

New and Innovative Library Services: Moving with WEB 2.0 / Library 2.0 Technology: A case study

By

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Introduction

- The idea of being able to use internet social software via an internet platform is a relatively new idea when considering the history of the computer and its networking capabilities. New technologies are impacting the daily work of academic libraries and librarians more and more, with Web 2.0 services at the forefront. Web 2.0 services are becoming part of library patron primary activities online when accessing information and libraries need to stay vital to their patrons by using these same services (McManus, 2009).

Library 2.0/Web 2.0: in Brief

- The term ‘Web 2.0’ was coined by technology commentator Tim O’Reilly who tried to define it as follows: “Web 2.0 is the network as platform, spanning all connected devices; Web 2.0 applications are those that make the most of the intrinsic advantages of that platform: delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an ‘architecture of participation’ and going beyond the page metaphor of Web 1.0 to deliver rich user experiences” (O’Reilly, 2005).

Tools of Library 2.0/Web 2.0 with possible implementation for the libraries

- An understanding of the major Web 2.0 components is needed as a general frame work in order to understand how libraries can use them to their fullest potential and where they may lead us in the near future (McManus, 2009). A group of Web 2.0 applications have been developed since 2005 when the term was coined. They include blogs, IM, podcasts, RSS, social networks, tagging or social bookmarking, and wikis (Xu, 2009). Web 2.0 encompasses several technologies and its possible implementation in academic libraries (Hanif, 2009).

Blogs

Short description

- It is a powerful two-way based tool. A blog is a website where library users can enter their thoughts, ideas, suggestions, and comments. Blog entries known as blog posts are made in journal style and are usually displayed in reverse chronological order; entries listed in specific categories that can be searched; links to other sites of interest and places for comments; and a monthly archive of previous entries. A blog entry might contain text, images or links to other blogs and web pages. Any library user can publish a blog post easily and cheaply through a web interface, and any reader can place a comment on a blog post.

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Possible implementation in Academic Libraries

- Blogs serve as a platform where the users can file their concerns, queries and suggestions regarding the services and activities of the library,
- In IUCAA and IIT Kgp, users has started create their personal blogs on specific research topics based and communicating their queries and getting solutions for same.
- Blogs can also be used for the collection development where the users request the resources,
- Blogs can be used tools for marketing of the information as well as the library,
- Can be used as tool for posting Minutes of the Meetings for necessary actions,
- Blogs can serve as discussion forum

Wikis

Short description

A wiki is a webpage or set of WebPages that can be easily edited by anyone who is allowed access. Wikipedia's popular success has meant that the concept of the wiki, as a collaborative tool that facilitates the production of a group work, is widely understood. Wiki pages have an edit button displayed on the screen and the user can click on this to access an easy-to-use online editing tool to change or even delete the contents of the page in question. Simple, hypertext-style linking between pages is used to create a navigable set of pages. Unlike blogs, wikis generally have a history function, which allows previous versions to be examined, and a rollback function, which restores previous versions.

Possible implementation in Academic Libraries

- Wikis can be used for social interaction and discussions among the librarians & users as well.
- Wikis can also be used by the users to share information and enhance the content, and a record of these transactions is archived for future reference.
- Reference resources wiki can be built.
- Wikis can be used for creating subject guides, subject gateways.
- Wikis provide the very mechanism that supports participatory librarianship as it enables users to make original and genuine contributions to subject contents as both the libraries aiming to cover it in near future

Really Simple Syndication (RSS)

Short description

- RSS is a family of web feed format used for syndicating content from blogs or web pages, RSS uses an XML that to blogs or websites, which are interested by the users. Many web browsers have built-in-feed readers or aggregators, and can easily add feeds to web page. Summarizes information items and links to the information sources. It informs users of updates

Possible implementation in Academic Libraries

- Announcement of the availability of new books and other resources in a given subject area.
- Librarians can subscribe to RSS from the sources for compiling their customized alerts.
- Promote events organized in the library for Library Users.
- Enhance Library Instruction for different Web 2.0, Library 2.0, Blogs, Wikis, RSS, Tagging, Podcasting, IM programs/courses by integrating appropriate resources.
- Announce availability of new research and learning opportunities in various academic/ research departments.
- Integrating library services through RSS feeds. Announce availability of new research and learning opportunities in various academic/ research departments.
- Integrating library services through RSS feeds.

Instant Messaging (IM)

Short description

- IM is a form of real time communication between two or more people based on typed text, images etc. IM has become increasingly popular due to its quick response time, its ease of use, and possibility of multitasking. It is estimated that there are several millions of IM users, using for various purposes viz: simple requests and responses, scheduling face to face meetings, or just to check the availability of colleagues and friends.

Possible implementation in Academic Libraries

- Librarians questions in real time regardless of where they are. Users may also attempt to answer questions other people posed if they are able to services.
- IM have been adopted most frequently by the users of both libraries (e.g., Google Talk at IUCAA & IIT KGP Libraries). The reason behind its popularity may be because it can easily be implemented in reference services to replace traditional methods like email or telephone. With IM, librarians and users would not only communicate with each other but could also keep a script of their exchanges if they so wish. In addition, IM offers synchronous communication whereas email does not.

Social Networking

Short description

- Social networks are built upon a hypothesis that there exists a determinable networking structure of how people know each other. A social network thus can be formalized into a net structure comprising nodes and edges. Nodes represent individuals or organizations. Edges connecting nodes are called ties, which represent the relationships between the individuals and organizations. Myspace and FaceBook are two popular social networking sites launched during 2003 and 2004 respectively. Myspace allows organizations to create their own profiles, pages and can be used by libraries. But Facebook allows individual librarians to create profiles.

Possible implementation in Academic Libraries

- Libraries can create a page to reach to new users
- Social networking could enable librarians and patrons not only to interact, but to share and change resources dynamically in an electronic medium.
- For building network among the interested group in discussing the common interest User content can be added to the library catalogue, including users book reviews or other comments

Podcasting

Short description

- A podcast is a series of audio or video digital-media files which is distributed over the Internet by syndicated download, through Web feeds, to portable media players and personal computers. Though the same content may also be made available by direct download or streaming, a podcast is distinguished from other digital-media formats by its ability to be syndicated, subscribed to, and downloaded automatically when new content is added.

Possible implementation in Academic Libraries

- Podcasts promotional recordings about the library's services and programs.
- Podcast highlights about new resources
- Podcasts enable librarians to share information with anyone at any time.
- Podcasting can be a publishing tool for users and librarians' oral presentations.
- Podcasting is the least adopted Web 2.0 tool by the academic libraries but in IUCAA library, We are planning to provide recorded archive and will share traditional (scientific) lectures and talks carried out using, e.g., very large chalkboards found in classrooms and/or using modern presentations (PPT, PDF, etc).by OpenEYA software developed by

Tagging

Short Description

- A tag is a keyword that is added to a digital object (e.g. a website, picture or video clip) to describe it, but not as part of a formal classification system. The concept of tagging has been widened far beyond website bookmarking, and services like Flickr (Photos), YouTube (video) and Audio (podcasts) allow a variety of digital artifacts to be socially tagged.

Possible implementation in Academic Libraries

- Tagging can be applied to the Library Management System editing the subject headings from the user point of view and there by enhancing the indexing and relevancy of the searches, making the collection more dynamic.
- Tagging would greatly facilitate the lateral searching.

Moving with WEB 2.0 / Library 2.0 Technology

Library 2.0 is not about searching, but finding; not about access, but sharing. Library 2.0 recognizes that human beings do not seek and utilize information as individuals, but as communities. Some examples of the move from Library 1.0 to Library 2.0

Library 1.0	Moving	Web 2.0/Library 2.0
Catalog of largely reliable print and electronic holdings	➔	Catalog of reliable and suspect holdings, web-pages, blogs, wikis, etc.
Cataloging	➔	Tagging in OPACs
Controlled classification schemes	➔	Tagging coupled with controlled schemes
Email mailing lists, webmasters	➔	Blogs, wikis, RSS feeds
Email reference/Q&A pages	➔	Chat reference
Online communities via mailing lists	➔	Online Communities via Social Networks
OPAC	➔	Personalized social network interface
References with traditional means	➔	References with Blogs, IM, RSS, Tagging, Wikis
Text-based tutorials	➔	Podcast-based & Streaming media tutorials with interactive databases

About IUCAA Library and its services: In brief

The Inter-University Centre for Astronomy and Astrophysics (IUCAA) library is an automated open access library and one of the most advanced modern libraries specializing in astronomy and astrophysics in India. It was the first library in the country to dispense with the card index in favor of a computerized database. Serving as the main resource library in astronomy and astrophysics in the university sector, it is extensively used both on and off campus. It provides references, copies, etc. of relevant literature to users from all over India. In the last few years, the IUCAA library has become increasingly electronically oriented. The library homepage is playing a greater part in users' awareness of the library and its services. In addition to the more traditional activities, librarians' tasks now include providing information through e-journals, scientific databases, bibliographic databases and e-archives, as well as maintaining the library's own scientific e-papers database



E-Resources/Online subscribed and available through IUCAA Library

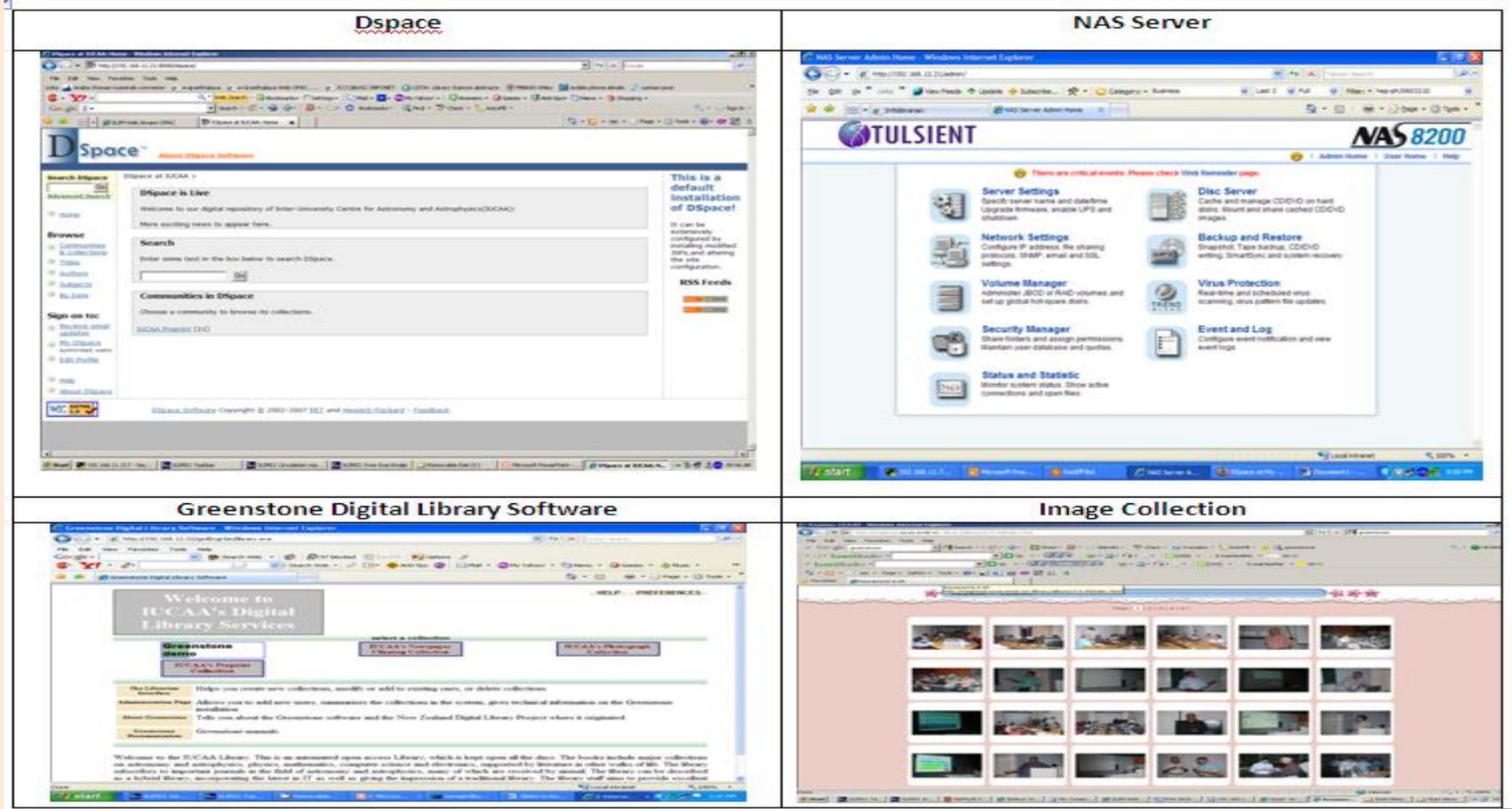
The main e-resources available through the IUCAA Library include: the LANL e-print archive mirror at IUCAA, the NASA mirror site of Astrophysics Data System at IUCAA, the mirror site of VizieR Catalogue Service at IUCAA, the Virtual Observatory India project at IUCAA, etc

The image displays four screenshots of online resources available through the IUCAA Library, arranged in a 2x2 grid:

- Top Left:** Screenshot of the **The SAO/NASA Astrophysics Data System** website. It features a search bar, navigation links, and a welcome message: "Welcome to the Digital Library for Physics and Astronomy".
- Top Right:** Screenshot of the **lanl.arXiv.org** website from Cornell University Library & Los Alamos National Observatory. It shows a search bar and a list of physics topics.
- Bottom Left:** Screenshot of the **Physical Review Online Archive** website. It displays a search bar and a table of publications.
- Bottom Right:** Screenshot of the **Science Direct** website, showing a search bar and a list of articles.

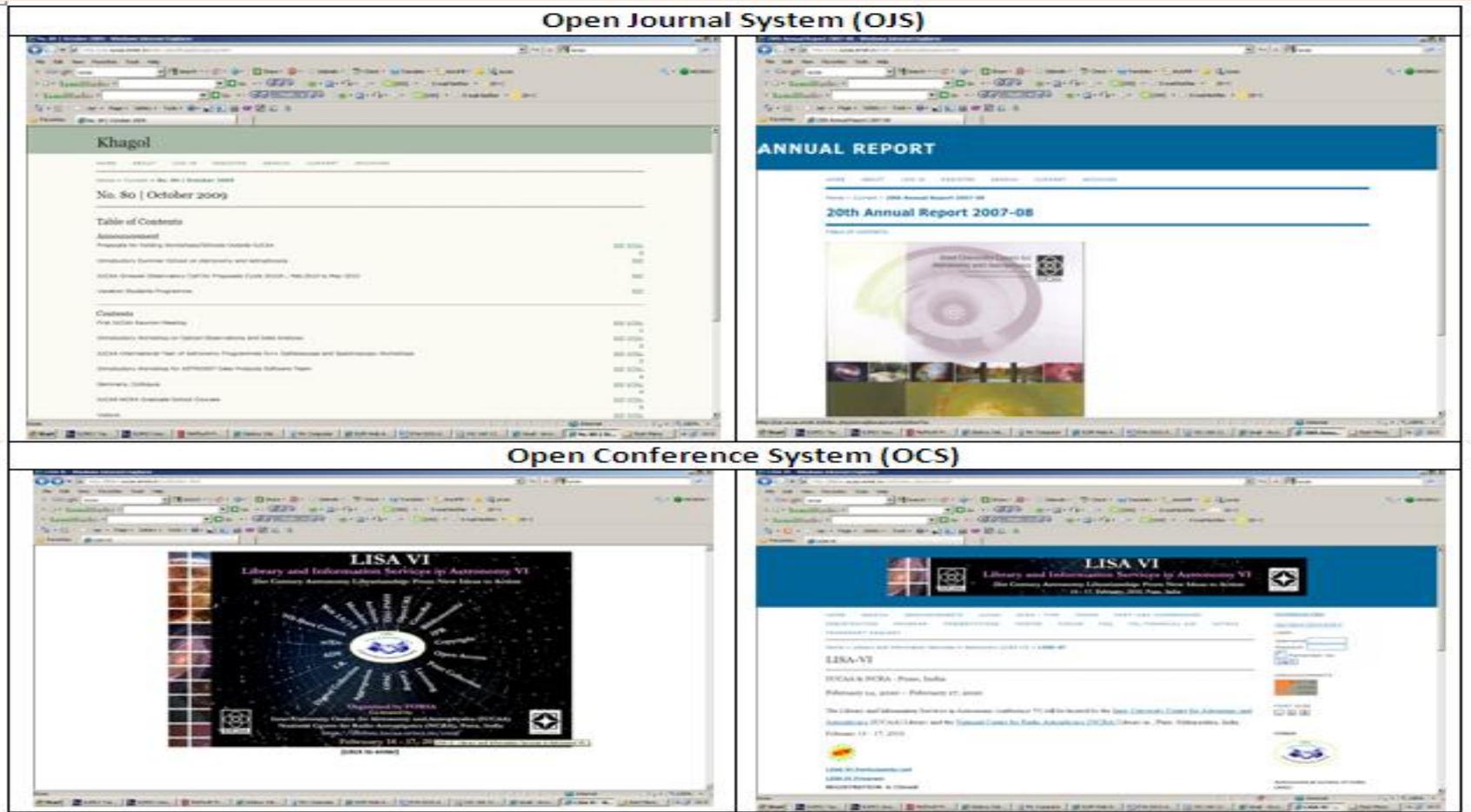
Institutional Repository software used by IUCAA Library

IUCAA Library using Institutional Repository software for managing our own publications and for making e-resources available to users. The IUCAA Library has also initiated the preservation and management of the audio/visual resources by using NAS (Network Attached System) server technology for keep online available collections of CD/DVD and videos through steaming media software.



Open Sources software used by IUCAA Library

In IUCAA library, we are successfully using the Open Journal System (OJS) for make available online IUCAA own publications and Open Conference System (OCS) for managing international conference/workshops as LISA-VI. The both OJS and OCS developed and available open source software by Public Knowledge Project, Canada



OpenEyA: Open Enhance Your Audience

- **Recently IUCAA library also initiated for use of OpenEYA developed** by the Science Dissemination Unit (SDU), International Centre for Theoretical Physics (ICTP) Itlay.
- **OpenEyA** is the Linux-based alternative to the automated EyA rich-media recording system also **OpenEyA** integrates different technologies under Linux O.S. (Ubuntu) to synchronize.
 - Video in Flash format (to see whatever happens in front of a classroom)
 - High resolution digital photos (to zoom specific areas of the classroom podium, blackboard and projector screen -if any) and
 - Classroom audio (without the need to wear a microphone).
- **OpenEyA** (and EyA) allows to archive and share traditional (scientific) lectures and talks carried out using, e.g., very large chalkboards found in classrooms and/or using modern presentations (PPT, PDF, animations, etc

Snapshot of EyA in action

Simple OpenEyA Hardware Set up



Snapshot of EyA in action (click to zoom)

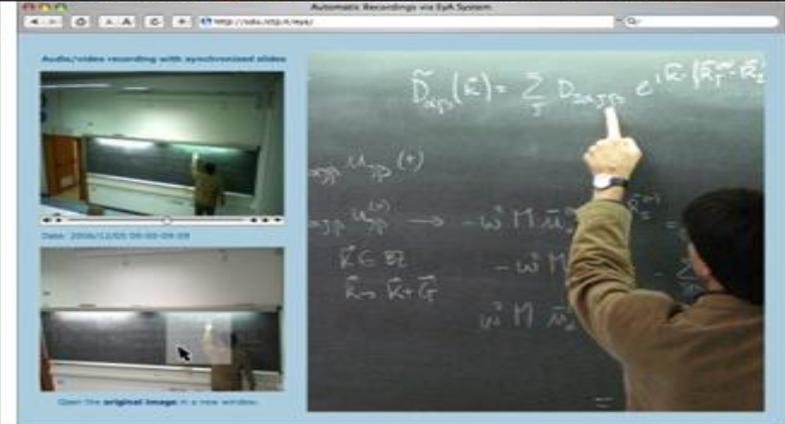


Image of Live Lecture recording through EYA

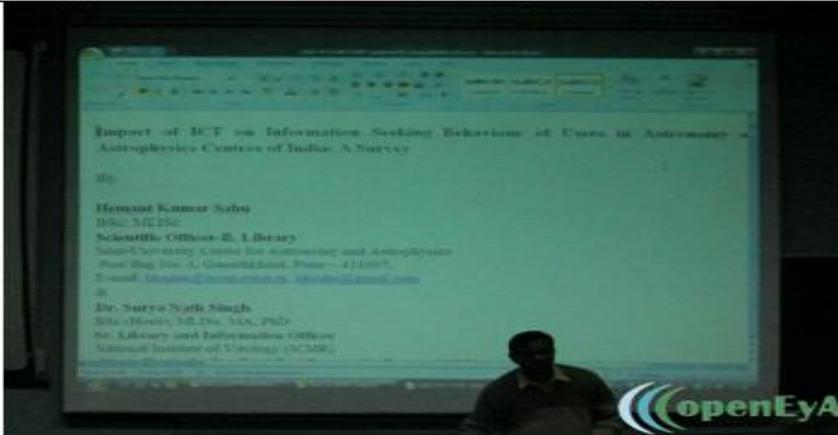
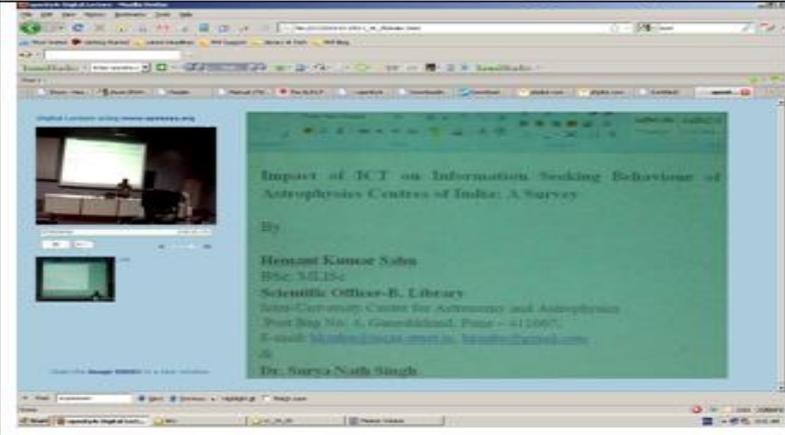


Image of Live Lecture recording through EYA



Conclusions

- Web 2.0 applications, like other information technologies, facilitate library operations and services in many ways. We described and discuss above how the seven specific Web 2.0 tools were utilized after being adopted by the both academic libraries we included in our study.

Thank you very much for your
attention!!!

Questions Please???