

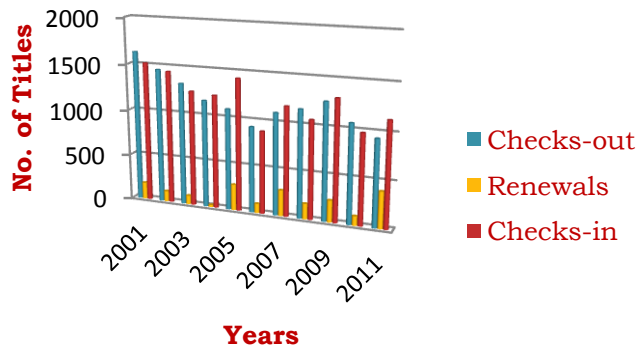
*Students & Faculty need Libraries & Librarians  
in the Age of Internet*  
**Library Vs Internet**

**Christina Birdie**  
**Indian Institute of Astrophysics**  
**Bangalore, India**

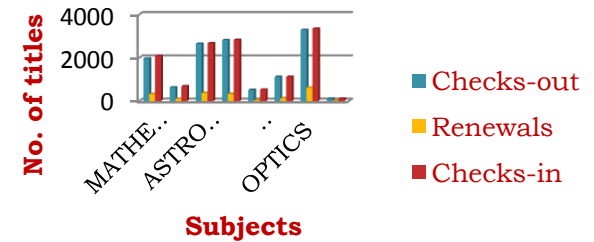
# In-house survey @ IIA Library

Library use by way of transactions remain constant in the last 10 years....

## Transactions 2001-2011



## Transactions 2001-2011



## Survey conducted on IIA library's contents & services reveals.....

- 66% students & faculty utilized electronic database/articles indexed within the last one year
- 69% reported using library print materials within the last year
- 46% reported using computer access @ the library
- 78% indicated using e-journals available through library
- 22% utilized interlibrary loan services @ library
- 36% used print reserves @library



# Extension of 5 laws



S.R. Ranganathan  
Father of library science in India

Students & Faculty need an ideal library where.....

**Books are for use**

**Every book has a reader**

**Every reader has a book**

**the library saves the time of the reader**

**the collection keeps growing**

they also need a.....

*library for missing links & extended services*

*library aligned with organizations' goal*

*library promoting value added services*

*library connecting with past*

*library reaching out beyond building*

*librarian- in a new avatar.....*



# Technological & Economic shifts have only made libraries more valuable

## Evolution of Libraries

### - Print library to Online library

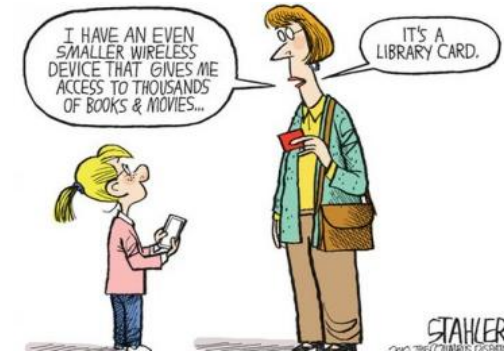
- Bound Volumes to Articles Online
- Pre-prints to IR repositories
- ISBN/ISSN to IP numbers

### - Collaborative library

- individual library to consortium partners
- individual bargaining to collective bargaining

everything is not on the web, something is still missing...  
If it is not accessible through GOOGLE, it could be in IR.....

Enhances interdisciplinary collection, strengthens interlibrary collaboration



# Library supports scholarly communication

- Libraries address the issue of supporting the faculty & researchers who wish to share their scholarly work for review & comments by providing Institutional repositories as part of the library service
- Libraries also provide extensive inter library loan service to supplement the resources not held within their own collections
- As a member of the consortium, library provides access to additional online resources which are out of reach for many colleges due to restricted budget
- College libraries pass on the advantage of un-interrupted back-files access to many resources subscribed through consortium to all the bonafide students and faculty (e.g.) UGC-INFONET Digital Library Consortium, INFLIBNET Centre and the INDEST-AICTE Consortium, IIT Delhi



# Library enhances the organizations' efficiency

- **Integrating within the programs of the organization**
  - building a comprehensive library collection related to the programs of the organization
  - remain as a link in the chain within the management of the organization for technology implementation
  - building study centers & branch libraries
- **Initiating activities to support the programs of the organization**
  - align with project teams and extend library support in building collection and services
  - creating library websites and connect with users through social network
  - extend support in the process of ISO certification of the organization
  - resource information on the updates of essential manuals and guides pertaining to different laboratories of the organization



# Library enhances the organizations' efficiency

## • **Innovating new ideas**

- use technology to create seamless communication
- convert library from reading room to research center
- introduce techie gadgets for routine functions

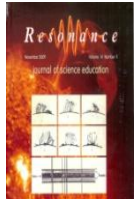
## • **Involvement in promoting the organizations profile**

- creating institutional profile
- promoting institution's publications
- become part of the publication process
- resource information on copyright barriers for international collaboration
- facilitate page charges procedure for publications



# Re-living the history

Libraries bring back the memories of the history of an organization in a more systematic and orderly manner. They preserve the heritage well and make it reusable for current research.



## Research from IIA Archives

Sketches of solar prominences made by John Evershed along with the solar spectrum with which he discovered the Evershed effect, Published in Resonance, Vol. 14, No. 09, 2009, (Cover Page)

C. Ragoonatha Chary and variable star astronomy, Rao, N.K., Vagiswari, A., Thakur, P. and Christina Birdie, Journal of Astronomical History and Heritage, Vol. 12, No. 3, pp. 201-210, 2009.

Chintamani Ragoonathachari and contemporary Indian astronomy, B. S. Shylaja, Current Science, Vo. 96, No. 9, 2009, pp. 1271-1273.



Solar eclipses during 1868-1980 in which Madras, Kodaikanal Observatories and IIA participated, Christina Birdie & Vagiswari, A., IIA Newsletter, Vol. 14, No. 2, pp. 14-15, 2009

Michael Topping and the origin of the Madras Observatory, Vagiswari, A., Rao, N.K., Christina Birdie and Thakur, P., IIA Newsletter, Vol. 14, No. 1, pp. 16, 2009.



From the IIA Archives: Solar Eclipses during 1868-1980 in which Madras, Kodaikanal Observatories and IIA participated

Participation in solar eclipse studies have been a notable characteristics of the institute for more than a century. For all major eclipses teams were sent and the expeditions met with a considerable degree of success. Table presented here lists the various expeditions undertaken from 1868 - 1980, along with the results obtained.

YEAR, NATURE AND PLACE OF EXPEDITION	TEAM LEADER	EXPERIMENTS/PROGRAMMES	RESULTS
August 18, 1868 Total Solar Eclipse 1. Vasaipur 2. Manipalpet	N.K. Pigeon C. Ragoonatha Chary	Spectroscopy	First time spectroscopy applied to solar eclipse Detection of Hydrogen lines in emission in chromosphere Observation of yellow line near sodium D line later attributed to Helium
December 12, 1871 Total Solar Eclipse Aravindhy	N.R. Pigeon C. Ragoonatha Chary	Spectroscopy Photography Polarization measurements	Handwritten solar spectrum of the solar eclipse 1868 shows D3 line Observation of bright lines in spectrum. This was the occasion when, what we term the F Corona, was first seen.
June 6, 1872 Annular Eclipse Madras	N.R. Pigeon	Photography Spectroscopy	First page of the report prepared by C. Ragoonatha Chary in Tamil This is the first observation on record of viewing the flash spectrum at an annular eclipse
January 21, 1868 Total Solar Eclipse Sobhoi	M. Smith	Monography	White light photographs of different scales were obtained
September 21, 1921 Total Solar Eclipse Wahid Australia	J. Evershed	Monography of the spectrum of the coronae on the East & West limbs To determine the dispersive effect of the green coronal lines due to solar rotation to obtain an improved value of the wavelength of this line To determine an important aspect of Einstein's theory of relativity that could be experimentally verified	The expedition was not successful due to bad weather





# Re-living the history

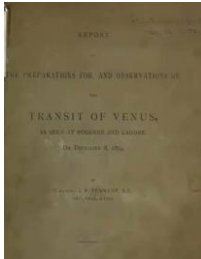
## Research from IIA Archives

Vintage maps in IIA archives, Christina Birdie and Vagiswari, A., IIA Newsletter, Vol. 13, No. 2, pp. 14–15, 2008.

The Indian Institute of Astrophysics has valuable antique maps in its archives. These original maps were published under the supervision of the Society for the Diffusion of Useful Knowledge (SDUK).



J.F. Tennant



Report on Transit of Venus

Historical Observations/Expeditions: Transit of Venus observed in India during 1761 - 2004

Christina Birdie, Prabahar, P & Mohan BS

John Evershed: The Instrument Builder, Bagare, S.P., Vagiswari, A., and Christina Birdie, IIA Newsletter, Vol. 13, No. 4, pp. 6–7, 2008. John Evershed (1864-1956) is well known in astrophysics, particularly in the area of solar physics, for his discovery of the radial motion in sunspots, an effect which bears his name.



The Great September Comet of 1882 II (C\1882 R1) that transited over the Sun - Pogson's observations from Madras Observatory, Kameswara Rao, N., Vagiswari, A. and Christina Birdie, IIA Newsletter, Vol. 12, No. 2, pp. 3–5, 2007



The comet was photographed from the Madras Observatory in the southern hemisphere.



K. R. Srinivasan

The great September comet of 1882 II (C\1882 R1) that transited over the Sun - Pogson's observations from Madras Observatory, Kameswara Rao, N., Vagiswari, A. and Christina Birdie, IIA Newsletter, Vol. 12, No. 2, pp. 3–5, 2007



W. S. Jacob, Director of the Madras Observatory (1871 - 1878), described the use of transit cycle in his report 'On the transit of Venus & Neptune observed at the Madras Observatory in the years 1874 & 1876'. The instrument was used at the Madras Observatory for the transit of Venus in 1874 & 1876.



From the IIA Archives



# Reaching the unreachable



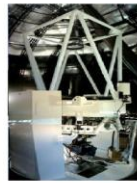
**A constant endeavour to reach public to satisfy their curiosity and to better their knowledge**



In Commemoration.....

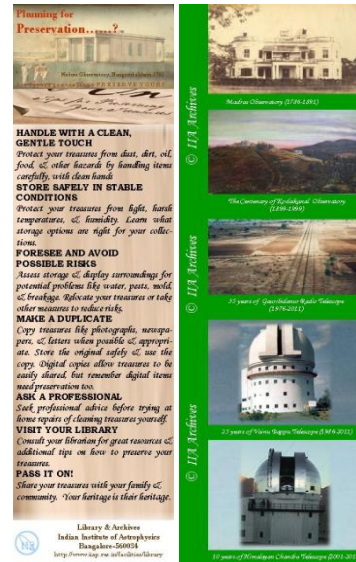
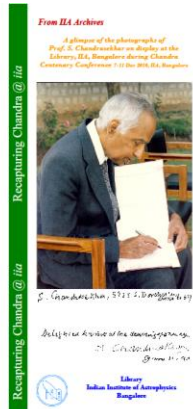


The 100th anniversary of Prof. S. Chandrasekhar, the first recipient to receive the well known Padma Bhushan (Bharat Ratna), was celebrated on the 100th Anniversary.



The 100th Anniversary of the Chandra Telescope, Indian Astronomical Observatory, Madhav Nagar, Bangalore National Institute of Astrophysics (NIA), was celebrated on the 100th Anniversary.

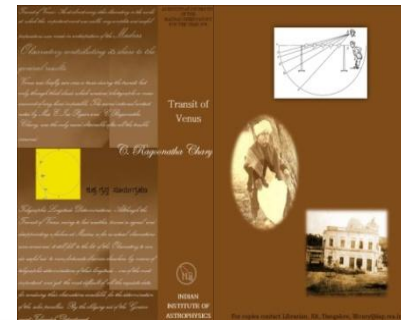
Chandra Centenary Exhibits



Book Mark on Preservation Week



Transit of Venus by Ragoonatha Chary



25 Years of VBT

**Libraries are integral partners in the outreach programs of the organization and they invent new ideas in support of the programs**



# Beyond boundaries

## Facilitate access to distant learners

- Remote access to students and scholars registered in open universities
- Facilitate library access to retired senior faculty, visiting faculty & walk-in users
- Extend library facility to students from remote colleges

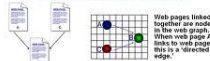


# 21<sup>st</sup> Century Librarian - a new avatar



## Citation Analysis

- Hyperlink analysis algorithms make either one or both of these simple assumptions:
- Assumption 1 - A hyperlink from page A to page B is a recommendation of page B by the author of page A.
  - Assumption 2 - If page A and page B are connected by a hyperlink, then they might be on the same topic.



Web pages linked together are nodes in the web graph. When web page A links to web page B, there is a directed edge.



POWERED BY



OPEN ACCESS



The Librarianship was first established in 1796 in 1799 the Librarians Department was formed by the Court of Directors and since that period it has continued to be a Public Office of record transmitting its annual reports to the Board of Directors and the Government. The Honble and Liberal Order has ever yours truly  
14 September 1800 signed W. B. Jones

