An evolutional technology named “Growing Tree2”.

“Growing Tree2” creates a hierarchy tree according to the occurrences of freely uploaded huge data.

“Growing Tree2” is applied to a document management system(FullWEB4.0) to solve both “Where is it?” and “Where to upload?”

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Contents

- Searching became a daily scene
- History of Searching on WEB
  - 1995-2001 : Seems Peaceful The Taxonomy era
  - 1998-2006 : Seems Perfect The FullText Search era
  - 2005- : Free but Confused Folksonomy era
- Problems and the solution
- 2007- :”Growing Tree” brings peaceful Folksonomy era

Searching and upload became a daily scene.

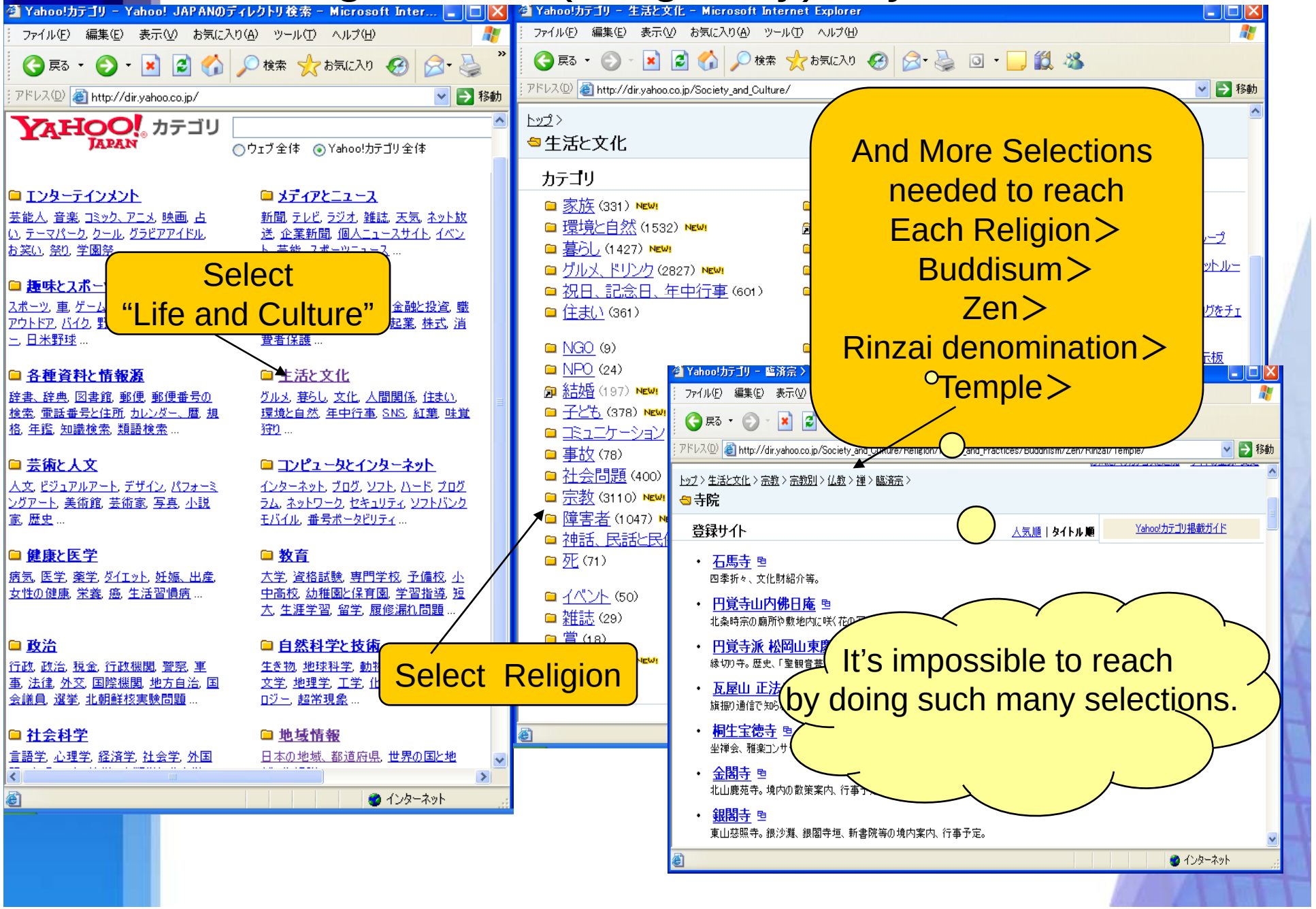
From when have we started to spend to much time to search?

- A word “Googling” is used to do searching. Apparently, searching became a daily scene.
- TV CMs that ended with “further information will be get by searching XYY” are increasing.
- Who can imagine people in all over the world do searching as a daily thing?
- Who can imagine people in all over the world upload pictures & movies to show these to someone in world wide as a daily thing?

1995-2001:
Seems Peaceful The Taxonomy era

- How to show classification
  Hierarchy Folder
- Method to classify
  By Human
- Typical Site:
  Yahoo
- Problem at user side
  Huge categories make it impossible to find a needed information.
- Problem at a site side
  Impossible to classify data by human knowledge

Searching “銀閣寺(Gingaku-ji)” by Yahoo



1998-2006:

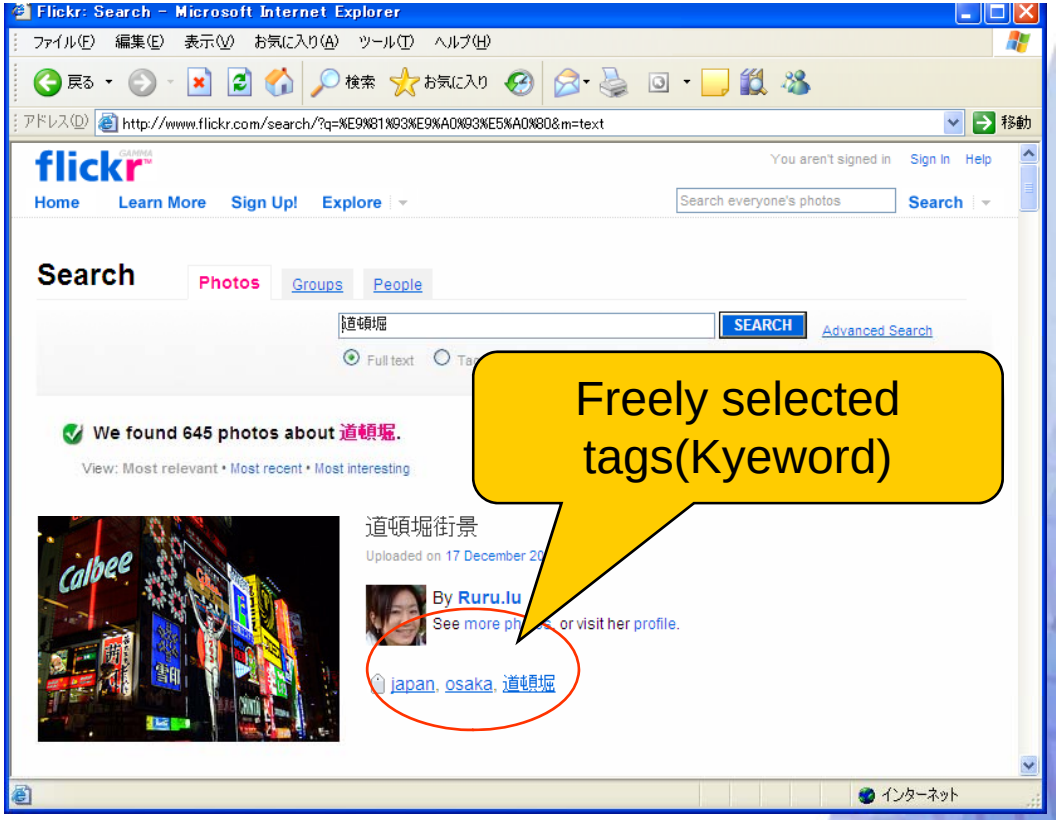
Seems Perfect The FullText Search era

- How to show classification:
  No classification
- Method to Classify:
  Words in the target site
- Typical Site:
  Google
- Problem at user side
  If the occurrence of the searching word on the targe site is a few, then that site would not be in the top 100 result of searching engine. (Usually, searching engine uses many technique (trace links, evaluate site…) to show important sites at the upper result.)

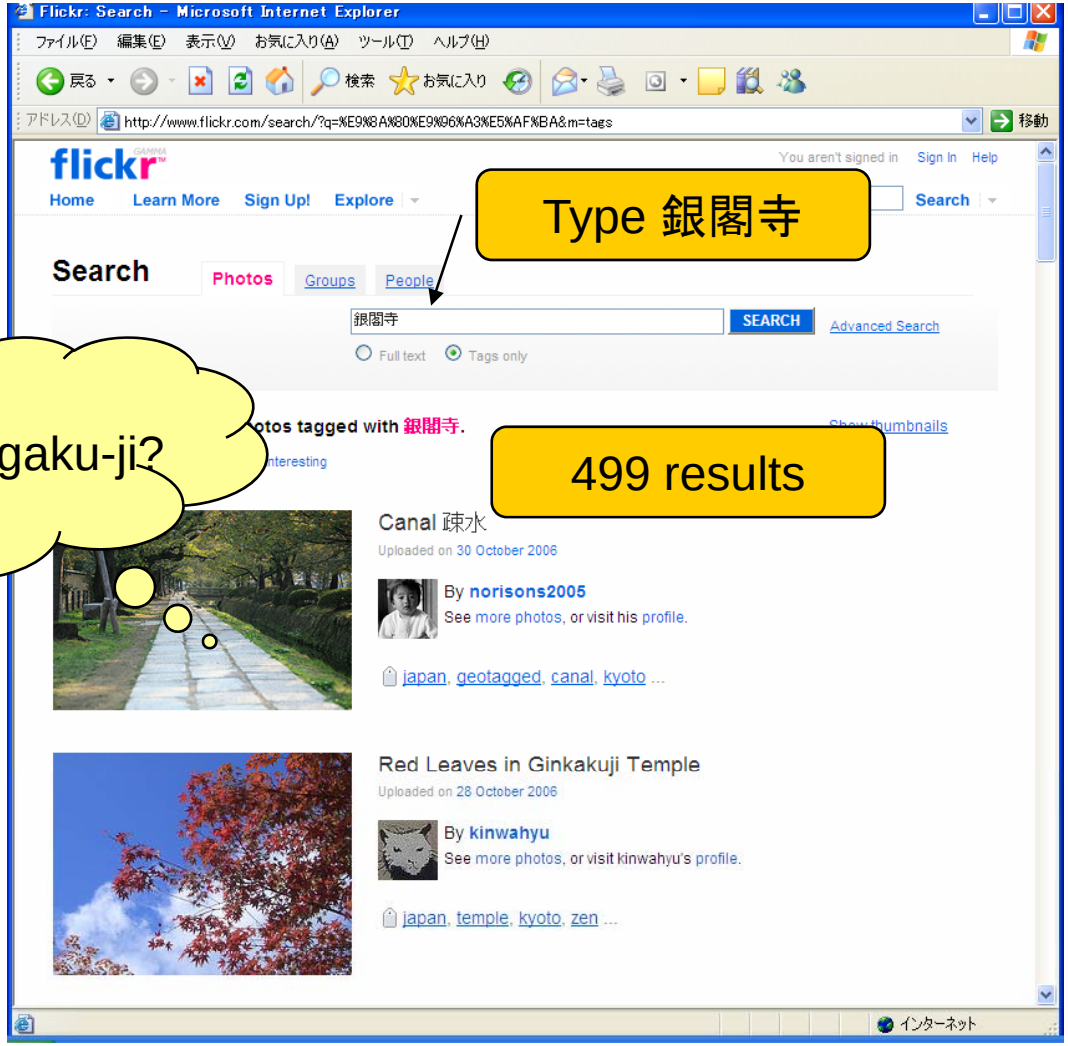
Searching “銀閣寺(Gingaku-ji)” by Google

2006-:
: Free but Confused Folksonomy era

- How to show classification
- Method to Classify the uploader added tags(Keyword) for classification
- Typical Site YouTube, flickr
- Problems at user side
  - No Hint for selecting keyword.
  - Free selection of Keyword leads to huge scattered keywords. It makes searching difficult.



Searching “銀閣寺(Gingaku-ji)” by Flickr



Summary: Current Classifying Problems

- Classifying by human is impossible
- Freetext searching can not find documents which has no searching word.
- Freely added keyword by uploader scatter too much. It’s makes searching difficult.

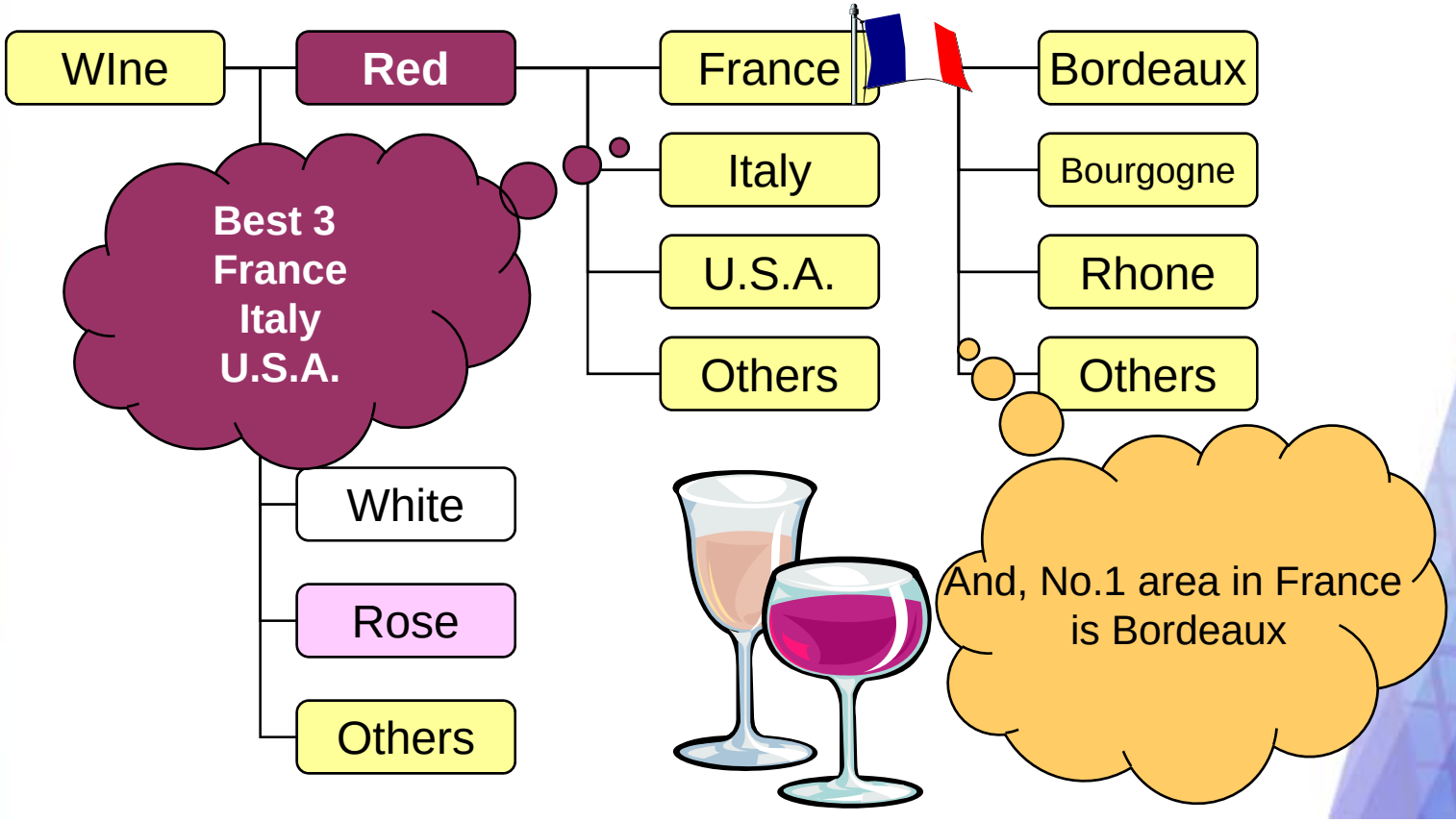
GrowingTree Method solves problems
Integrating Taxonomy and Folksonomy

- Site owner(Taxonomy part)
  - Select category for keyword
- Uploader(Foldsonomy part)
  - Select Keyword(Value) for category
- *Clasification by GrowingTree(Integration of Taxonomy & Folksonomy)*
  - Automatically create the classification tree from uploaded data. Tree creation rules as below.
    - Best Three (Only shows frequently uploaded)
    - Top 90%(Not show infrequently uploaded)
    - Minimum 10 exist(Only shows that has same keyword)
  - Site owner can set creation time(ex. 2:00AM) (This function will be available from Growing Tree2)
- Upploader
  - Trace automatically created tree for classification.

GrowingTree for WINE

Categoly(Color, Country, Area) by Best3

- Advantage of Searcher
  - Classification tree is created by the majority of keyword. User can trace the tree where existence of data guaranteed.
- Advantage of Uploader
  - Easy to select keywords from hierarchical keyword tree.
  - Can select a keyword which is not shown in the tree.
    For Example(Red, Japan, Nagano) is OK to type in.



GrowingTree for Company Document Categoly（Division, Action, Document Name) by Minimum 10 existence.

3 Dividions are frequently using this document system.

Reports at Sales are Daily, Weekly and Monthly. No other kind report in sales.

- Document
  - Sales
    - General
    - Accounting
    - Ohters
  - Report
    - daily
    - Weekly
    - Monthly
  - Sending
    - Order
    - Delivery
    - Bill
    - Estimate
    - Others
  - Checking
  - asking
  - Invite
  - apologize
  - Others

Main Sending Documents are
Order
Delivery
Bill
Estimate

Connected Corporation are going to release a document management system(FullWEB4.0) which utilize "*GrowingTree2*" Technology from Mar.06 2009.