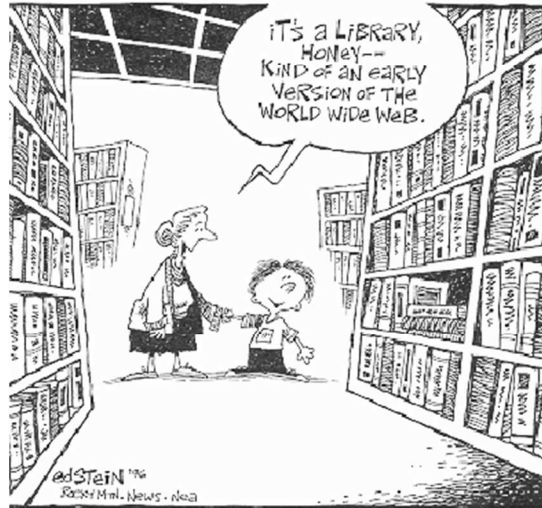


Once upon a time...



What's happening in the International Group of Ex Libris Users meeting in...  
**2009 GeLU** September 6-9, HELSINKI

Patrons' Collective Intelligence  
and Communities of Practice:  
let the OPAC go out and have a social life

USE.pt  
Portuguese Ex Libris Product User Group

SDUA  
Documentation Services (Library)  
University of Aveiro  
Portugal  
<http://www.doc.ua.pt>

Filipe MS Bento  
9 September 2009

[with Lidia Oliveira Silva, CETAC.media / Communication and Art Department, U.Aveiro]

USE.pt

<http://arts.fe.up.pt/use/use.html>

Documentation Services (Library), U. Aveiro

<http://www.doc.ua.pt>

CETAC.media

<http://www.cetacmedia.org/en/>

Communication and Art Department, U. Aveiro

<http://www.ua.pt/ca/>

University of Aveiro, Portugal

<http://www.ua.pt/>

**Why?**

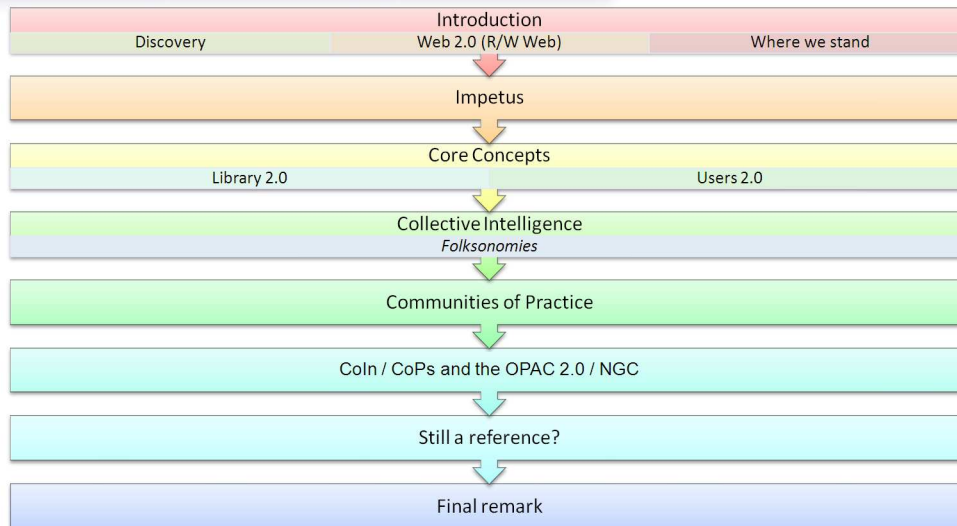


“He is wise who knows the sources of  
knowledge - who knows who has written and  
where it is to be found”

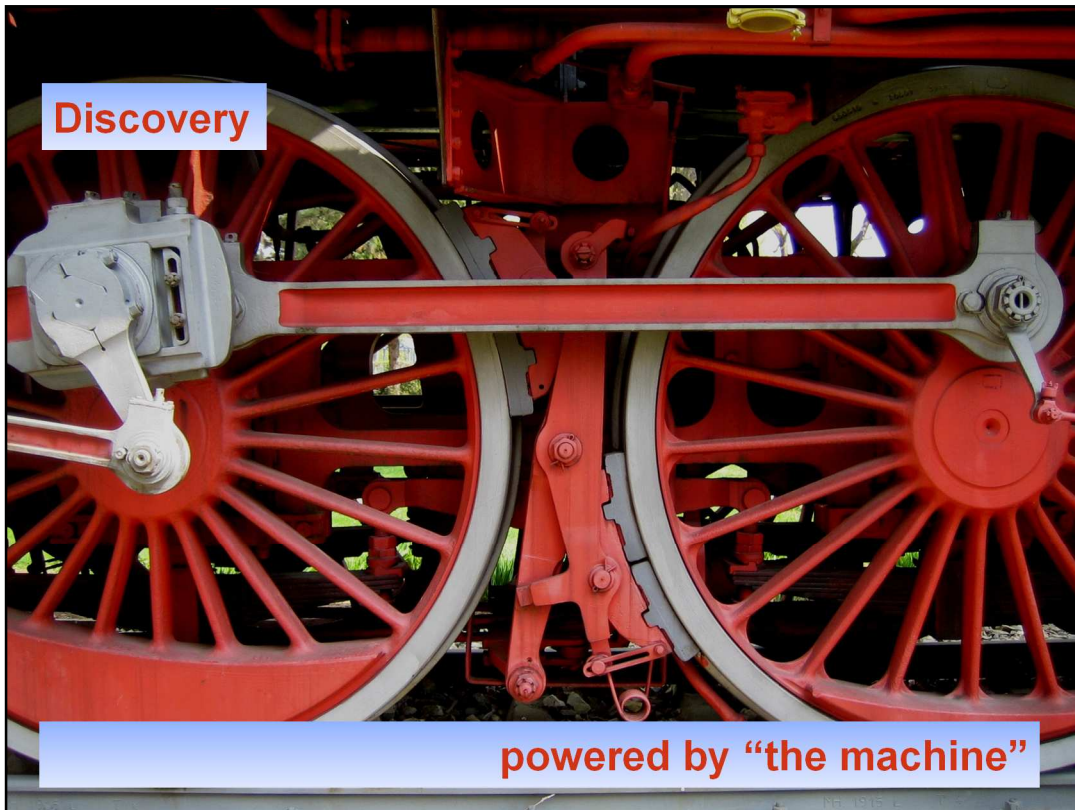
A. A. Hodge (1823-1886)

American Biographer

## Outline







- Powered by “machine’s artificial intelligence” (like the one provided by Ex Libris bX system/service)
- Information Integration / federated search / metadata repositories, like EXL MetaLih / Primo Central or some Open Source projects target intend to implement;
- Mashup algorithms



powered by patrons' "natural intelligence" / Collective Intelligence

## Discovery



The “Library empowering the Community” mission best accomplished by...

A Library empowered by the Community!

## Web 2.0 (R/W Web)



**Interactivity**

Disable

Enable



**Contributions**

Disable

Enable

Before, a quick word about Web 2.0:

Web 2.0 can be demarked from the 1.0 for being extremely rich in both user interactivity and eased user contribution (being encouraged, highly appreciated, rewarded, you might say).

Once those were enabled, Web 2.0 became characterized by 3 Cs, that we shall revisit next.

Well, we can actually say the Web 2.0 it's all about...

**Web 2.0 (R/W Web)**



**Creativity**

Creativity

## Web 2.0 (R/W Web)

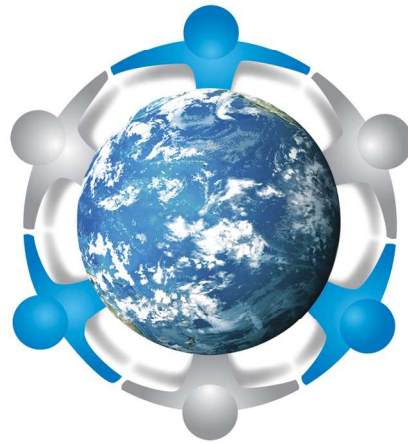


**Communication**

... and it's all about Communication.

And these two combined with a specific purpose in mind: it's also very much all about >

**Web 2.0 (R/W Web)**



**Collaboration**

Collaboration

These 3Cs combined (creativity, communication & collaboration) rapidly gave place to >





... ad-hoc communities being explicitly created or implicitly identified.

## Where we stand

Portugal, five centuries ago:

*The Age of Discoveries*

Libraries and Documentation

Centers, a new era begins:

*The Age of Discovery*

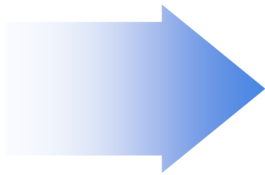


Search complemented with discovery

Shall I dare to compare the joy of our users when finding exactly what they need with the one of the sailor seeing firm land?

## Where we stand

### Our current *status*:



- Information scattered across several sources (internal and external);
- Absence of a social aggregation system;
- "Closed" and "apathetic" catalog;
- Direct search, without the components of discovery or recommender services (semantic or through other users usage/contents).

- Information scattered across several sources (internal and external);

UA has 120+ institutional blogs (based at UA servers!) and several CMS based portals (Drupal)

... plus many, many others in the Clouds!!

... information produced by our users scattered across several external services;

... not possible to be aggregated

... almost invisible to the rest of the community or even without any guaranty of preservation for future usage by other members of our community

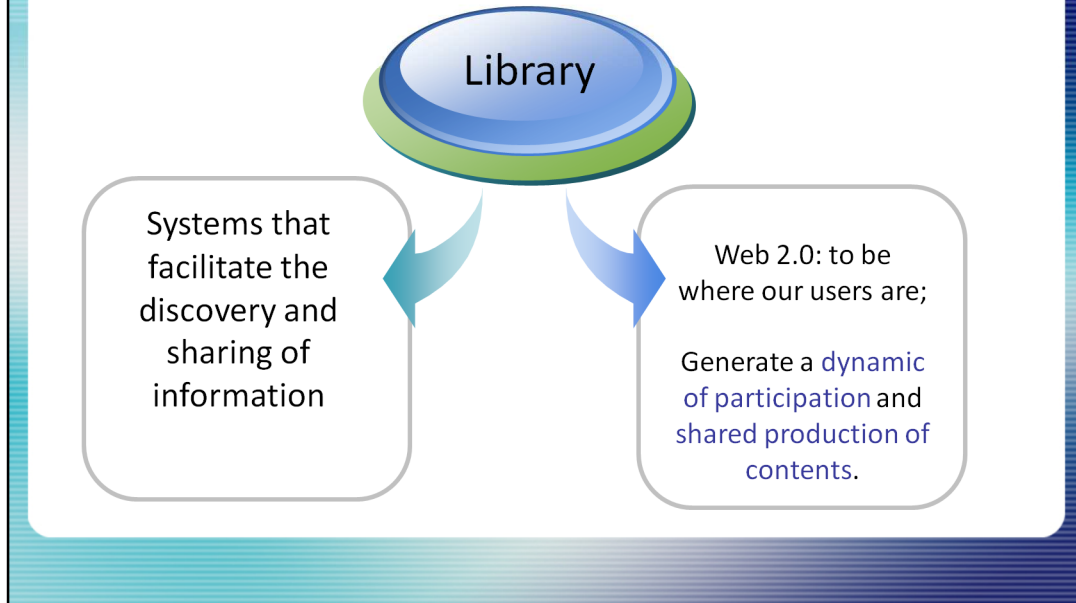
- Absence of a social aggregation system;

What are our users creating outside of our "box"? Or even inside?

- "Closed" and "apathetic" bibliographic information system;

- Direct search, without the components of discovery or recommender services (semantic or through other users usage/contents).

## Impetus



Strong bet in web 2.0 tools and services: to be where our users are;

Generate a dynamic of participation and shared production of contents.

## Impetus



Higher Education' Libraries and the Bologna Process



Reinforces the  
role of the Library as a  
complementary space for informal  
learning, socially facilitated by its  
users, enabling information  
discovery and sharing.

## Core Concepts

buzzwords

### Information Integration

:: Federated search and/or agregation?

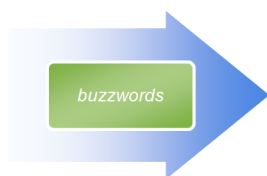
### Library 2.0

:: Active/Receptive

### Users 2.0

:: Participative users

## Core Concepts



### Information Integration

:: Federated search and/or agregation?

### Library 2.0

:: Active/Receptive

### Users 2.0

:: Participative users



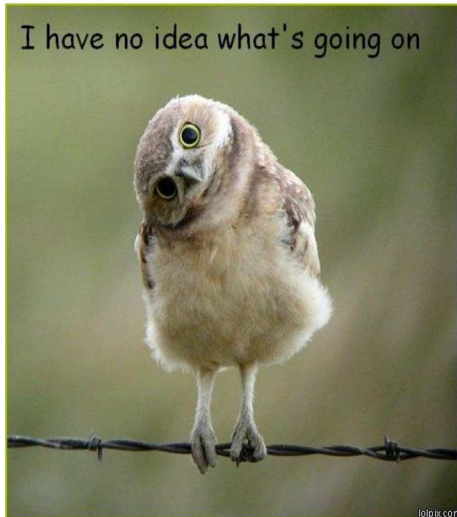


Coherent, really embrace the concept as a natural part of Library's mission, not a forced one



Not because everyone else is doing it

## Library 2.0



... doing it wrong ...

Don't worry:  
there's nothing so new around  
here that we aren't able to deal with!

You're not alone

But don't worry: there's nothing new here; it's just re-invented and used in a different context (nothing that we cannot deal with)

## Core Concepts

### Information Integration

:: Federated search and/or agregation?

### Library 2.0

:: Active/Receptive

### Users 2.0

:: Participative users



buzzwords



Such a discovery and social aggregator system should cope with the Net Generation (students) and >

## Users 2.0



*"digital immigrants"*

... "digital immigrants"

(but perhaps nothing new here: major part of the faculty members has to deal with web 2.0 in remaining activities)

-- many of them trying to find their true colors in this new world





The good news is that by harnessing user contribution, we just have to sit back and enjoy the ride.



## Collective Intelligence

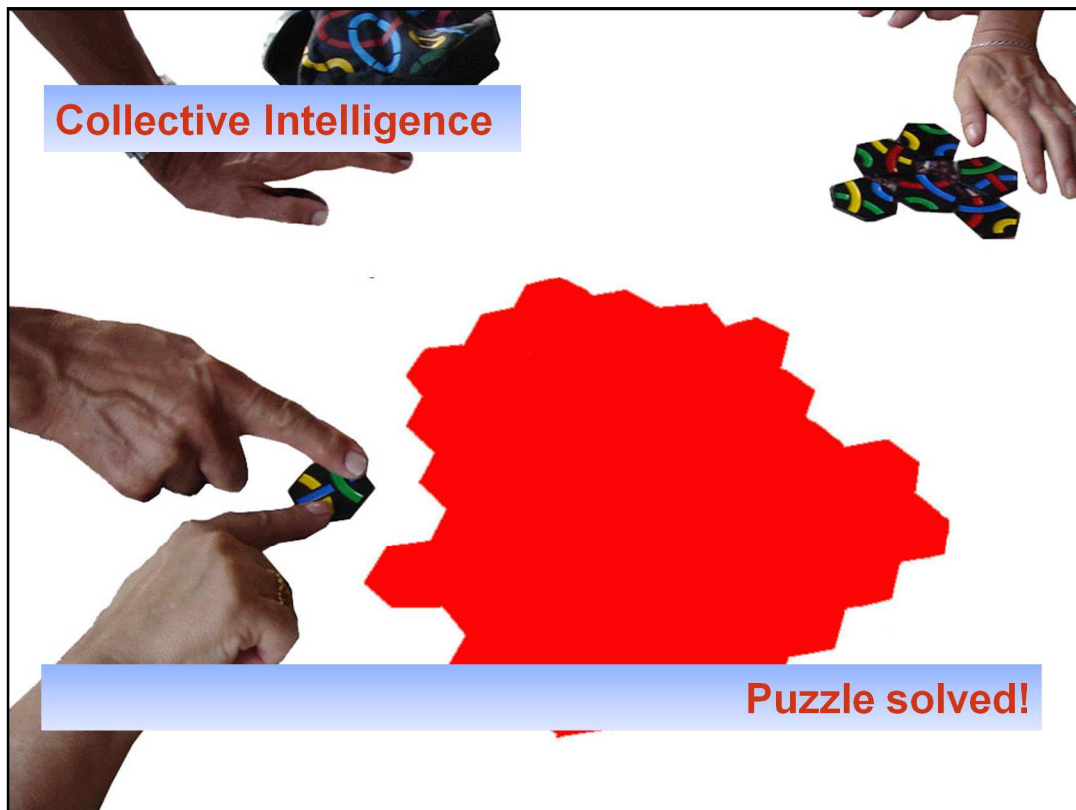


"No one knows everything, everyone knows something..."  
Pierre Lévy (1997)

**Without...**

LEVY, PIERRE - Collective Intelligence: Mankind's Emerging World in Cyberspace. {Perseus Books Group}, 1999. ISBN 0738202614.

(translated from the French by Robert Bononno)



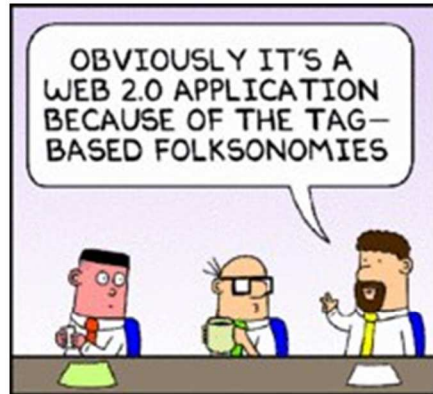
CoIn: shared or group intelligence

"It is a form of universally distributed intelligence, constantly enhanced, coordinated in real time, and resulting in the effective mobilization of skills..."

LEVY, PIERRE - Collective Intelligence: Mankind's Emerging World in Cyberspace. {Perseus Books Group}, 1999. ISBN 0738202614.

(translated from the French by Robert Bononno)

## Collective Intelligence



**Folksonomies**

# Collective Intelligence

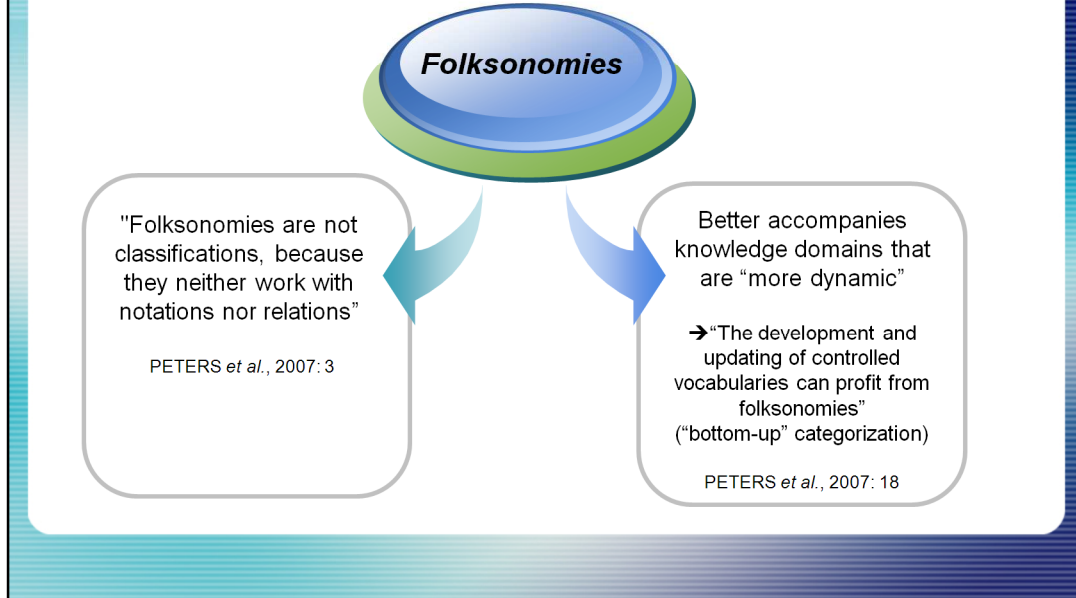
Folksonomy<sup>+</sup>  
MAARTEEN JANSSEN - HKU



Folksonomies

Author: Maarten Janssen - HKU

## Collective Intelligence

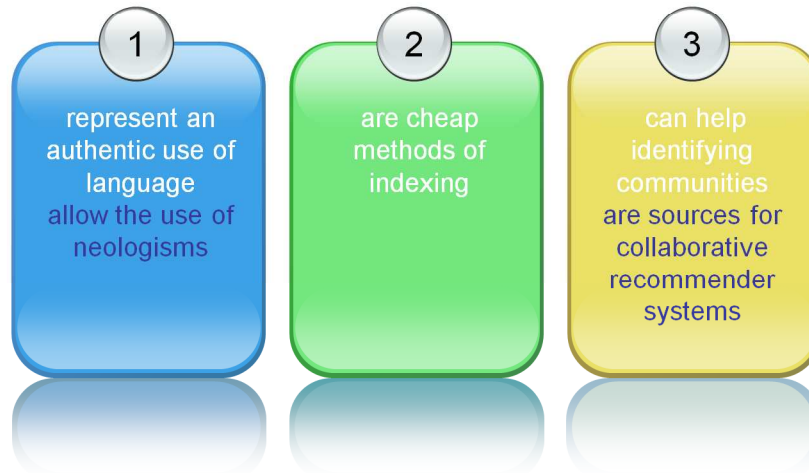


PETERS, I.; STOCK, W. G. - Folksonomy and information retrieval. Proceedings of the ASIST Annual Meeting. ISSN 15508390 (ISSN); 0877155399 (ISBN); 9780877155393 (ISBN). Vol. 44 (2007).

**Isabella Peters / Wolfgang G. Stock**  
Heinrich-Heine-University Düsseldorf

## Folksonomies

Isabella Peters and Wolfgang Stock, in "Folksonomy and information retrieval" (PETERS et al., 2007: 19), summarize the advantages of folksonomies, stating that these (amongst others the authors list):



“Tagging shows a lot of benefits”

### 1.1

referring to the use of terms in natural language - something that can be very beneficial in natural language information retrieval, the current big trend (google like search)

### 1.2

That is, new words or new meanings

### 2.

referring to the voluntary character in the assignment of "tags" by the "prosumers“

### 3.1

Better, of the elements that may belong to one of these virtual communities, when the system that store and allow consultation of "user < > tags attributed“ relation)

## Folksonomies



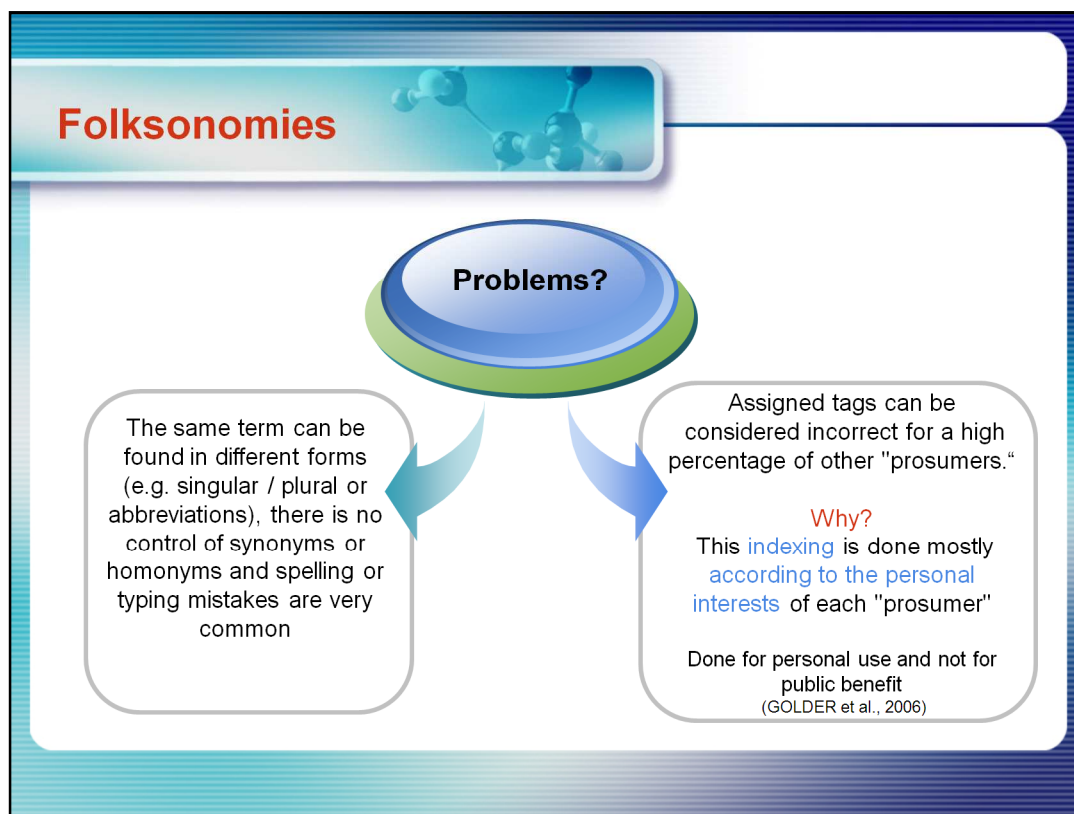
However, **all these advantages**, most of them **derived from** the **freedom of** using an **indexing** that is **not restricted** to a controlled vocabulary, **have a price to pay**, that should not be attributed to the "tags" themselves (an elementary system of indexing) but to the **behavior of the "prosumers"**\* →

\* Shirky, 2004, quoted by Peters et al., 2007, p. 19, referring to the lack of precision in "tags" assignment

**Prosumers:** coined by Alvin Toffler ("The Third Wave", 1980), predicting that the role of producers and consumers would begin to blur and merge

Shirky, C. (2004, 25-08-2004). Folksonomy (Blog Many-to-Many). Retrieved 04/12/2008, from <http://many.corante.com/archives/2004/08/25/folksonomy.php>





1.

According to a study conducted in 2006 and presented in the article "Folksonomies: Tidying up tags?" published in the journal D-Lib Magazine (2006, vol. 12, paragraph 1),

about 40% of tags present in Flickr (online photos management and sharing service) and 28% of the Del.icio.us ( "Social Bookmarking")

"were either misspelt, from a language not available via the software used, encoded in a manner that was not understood by the dictionary software, or compound words consisting of more than two words or a mixture of languages".(Guy et al, 2006, cited by Peters et al., 2007, p. 19))

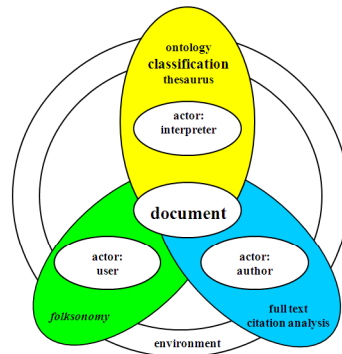
GUY, M.; TONKIN, E. - Folksonomies: Tidying up tags? D-Lib Magazine. ISSN 1082-9873. Vol. 12, n.º 1 (2006).

2.

GOLDER, SCOTT A.; HUBERMAN, BERNARDO A. - Usage patterns of collaborative tagging systems. Journal of Information Science. ISSN 01655515. Vol. 32, n.º 2 (2006), p. 11.

## Folksonomies

Three kinds of indexing associated with the three groups of actors who are able to index documents in a certain context (environment): authors, professional indexers and users



Three kinds of actors (authors, professional indexers and users) and the related "types" of indexing (illustration: Peters and Stock, 2007: 17)

"Text-oriented methods make use of the author's language, e.g. in forms of indexing titles, abstracts or references (Garfield, 1979).

In contrast to text-orientated methods folksonomies do not only represent the producer's view, but the views of the consumers as well.

Ontologies and other tools of controlled vocabularies (like thesauri or classification systems) are in need of interpreters:

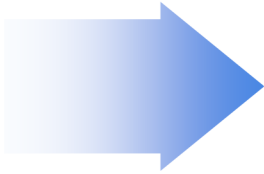
- a) experts who create such vocabularies and
- b) other experts who are able to use the controlled terms in order to index the documents.

Ontology-creating interpreters have to analyze „literature, needs, actors, tasks, domain, activities, etc." (Mai, 2006, p. 17) – undoubtedly a time-consuming procedure. What is more, this system is very expensive. In comparison, folksonomies are cheap in practice because the indexing is done by volunteers in a collaborative way."

## Folksonomies



What we intend to implement → co-existence:



“Professional indexing” / thesauri / controlled vocabularies:

Front-page search and browse

Tagging (folsonomies):

Discovery

(browse feature in the results list or as a complementary list of records -  
- recommender service).

Co-existence “professional indexing” / folsonomies: best of both worlds

This way terms in tagging are set in context, which they lack by nature (“flat indexing”)

## Communities of Practice

Library 2.0 / Users 2.0:  
making the thriving connection

Jack Maness (2007)

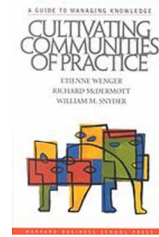
“Library 2.0 is not about searching, but finding; not about access, but sharing. Library 2.0 recognizes that human beings do not seek and utilize information as individuals, but as communities”

MANESS, JACK M. - Library 2.0 Theory: Web 2.0 and Its Implications for Libraries. Webology. ISSN 1735-188X. Vol. 3, n.º 2 (2007).

## Communities of Practice

But which communities can be considered CoPs?

Etienne Wenger, Richard Arnold McDermott and William Snyder  
(2002)



“Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on a ongoing basis”.

WENGER, ETIENNE; MCDERMOTT, RICHARD; SNYDER, WILLIAM - Cultivating communities of practice. Boston: Harvard Business School Press, 2002. ISBN 1-57851-330-8.

## Communities of Practice

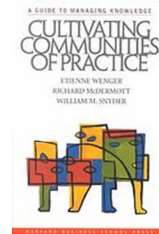
Wenger, McDermott and Snyder's model (2002): three structural elements that make a CoP an "ideal *Knowledge Structure*" when they function well together



WENGER, ETIENNE; MCDERMOTT, RICHARD; SNYDER, WILLIAM - Cultivating communities of practice. Boston: Harvard Business School Press, 2002. ISBN 1-57851-330-8.

## Communities of Practice

Etienne Wenger, Richard Arnold McDermott and William Snyder  
(2002)



“Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on a ongoing basis”.



“Practice” is also about “interacting on a ongoing basis”

## CoIn / CoPs & the OPAC 2.0 / NGC

What we intend to implement:

An **integrated** and **participatory** model for search guidance, **selection**, **analyses** and **recommendation**.

contributes

“Search → Find → Evaluate (select) → Understand → Share” cycle

Oriented to “ad-hoc” communities construction / identification (Communities of Practice)

Results should also show patrons or communities that are more active in that area

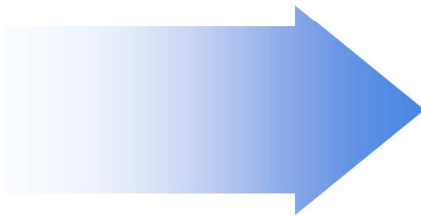
What we intend to implement:

A model for an innovative bibliographic information search system, where not only the document is the point of reference, but to a new extent, the user himself and all its surrounding (activities and information associated with his/her profile or community to which he/she belongs), assuming a crucial dimension of generating additional information by the users of the system (enhanced by computer agents aggregators of information), fostering social networks and communities of practice.

Namely to get it's contributes to the “Search → Find → Evaluate (select) → Understand → Share” cycle



## Still a reference?



“You can search your books, sort your books, edit book information, and apply “tags“. You can rate your books and write reviews.”

http://www.librarything.com

LibraryThing BETA

LibraryThing | Catalog your books online

LibraryThing | What's on your bookshelf?

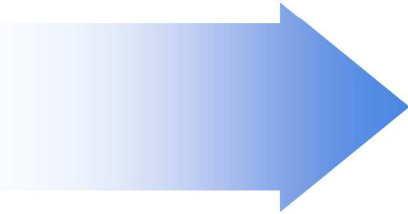
your library | Top | Add books | Your profile | Search | Tools

All Fields Search

141 - 150 of 856

Title	Author	Tags	Subject	Dewey No.	Rating	Showed
On Chest Beach	Jan McEwan	fiction, booker prize shortlist	Desert (England) > Fiction Desert, (short stories) > Fiction Married people > Fiction Wingspan > Fiction	823/.914 22	★★★★★	3793/26
Richard Wright's Native son	Richard Wright	fiction, race	African American men in literature Murder in literature Thomas, Roger (Faulkner Wright, Richard, 1908-1960, Native son	813/.52 19	★★★★★	3793/15
The south's sweetheart : a novel	Hanako Murakami	fiction, japan	Japan > Social life and customs > 20th century > Fiction Lashburn > Japan > Fiction Love stories	895.670 21	★★★★★	3793/26
Magical thinking : true stories	Augusten Burroughs	memoirs, humor	Burroughs, Augusten Novelists, American > 20th century > Biography	813/.6 8 22	★★★★½	3793/26
Enduring love : a novel	Jan McEwan	fiction, warlike	Children into (England) > Fiction Domestic fiction Star wars > Fiction Obsessive-compulsive disorder > Fiction Psychological aspects Stalking > Fiction	823/.914 21	★★★★★	3793/14
Disappearing and jumping : the birth of the novel	Michel Foucault	theory, philosophy, criticism, Foucault	Prose, dramatic Foucault, Michel	361/.643 20	★★★★½	3793/7
Fall on your knees : a novel	Ann Marie MacDonald	fiction	Domestic fiction Family > Young adults > Cape Broken Island > Fiction Siblings > Young adults > Cape Broken Island > Fiction	813/.54 20	★★★★★	3793/14
The Second Sex (Vintage)	Simone De Beauvoir	women's studies, theory	Feminism Sex discrimination against women Sex role Sexism Women > History Women > Social conditions	301.4107*	★★★★★	3793/14

## Still a reference?



"Perhaps my favorite thing about LibraryThing is that you can track down someone who shares your tastes and request a direct recommendation or ask them if a book you're thinking of buying is any good."

Cade Metz, *PC Magazine* "LibraryThing" (21st July 2006) » [Video Review](#)

http://www.librarything.com

The screenshot shows the LibraryThing website interface. At the top, the URL 'http://www.librarything.com' is visible. The page title is 'bostonbibliophile | Profile | LibraryThing'. The main content area displays the user's profile for 'bostonbibliophile', including statistics (737 books, 200 reviews), tags, favorite authors, and a bio. The bio mentions the user is a library in the Boston/Cambridge area and lists some favorite books like 'The Story of Forgetting' and 'The Book of David'. There are also sections for 'Books you share' and 'Random books from bostonbibliophile's library'. The bottom of the page shows a comment from another user.

## Still a reference?

"Perhaps my favorite thing about LibraryThing is that you can track down someone who shares your tastes and request a direct recommendation or ask them if a book you're thinking of buying is any good."

Cade Metz, *PC Magazine* "LibraryThing" (21st July 2006) » [Video Review](#)

http://www.librarything.com



The screenshot shows the LibraryThing website interface. At the top, the URL 'http://www.librarything.com' is visible. The main header features the 'LibraryThing' logo with 'BETA' next to it. Below the header, there's a navigation bar with 'Your library', 'Top', 'Add books', and 'Your profile'. The main content area is titled 'Crime, Thriller & Mystery' and includes a description, a list of members, and a 'Group Talk' section with a table of recent messages. The 'Group Talk' table has columns for 'Topic', 'unread/messages', and 'Last message'. The right sidebar contains options to 'Join this group', 'Watch this group', and 'Edit this group', along with a search bar for group members' libraries and a list of 'Groups on LibraryThing'.

Topic	unread/messages	Last message
Edgar Awards 2008	8 unread / 13	maxwell, Today 5:27pm
What are you reading now (SB continuing)	7 unread / 7	hemlock, Today 11:55am
Steve Hamilton - anyone read his new novel, 'Night Work'?	4 unread / 4	iron, Yesterday 10:36pm
What are reading next? (continued further)	384 unread / 394	sparkle, Yesterday 4:23pm
Harper Collins	18 unread / 19	jamie, Yesterday 4:09pm
Greg Lee	14 unread / 14	ThelmaChick, Yesterday 3:43pm
Why do we read mysteries?	28 unread / 28	bevisian, Sunday 3:30pm
Looking for Hardcover Thrillers such as 'No Hayder'	4 unread / 4	Elaphine, Saturday 12:05pm

## Final Remark

OPAC 2.0 / NGC

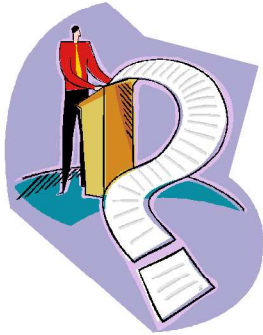
should also be  
very much about...

∴  
**Mobility**  
**Ubiquitous computing**



Keep in touch...

<http://twitter.com/filipeb>



to: [fil@ua.pt](mailto:fil@ua.pt)

The screenshot shows a Twitter profile for 'filipeb' (Filipe MS Benício). The profile includes a bio: 'Bio Information Manager, Computer Specialist at the University of Aveiro's Documentation Services (aka UA's Library)'. It lists 64 following and 96 followers. The main content area shows several tweets, including one about Finland (Suomi) travel guides, a tweet in Portuguese about social security, and tweets about 'Academia' and 'SourceForge' projects. A vertical banner on the left side of the profile reads 'Filipe MS Benício'.

## Photo Credits



### Slide # / Name

5. wheel

<http://www.sxc.hu/photo/1175115>

6. Funny\_Pictures\_59913

[http://www.lolpix.com/\\_pics/Funny\\_Pictures\\_599/Funny\\_Pictures\\_59913.jpg](http://www.lolpix.com/_pics/Funny_Pictures_599/Funny_Pictures_59913.jpg)

8. 2

<http://www.stardoll.com/pt/help/section.php?sectionId=2>

9. Effect\_059

<http://my.opera.com/m2m99/albums/showpic.dml?album=565105&picture=7821741>

10. Vector Communication Banners

<http://www.aiesec.org.br/website/escritorios/franca/contato.php>

11. DEN\_HERO

[http://community.discoveryeducation.com/about/webinar\\_archives](http://community.discoveryeducation.com/about/webinar_archives)

12. Girls

<http://www.sxc.hu/photo/950943>

## Photo Credits



### Slide # / Name

19. Funny\_Pictures\_5968

[http://www.lolpix.com/\\_pics/Funny\\_Pictures\\_596/Funny\\_Pictures\\_5968.jpg](http://www.lolpix.com/_pics/Funny_Pictures_596/Funny_Pictures_5968.jpg)

20. Migração

<http://www.acreditesequiser.net/2009/07/05/migracao-ou-festa/>

21R. Funny\_Pictures\_60010

[http://www.lolpix.com/\\_pics/Funny\\_Pictures\\_600/Funny\\_Pictures\\_60010.jpg](http://www.lolpix.com/_pics/Funny_Pictures_600/Funny_Pictures_60010.jpg)

21L. 504x\_DoingItWrong\_Auto\_3

[http://cache.gawker.com/assets/images/12/2009/02/504x\\_DoingItWrong\\_Auto\\_3.jpg](http://cache.gawker.com/assets/images/12/2009/02/504x_DoingItWrong_Auto_3.jpg)





# Kiitos!

This presentation online:  
<http://www.slideshare.net/FilipeBento>

Documentation Services  
University of Aveiro, Portugal  
<http://www.doc.ua.pt>

Filipe MS Bento 9 September 2009