

# Can Social Tagging Assist Information Literacy Practices in Academic Libraries?

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# Introduction

- The popularity of Web 2.0 technologies has changed the way in which people interact with information on the web.
- This has encouraged academic libraries to add new technological functions to their catalogue services, bringing exciting and challenging opportunities to libraries related to the development of their services [1].



**Information Literacy (IL) instruction  
and practices**



**Emerging technologies**



**Relations between social technology & IL**



**Assisting IL practices**



**Social Tagging Systems (STS)**



**The relationship between IL and STS**

# The Focus of The Study

## **Aim:**

To investigate the value of Social Tagging as a means of supporting IL skills development in academic libraries.

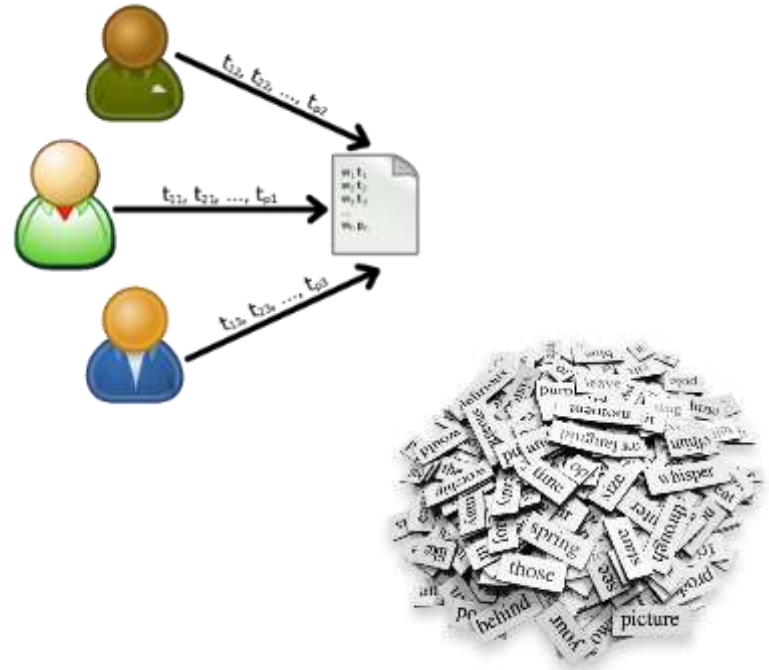
## **Objectives :**

1. To discover the underlying benefits of STS features that can assist users with retrieving, managing and sharing information.
2. To explore the views of students on how they would assign tags to describe information resources, and how using other tag-related functions might assist their IL practices.
3. To develop a conceptual framework that encapsulates STS functions and IL skills, adapted from SCONUL's Seven Pillars of IL [3].

# Social Tagging Systems

- Social Tagging allows users to describe information resources by freely assigning keywords or 'tags' to them [4].
- A collection of tags can be employed through various functions that can provide flexible ways of using information that support users with:

*Finding, Collecting, Storing, Organizing and Sharing information [5].*



# Tags can also.....

- Reflect the vocabulary of users in describing information resources.
- Provide direct feedback on a cluster of tags attached to the same resource.
- Help users to find unexpected information through browsing tags [6].
- Support users with achieving goals (personal IR, sharing information and attracting others) [7].
- Increase access points to information resources.

# Tagging and IL ....

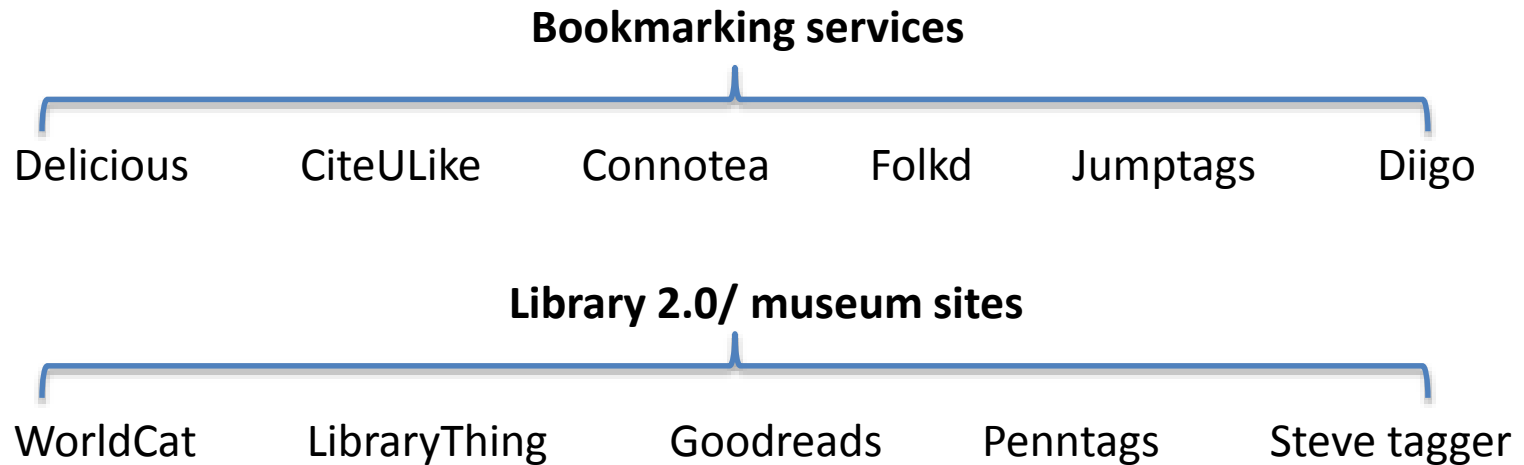
- Tags can offer opportunities to reflect on users' practice of the skills required in order to become information literate, in terms of building their awareness of how to gather, use, manage and create information [3].
- Students often use tags, not for research or information organization, but for social and communication purposes [9].
- Educators could benefit from the students' unfamiliarity with the use of tagging for learning purposes [9] by creating a system that meets their needs.

Overall, tagging tools provide a valuable combination of personal tagging, resulting in more sufficient social navigation [10].



# Proposed Conceptual Framework

- The conceptual framework purposes to demonstrate the possible practical support of tagging functionalities to IL skills. By linking the features of STS to IL skills.
- The main categories of STS that emerged from a comparative analysis of the number of online service includes:



## Comparative analysis of social tagging systems functionalities

Tagging system type	Name	Primary or secondary service	Resource	Main categories of the tagging functions																			Total function in each service				
				Posting					Searching				Browsing				Managing				Sharing						
				Toolbar button/Bookmarklets	Add Using the web Add Form	Tag separated by space	Tag separated by comma	multilingual tags	Tag suggestions	Search other tags	Search personal tags	Boolean operators	Advanced search	Tag visualization cloud/list	Browse personal tag	Browse related tags	Browse bookmarks by	Follow / watch tags	Tag groping	Edit tag	Import personal library	export your references		Share tagged item with others	group s of users	Recommendation	Find similar users
Social Bookmarking	Delicious	P	URL	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	22	
	CiteUlike	P	URL	X	X	X	-	-	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	20	
	Diigo	S	URL	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	23	
	Connotea	P	URL	X	X	X	X	X	X	X	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	22	
	Folkd	P	URL	X	X	X	-	-	X	X	X	X	X	X	X	-	X	X	X	X	-	X	X	X	X	19	
	Jumptags	P	URL	X	X	-	X	X	X	X	X	-	X	X	X	X	X	X	X	-	X	X	-	-	X	18	
Library 2.0/museum	WorldCat	S	LC	-	X	-	X	X	X	-	-	X	X	X	X	X	X	X	-	-	X	X	X	X	15		
	Penntags	P	LC	X	X	-	X	-	-	X	X	-	-	X	X	X	X	X	X	-	-	X	X	X	-	14	
	Libraryting	P	B	-	X	-	X	X	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21	
	Goodreads	S	B	-	X	-	-	-	X	X	X	-	-	X	X	X	X	X	X	X	X	X	X	X	X	16	
	Steve tagger	P	MC	-	X	-	X	X	-	X	X	X	X	-	-	-	X	-	X	-	-	-	-	-	-	11	
Total				7	11	4	7	7	8	10	9	7	8	11	11	11	10	7	4	11	8	7	9	10	8	8	9

P=prim ary, S= secondary, LC=library collection, B=books, MC= Museum collection.

'X' = system provide the function, '-' = system do not provide the function.

# Comparative analysis

# Functions of Social Tagging Systems

## Posting

The process of adding tags to describe the resource.

## Searching

The ability to search tags with other descriptions (e.g. title, URL, etc.) or limit a search to tags only.

## Browsing

“The ability to re-orient the view by clicking on tags or user names, to navigate the aggregated bookmark collection.” [11]

## Managing

The basic tag management functions, such as editing and saving tags.

## Sharing

The ability to share tagged items with others, create groups of users and resources, and import/export items.

## Functions of Social Tagging systems

Posting

Searching

Browsing

Managing

Sharing

- These functions were linked more closely to the library setting, employing the **core model of SCONUL's** (Society of College, National and University Libraries) **Seven Pillars of IL** [3].
- Which can be used to map across to other frameworks and are “adopted by librarians and teachers around the world as a means of helping them to deliver information skills to their learners” [4].

### The Seven Pillars of IL [3]

#### Identify

Able to identify a personal need for information.

#### Scope

Can assess current knowledge and identify gaps.

#### Plan

Can construct strategies for locating information and data.

#### Gather

Can locate and access the information and data they need.

#### Evaluate

Can review the research process and compare and evaluate information and data.

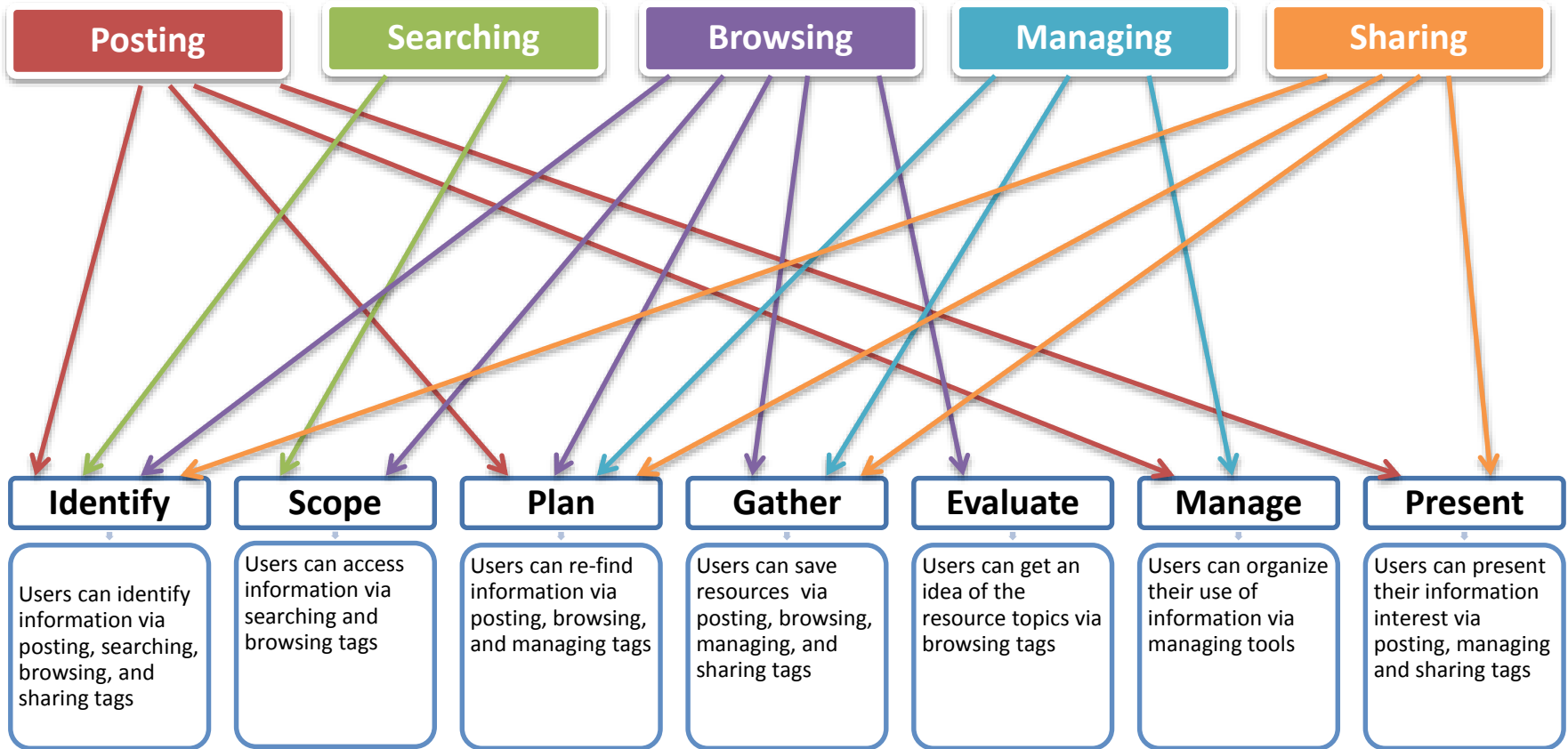
#### Manage

Can organise information professionally and ethically.

#### Present

Can apply the knowledge gained: i.e. present the results, synthesise new and old information to create new knowledge and disseminate it in a variety of ways.

# Relationship between the functionalities of STS and IL



# Methodology

## Participants:

- A Convenience sample.
- University students (undergraduates and postgraduates), bilingual in Arabic and English.
- From three universities:
  - Kuwait University
  - The Gulf University for Science and Technology, Kuwait
  - University of Sheffield, UK
- The participants also took part in an interactive tagging experiment to expose them to a current social tagging system (Delicious). They were invited to complete a tagging task that involved adding at least five tags to six Arabic and English academic articles using Delicious.

# Methods and analysis

## 1) Questionnaire

- The questionnaire contained closed-class questions, a 1-5 point Likert scale, and open-class questions.
- Divided into :
  - 1)a pre-task section to collect demographic data (e.g. age, gender, year of study, major);
  - 2)a post-task section to gather information about social tagging systems (e.g. ease of use, tagging motivation, usefulness, future use).

## 2) Semi-structured interviews

- Conducted after the tagging task to investigate in-depth the students' views on how tags were assigned to describe information and using other tag-related functions (e.g. searching and browsing) might support the students in finding information.
- Also aimed to explore the overall perceptions of students regarding their library catalogue usage, and IL skills practice and training.

## Analysis

- The **questionnaire** data were examined using **descriptive** data analysis.
- The **interview** data were studied using a qualitative **thematic** approach focusing on STS functions and the seven pillars of IL.
- Subsequently, all of the collected data were linked to discover the relationships between the functionalities of STS and IL.

# Results

Gender		
	Male	Female
Count	18	28
Total	46 Students	

Age				
Years	18-20	21- 23	24-26	26 or older
Count	30	8	2	4
Total	46 Students			

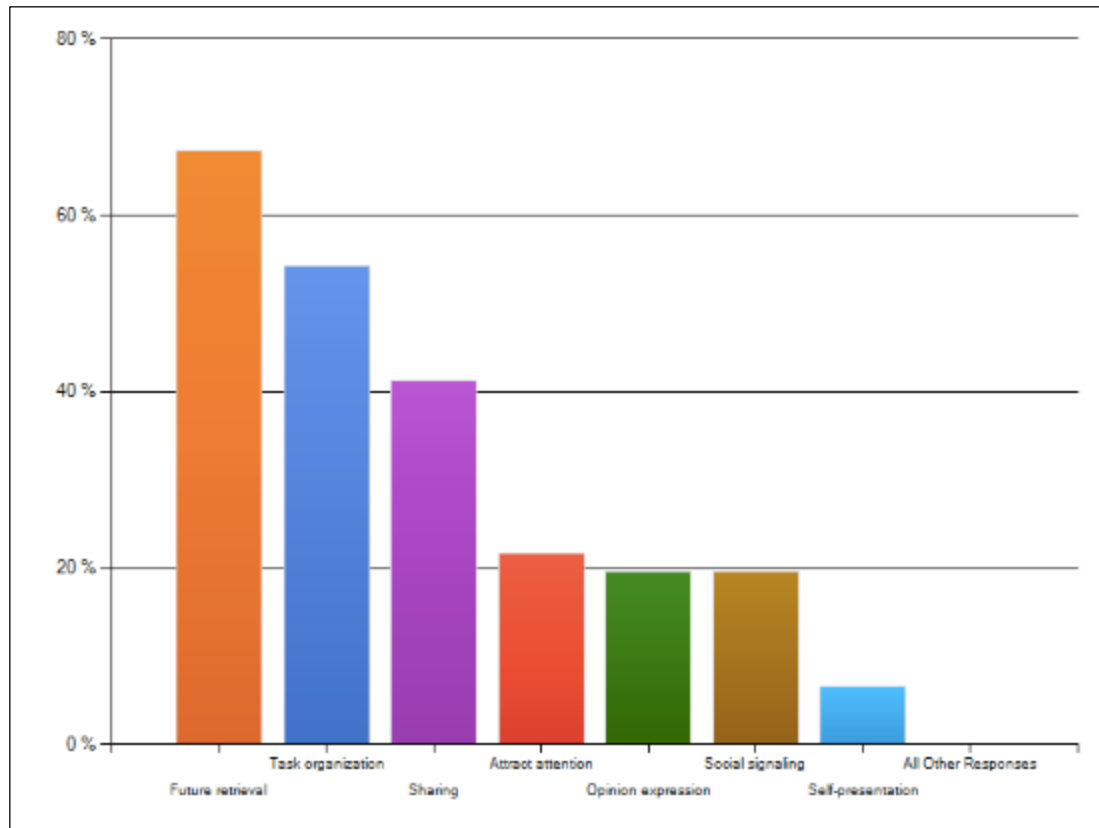


University			
<b>Name</b>	University of Sheffield	Kuwait University	The Gulf University for Science and Technology
<b>Count</b>	14	18	14
<b>Total</b>	46 Students		

Year of study				
Undergraduates				Postgraduate
First year	Second year	Third year	Fourth year	17.4%
19.6%	21.7%	26.1%	15.2%	

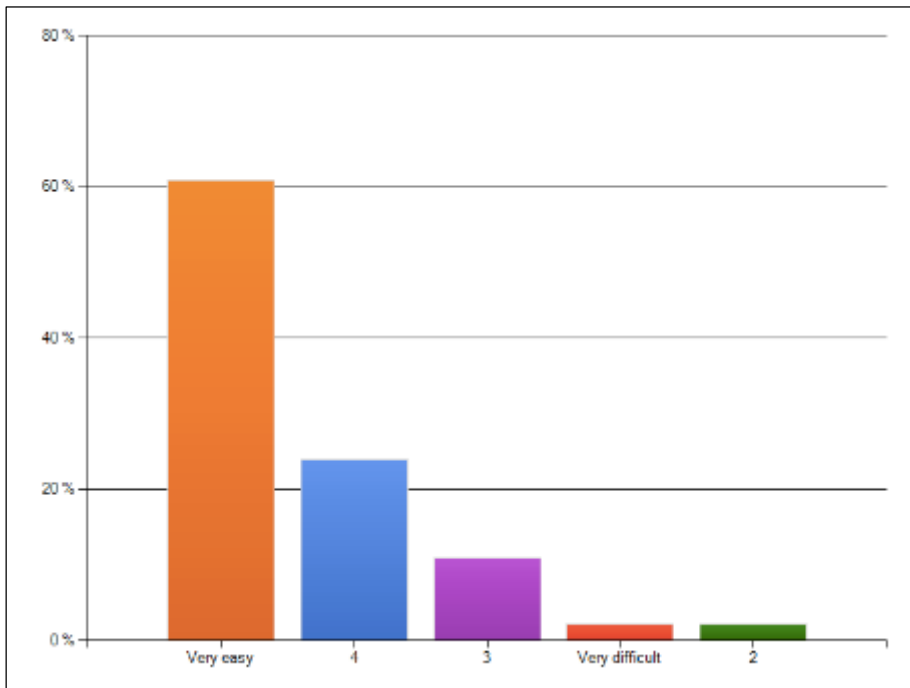
Subject of Study
Business, Computer Science, Engineering, English, Social Sciences, Medical Science, Law and Education.

# User tagging motivations



- **Future retrieval (67%)**
- **Task organization (54%)**
- **Sharing (42.3%)**
- Less interest in using tagging to **attract attention, social signalling, opinion expression and self-presentation.**

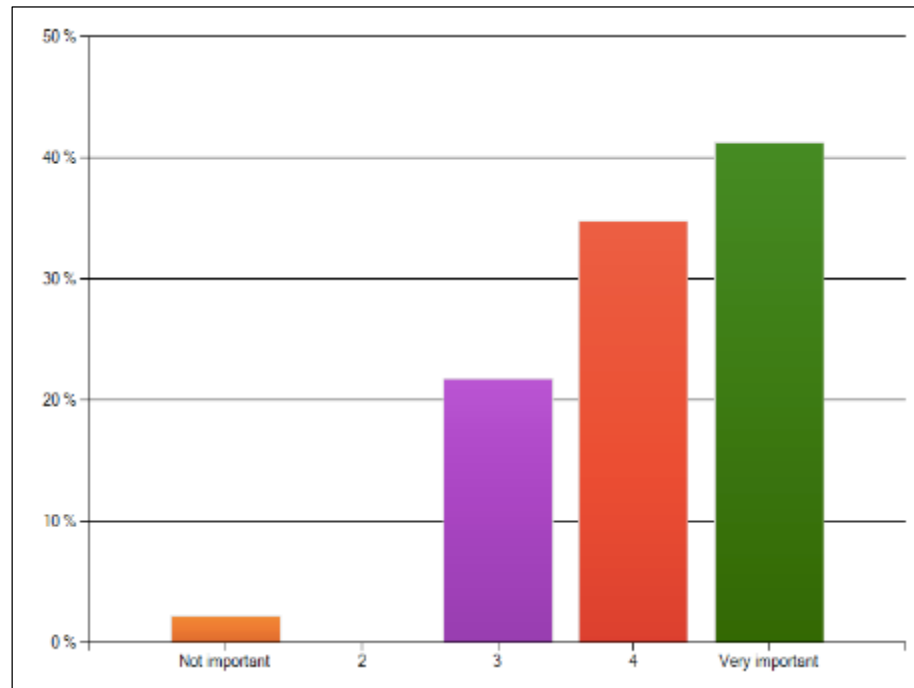
## Student perceptions of social tagging



- **84.8%** of the students found STS **easy** to use.

- **57.8%** showed an interest in using STS features in the **future**.

## The importance of social tagging as a feature of the library catalogue



- **76.1%** considered adding STS to current library services **important**.

# Mapping the interview results to the conceptual framework

## Posting

- Almost half of the students found posting tags useful for organizing and saving information, for resources that they intend to use: *"I can group the relevant articles under one tag" (P29)*, *"I can also organize my information (...) I might tag an article with my class name" (P5)*.
- A few students stated that creating appropriate tags would encourage them to think deeply about the topic, which helps them to list keywords for future searches.
- Posting can support **identification**, **planning**, **gathering**, **managing** and **presenting** skills.

## Searching

- A few students recognizing searching tags as useful : *"Searching for tags is also useful, especially if I can search for two or more tags together" (P4)*, *"People can search and find useful things through the tags" (P10)*.
- Searching for tags can support **identification** and **scope** skills.

## Browsing

- Many students perceived associating tags with resources as beneficial for obtaining an overview of a topic: *"It would be helpful to look at others tags in general to get an overview of the information I am looking for" (P7)*.
- It also supports identifying keywords in order to search for related information: *"Looking at tags would be useful to discover synonyms that can help me to identify keywords to search for more information" (P28)*.
- Moreover, browsing the tags of other users was considered useful, especially among students who share similar interests or are course-mates.
- Browsing can support **identification**, **scope**, **planning**, and **gathering**, and **evaluation** skills.

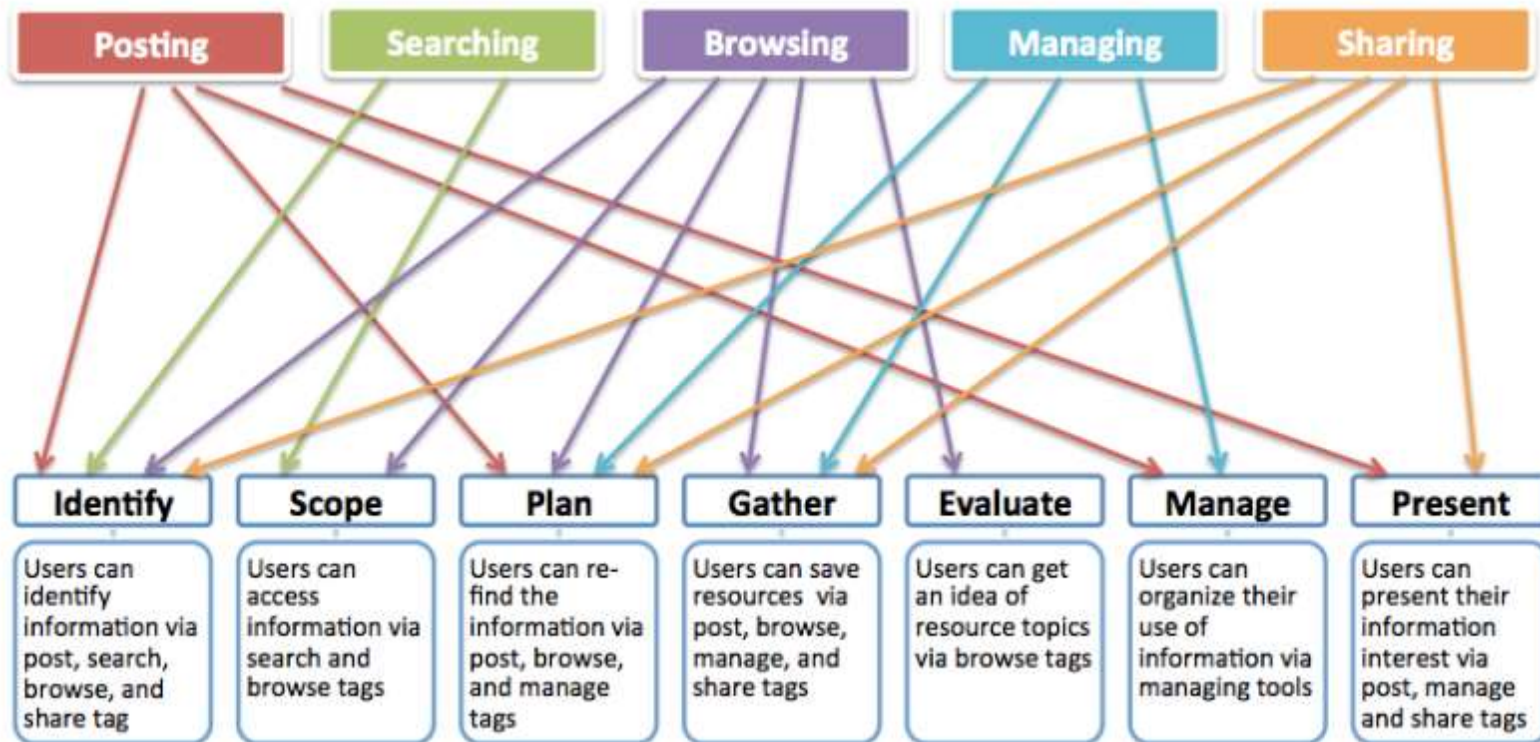
## Managing

- Some students would group and edit their tags from time to time: *"Tagging is like putting information in folders; this will help to organize the things I found" (P31)*.
- Managing can support **planning**, **gathering**, and **managing** skills.

## Sharing

- Most of the students would set their tags to public in order to exchange knowledge with others, and assist group projects: *"It will be also useful for the group's coursework to share resources (...) with a feature like tagging, sharing will be much easier" (P23)*.
- As well as share resources between individuals, *"Let's say I take a module that my friends had already completed. I will go and check their tags to find the relevant information" (P9)*.
- Sharing can support **identification**, **planning**, **gathering**, and **presenting** skills.

# Relationship between the functionalities of STS and IL



- Some functions appear to be more beneficial than others, while some overlap across the STS functions in supporting the generic skills of IL from SCONUL [3].
- Obviously, because the nature of IL skills practice is often closely linked [3].

# Summary

- Providing a conceptual framework that relates STS functions to an existing IL framework will help to ensure that the functions introduced into library systems are **able to assist the underlying IL skills of students.**
- This support will help people to become **more information literate in an ever-changing information environment.**
- Social tagging should be one of the emerging technologies that academic libraries consider as part of their **future services.**
- Especially since 57% of the students showed an interest in using tagging features when using the library catalogue.
- **Instructions** on how to use tags might be introduced to students within IL skills sessions, or via online tutorials for better tag use to support different information activities.
- We plan to carry out future studies to investigate how users use tags to describe resources in different languages and evaluate their usefulness as a discovery tool.

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The study can be found in the Conference Proceedings Book, published by Springer in CCIS ([Communications in Computer and Information Science](#)) series.

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***Thank you***