

# Semblog Project

Personal Information Distribution with Social Network

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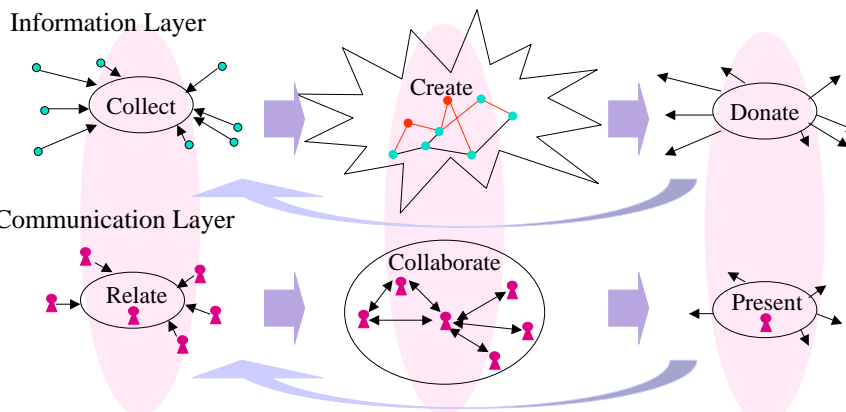


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## Information and Communication Activities

- Two layers for our activities
  - Information layer** concerns how information is explicitly represented and processed.
  - Communication layer** concerns how relationship among people are organized and maintained, which is potential route for information.



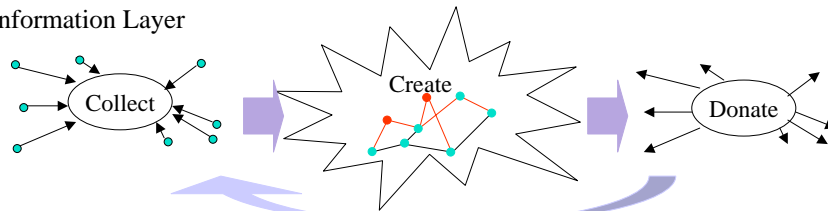
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## Information Activities

- A cycle of information exploitation
  - **Collect**
    - ◆ Find and retrieve information
  - **Create**
    - ◆ Process (classify, extract, combine, mix, ...) information
    - ◆ Generate new information
  - **Donate**
    - ◆ Publish and distribute information

Information Layer



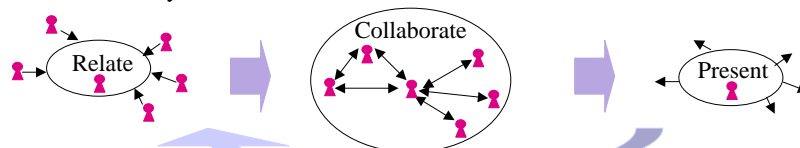
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## Communication Activities

- A cycle of human relationship exploitation
  - **Relate**
    - ◆ Find and contact people
  - **Collaborate**
    - ◆ Work with other people (organized work, teamwork, cooperation, ...)
  - **Present**
    - ◆ Identify and contribute ourselves to communities

Communication Layer

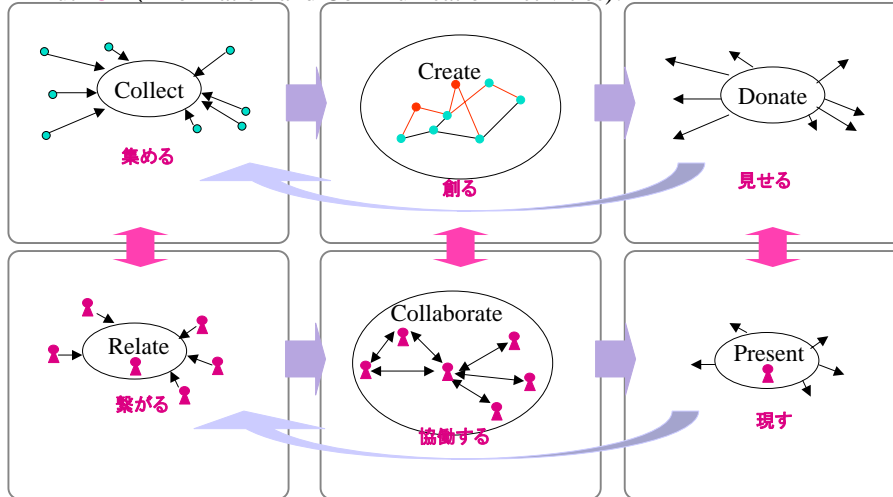


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## Information and Communication Activities

- Not ICT(Information and Communication Technology)
- But ICA (Information and Communication Activities)!

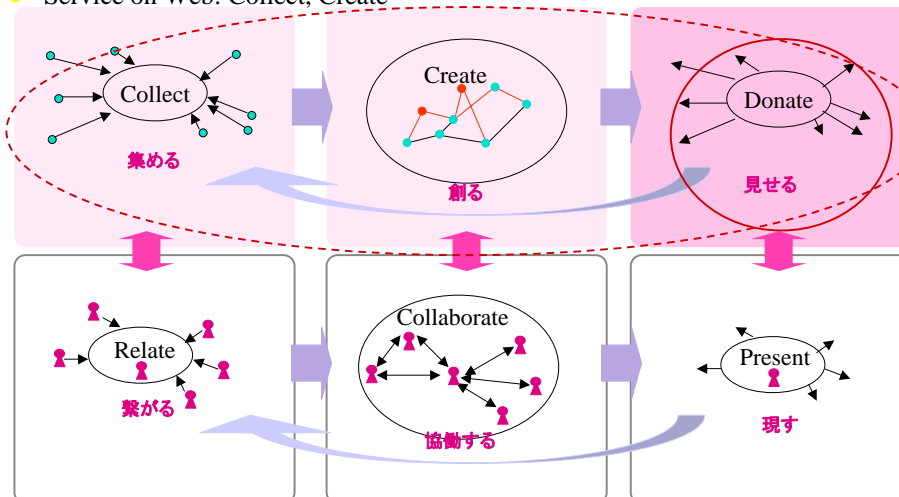


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## Web as Information and Communication Activities

- Web itself: Donate
- Service on Web: Collect, Create

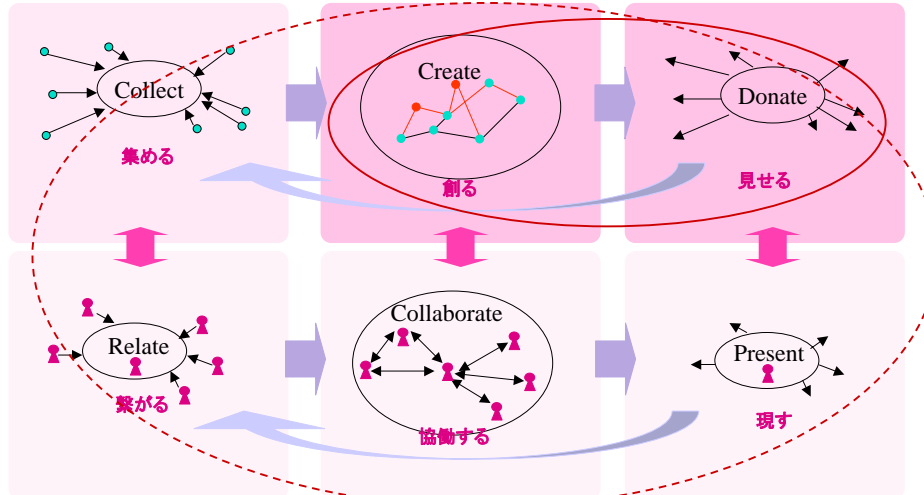


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## Blog as Information and Communication Activities

- Blog itself: Create, Donate
- Service on blog: Collect, (Relate), (Collaborate), (Present)

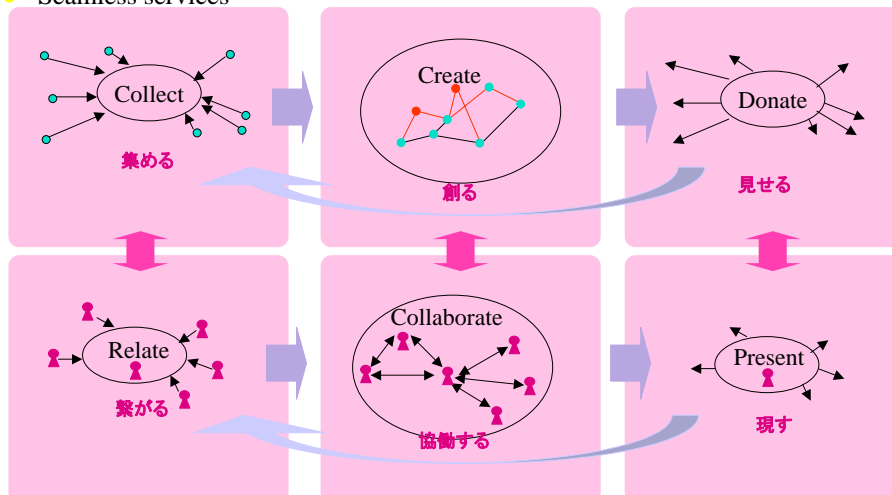


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## Information and Communication Activity Navigation (ICAN!)

- Explicit services to both layers
- Seamless services

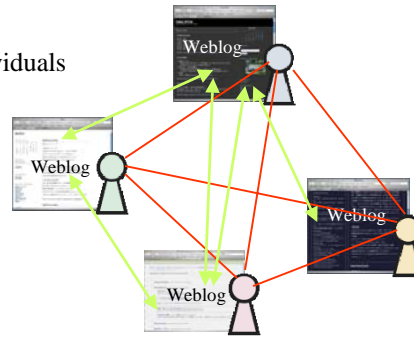


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## Semblog Project

- Applying Weblog and Semantic Web technologies for ICA support.
- Model
  - “Person” on Web
    - ◆ Weblog: Information archive for individuals
    - ◆ Foaf
  - Interpersonal relations
    - ◆ Links between Weblogs
    - ◆ Foaf relations
- Steps
  - ◆ Phase 1 : Platform
    - Metadata design
    - Basic tools for seamless support in searching, editing, and publishing
  - ◆ Phase 2: Applications
    - Recommendation
    - Search



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## Weblog Architecture

- Four layers for Weblog

|             |                |                |
|-------------|----------------|----------------|
| Application | Search         | Recommendation |
| Aggregation | RSS Aggregator |                |
| Management  | Blog Tools     |                |
| Metadata    | RSS            | Atom           |

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## Community Web Architecture

- Extended to Social network and ontology

|             |                   |                |                   |
|-------------|-------------------|----------------|-------------------|
| Application | Egocentric Search | RNA Alliance   |                   |
| Aggregation | RNA               | Glucose        |                   |
| Management  | Blog Tools        | FOAF TrackBack |                   |
| Metadata    | PermaRSS          | FOAF           | Personal Ontology |

Contents      Social Network      Ontology

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## Semblog Products

- RSS-based information exploiter
  - Extension of RSS aggregator
  - Seamless support of searching, editing, and publishing
    - Searching: search from myself (egocentric search)
    - Editing: (weblog tools)
    - Publishing: Three ways
      - Check: which weblogs I am reading
      - Clip: which entries I am interested
      - Post: what I am thinking
  - Developed Tools
    - RNA : Server-side scripts
    - glucose : Windows client

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## RNA: Personal RSS Portal

<http://www.semblog.org/>

- Extension of RSS aggregator
- User can
  - Register weblogs (**Check**)
  - View entries from various aspect (HTML/RSS)
  - Preserve interested entries (**Clip**)
  - (**Post**)
- System does
  - Metadata Management
    - ◆ TrackBack extraction
    - ◆ Keep Metadata-added cache
    - ◆ Generation of ParmaRSS
  - Re-distribution of RSS
    - ◆ Publishing “Checked”, “Clipped”, and “Posted” entries
  - FOAF Management
    - ◆ **FOAF TrackBack** (formally “acsh”)
- Over 3,000 downloads in Japan.



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## RNA

RNA

**RNA::PERSONAL RDF SUITE**  
Version 1.9.2 (build 040208) by semblog.org

Updated at 2004.05.14 02:03 AM

|                    |                                |  |
|--------------------|--------------------------------|--|
| - サイトのリスト (設定ファイル) | RSS OPML                       | <div style="border: 1px solid black; padding: 5px; display: inline-block;">RNA Index</div> |
| - サイトのリスト (更新時間順)  | RSS HTML XML+XSLT (IE/Mozilla) |  |
| - 最新の記事            | RSS HTML XML+XSLT (IE/Mozilla) |  |
| - サイトごとの最新記事       | RSS HTML                       |  |
| - クリップされた記事        | RSS HTML                       |  |
| - フラグイン (サンプル)     | HTML                           |  |
| - FOAF             | FOAF FOAF Explorer (View)      |  |

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**FOAF TrackBack**

FOAF TrackBackに下記のURIを登録するとFOAFリンクが張られます。

---

**Refresh by Ping**

TrackBack Pingを下記のURIに送信すると、アンテナが更新されます。

自動Pingを下記のURIに設定すると、アンテナが更新されます。

---

JavaScript

**Refresh**

**RNA Alliance**

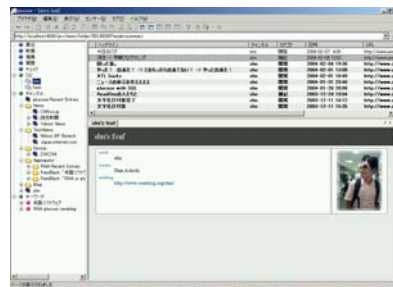
**Config**

7

## glucose: RSS Aggregator / Weblog Editor

<http://glucose.dip.jp/>

- A client program to support searching, editing, and posting
- User can
  - Register weblogs (**C**heck)
  - View weblogs with 3-pane interface
    - ◆ TrackBack extraction (Followed by “Re:”)
  - Preserve entries (**C**lip)
    - ◆ Cooperated with RNA
  - Post via weblogs (**P**ost)
    - ◆ Built-in Weblog editor
  - View FOAF
- Over 150,000 downloads in Japan



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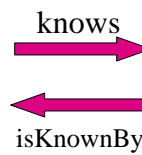




## FOAF Management

|                           |
|---------------------------|
| Application               |
| Aggregation               |
| Management                |
| Contents M.D. Social M.D. |

- Maintaining social network to determine information channel
  - FOAF: Friend Of A Friend is open metadata format to describe human relationship with RDF.
    - ◆ Self introduction section e.g., name, e-mail address, weblog URI...
    - ◆ Human relationship section with <knows>
- FOAF TrackBack
  - Our proposal
  - Provides an easy way to expand social network



|                     |         |          |         |
|---------------------|---------|----------|---------|
| Information Level   | collect | create   | donate  |
| Communication Level | relate  | collabo. | present |

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## PermaRSS

|                           |
|---------------------------|
| Application               |
| Aggregation               |
| Management                |
| Contents M.D. Social M.D. |

- PermaRSS is a permanent entity of an RSS for each blog entry.
  - Our proposal
  - Including...
    - ◆ Link and TrackBack relationship with other entries.
    - ◆ Topics and categories with rdf:resource
  - Each blog entry has different PermaRSS files.

|                     |         |          |         |
|---------------------|---------|----------|---------|
| Information Level   | collect | create   | donate  |
| Communication Level | relate  | collabo. | present |

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## RNA Extensions

- RNA as personal information portal
  - RNA can cope with other application via XML-RPC
    - ◆ Glucose can post clipped entries to RNA
  - Can be aggregation sites for dynamic personal information
    - ◆ e.g., location-based application

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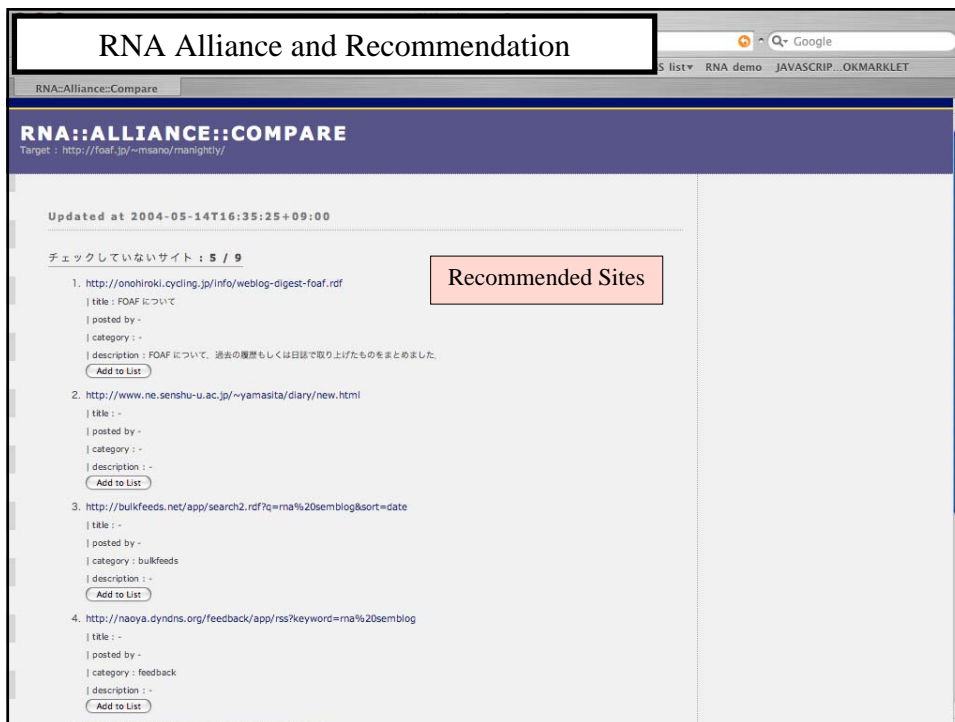
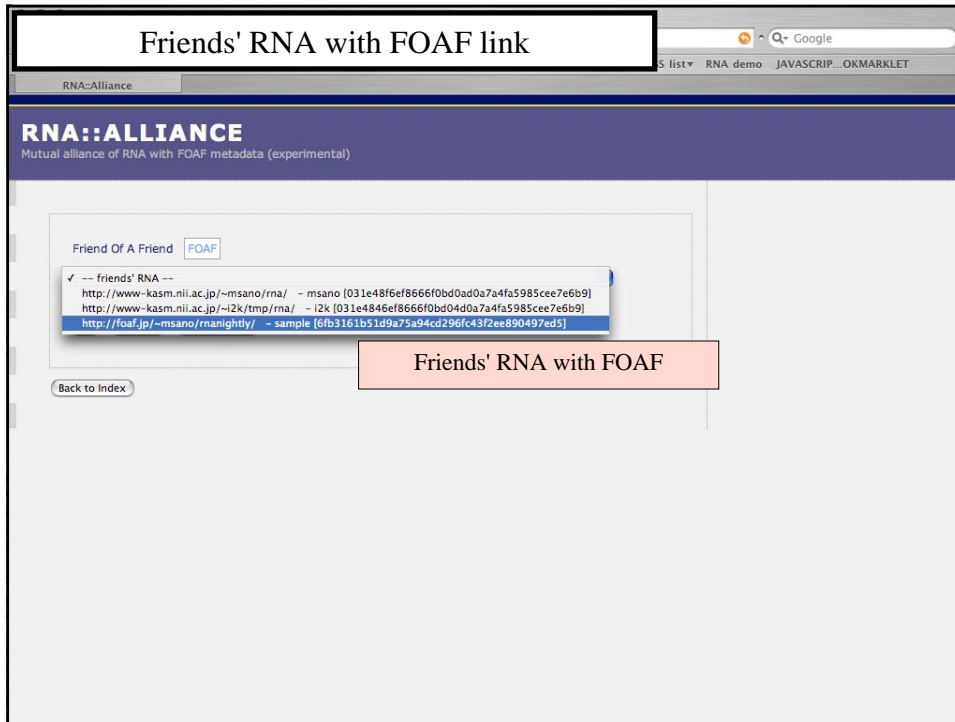


## RNA Extensions

- RNA Alliance : Cooperation among multiple RNA sites
  - RNA can work as P2P application
    - ◆ RNA sites can communicate to each other
    - ◆ Information exchanging on personal network is realized
  - P2P Information Recommendation
    - ◆ Recommendation with similarity between RNA sites
      - Input
        - Registered weblog sites
        - Categories (ontologies)
      - Output
        - Weblog sites
        - Entries
  - Extending personal network
    - ◆ Really Friend of a Friend!
    - ◆ Community Discovery

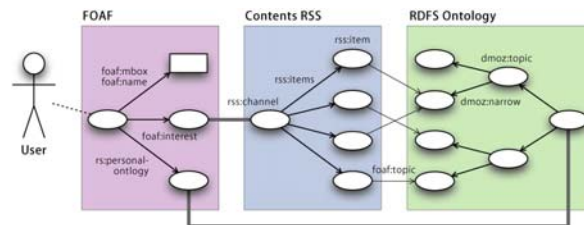
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## Construction of Personal Ontology

- Bottom-up ontology construction
  - We regard personal categorization as implicit “personal knowledge” → **Personal Ontology**
  - Establish “personal knowledge” with metadata
    - ◆ FOAF / Contents RSS / RDFS Ontology
    - ◆ Compatibility with conventional blog system
  - Distributed management model



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## Personal Ontology

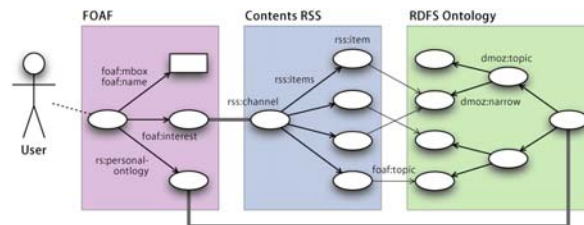
- **Contradiction?**
  - Explicit specification of a **shared** conceptualization that holds in a particular context [Schreiber]
- **Possible** under the following two hypotheses
  - People share most concepts in a deep level
    - ◆ Personal ontology is **ontology**
  - People explicate their concepts only from a particular context
    - ◆ Personal ontology is **personal**
- Aggregation of personal ontologies is important
  - Some concepts and their relations are shared
  - Some concepts and their relations are different
  - The aggregated personal ontologies can be (general) ontology

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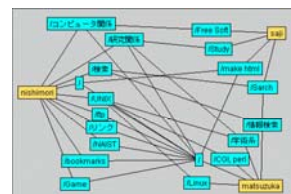
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## RNA Alliance with Personal Ontology

Infrastructure building and exchanging personal ontology

- Build personal ontology with RNA
  - Categorization of contents
  - In cooperation with blog tools
- Publishing personal ontology with RNA
- Ontology integration with friends' RNA
  - Recommendation for sites and categories
  - Integration methods
    - ◆ Content-based [Hamasaki02]
    - ◆ Instanced-based [Ichise03]



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## Conclusion

- Concept for Information and Communication Activities
  - Six activities model
  - Four Layered model for contents, social network, and ontology
- Semblog tools
  - RNA: server-side aggregator / publisher
  - Glucose: client-side aggregator / editor
- Semblog application
  - Recommendation by RNA alliance