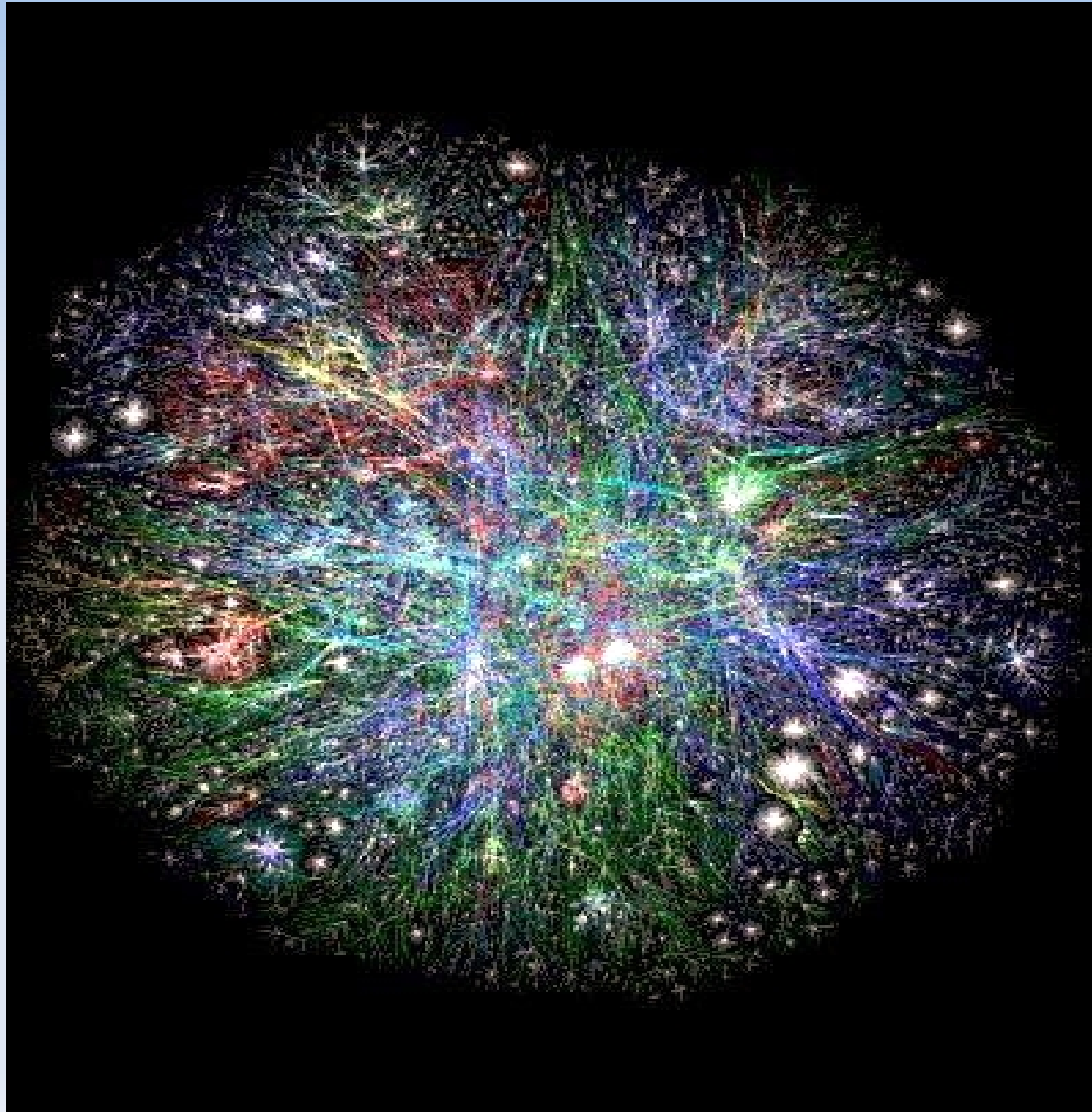# Web 2.0 Technologies for Education

G. Santhosh Kumar
Dept. Of Computer Science
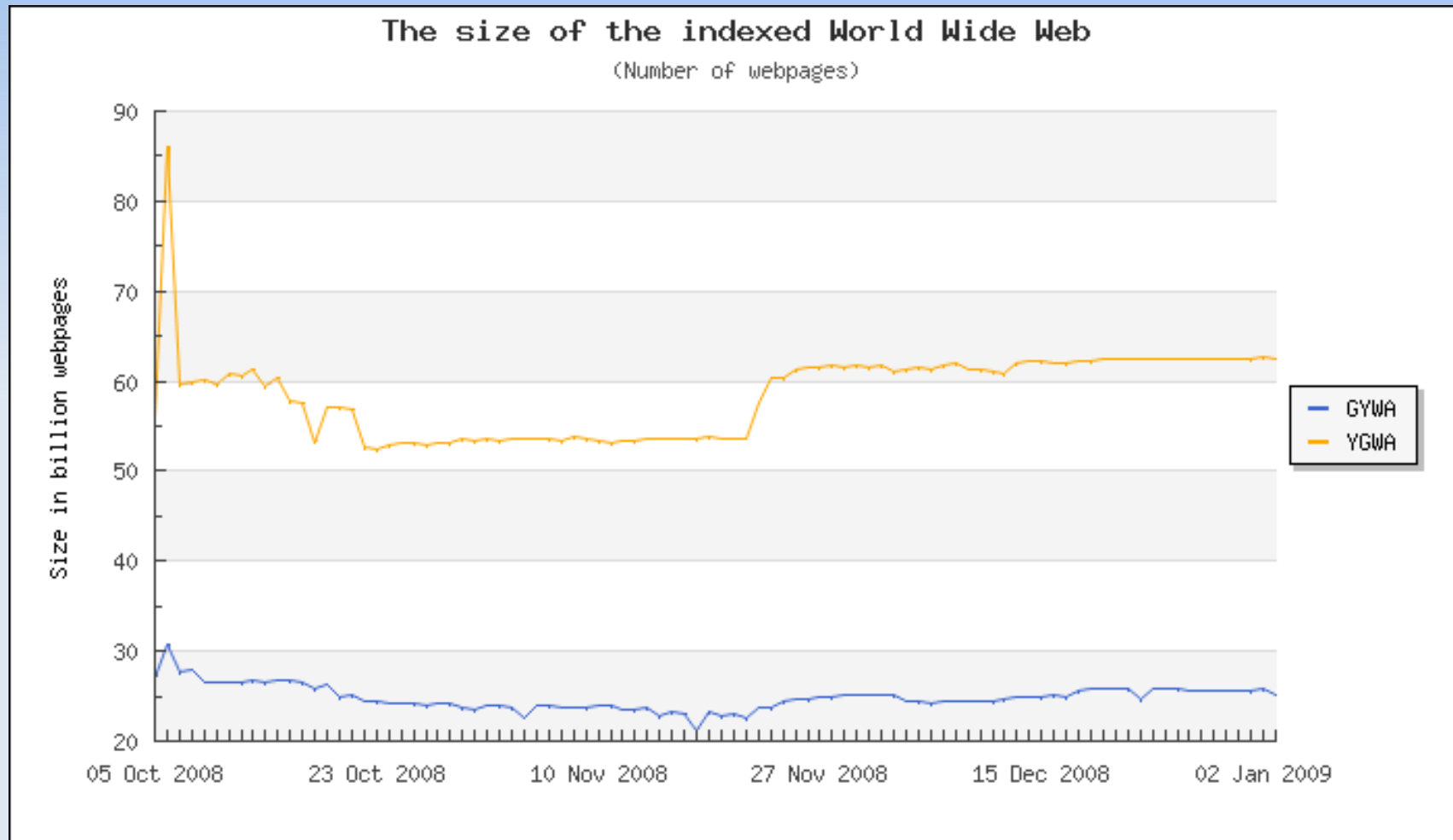**Cochin University**

What is Internet?

CUSAT is linked to this Web through 10 Mbps leased line connectivity

Size of the Web?

The size of the indexed World Wide Web
(Number of webpages)

GYWA = Sorted on Google, Yahoo!, Windows Live Search (Msn Search) and Ask

YGWA = Sorted on Yahoo!, Google, Windows Live Search (Msn Search) and Ask

www.worldwidewebsize.com

The Machine is Us/ing Us

- http://in.youtube.com/watch?v=NLlGopyXT_g&feature=channel

Web 1.0 (the old web!)

- What contents were available?
  - Static web pages (HTML Documents)
  - Some images (Jpeg, gif files)
  - Some Presentations (pdf, ppt)
  - **STATIC & READ ONLY!**
- Who were creating contents?
  - HTML Coders
  - Graphic Designers
  - Programmers

Web 1.0 (the old web!) cont..

- Also skills needed for
  - Hosting Web sites
  - Promotion Mechanisms
  - Updation of the site
- MOSTLY A ONE-WAY INTERACTION
  - Instructor posts and students download.
  - No interactive communication

Course Management Systems

- Blackboard

- WebCT

- Moodle

CUSAT have installtions on Blackboard & Moodle

- Blackboard-type course websites offer discussion boards, but have limited access.
  - No discussion accumulated over the time.

- Maintenance and updates can be burdensome
  - HTML, server access for uploading, etc.

Content friendly, People friendly Internet

- New classes of online software to simplify content creation

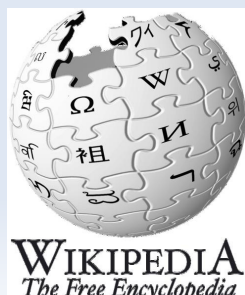- Allowed people to focus on ideas and creativity rather than technical know-how

"The Read-Write Web"

or

Web 2.0

What is Web 2.0?

- Phrase was first coined in 2004.

- Referred to a significant change in the way of using the Web.

    - Not a technical upgrade of the Web

- Indicated by a collection of 2nd generation web services

    - Blogs, wikis, social bookmarking, podcasts, vlogging,RSS, Mashups…

WEB 2.0 Landscape

WEB APPLICATION

Widget/ component

Aggregation/ recombination

CONTENT SHARING

RECOMMENDATION FILTERING

Rating/ Tagging

Collaborative filtering

SOCIAL NETWORK

goowy

omnidrive

FeedBurner

ZOHO

Jotspot

Pageflakes

WEATHER BONK

E CHICAGOCRIME.ORG AV 4200 N

thinkfree

Bloglines

jumpcut BETA

remember the milk BETA

newsgator

netvibes

ODEO

Blogger

snap

Rojo

pb wiki

Basecamp

Zillow.com Beta
Your Edge in Real Estate

THE HYPE MACHINE

trulia
real estate search

PANDORA
radio from the Music Genome Project

Ning

musicovery

Findory

Platial the people's atlas

Quimble

ourmedia
channels of creativity

edgeio

Frappr! Beta

blinx.com

You Tube
Broadcast Yourself

many eyes

reddit

movielens
helping you find the right movies

imeem

Linked in

PLAZES
STILL BETA

Technorati

flickr

SECOND LIFE

VIDEOBOMB

Opinity
Be Known, Be Trusted

REVVER

meebo

SHOUTWIRE

Techmeme
Tech Web, Page A1

WIKIPEDIA
The Free Encyclopedia

FURL

twitter

StumbleUpon
Discover new sites

eurekster
swicki BETA

del.icio.us
social bookmarking

SQUIDOO

myspace.com
a place for friends

ChaCha

digg

cluztr
STOP WANDERING THE WEB ALONE

last.fm

ROLLYO BETA

FUTURE

Web 1.0 Vs Web 2.0

- Web 1.0 was about owning,
- Web 1.0 was about reading,
- Web 1.0 was about portals,
- Web 1.0 was about companies, communities
- Web 1.0 was about Netscape,
- Web 1.0 was about HTML,
- Web 1.0 was about home pages,
- Web 1.0 was about wires,
- Web 1.0 was about dialup, broadband
- Web 1.0 was about hardware,
- ...

Web 2.0 is about sharing
Web 2.0 is about writing
Web 2.0 is about RSS
Web 2.0 is about

Web 2.0 is about Google
Web 2.0 is about XML
Web 2.0 is about blogs
Web 2.0 is about wireless
Web 2.0 is about

Web 2.0 is about bandwidth
...

Blogs

- Weblogs

- usually maintained by an individual with regular entries of commentary, descriptions of events, or other material such as graphics or video

- art (artlog), photographs (photoblog), sketches (sketchblog), videos (vlog), music (MP3 blog), audio (podcasting)

- Example: http://i-am-mammootty.blogspot.com/

Blogs in Education

- Education blogs are becoming a means for educators, students, and education administrators to interact more effectively than ever before

- There are over 30,000 blogs hosted at http://edublogs.org/ alone

- Top 100 edublog sites
  http://oedb.org/library/features/top-100-education-blogs

edublogs

Encouraging Educators to Blog

- Why I Blog?
  - is a place where I think, plan and reflect
  - forces me to read in order to gather the input I need for my output
  - is a place where I play with technology and ideas often surprises me
  - is a place where I collaborate
  - is currently the most satisfying part of my job
  - is slightly dangerous
  - is compulsive

Be a Teacher and a Reacher

- http://scienceoftheinvisible.blogspot.com/
- http://coolcatteacher.blogspot.com/

Stay current via RSS feeds

- Really Simple Syndication (RSS) also,

- Rich Site Summary (RSS)

- It is a format for delivering regularly changing web content

- Many news-related sites, weblogs and other online publishers syndicate their content as an RSS Feed to whoever wants it.

- Feed Reader or News Aggregator software allow you to grab the RSS feeds from various sites and display them for you to read and use.

RSS Readers

- Amphetadesk (Windows, Linux, Mac)

- FeedReader (Windows)

- NewsGator (Windows - integrates with Outlook)

- My Yahoo, Bloglines, and Google Reader are Webbased RSS readers

- There are Mobile RSS readers also

RSS and Education

- Academia has embraced RSS as a means to Share Resources
  - Class Blogs
  - School Schedule Sports Schedule
  - Podcast Lectures
  - Search Feeds
  - Grants & Scholarships
  - School News etc..

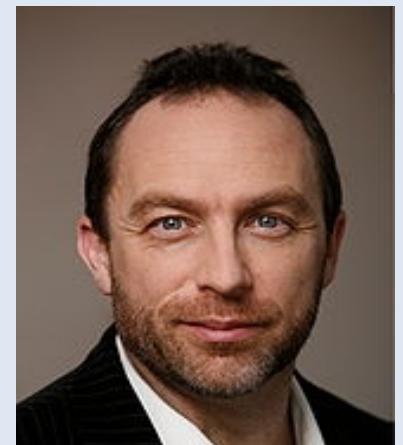http://newsrss.bbc.co.uk/rss/newsonline_world_edition/front

Wiki

Imagine a world in which every single person on the planet is given free access to the sum of all human knowledge.

— Jimmy Wales, Wikimedia

Founder of Wikipedia

co-founder Larry Sanger

Wiki cont..

Welcome to Wikipedia, the free encyclopedia that anyone can edit. 2,681,334 articles in

English Arts Biography Geography

History Mathematics Science Society

Technology

Wikipedia operates with just 23 people.

Wikipedia has raised $6.2 million as donations within six months

Wiki News from India- 3 Jan 09

The *knowledge foundation* at **Chennai** has mooted attempts to start the India chapter of the Wikimedia foundation

"At a more fundamental level, we are also thinking of tying up with schools to use the literature available in Wikipedia for classroom education," Mr.Kiruba (founder of Knowledge foundation).

As many schools do not have full fledged computer or internet access, we may offer them CD versions of regional language Wikipedia. That will also potentially create more regional language wikipedians (contributors of articles to the online encyclopedia) in the future

Youtube – Broadcast yourself

Youtube 4 Education

- A picture is worth of 1000 words, a video is worth even more…

- Embedding YouTube videos in your site can be as easy as several clicks

- A simple instructional video or step-by-step guide, available to students on a short video clip has potential to keep them on track and motivated to learn more.

- They are engaging in learning with a multimedia format that they are comfortable and familiar with

Edutube

- http://www.edutube.org/

Social Software & Democratization of Content

- classblogmeister.com: edublogging tool

- flickr.com: photo blogging community

- epnweb.org: education podcast network

- blip.tv: make your own video blog

- youtube.com: 100 m videos downloaded *daily*

Common thread:

Online communities where people

are <u>actively encouraged</u> to use

and share each other's original content

Social Networks

- Websites that focus on community

- Encourage interaction, discussion, debate

- Public member profiles

- User-generated content

- Often target specific audiences

Some Social Networks

Social Networks in Education

- http://india-men.ning.com/ Maths site

- http://www.minglebox.com/ Career building site

Social bookmarking

- Social bookmarking is a method for Internet users to store, organize, search, and manage bookmarks of web pages on the Internet with the help of metadata.

- http://delicious.com/

- The tastier book marks on the web,

- all your stuff in one place

- Bookmarks will organize by themselves

- Dish out your bookmarks to your friends

Mashups

- a mashup is a web application that combines data from more than one source into a single integrated tool.

- The term Mashup implies easy, fast integration, frequently done by access to open APIs and data sources to produce results data owners had no idea could be produced

- Works in any Operating System!

Who Provides APIs?

- Amazon

- Google Maps

- Flicker

- eBay

- Youtube

- Microsoft

Examples

- Flickrvision (http://flickrvision.com/)

- Youmashtube (http://youmashtube.com/)

Conclusions

- Education is a life-long process
- Education beyond graduate school often relies on self learning
  - Limited scope and time-constraint
- Web 2.0 brings mechanicians of common interests together and serves as a platform for discussions and interactions.

  – No institutional boundaries

  – Evolving all the time

  – Real time updates

Conclusions

- Web 2.0 is Building an online life-long learning environment without boundary.
  - Not limited within a specific institution/curriculum
  - Anyone can participate, as either an instructor or a student, or both

- Harnessing community-wide wisdom

Education Tommorrow

- http://in.youtube.com/watch?v=Fnh9q_cQcUE

Sites for Teachers

- http://www.sitesforteachers.com/