, 2004



# FIVE IMPORTANT QUESTIONS

- What do print and electronic journals actually cost?
- What use are library use metrics?
- Why did library subscription prices increase so much?
- Are "big deals" good deals?
- Will Open Access by author payment pay?

# WHAT DO PRINT & ELECTRONIC COLLECTIONS ACTUALLY COST?

**Five Collection Access Services** 

– Electronic Collection

Current Periodicals

- Bound Backfile Collection

– Interlibrary Loans (ILL)

– Interlibrary Borrowing (ILB)

Costs Include All Resources Used.

– Collection Purchases

– Staff

– Facilities

– Equipment & Systems

- Photocopies, Binding, etc.

Four Groups of Activities

Collection-related

– Backfile-related

- User-related

– Use-related

#### Cost Per Title

- Electronic collection \$190 per title
- Print collection \$325 per title
  - Current collection \$105 per title
  - Backfile collection \$220 per title

## WHAT USE ARE USE METRICS?

## A Sound Basis for Decisions

- Cost of Use-related Activities
- Provide a Basis for Decision-Making
- Compare the Unit Cost of Services
  - Electronic \$2.50 per reading
  - Current Periodicals \$13.70 per reading
  - Bound Backfiles \$15.70 per reading
  - ILL \$8.40 per item
  - ILB \$11.00 per item

#### To Understand User Behavior/Patterns

- Where Library Use Fits In
- Trends in Reading

# INFORMATION SEEKING & READING PATTERNS

- How much do they read?
- Where readers obtain articles that are read?
- What format do readers use?
- How do readers learn about articles?

#### HOW MUCH DO THEY READ?

- Depends on the reader's field
- University faculty read more than others

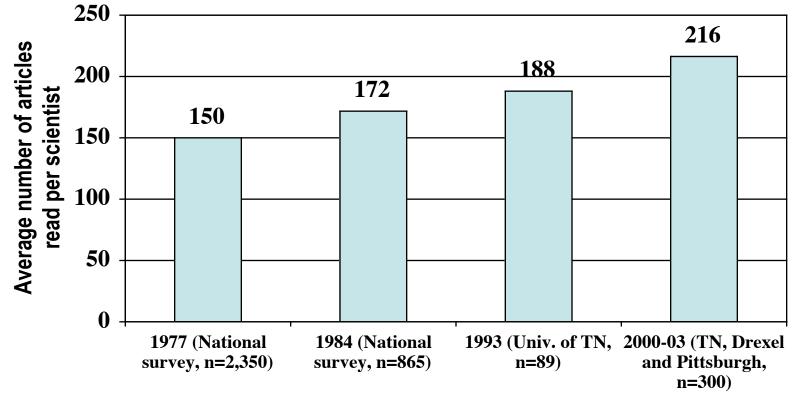
#### WHERE DO READERS OBTAIN ARTICLES?

- Personal subscriptions
- Library collections
- From another person
- Author Websites
- Preprint and other databases
- Age of articles is important

#### TRENDS IN SCIENTISTS' READING PATTERNS

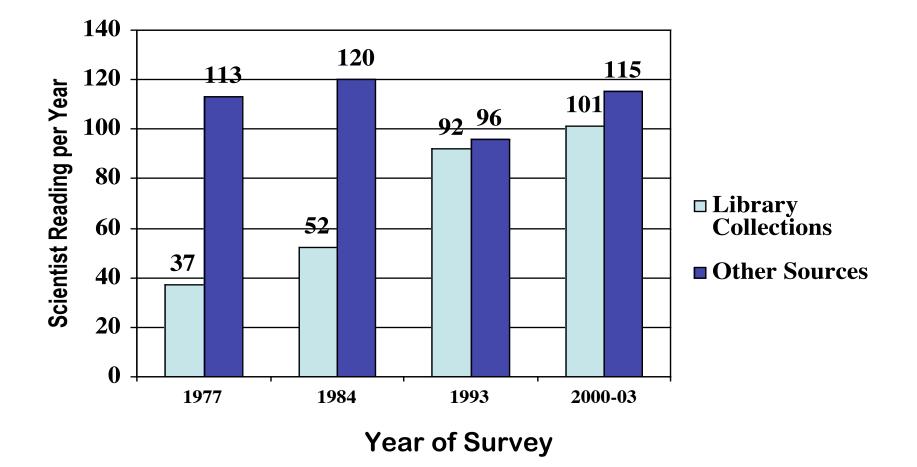
- They appear to be reading more
- They rely on libraries more
- Reasons for increased library use



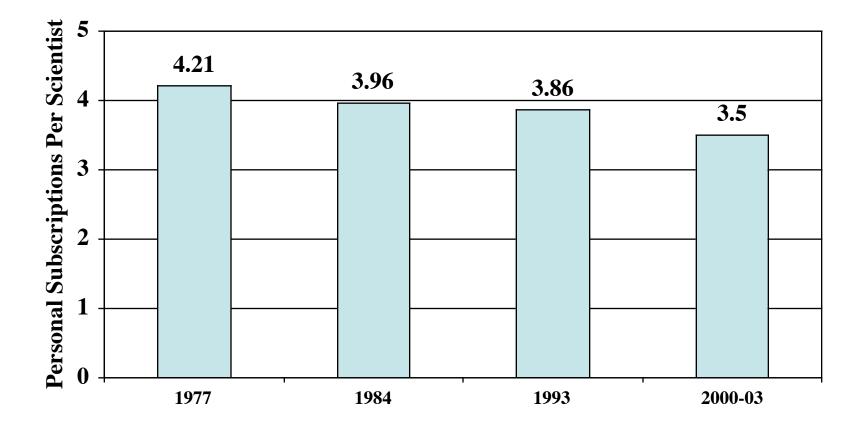


Year and Study

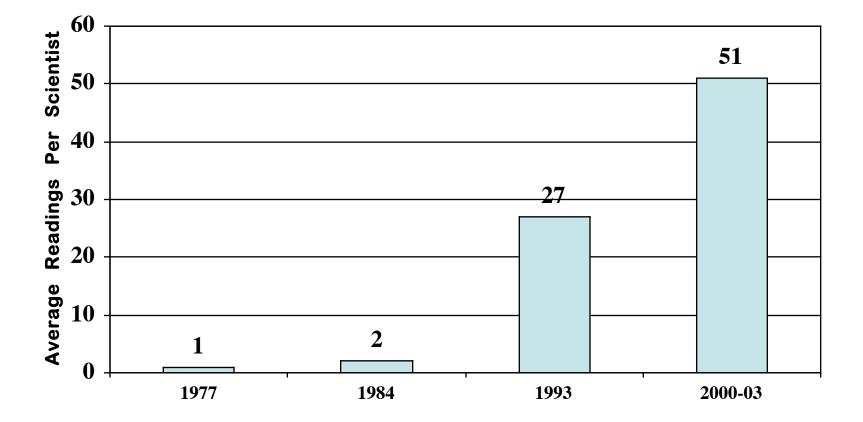




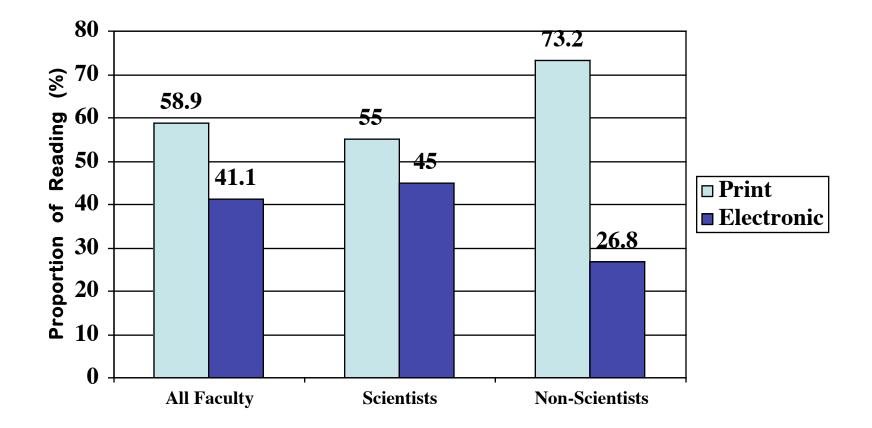
#### Average Number of Personal Subscriptions per Scientist



#### Fig 4 - Average Number of Articles Identified by Automated Searches Per Scientist



#### Fig 5 - Format of Reading (%) by University Faculty by Scientists and Non-scientists: 2000-2003



Source: University of Tennessee (n=96), Drexel University (n=92), University of Pittsburgh (n=209)

#### ELECTRONIC COLLECTION CONTRIBUTION

- Personal subscriptions 90% print
- Library collections 80% electronic
  - 80% electronic
  - Broadens journal availability
  - Saves readers about 20 hours per year
- Breadth of reading has increased
  - Read from about 13 journals in 1977
  - Over twice that amount now
- Age of article is a factor

# Table 1 - Age of Articles Read by University Faculty byFormat: 2000-2003

Age of Article	All Faculty (%)	
1 <sup>st</sup> Year	64.7	
2-5 Years	22.0	
6-10 Years	6.2	
11-15 Years	3.2	
Over 15 Years	4.0	

Source: University of Tennessee (n = 96), Drexel University (n = 92), University of Pittsburgh (n = 209)

# Table 2 - Proportion of Readings (%) by University Faculty and Staffby Source Used and by Age of Article Read : 2000-2003

Source of Article	1 <sup>st</sup> Year	2-5 Years	Over 5 Years
Library	33.5	53.2	73.3
Personal	56.3	28.8	9.2
Separate	10.3	18.1	17.5
Total	100.1	100.1	100.0

Sample Size: Total = 397, Scientists = 300, Non-Scientists = 97 Source: University of Tennessee (2000), Drexel University (2002), University of Pittsburgh (2003)

#### HOW DO READERS LEARN ABOUT ARTICLES?

- Browse
  - Personal subscriptions
  - Library
  - Databases
- Online Search
- Citations in publications
- Someone told reader
- Readers' time is important

#### LIBRARY CONTRIBUTION TO USEFULNESS & VALUE

- Purpose of use
- Importance in achieving principal purposes
- Ways article affected the principal purpose
- How much do readers "pay" for the article?
- Achievers read more from library collections
- Readers are more productive than non-readers
- Helps achieve parent organization goals

# WHY DID LIBRARY PRICES INCREASE SO MUCH?

- Inflation
- Increase in Size of Journals
- Decrease in Personal Subscriptions
- Decline of Author Fees
- Size of Publisher Portfolios
- Market Power

#### ARE "BIG DEALS" GOOD DEALS?

## Subsidies in Publishing

- Some Articles in Journals Subsidize Others
- Some Journals Subsidize Others
- Mega Journals "Small Deals"
- "Big Deals"

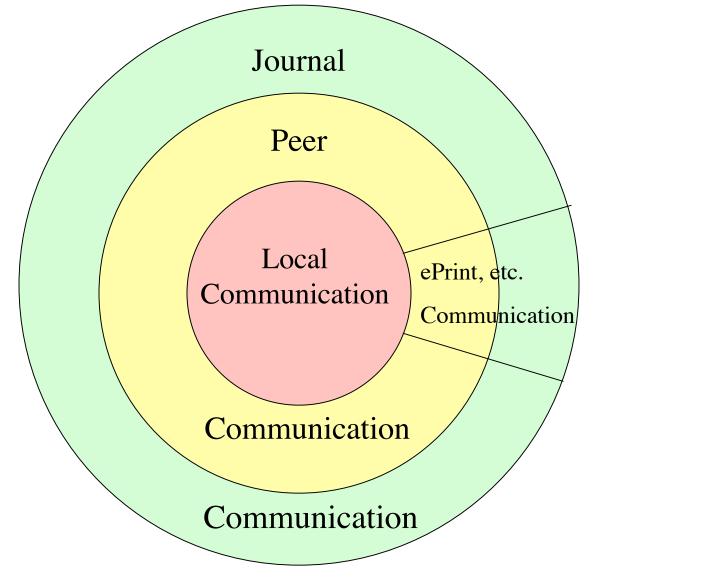
#### Price Demand

- Library Decisions to Purchase or Borrow
- Larger Journals Still Likely to Be Purchased
- Expands Use
- Helps Planning

## WILL OA BY AUTHOR PAYMENT PAY?

#### Barriers Affect Some More Than Others

#### COMMUNICATION



COMMUNITIES

## Advantages of Author Payment

- Finesses High Prices
- Perhaps Focus on Large and/or Low Circulation Journals
- Some Subscription Journals Advantageous
- Small Cost Compared with System Costs
- Small Cost Compared with Research & Documentation
- Cost to Universities Comparable to Purchase and Operational Cost

## Disadvantages of Author Payment

- Support from Research Funders Limited
- Universities Would Subsidize Reading Done Elsewhere
- Author Payment Has Failed Previously
- Difficulty for Subscription & Author Payment to Co-Exist

### Large Investment Is Required For:

- Start-up Costs
- Operational Cost
- Capital Investment
- R&D to Keep Up With Advanced Features

#### **Investment Sources**

- Publication Organizations
- Loans
- Foundations
- Stocks & Bonds

## Implication of Investment

- Organization Subsidation Denies Other Uses of Funds
- Interest on Loans Is "Profit" to Lending Institution
- Gross Profit Used to Payback Loans, Capital, R&D, Dispersement to Investors
- 50% of Net Profit Goes to Taxes
- 18% of Investor Capital Gains is Taxed

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