Information Gathering

&

Knowledge Generation

A Presentation
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Why Knowledge is Important

- **Muscle**, **money** & **mind** are sources of power in the present age

- **Knowledge** is the highest quality power among them

- **Acquisition of knowledge is a process of empowerment**

Timeline of knowledge

- Man existed for 800 lifetimes @ 62 years
- 650 out of this were in caves
- Writing was possible only for the last 70 life times
- Man could see a printed word only for the last 8 life times
- Majority of material goods were developed within the present 800th life time

Data,Information & Knowledge

- **Data** is a set of facts
- **Information** is fact on/about somebody/something endowed with relevance It is **Data** in context
- **Knowledge** is organized body of right information put to use in the right way at the right time
- **Wisdom** can be the accumulated knowledge

Continues…

- *20* is data
- *20c* is information &
- *200c is comfortable room temperature for most people*   is knowledge
- *Tacit knowledge* is personal, practical & difficult to transmit
- *Explicit knowledge* is codified, structured,objective, rational & easy to transmit

Exponential growth of knowledge

- 2.5 Million research articles published annually
- 24,000 research journals exist in the world
- 3 lakh books published in the world annually
- 6 million have access to Internet
- English language has 5 lakh words, five times more than during the time of Shakespeare
- Scholarship is as much a matter of knowing what to read, rather than reading all

Research Results in knowledge

- Research is a systematic endeavor to discover new facts /to establish facts,or

- an attempt to answer a question or resolve a problem

- Research can never be mere gathering of facts, or reassembling them

- Research is a combination of both experience and reasoning aiming at discovery of truth

Knowledge generation is possible only if

- There exists an unanswered questions, a questioning mind & lively interest
- A clearly stated objectives – what to do
- Availability of background information
- A specific program for work aimed at interpreting facts to derive a meaning from them
- There should be a clear & logical argument to support conclusion

Impermanence of Knowledge

- Knowledge has become plentiful and less permanent

- A leap forward occurred by 15th century after Guttenberg

- Leather binding for book disappeared, replaced by cloth later and by paper cover now

- The book has become transient as knowledge

Research , knowledge & libraries

- Research brings out knowledge
- That triggers further research
- which results in documents and growth of libraries
- Growth of libraries in turn promote research & expansion of knowledge

About Library- Resources

- Library is engaged in the process of identifying, collecting organizing, maintaining and dissemination of information

- Library is the first source for information

- It collects organizes and provide documents /information

- Library is an information centre, not a mere repository

- The resources in it are organized and grouped together by subjects

- Library resources are permanent

- Libraries provide personal assistance provide information seekers
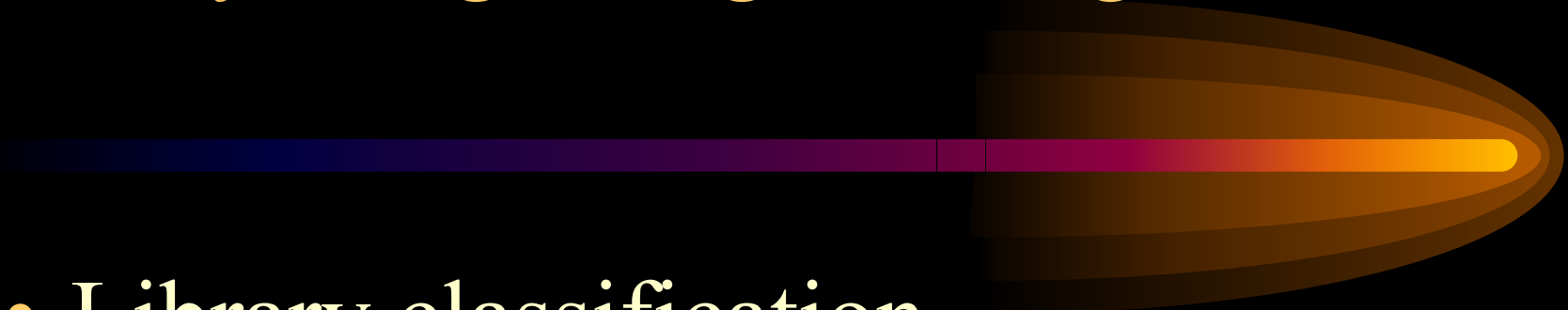
How libraries are organised?

- Each book should have a call number
- Call number indicates the subject and location of the book in the library
- Each library should have a catalogue
- Catalogue is a record of each document the library owns

Finding and searching information

- Negotiate access to a library & familiarise with it
- Familiarise with internet & experts in the field
- No source of information is comprehensive
- So plan your searches – so as to combine all

Tools for organizing knowledge in libraries?

- Library classification
- Library catalogue
- Different document collections
- Section indicators
- Reference & Information Sources
- Human help-Reference service

How books are classified?

Main classes

000	General works
100	Philosophy
200	Religion
300	Sociology
400	Philosophy
500	Pure science
600	Applied Science
700	Fine arts
800	Literature
900	History

Social Sciences

300	Sociology
310	Statistics
320	Political science
330	Economics
340	Law
350	Government
360	Social Problems
370	Education
380	Commerce
390	Customs, folklore

Political science

320   General

321   Form of state

321.1   Family
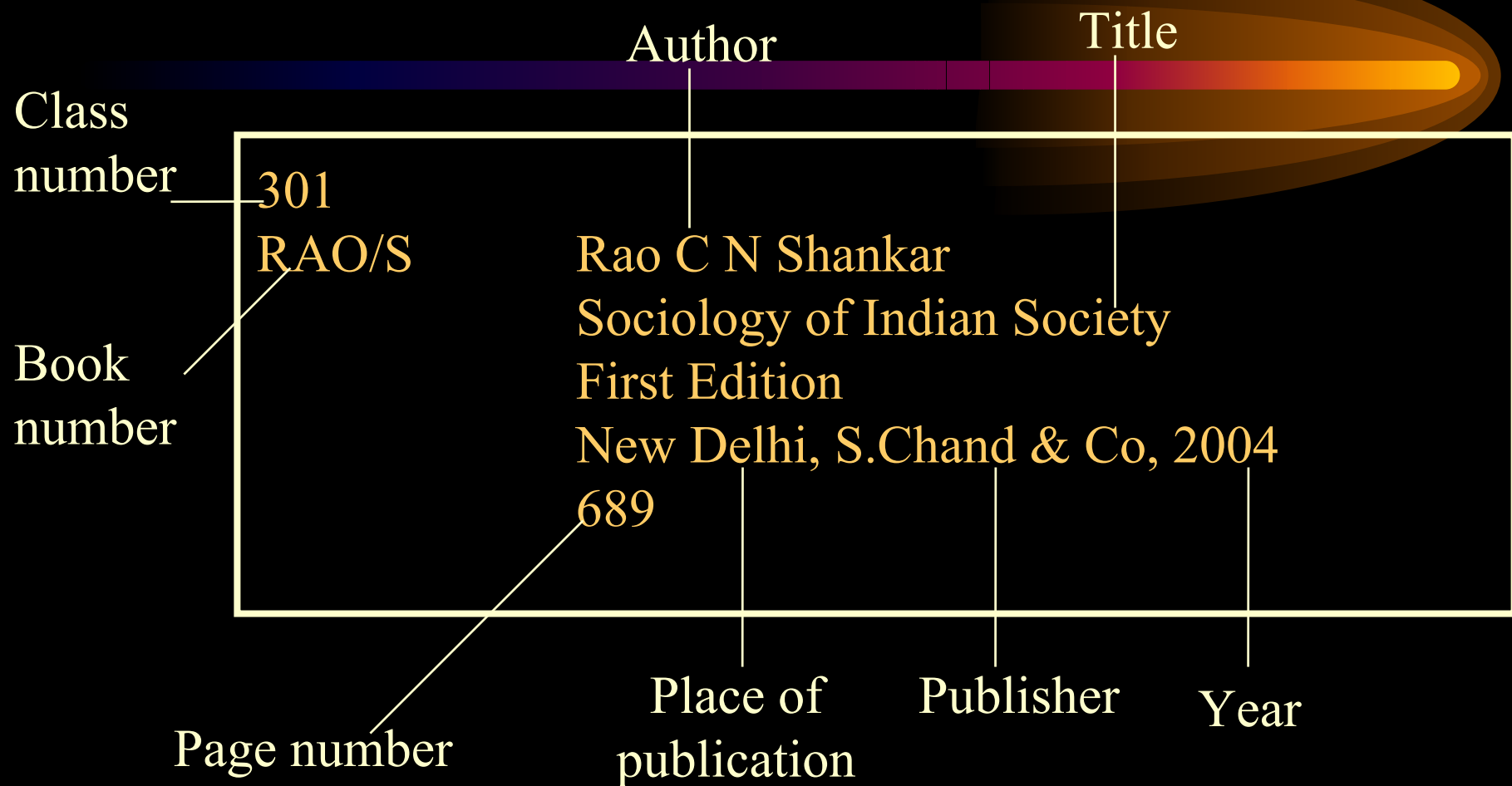
321.2   Tribes

321.3   Feudalism

321.4   Democracy

322   Church and state

323   Internal relations with groups and indiviuals

324   Suffrage

Title:	Sociology of Indian society
Edition:	First Edition
Author:	Rao C N Shankar
Page:	689
Publisher:	S.Chand & Company LTD
Place:	New Delhi
Year:	2004
Keywords:	
Accession No.:	7467
Class No:	301
Book No:	RAO/S
ID:	ID-BOOK

Author

Title

Class number

301
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Rao C N Shankar
Sociology of Indian Society
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Information Sources

- Encyclopedias

- Books

- Journals & Magazines

- News papers

- World Wide Web & so on

Dictionaries

- Dictionaries explain words, not topics
- Encyclopedia can be called dictionaries but not otherwise
- Thesaurus provide synonymous words
- Subject dictionaries are available
- OED printed in 1928 with 15500 pages is the largest English dictionary, having ½ a million words & 2 million quotations now

Encyclopedia

- Provides factual information about many topics
- Organised alphabetically by name of the subject
- Amount of information can vary from a paragraph to 100 or more pages
- General & subject encyclopedias are available
- They are published as multiple volume or single volume. EB started in 3 vol.(1748) have 33 vol. now
- It is provided with cross-references and index to help users

- Books cover any topic, fact or fiction & provide short, concise or detailed information

- Books have a table of contents and an index

- Some books provide in-depth coverage while other give an overview

- Innumerable books are available in the shops, libraries and the web

Magazine

- Magazines publish articles on topics of popular interest

- They are published at regular intervals

- Print magazines are available at news stands, in libraries & internet

- Provide articles on current events and news items

- Newspapers are local or national

- They are there in libraries & internet

- They help you find out editorials, commentaries, expert or popular opinions

- Contains numerous websites with a lot of information on any imaginable topic- but not organized

- Good source to find our current information

- Web is a good place for what you need, but not the best place always

- Web pages are not under the scrutiny of an editor

- Anyone even a sixth grader can publish anything on the Web-Be cautions

Digital Document Archives

- Organised collection of database or full text articles in Internet / Intranet

- Useful while finding articles on your topic

Problems with World Wide Web

- Information on web is not mostly comprehensive, nor permanent
- It contains a hodgepodge of information, some valuable and reliable, some not
- Majority of printed information is not available in the web
- Variety of sources can be challenging even to a most experienced user

Examples of sources of information

- International index to periodical literature
- Guide to Indian periodical literature
- Psychological/ social abstracts /Biological abstracts
- Dictionary of sociology
- Dictionary of modern economics
- Encyclopedia of the social science
- World Almanac – Important source of miscellaneous information
- Stateman's yearbook – Political, economic & social data of countries
- Current contents Citation Indexes and so on

What librarians should do ?

- Become an evaluator and advisor rather than mere information locator

- Locate the best resources than showing them all

- Train the information seekers to evaluate sources themselves

Techniques for reading

- **Skimming** – reading contents, headings, introduction & conclusion
- **Scanning**- rapid search for some information
- **Reading to understand** – detailed study of a chapter
- **Word by word reading** – reading every word carefully
- **Reading for pleasure** – reading to relax & enjoy

How to read documents purposefully?

- the contents page
- the index
- chapter headings
- the first and last chapters
- summaries at chapters and end
- the first and last paragraph of each chapter

Keeping records & making notes

- Finding information is hard & finding it again is harder. So note everything

- Forgetting to note the reference may waste your valuable time

- Use cards of 15x10cms to take notes

- Decide a system of referencing –follow that consistently, whatever be the method

- Quotations must be noted accurately

- Take extra care to record everything relevant
- Limit your note taking the core subject and its ramifications

Why do you take notes?

- to help you remember what you read
- to keep a permanent record of it
- to re-order ideas
- to help you to concentrate while reading
- to help others to learn from your notes

How to organise information?

- Create an outline

- Gather information

- Group material by similar concepts / context/ as per outline

- Arrange materials hierarchically by main topics, sub topics and with details

How to synthesize information?

- Analyze the organized information

- Combine different elements & integrate them into a whole

- Then synthesize the information into a piece of knowledge

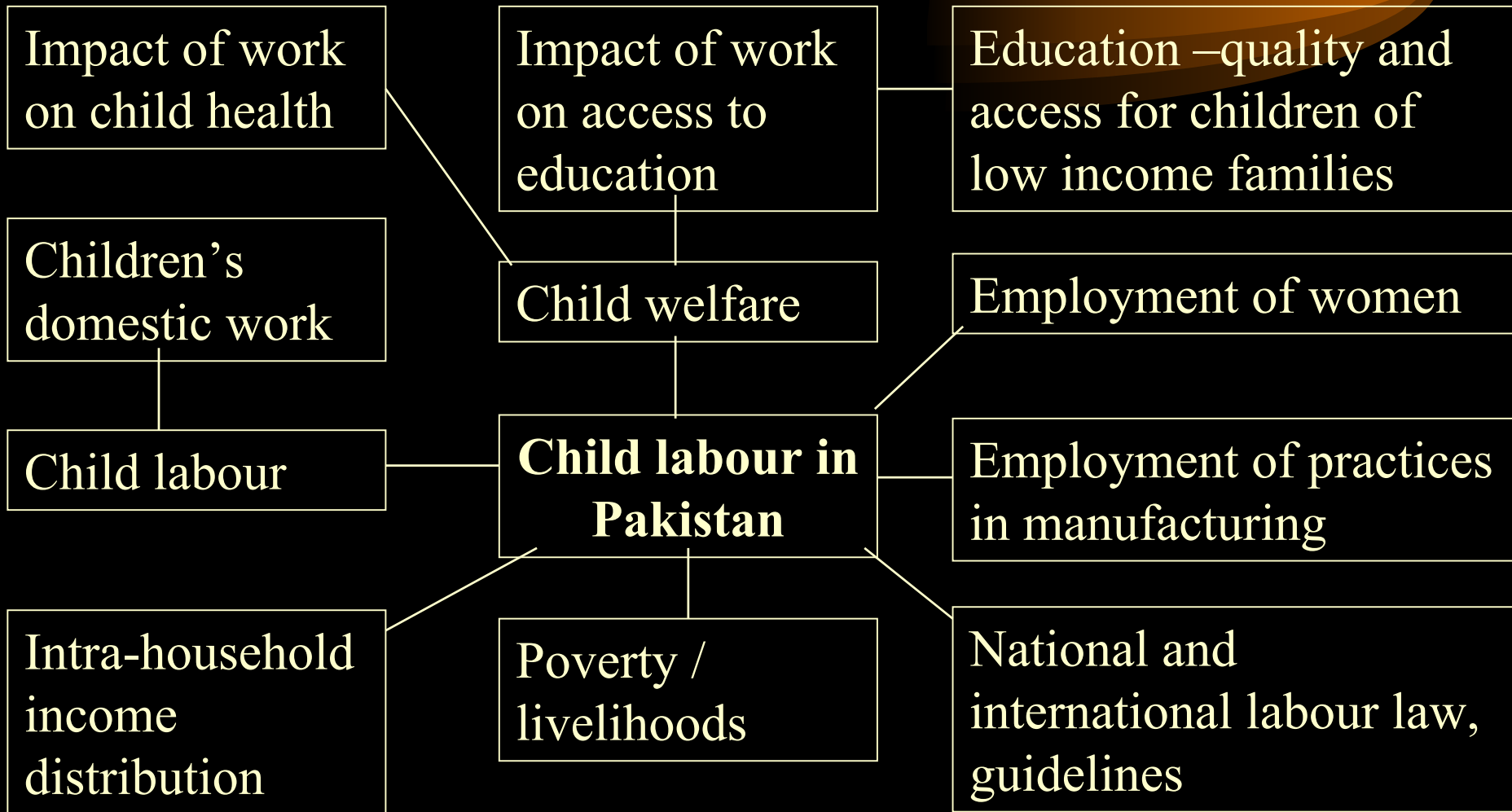# Important skills needed for knowledge generation

- Library/information searching
- Summarising/precising skills
- Research planning & organisaton
- Research design skills
- Interviewing skills

- Observation skills
- Analysis skills
- Report writing
- Research presentation & communication
- Computing /numerical skill
- Other research skills

Use spider diagram to structure knowledge

Impact of work on child health

Impact of work on access to education

Education –quality and access for children of low income families

Children's domestic work

Child welfare

Employment of women

Child labour

Child labour in Pakistan

Employment of practices in manufacturing

Intra-household income distribution

Poverty / livelihoods

National and international labour law, guidelines

Method to organize notes through numbering

- E.g., IA3b - meaning that the item "Accessing WWW" belongs in the following location of your outline:

    I. Understanding the Internet

    A. What is the Internet

    3. How to "Surf the Net"

    b. Accessing WWW

- Group your notes following the outline codes you have assigned to your notes, e.g., IA2, IA3, IA4, etc. This method will enable you to quickly put all your resources in the right place as you organize your notes according to your outline

Writing literature review

- Write a draft early
- Be clear about the direction
- Have a plan for classification & grouping of ideas
- Organise the materials
- Explain how each piece relates to your main theme
- Never just describe others work
- Summarise –what does it all mean?

When to cite?

- If the idea is distinctive to particular source
- If it has a distinctive structure or strategy
- If the data has been gathered from that source
- If you want to put verbatim phrase or passage
- If it is not of common knowledge
- Whenever you have doubt whether to cite or not, cite it

References can build up knowledge

- Justify and support the arguments/ reference allows comparisons with other research

- Express matter in a better way than you could do

- Demonstrate your familiarity with your field of research

Style Manuals

- Gibaldi, Joseph. ***MLA Style Manual and Guide to Scholarly Publishing**. 2nd ed. New York: Modern Language Association of America, 1998.

- ***The Chicago Manual of Style*.** 15th ed . Chicago: University of Chicago Press, 2003.

- Council of Biology Editors. ***Scientific Style and Format: The CBE Manual for Authors, Editors, and Publishers**. 6th ed. New York: Cambridge University Press, 1994.

style

- Type in double space ,
- one inch margin on all sides,
- page number upper right hand corner ½ inch down
- Numerical end notes preferred to footnotes, work cited / bibliography later
- *End note*
- [1] **Frank Feather, <u>Canada's Best Careers Guide 2000</u> (Toronto: Warwick, 2000) 152-3.**

Use Authors last name for Op cit & ibid

- [3] **Ibid. 12-15.**

- More commonly, author and page number or numbers are now used instead of *ibid.*, e.g.:

- [4] **Miller 12-15.**

- For second or later mention of the same work with intervening entries, where previously *op. cit.* was used, now only the author and page number or numbers are used:

- [5] **Miller 198.**

Practical time management solutions

- Develop, keep and enhance passion for knowledge
- Reduce time spent on entertainments in TV / on internet without a purpose
- Deal with papers immediately; file them or throw them away
- Exhaust every possible source for information
- Become a knowledge worker

Thank You