Re-use Strategies for Topic-based Authoring

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TECHNICAL COMMUNICATION UK

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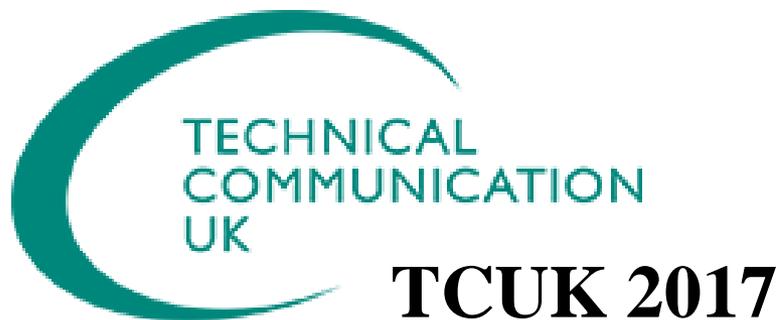
Key points

- A discussion of what defines a "topic"
- A survey of high-level re-use strategies and techniques
- How best to share information between related documents or projects
- How to re-use content within a document or project
- The roles of metadata and conditions
- The issue of granularity of re-use
- How re-use can impact translation

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What do we mean by a topic?

Two possible interpretations:

- A chunk of content displayed to the reader as a continuous scrollable page

- A building block that may be combined with other building blocks to form a larger work

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Example of a building block

4. (Optional) If you want to place the file into a subfolder that you previously created in the Project Organizer, in the **Folder** field click [...] and select the subfolder. Otherwise, keep the default location. See Creating Subfolders.

What do we mean by a topic?

- Self-contained
- Should not be broken up
- One idea
- Answer to a question
- Shortest effective piece of communication
- One type of information
- One task

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Let's look at an example…

About Firewalls

Some organizations separate their local networks from the rest of the Internet by installing a "firewall" or "gateway." A firewall is a system or software which is configured to prevent particular types of access/information from entering the network. Most firewalls block the flow into the local area network, but allow individuals to access most resources outside of the network.

Firewalls can be implemented in both hardware and software, or a combination of both. Firewalls are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially intranets. All messages entering or leaving the intranet pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria.
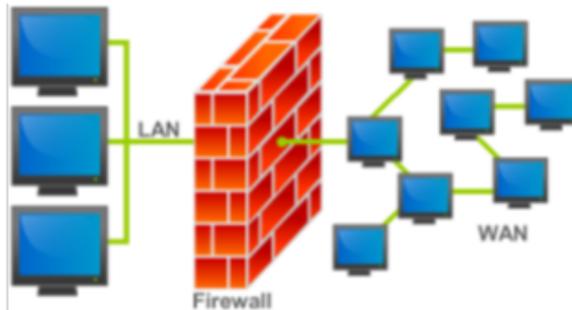
Types of Firewalls

There are several types of firewall techniques:

Type	Description
Packet filters	Looks at each packet entering or leaving the network and accepts or rejects it based on user-defined rules. Packet filtering is fairly effective and transparent to users, but it is difficult to configure. In addition, it is susceptible to IP spoofing.
Application gateways	Applies security mechanisms to specific applications, such as FTP and Telnet servers. This is very effective, but can impose a performance degradation.
Circuit-level gateways	Applies security mechanisms when a TCP or UDP connection is established. Once the connection has been made, packets can flow between the hosts without further checking.
Proxy servers	Intercepts all messages entering and leaving the network. The proxy server effectively hides the true network addresses.

Packet Filters

Packet filters operate at a relatively low level of the TCP/IP protocol stack, not allowing packets to pass through the firewall unless they match the established rule set. The firewall administrator may define the rules; or default rules may apply. The term "packet filter" originated in the context

Document outline (h1 – h3)

- **About Firewalls**
  - **Types of Firewalls**
    - Packet Filters
    - Application Gateways
    - Circuit-level Gateways
    - Proxy Servers
  - **Basic Firewall Rules**
  - **Multiple Firewalls**
  - **Firewall Pinholes**

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How many topics?

My attempt to define a topic

a self-contained cluster of chunks of information,

each of which depends on the others for context,

on a single theme

with an overall narrative flow

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What do we mean by re-use?

Re-use

- Write once, use many times
- Content:
  - Word or phrase
  - Paragraph or content chunk
  - Topic
- Assets:
  - Style sheet
  - Search synonyms
  - Skin

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What do we mean by maximizing re-use?

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Maximizing re-use

- Take all reasonable opportunities for re-use

- Can we go too far?
  - additional management time > saved maintenance time?
  - paragraph-level or higher
  - localisation is an issue

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Re-using topics

- Relatively straightforward
  - Topics are self-contained

- Shorter topics have more potential for re-use
 - but may be more difficult to manage
  - …and may need to be combined for presentation

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Topic re-use strategies

- Single pool of source topics for all publications

- Multiple "projects" with some shared content

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Build different publications from a single pool of source topics

- Different TOCs/Outputs in HATs

- Different Maps in DITA

- Single database of content and infrastructure (AIT)

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Build different publications from a single pool of source topics
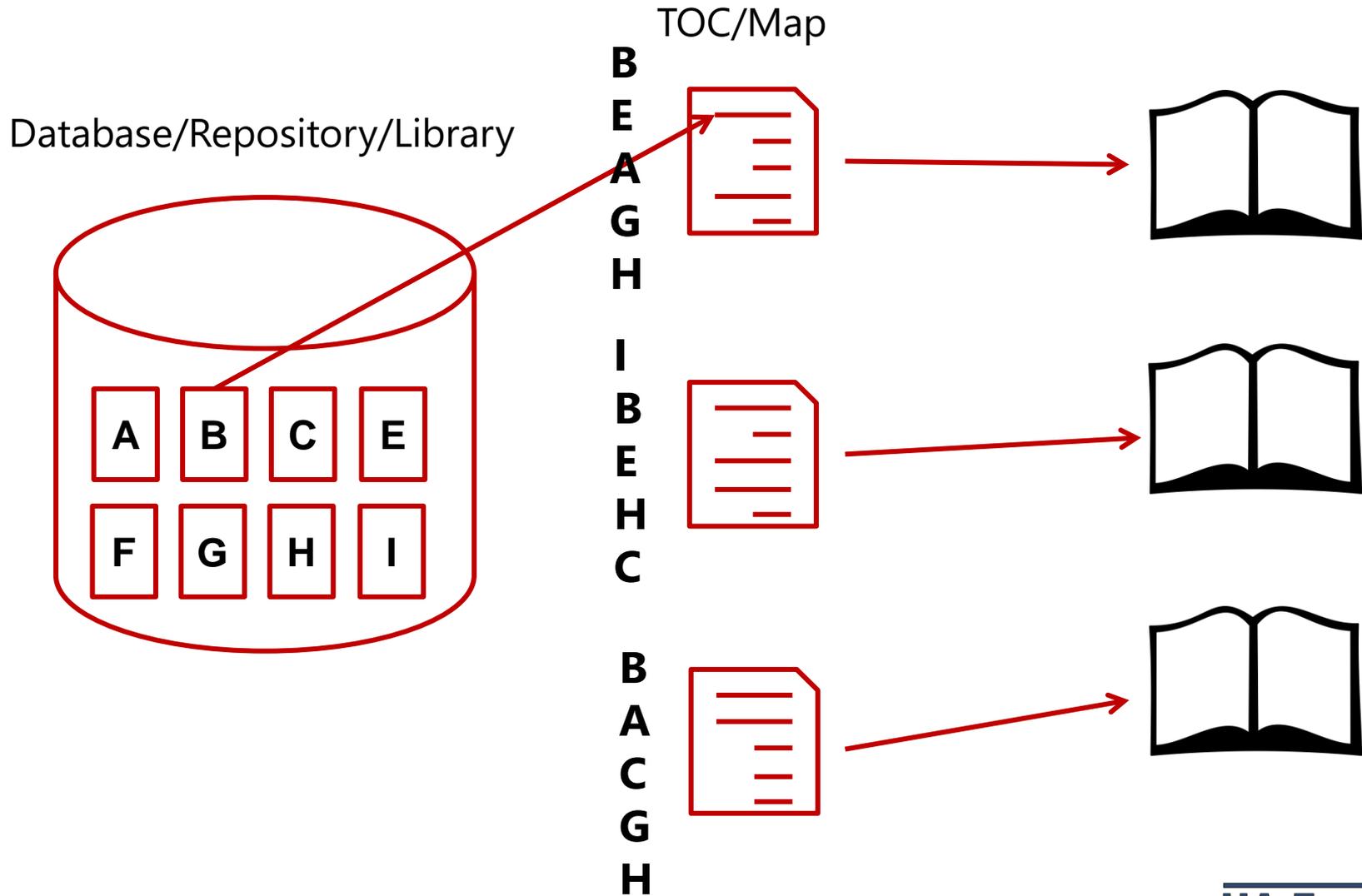
Multiple "projects" with some shared content

- Ideally include shared content from a single source
- If not, ensure that multiple instances of the topic are synchronised
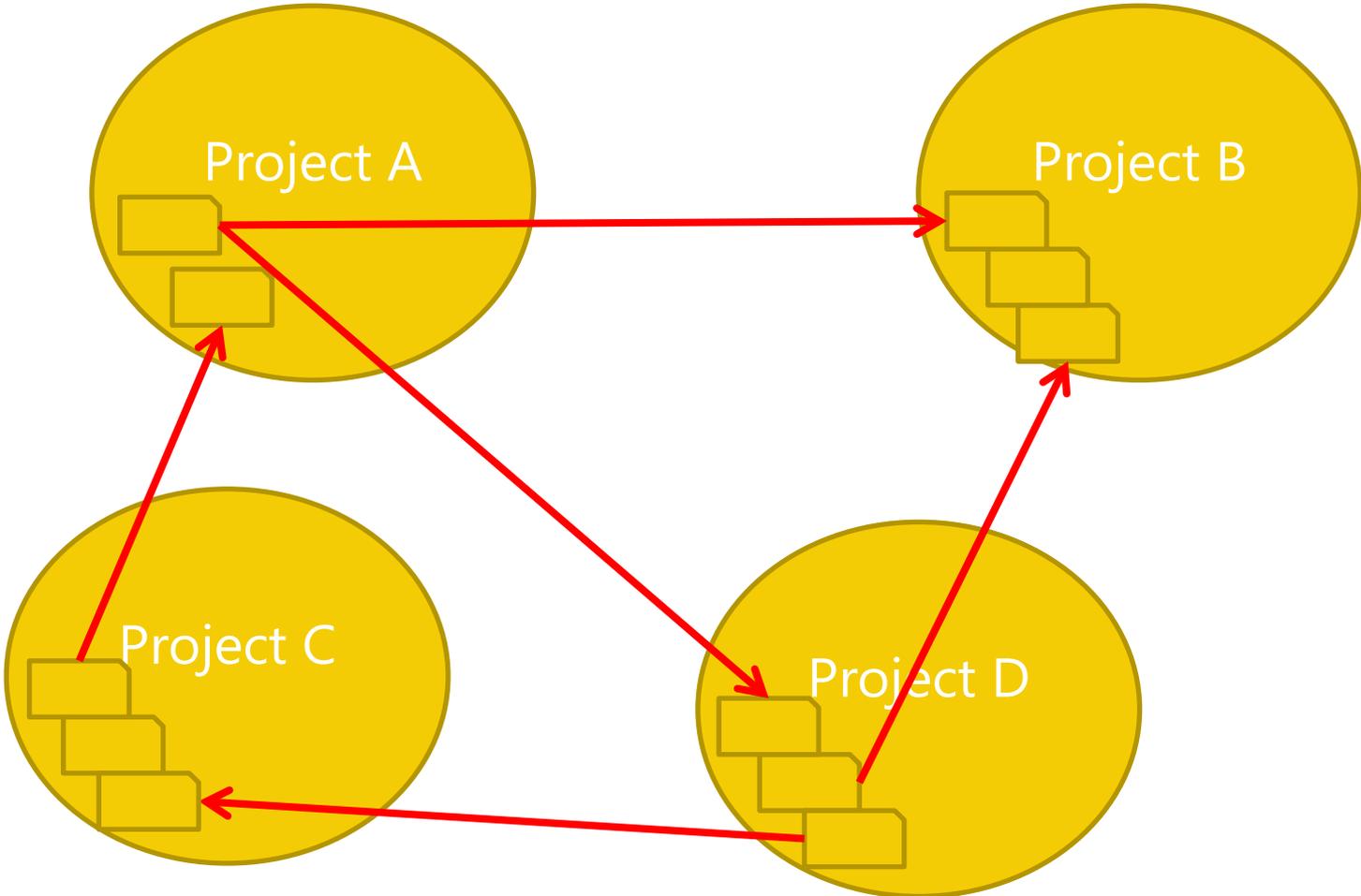
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Shared content from a single source
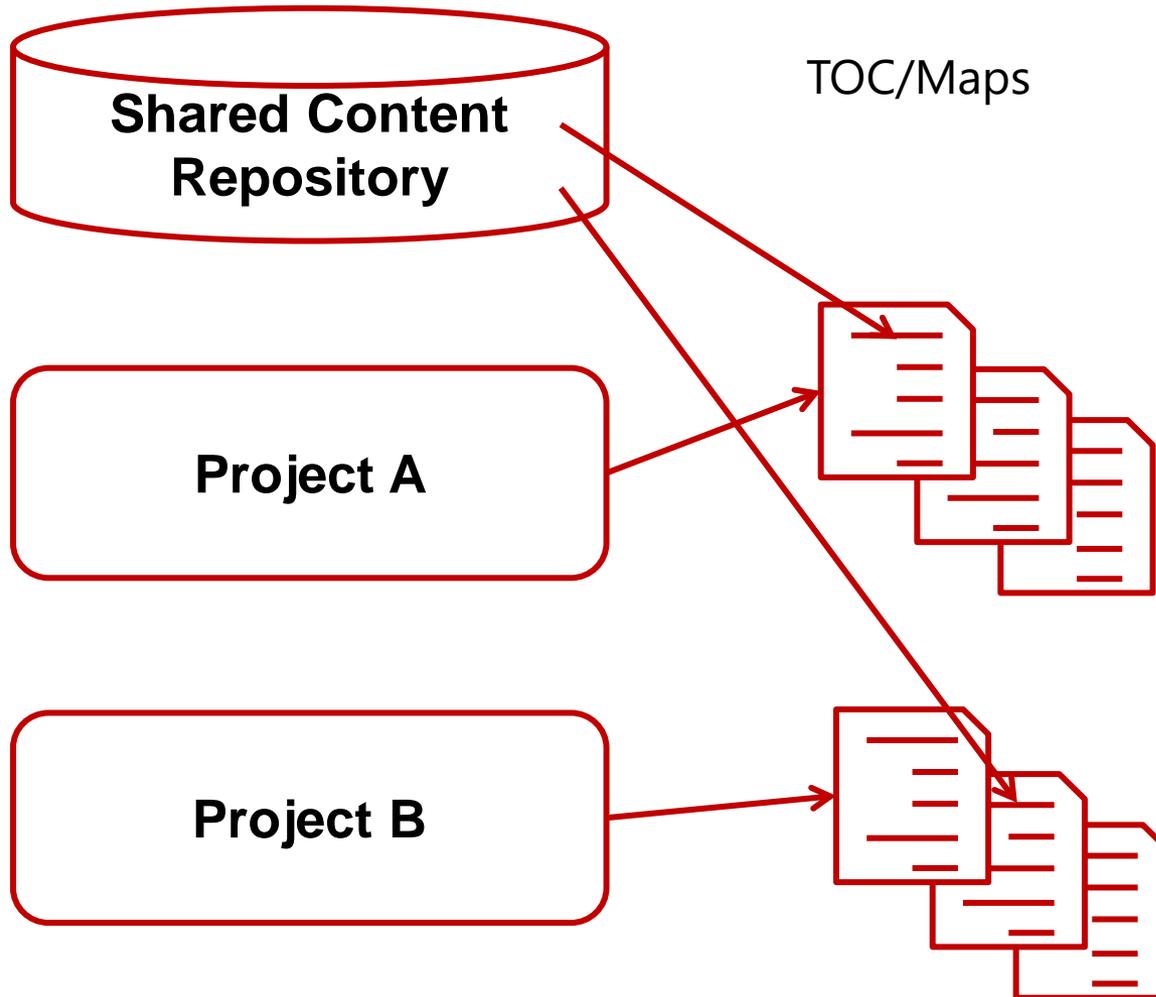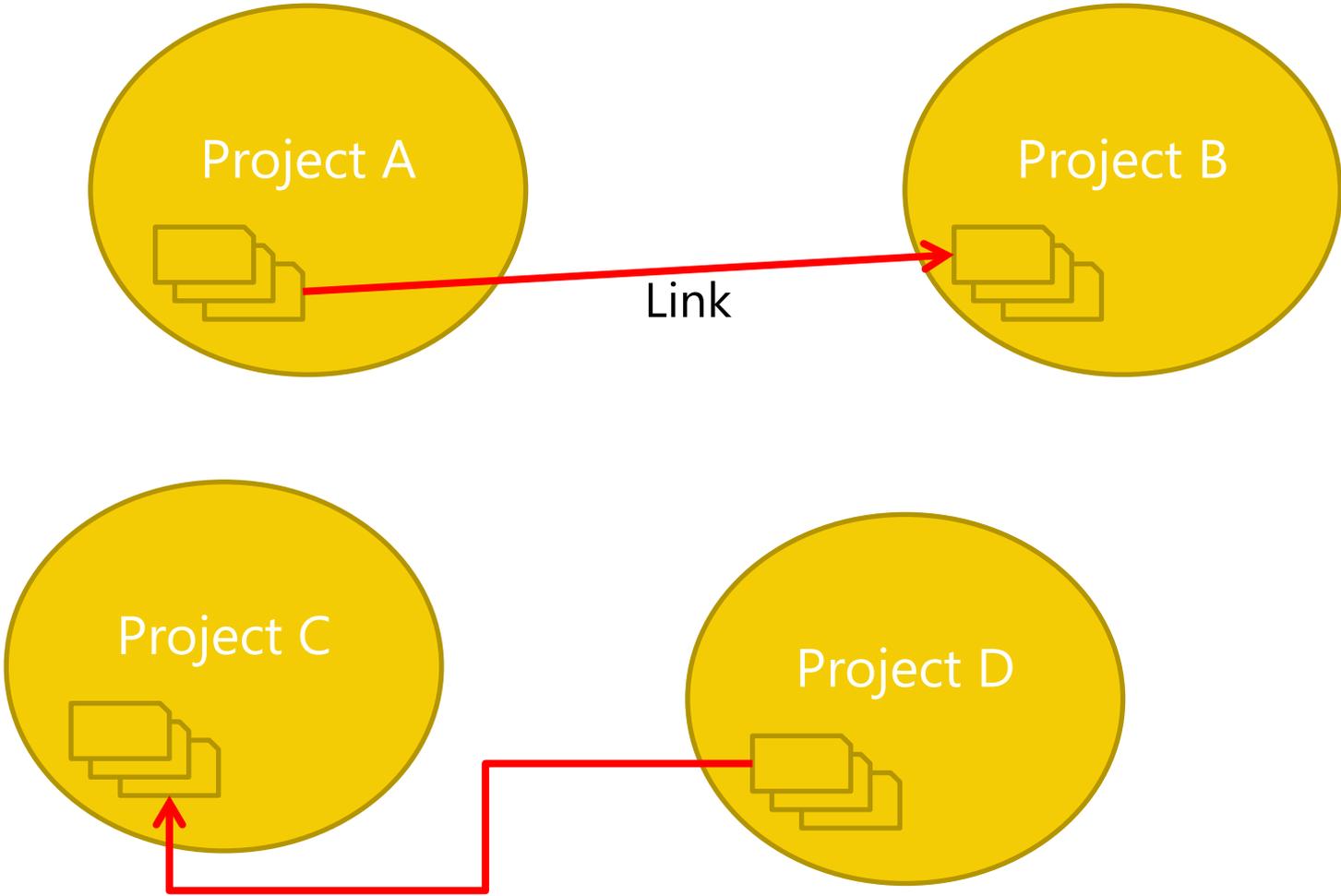
Linking/syncing topics between projects

Possible strategies:

- Adhoc/opportunistic

- Pairs or groups of related projects

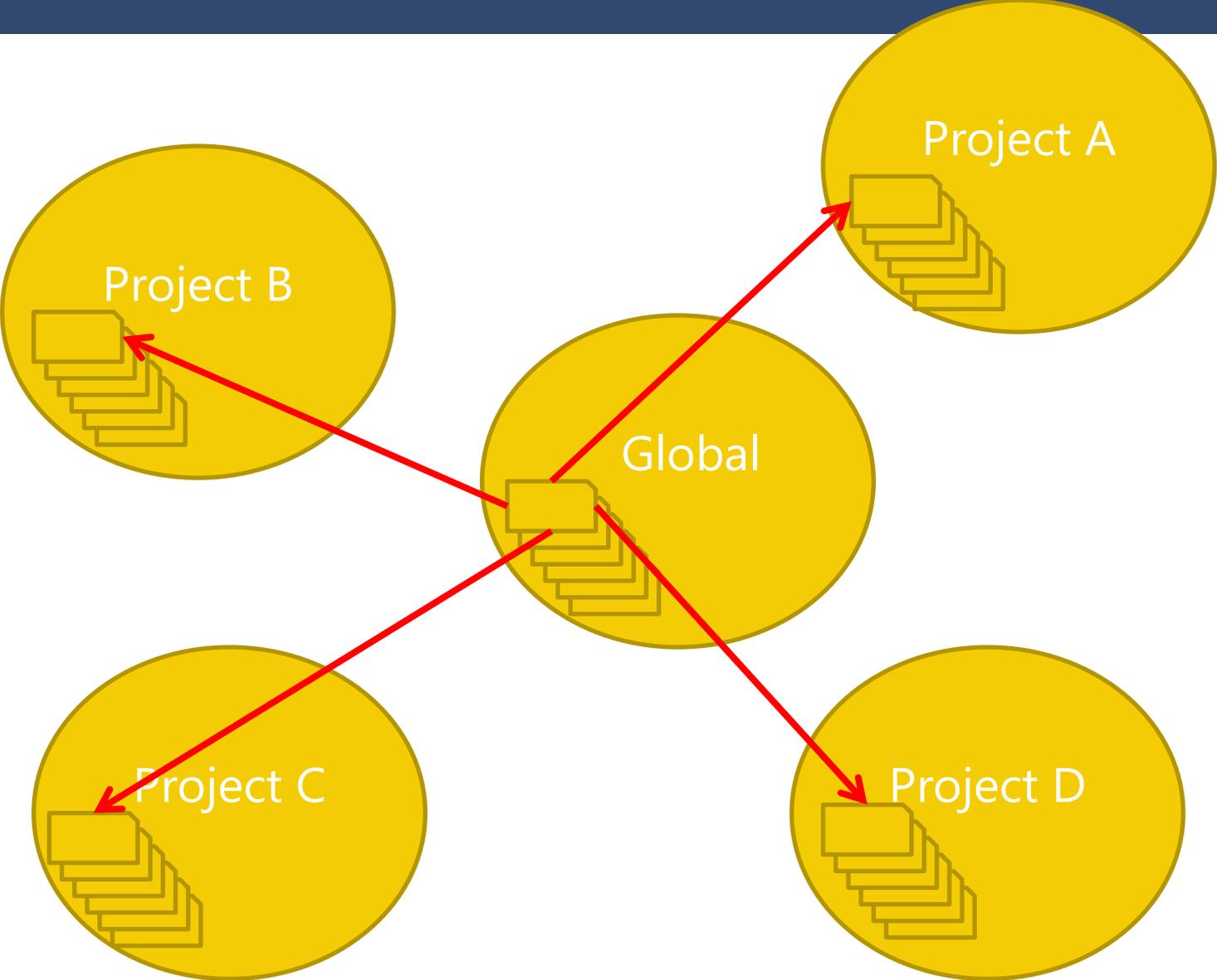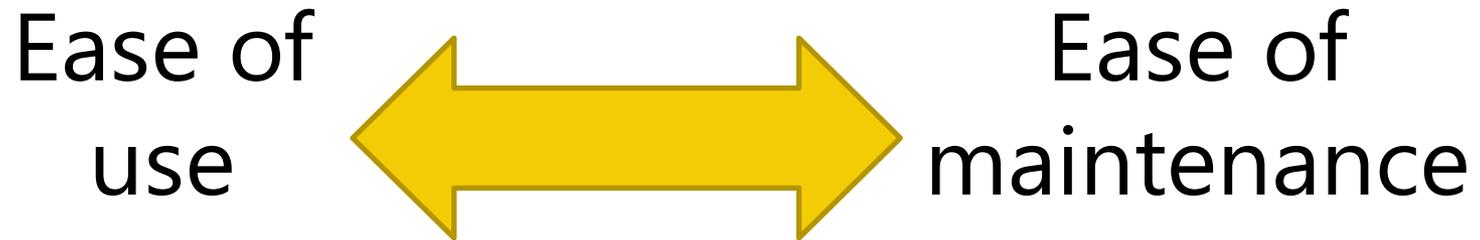- Top-down (global/master project)

Adhoc/opportunistic sharing

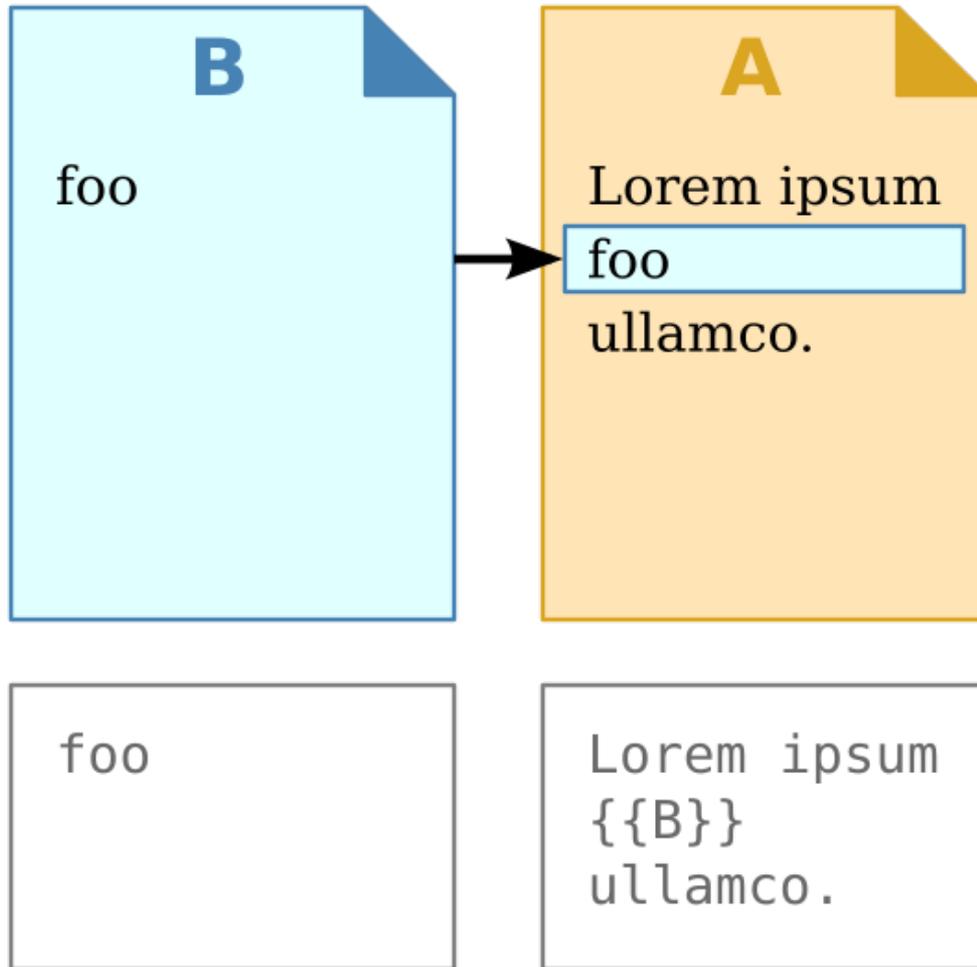# Sharing between related projects

Global project

Cross-reference or repeat?

Ease of use ⟷ Ease of maintenance

Better option:

Transclude

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Transclusion principle

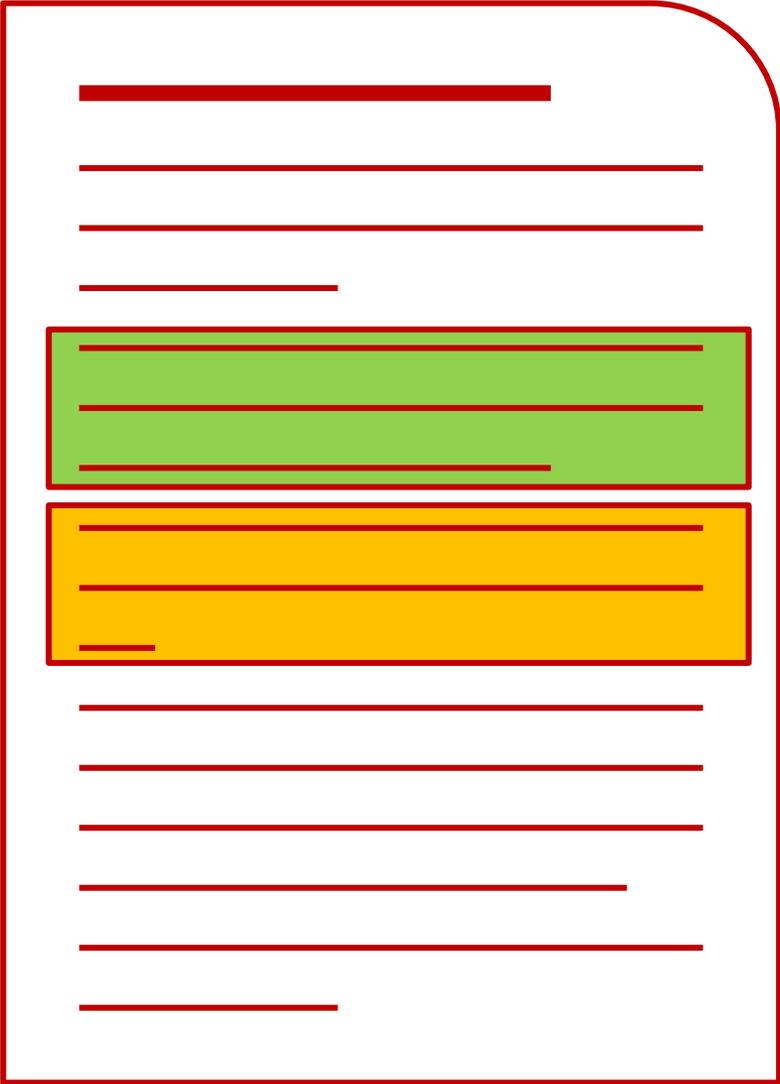# Transclusion implementation

- HAT:
  - Snippets

- DITA:
  - Use `conref` to transclude an element from another topic

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How do we handle the need for small differences when re-using topics?

Re-use strategies for "similar" topics

- Single topic with conditions for content differences

- Single topic with transclusion for content differences
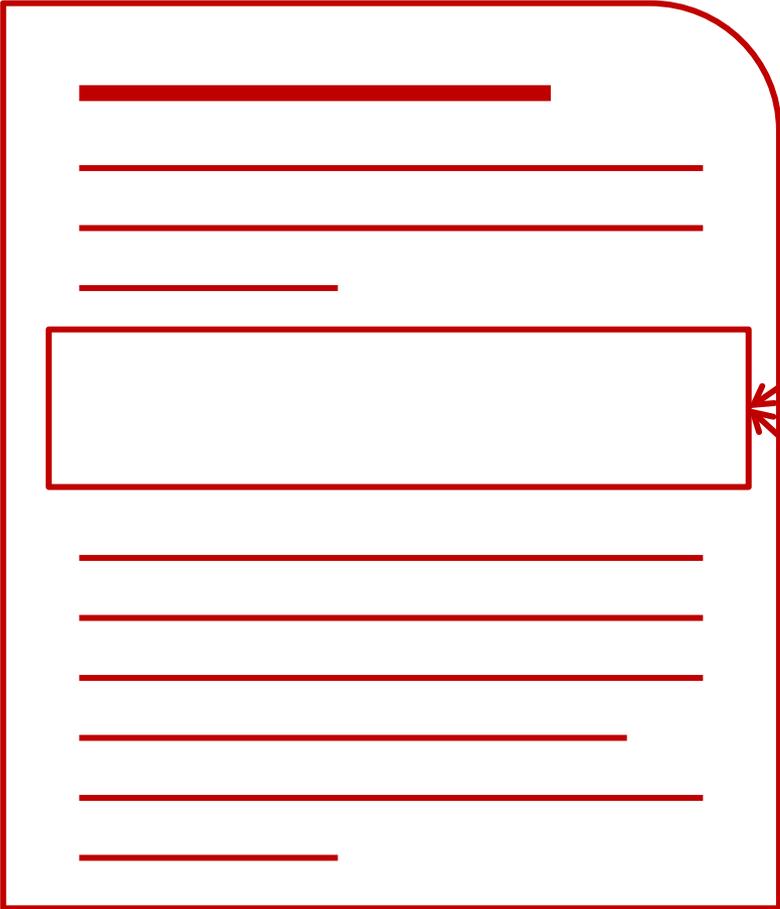
- Multiple topics with shared common content
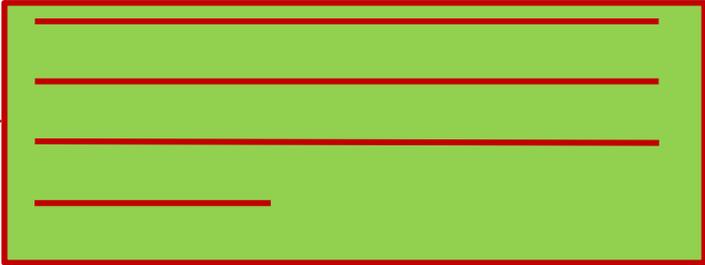
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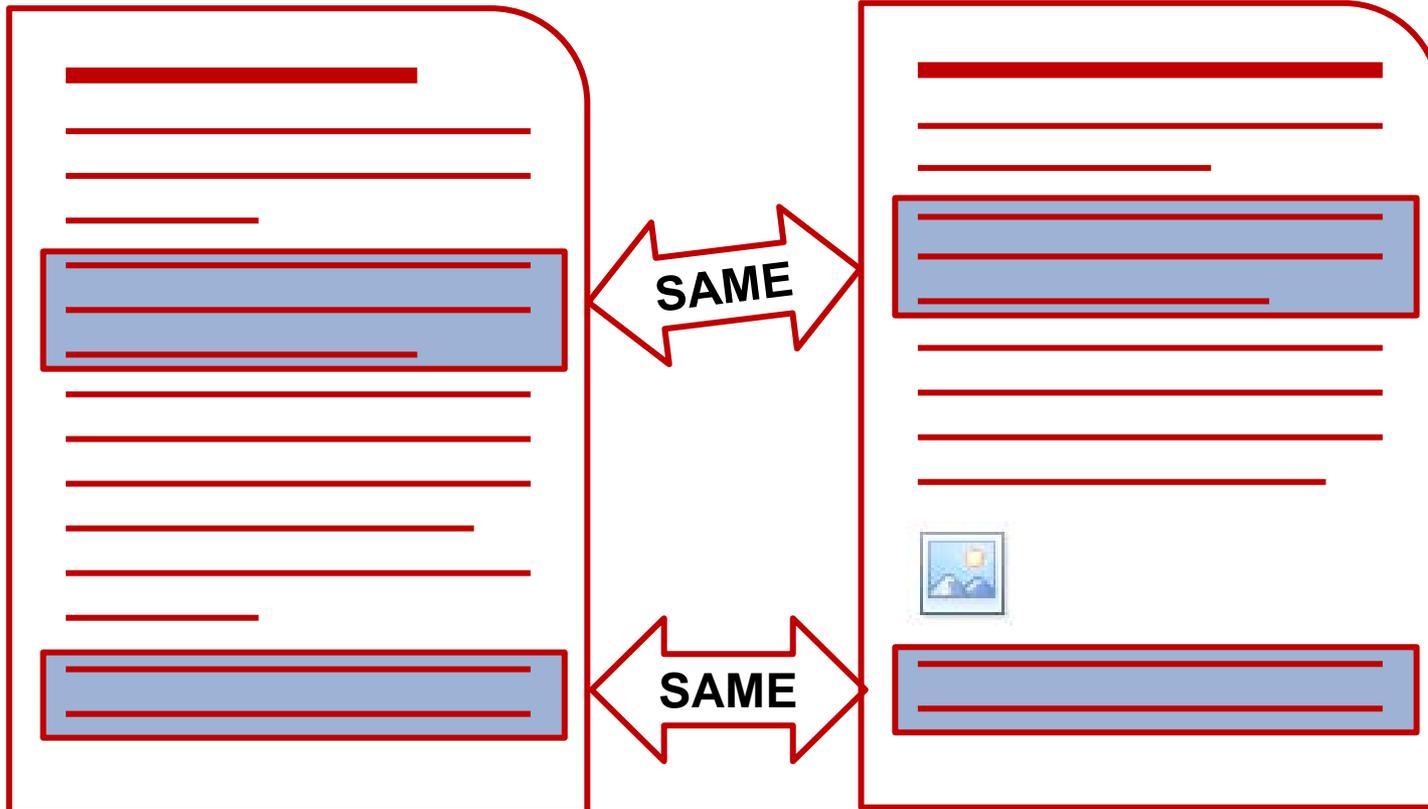
Single topic with conditions

Two possible versions

Single topic with transclusion

Different content "snippets"

Multiple topics with shared common content

Shared Content Repository

SAME

SAME

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Content boundaries

- "Technical documentation … far more structured than other kinds of writing. There are sections and subsections and tables and lists of tasks, etc. Each of these things brings with it some kinds of content boundaries that encapsulate it, and allow it to stand on its own, and thus be managed somewhere else and then reused."

[Deane Barker]

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Ideal content chunks for re-use

- Images
- Headed sections
- Tables
- Lists
  - List items
- "Boxed" content:
  - Examples
  - Warning
  - Notes
  - Tips

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Blurring the content boundaries

Start by peeling, quartering and coring the pears.   Then arrange the pear quarters in a wide pan. Next, add the spices and cranberries before pouring in the water and lemon juice. Bring to a simmer and reduce heat to continue simmering. After 15 minutes, remove from heat and allow to cool. Finally, pick out the whole spices.

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Tightened content boundaries

1. Peel, quarter and core the pears
2. Arrange in a wide pan
3. Add the spices and cranberries
4. Pour in the water and lemon
5. Bring to a simmer, reduce heat, and continue simmering for 15 minutes
6. Remove from heat and allow to cool
7. Pick out the whole spices

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Reducing the need for conditions

- Variables defined differently for separate outputs

- HATS:
  - Variable override defined in output settings

- DITA:
  - `keyword` and `conkeyref` elements with `keydef` in DITA Map

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DITA keyword example

Topic source:

```
Your <keyword keyref="car_name">car<keyword>
has heated seats.
```

Ditamap :

```
<keydef keys="car_name">
<topicmeta><keywords><keyword>Astra</keyword></
keywords></topicmeta>
</keydef>.
```

Result :

Your Astra has heated seats.

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MadCap Flare example

⊡For OEM sales, call ⊳ PhoneNumber: +44 800 778 962⊲

USA Target:

		Name	▲	Definition	Comment
	🗎	CompanyName		Ipswitch, Inc	
▶	🗎	PhoneNumber		+1 800 111 2222	
	🗎	ProductName		WS_FTP Ho... ▾	

Result in output for USA:

For OEM sales, call +1 800 111 2222

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Re-using links

- Key-based links

- ALinks

- See Also links

- Concept links

- DITA key-based links

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Taking re-use too far

- Don't make re-use your main criterion for success

- Always make the experience of the end-user your top priority

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Overall conclusions

- Topic-based authoring provides rich opportunities for re-use
- Thinks of topics as being building blocks
- Conditions and transclusion are the main techniques for maximising re-use
- DITA has many key-based features that increase flexibility and support re-use
- Keep your strategy as simple as possible!

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Thanks for attending!
Final questions?

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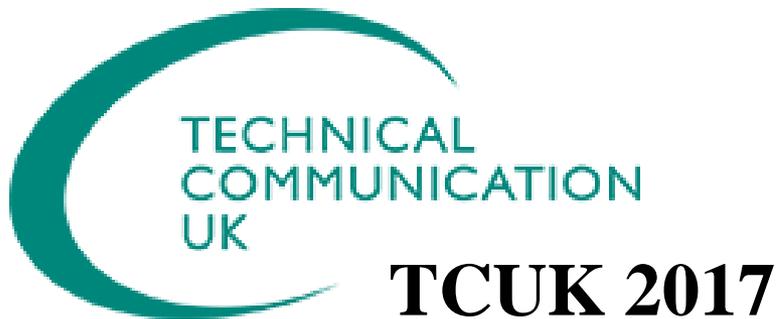
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