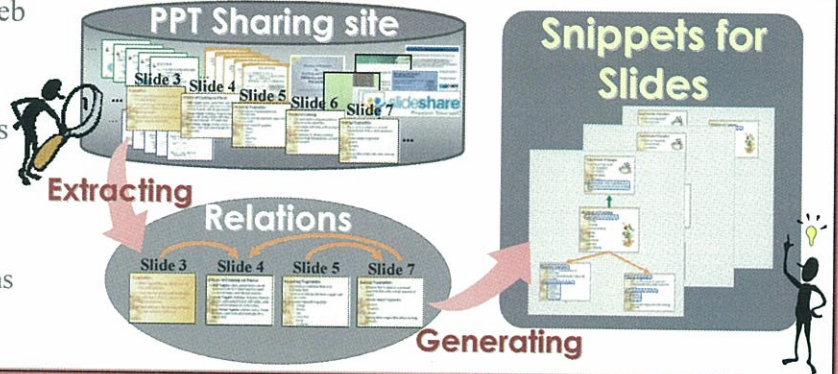


A Snippet Generation Method for Retrieving Slides in Presentation Content Sharing Sites

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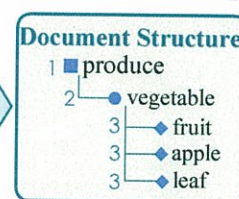
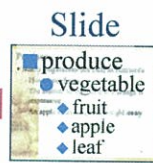
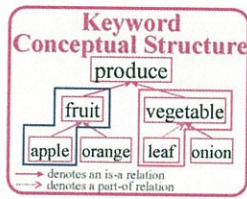
Slide Retrieval Support

- Many presentation contents are stored on the Web
Difficult to understand what special linkages implicitly in either slides
- Support for slide retrieval by generating snippets
 - Focus on the relations between slides
Analyze the **keyword conceptual structure** and **document structure**
 - Generate snippets for slides by using the relations between slides
Identify the relevant portions of slides



Keyword Conceptual Structure & Document Structure

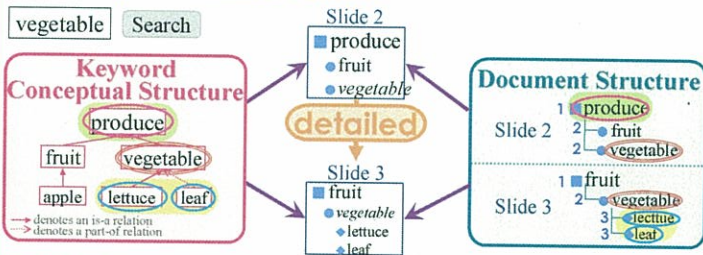
- Semantic relationships between words by using conceptual dictionary (WordNet)
 - is-a relationship
e.g.) apple **is-a** fruit
 - part-of relationship
e.g.) leaf **part-of** vegetable
- Positional relationships between words by using indents in slides (OpenXML)
 - Slide title is 1st level
 - Depth of the items increases with the level of indentation



Procedure

1. Determination of relations between slides based on the keyword conceptual structure and document structure
 - Detailed relationships
Explain more detailed information
 - Generalized relationships
Explain more generalized information

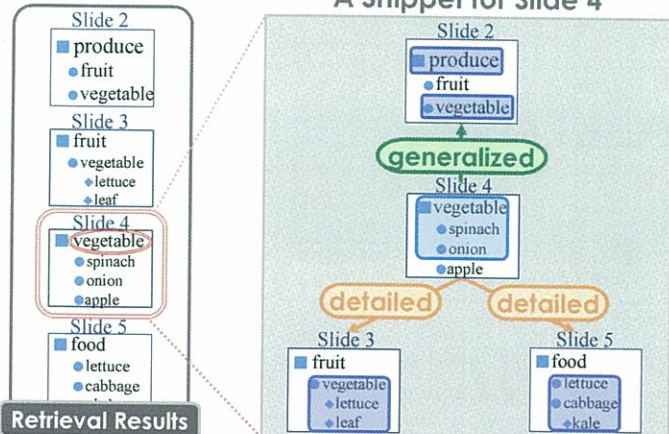
An example of detailed relation



2. Generate snippets by identifying relevant portions of slides

■ Portion: the set of indentions relevant to words

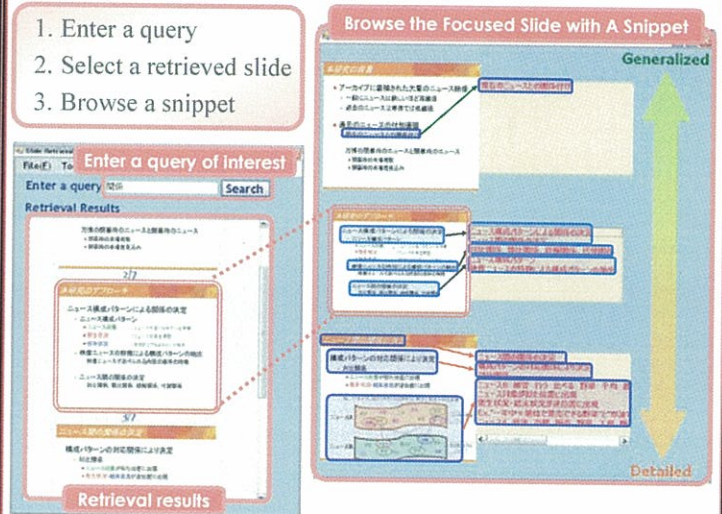
A Snippet for Slide 4



Evaluation

Prototype System

1. Enter a query
2. Select a retrieved slide
3. Browse a snippet



Efficiency of Browsing Snippets

Correct answers: the most detailed slides by participants

Dataset	Slides only	With snippets
Lecture contents	20/24	18/24
Academic contents	14/24	21/24
Total	34/48	39/48

- Browse slides with their snippets are useful
- Especially, snippets are helpful for browsing slides in academic contents containing expertise