



# Gathering Evidence for a Taxonomy: knowledge mapping vs content modelling

Patrick Lambe TBC London October 2016



# Design = evidence + desired outcomes



Understand the information resources –  
**content warrant**

Understand the users and their key  
tasks – **user warrant**

Understand if information needs to be  
exchanged with other agencies in  
standard forms – **standards warrant**

**Warrant – the  
evidence behind  
your design**

# Design = evidence + desired outcomes



Understand the information resources –  
**content warrant**

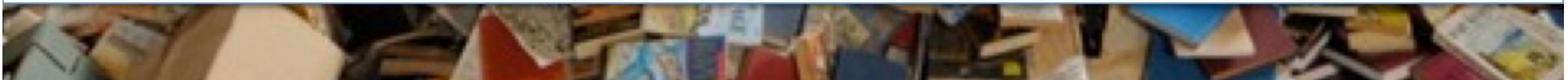
Understand the users and their key  
tasks – **user warrant**

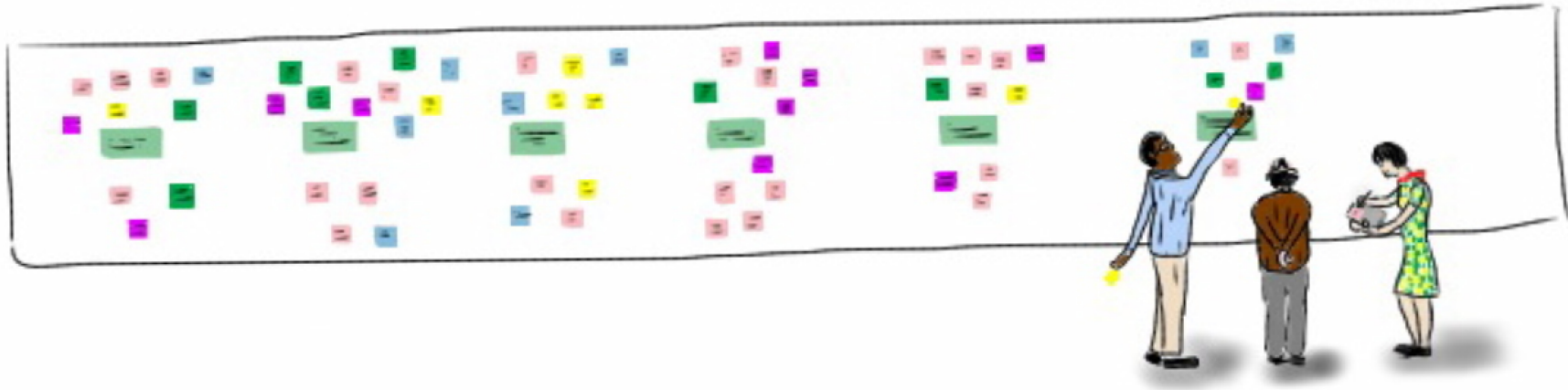
Understand if information needs to be  
exchanged with other agencies in  
standard forms – **standards warrant**

## Warrant – the evidence behind your design



Ungoverned ♦ Stashes ♦ Baggage ♦ Acontextual

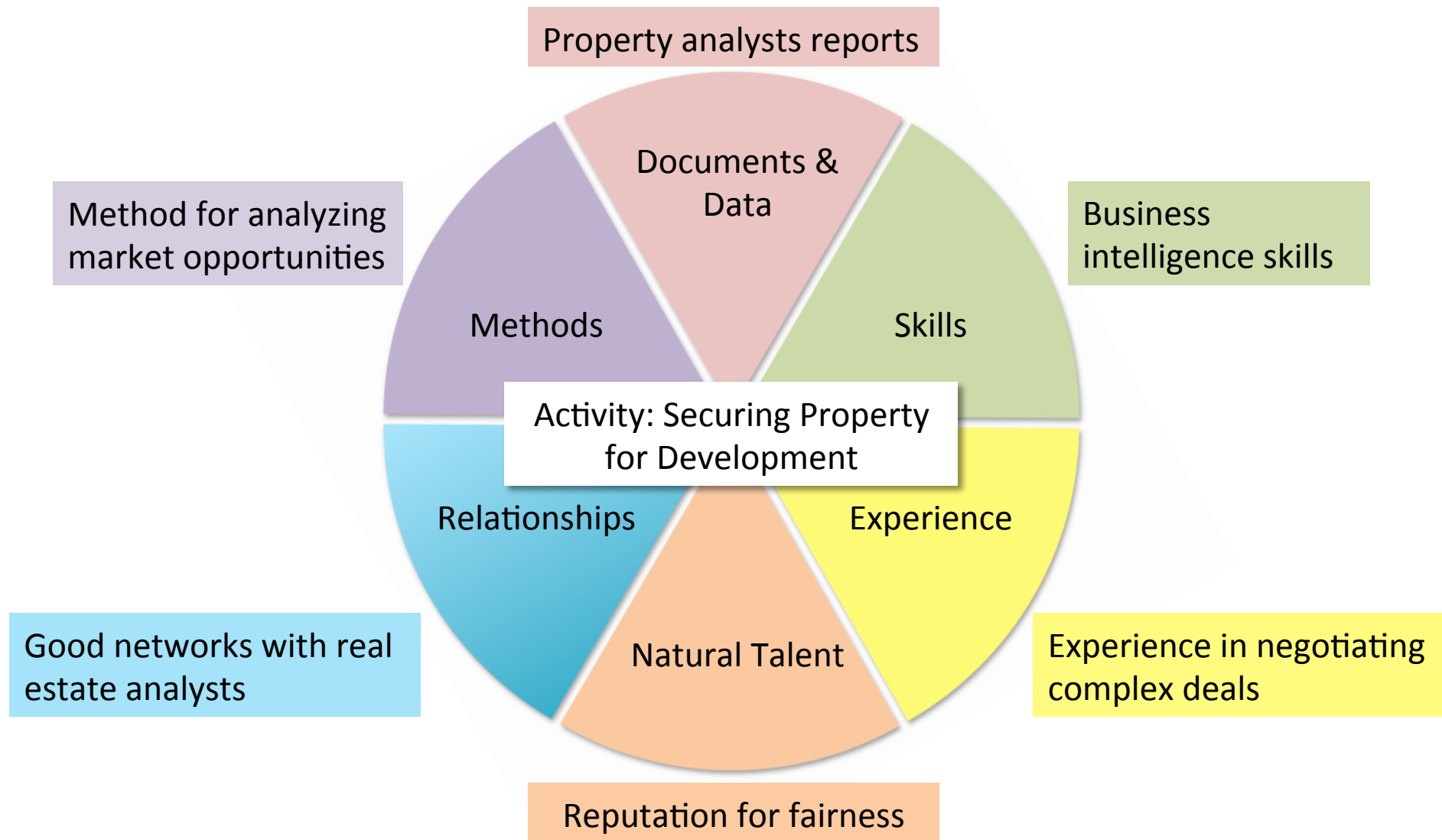




# Knowledge Mapping: Property Development Company



# Small teams map their activities and knowledge assets



Small teams map their activities and knowledge assets



Hi kmanager [SK], you are currently in Mapping Mode

Search and Filter  
Interactive Views

### Workgroup

Search Workgroup/Acti + All New Hire

#### Administration Dept [AD-AD]

##### Annual Budget [AD-AD 100]

##### Annotations + 1

##### Financial Audit [AD-AD 27]

##### Financial Management [AD-AD 28]

##### Handling complaints [AD-AD 129]

##### Manage Central Registry [AD-AD 29]

### Assets

### My Selection

Search Assets

#### Annual Budget [AD-AD 100]

##### All department budgets [AD-AD 100/A72]

##### Budgeting sequence and steps [AD-AD 100/A104]

##### Budgeting template [AD-AD 100/A573]

##### Corporate Historical knowledge [AD-AD 100/A572]

##### Corporate budget and financial plan [AD-AD 100/A124]

##### Excel Spreadsheet manipulation skills [AD-AD 100/A572]

Small teams map their activities and knowledge assets



Assets are analyzed for knowledge risks, gaps, accessibility improvements



Hi kmanager [SK], you are currently in Mapping Mode

Search and Filter

Interactive Views

## Workgroup

Search Workgroup/Acti

+

All

New Hire

### Administration Dept

[AD-AD]

+

5

#### Annual Budget

[AD-AD 100]

+

9

#### Annotations

+

1

#### Financial Audit

[AD-AD 27]

+

3

#### Financial Management

[AD-AD 28]

+

3

#### Handling complaints

[AD-AD 129]

+

0

#### Manage Central Registry

[AD-AD 29]

+

2

## Assets

### My Selection

Search Assets

### Corporate Historical knowledge

[AD-AD 100/A572]

+

1

#### Edit Knowledge Asset

☐ Move To Top

Type

Experience

Name

Corporate Historical knowledge

Actual/Gap

Actual

Minor Gap

Major Gap

Status

Inactive

Input/Output

Input

Output

Risk &

Accessibility

Risk

Accessibility

Owner

☐ 000

☐ AB

☐ 001

☐ A

☒ AD-AD

☐ BU2014

☐ BDD

☐ CCD

☐ ED

Owner other than above

Transfer

Choose options

Assets are analyzed for knowledge risks, gaps, accessibility improvements



Hi kmanager [SK], you are currently in Mapping Mode

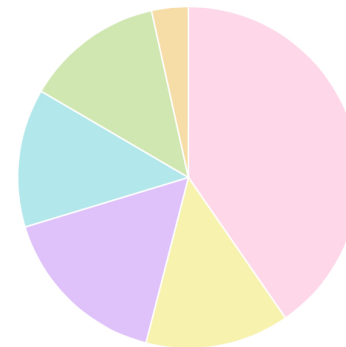
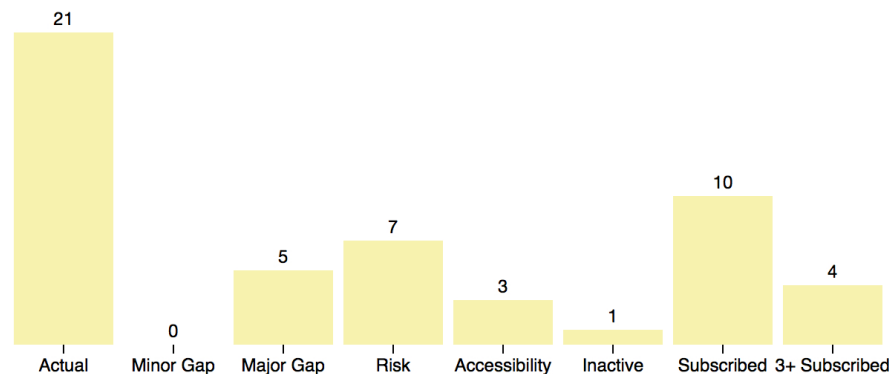
## Knowledge Type Analysis

Workgroup [AD-AD] Administration Dept ▾

Session Today All

Submit Reset

Reset



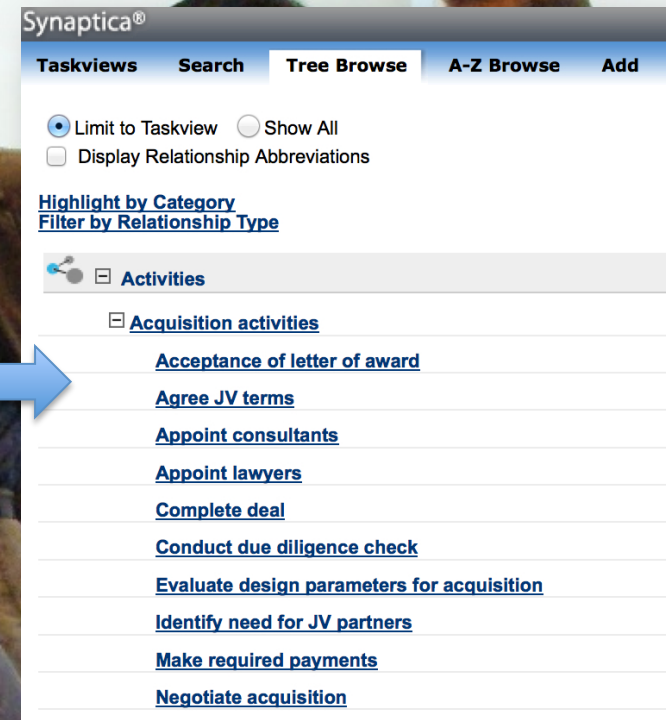
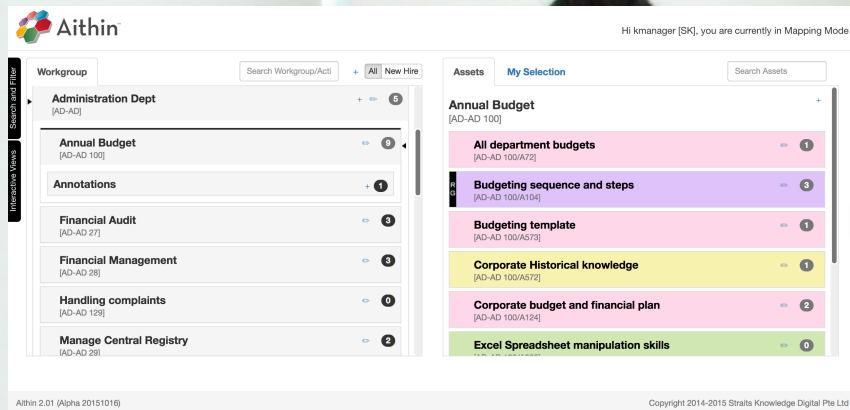
|               |     |     |
|---------------|-----|-----|
| Document      | 151 | 40% |
| Experience    | 51  | 14% |
| Method        | 61  | 16% |
| Relationship  | 49  | 13% |
| Skill         | 49  | 13% |
| NaturalTalent | 13  | 3%  |

Search result for:

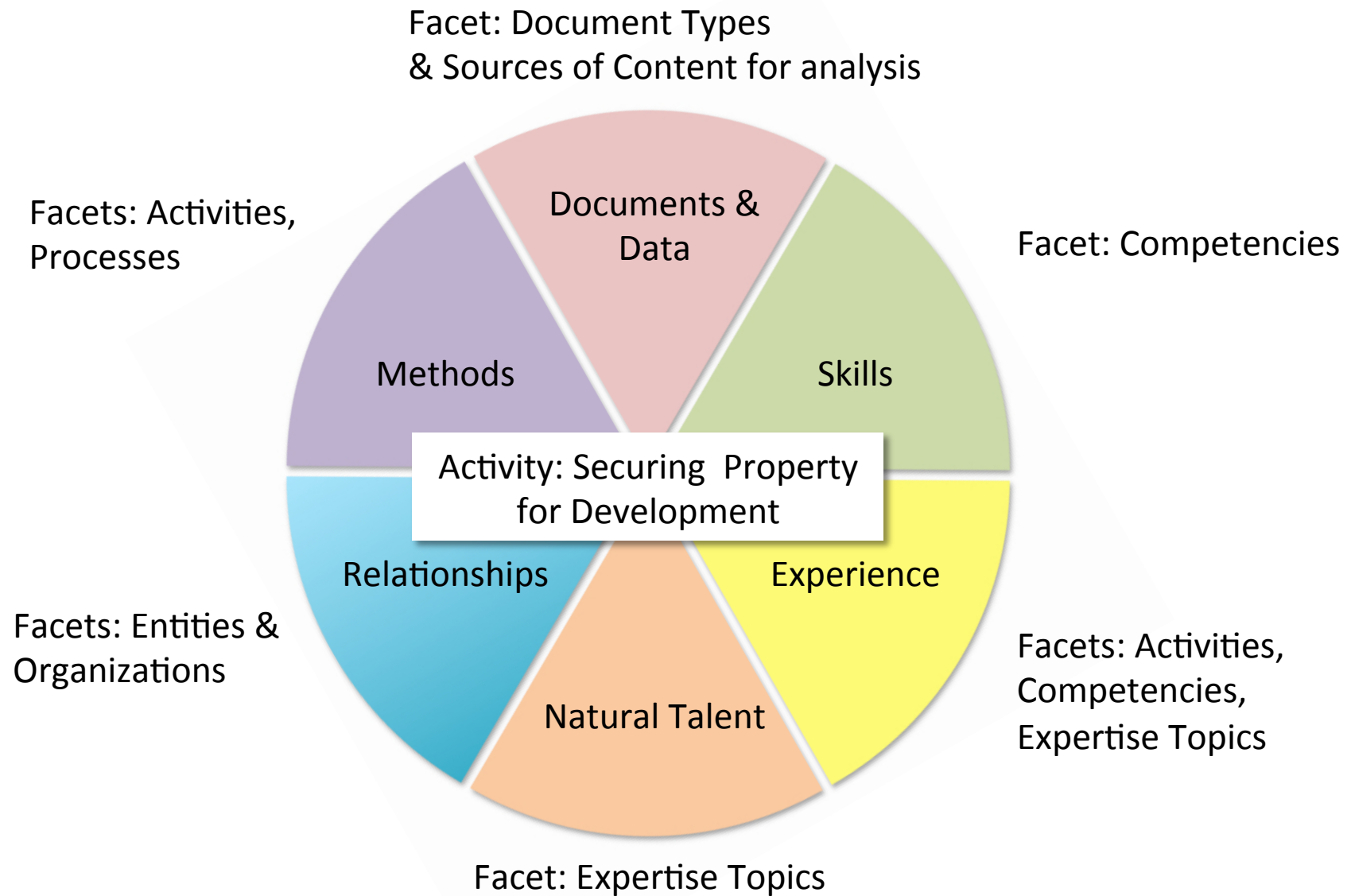
- Workgroup: [AD-AD] Administration Dept
- Asset Type: Experience
- Asset Status: Risk

Export

Teams use the analytics to build knowledge management plan: defines taxonomy purpose



Activity and Asset descriptions are exported into facets into a TMS

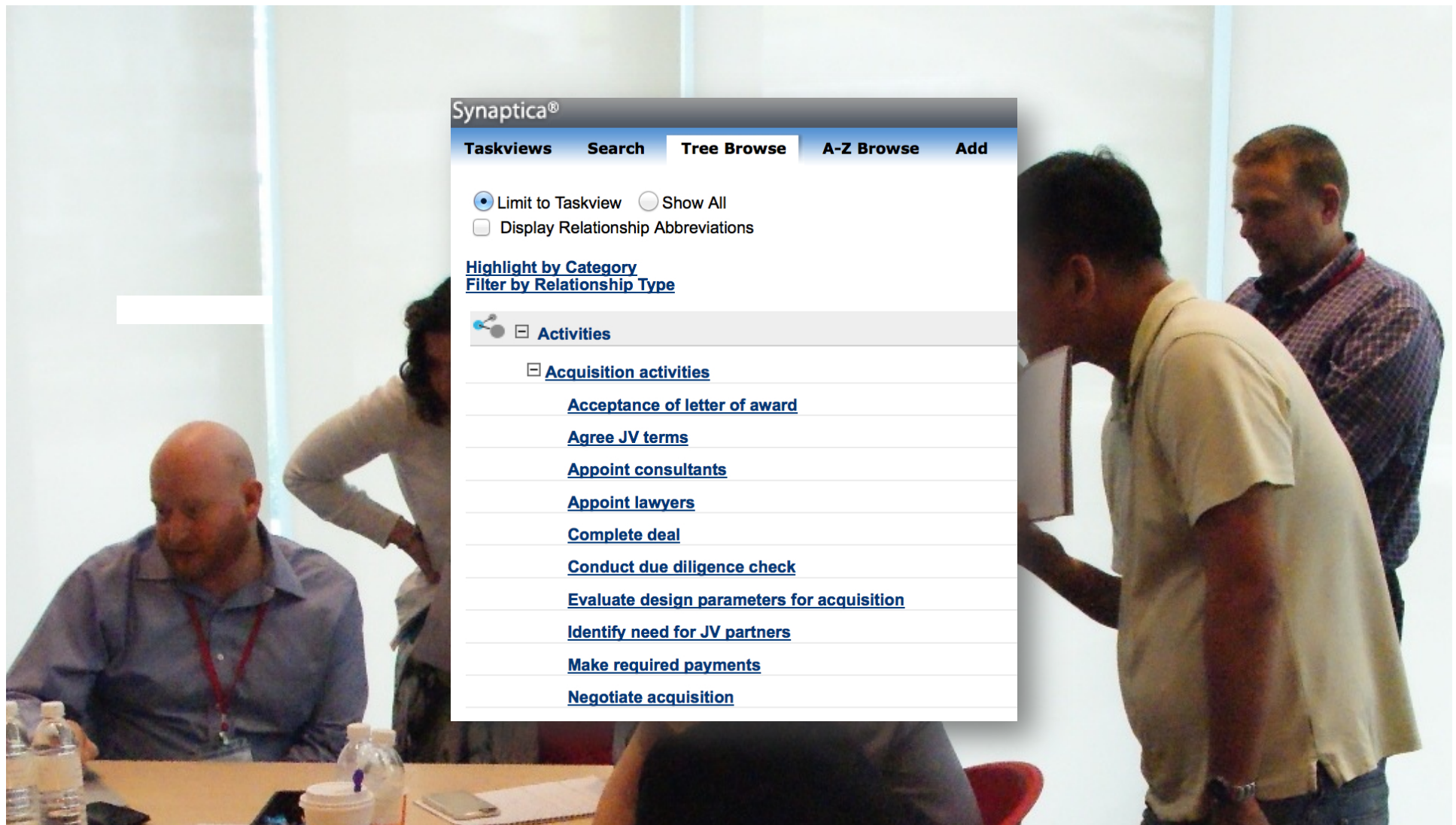


Maps provide candidate terms for facets



The Taxonomy purpose is defined by the KM strategy





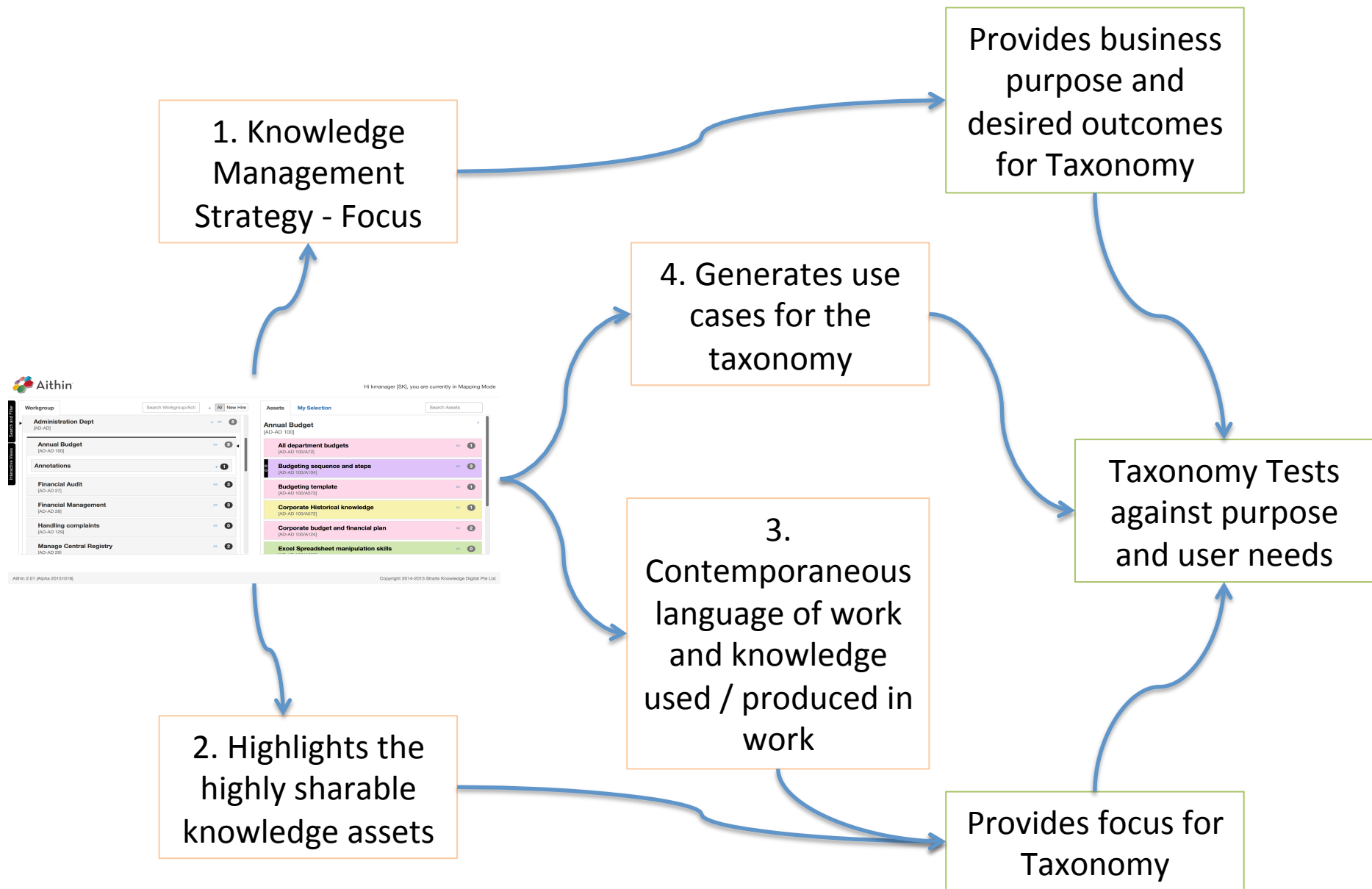
The Taxonomy is modeled and refined with other content, standards and user warrant

The image shows a screenshot of the Aithin software interface, which is a knowledge map tool. The interface is displayed over a background image of people in a meeting. The Aithin logo is in the top left corner. The top right corner shows the user 'Hi kmanager [SK]' and the current mode 'Mapping Mode'. The interface is divided into two main sections: 'Workgroup' and 'Assets'. The 'Workgroup' section on the left lists several items under the 'Administration Dept' [AD-AD], including 'Annual Budget' [AD-AD 100], 'Annotations', 'Financial Audit' [AD-AD 27], 'Financial Management' [AD-AD 28], 'Handling complaints' [AD-AD 129], and 'Manage Central Registry' [AD-AD 29]. The 'Assets' section on the right, under 'My Selection', lists several assets including 'All department budgets' [AD-AD 100/A72], 'Budgeting sequence and steps' [AD-AD 100/A104], 'Budgeting template' [AD-AD 100/A573], 'Corporate Historical knowledge' [AD-AD 100/A572], 'Corporate budget and financial plan' [AD-AD 100/A124], and 'Excel Spreadsheet manipulation skills'. The bottom of the interface shows the version 'Aithin 2.01 (Alpha 20151016)' and the copyright 'Copyright 2014-2015 Straits Knowledge Digital Pte Ltd'.

Aithin 2.01 (Alpha 20151016)

Copyright 2014-2015 Straits Knowledge Digital Pte Ltd

Knowledge Maps generate use cases to test the Taxonomy



# Facets from knowledge maps:

## Property Development

Business activities

Document types

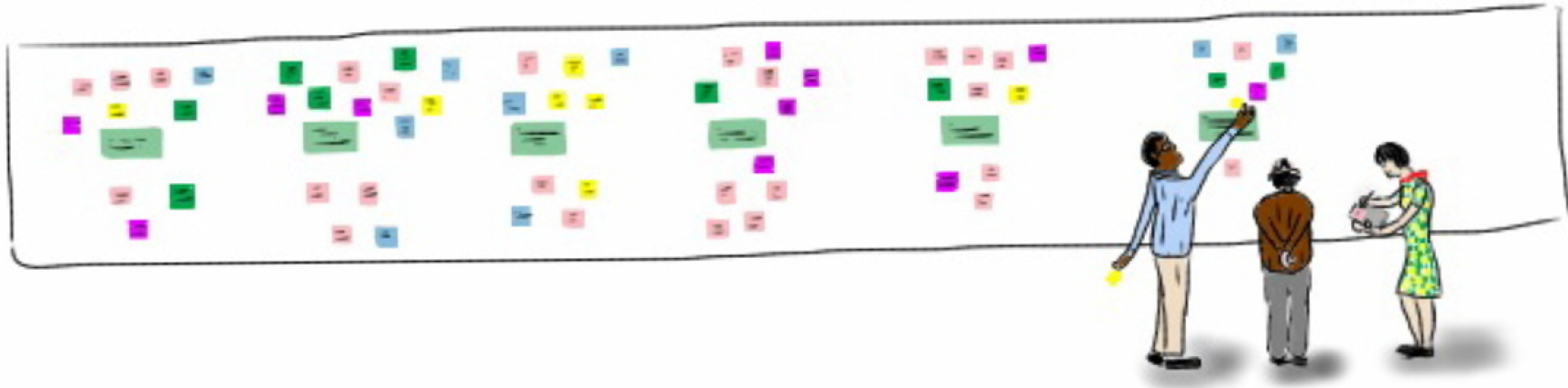
Entities

Event Types

Expertise areas\*\*

Development types

Industries



# Content Modeling: Islamic Finance Educational Institution

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# Use case scenarios

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Name of User Group/ User Type:</b><br>Faculty (Assoc Prof Dr xxxxxx)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Main Activity of User Group:</b><br>Faculty member (as trainer)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Task (short label):</b><br>Training<br>1. Econometrics<br>2. How To Become a Leader? Transformation from Manager to Leader                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Why Important:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>When/Frequency:</b><br>Approximately 6 per year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Objective of Task:</b><br>To conduct a Corporate Training                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Steps (information-related steps):</b><br><br><ol style="list-style-type: none"> <li>1. University/organisation organizing the training session will approach the faculty members and enquire their availability.</li> <li>2. Topic of the training session is provided.</li> <li>3. The faculty members usually attached themselves as an apprentice at first, and gradually grow into facilitator role.</li> <li>4. Plan and conduct for training session.</li> <li>5. Prepare the presentation slides.</li> <li>6. Conduct research and understand the audience and their participation.</li> </ol> | <b>Information/Knowledge Resources Needed:</b><br><br><b>Internal Sources</b> <ul style="list-style-type: none"> <li>• Based on previous research and presentation slides.</li> </ul> <b>External Sources</b> <ul style="list-style-type: none"> <li>• World Bank</li> <li>• Academic<br/>-UPM</li> <li>• Database online<br/>-Elsevier<br/>-Emerald</li> <li>• Enerdata Search<br/><a href="http://www.enerdata.net">www.enerdata.net</a></li> <li>• Research Gate<br/><a href="http://www.researchgate.net">www.researchgate.net</a></li> <li>• Google Scholars<br/><a href="http://www.scholar.google.com">www.scholar.google.com</a></li> <li>• Meeting with Experts<br/>-Research Group:<br/>'Jom Social Group'</li> <li>• UPM Library</li> </ul> |
| <b>Links to/Followed by other Tasks/Activities?</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

- Walk through the task
- Identify information sources
- Identify “next task”
- Use materials to collect vocabularies

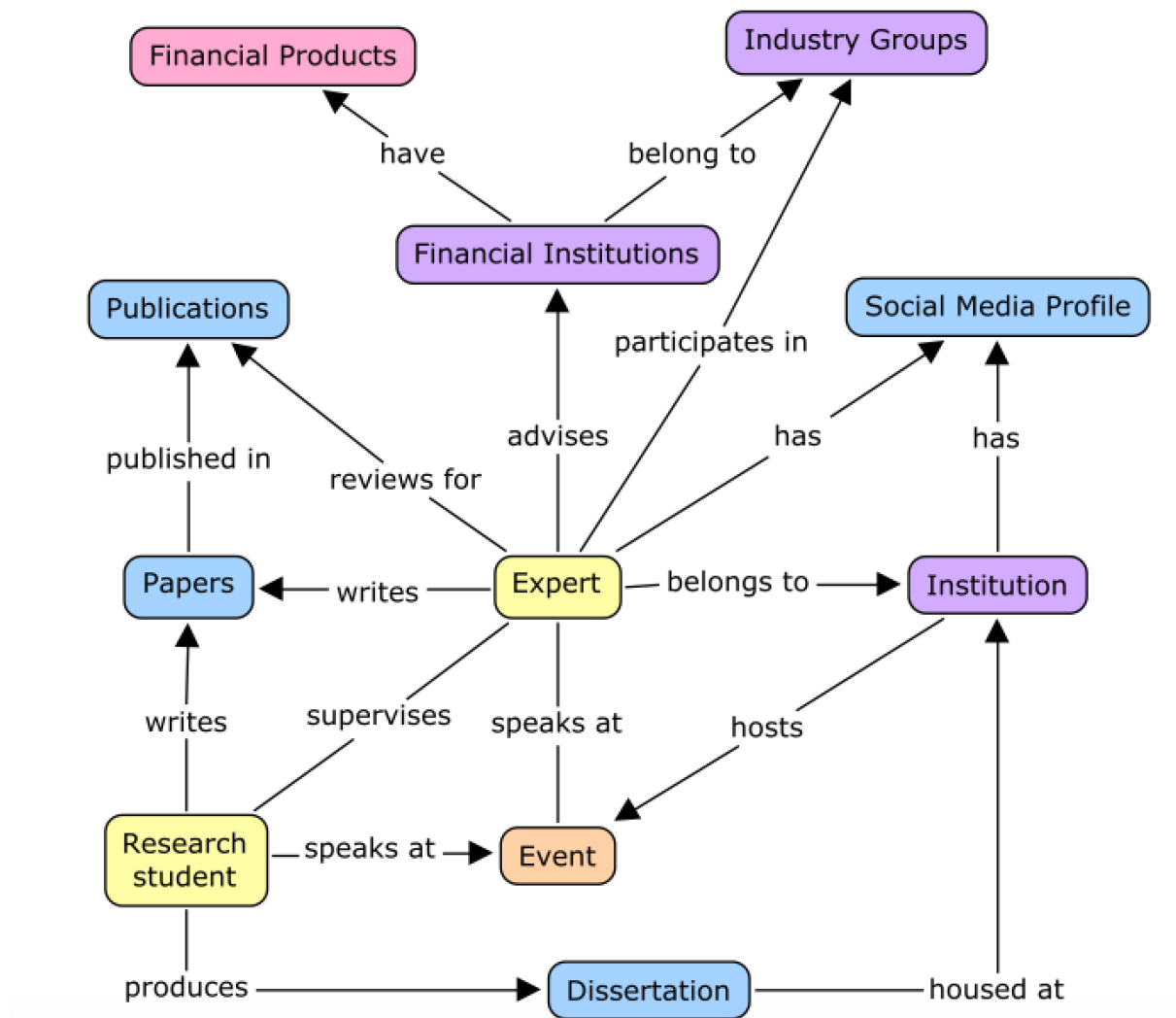
# Use case scenarios

|                                                     |                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Name of User Group/ User Type:</b>               | Faculty member (Assoc Dr yyyy)                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Main Activity of User Group:</b>                 | Publication – Funded Research                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Task (short label):</b>                          |                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Why Important:</b>                               | <b>When/Frequency:</b><br>Annually (once a year)                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Objective of Task:</b>                           | To publish funded research articles                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Steps (information-related steps):</b>           | <ol style="list-style-type: none"> <li>1. Funded research is awarded by institution</li> <li>2. Dr aaaa (CRP) will announce regarding who will collaborate for the Funded Research.</li> <li>3. Select research topic within scope of funding</li> <li>4. Submit final draft for review to Dr bbbb, Dato ccccc, Dr bbbb, Prof ffff through Email and Hardcopy.</li> </ol> | <b>Information/Knowledge Resources Needed:</b><br><br><b>Internal Sources</b> <ul style="list-style-type: none"> <li>• KMC Portal<br/><a href="http://kmcportal.inceif.org">kmcportal.inceif.org</a></li> <li>• Journal Database<br/>Emerald, Zawya, Elsevier, Thomson Reuters</li> <li>• Physical books in KMC<br/>-Waqf books</li> <li>• Publisher Listing<br/>-List from CRP</li> </ul> <b>External Sources</b> <ul style="list-style-type: none"> <li>• Reputable publishers<br/>-Pearson<br/>-Palgrave-Macmillan<br/>-Oxford</li> <li>• Academic Website<br/>-UIA website</li> <li>• Organisation Website<br/>-IRTI, IDB,</li> </ul> |
| <b>Links to/Followed by other Tasks/Activities?</b> | Quality research will be published in a book. Need to identify publisher and write book proposal.                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

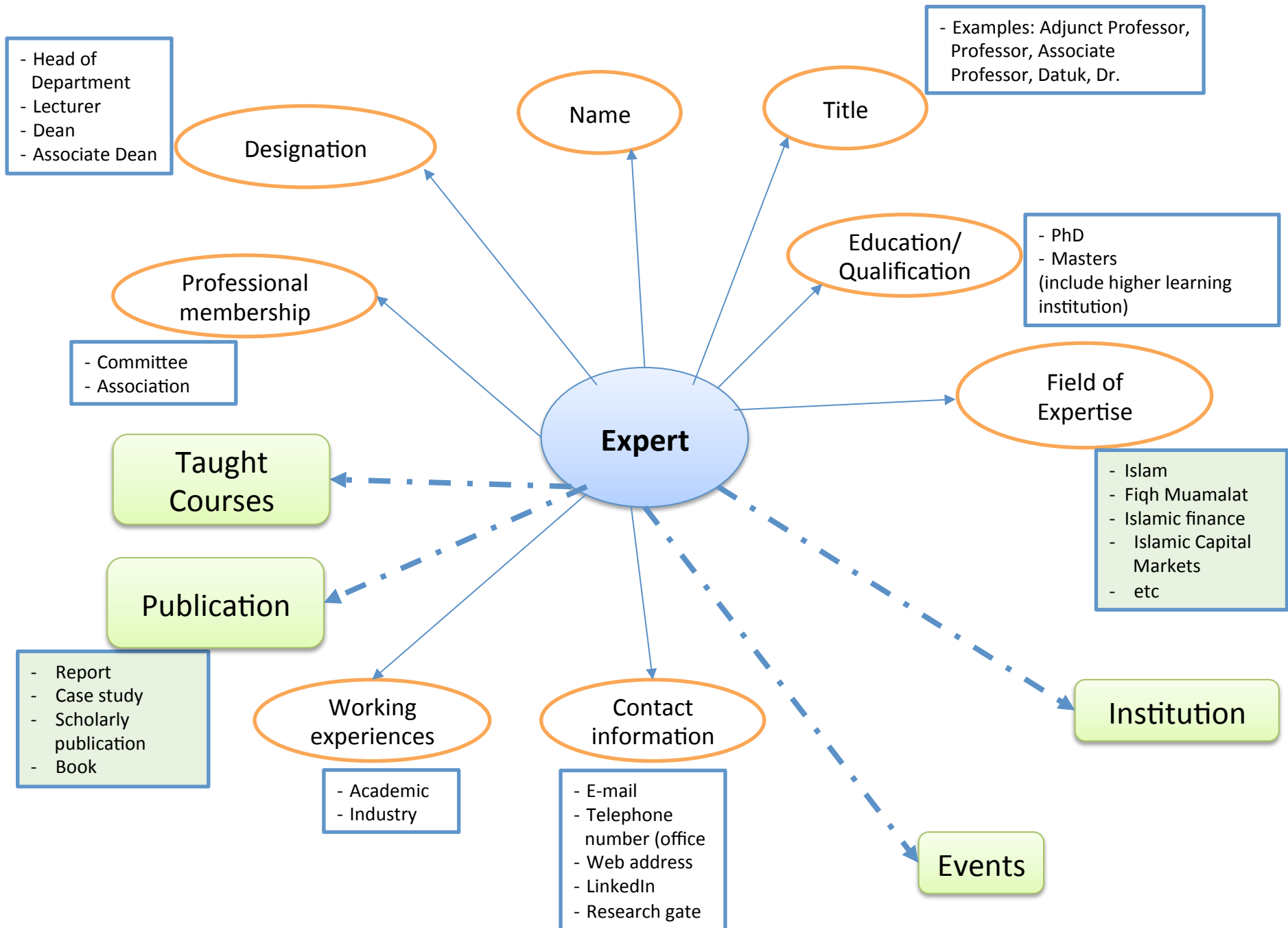
# Use case scenarios

|                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                       |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Name of Faculty (s)</b>                                                                                                                                                                                                            | <b>Name of User Group/ User Type:</b><br>Faculty member (Assoc Dr yyyy)                                                                                                                                                                                                                                                                                                                               |  |
| <b>Main Activity of Faculty member</b>                                                                                                                                                                                                | <b>Main Activity of User Group:</b><br>Publication – Funded Research                                                                                                                                                                                                                                                                                                                                  |  |
| <b>Task (short label)</b>                                                                                                                                                                                                             | <b>Task (short label):</b>                                                                                                                                                                                                                                                                                                                                                                            |  |
| <b>Why Important:</b>                                                                                                                                                                                                                 | <b>When/Frequency:</b><br>Annually (once a year)                                                                                                                                                                                                                                                                                                                                                      |  |
| <b>Objective of Task:</b><br>To publish funded research articles                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| <b>Steps (information-related steps):</b>                                                                                                                                                                                             | <b>Information/Knowledge Resources</b>                                                                                                                                                                                                                                                                                                                                                                |  |
| <p>Collectively, a diverse and representative range of use case scenarios produce a composite picture of</p> <ul style="list-style-type: none"> <li>• User warrant</li> <li>• Content warrant</li> <li>• Standards warrant</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| <b>Links to</b>                                                                                                                                                                                                                       | <b>External Sources</b> <ul style="list-style-type: none"> <li>• Reputable publishers <ul style="list-style-type: none"> <li>-Pearson</li> <li>-Palgrave-Macmillan</li> <li>-Oxford</li> </ul> </li> <li>• Academic Website <ul style="list-style-type: none"> <li>-UIA website</li> </ul> </li> <li>• Organisation Website <ul style="list-style-type: none"> <li>-IRTI, IDB,</li> </ul> </li> </ul> |  |
| <b>Links to/Followed by other Tasks/Activities?</b>                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                       |  |
| Quality research will be published in a book. Need to identify publisher and write book proposal.                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                       |  |

# Content model (high level): Islamic Finance Taxonomy







# Facets from content models: Islamic Finance Taxonomy

Document types

Event Types

Islamic Finance Topics

Institution Types

Islamic Finance Products

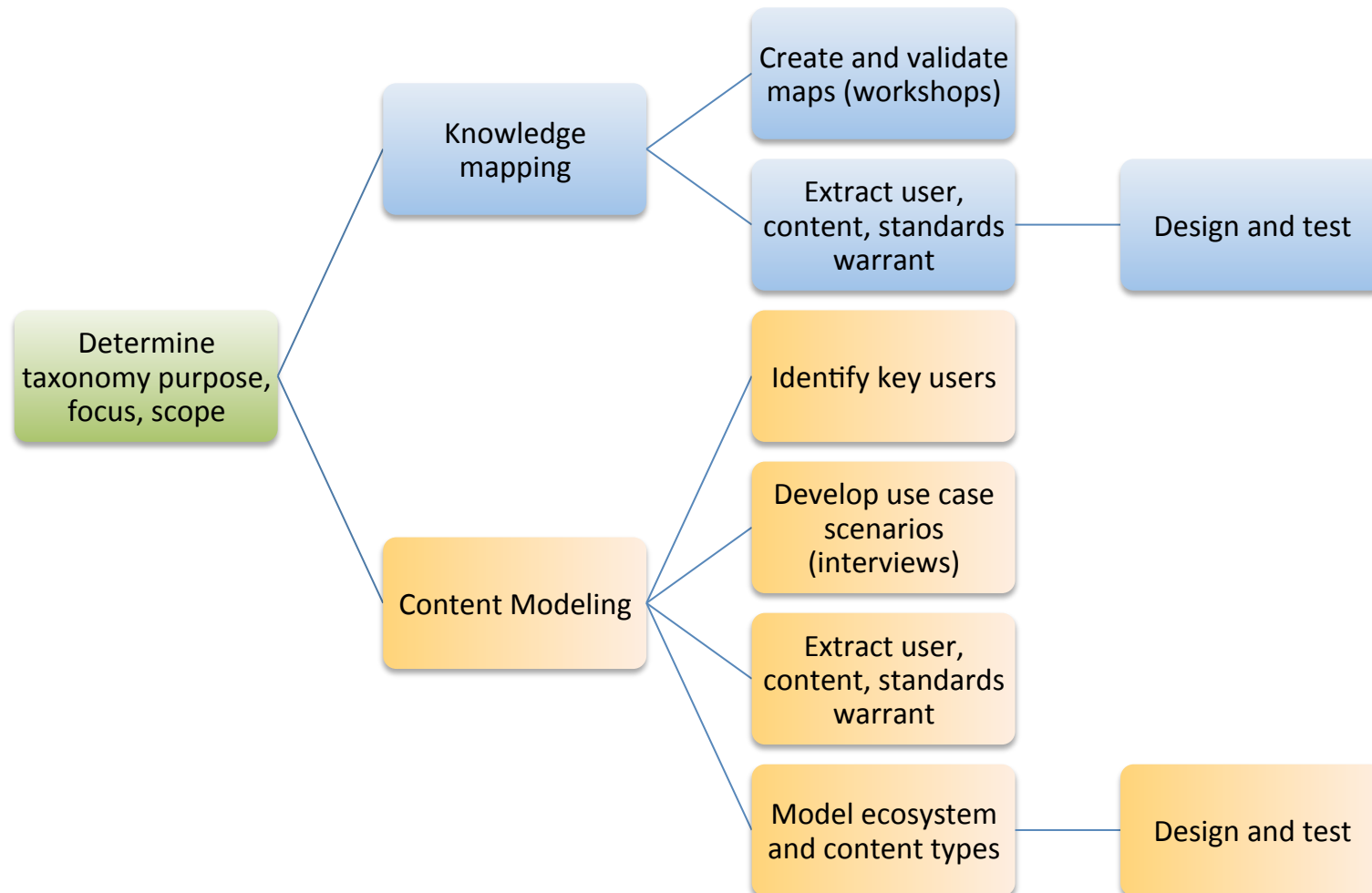
# Knowledge **maps** vs content **models**?

| Knowledge maps                                                                                                                                                                                                                                                                                                          | Content models                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Comprehensive<br>Activities-oriented<br>Pick up explicit AND tacit knowledge needs (skills, experience, relationships)<br>Good for user, content and standards warrant<br>Provides wide range of scenarios for user testing<br>Can discover unexpected things<br><br>Needs extension to get other metadata requirements | Targeted<br>Scenario-based<br>Focus on explicit knowledge<br><br>Good for user, content and standards warrant<br>Provides limited range of scenarios for testing<br>Tend to learn most about what you are looking for<br>Gives more rounded picture of metadata requirements |

- Taxonomy is to serve a KM strategy
- Taxonomy largely covers internal needs and resources
- Organisation willing to invest effort

- Taxonomy focused on content management
- Taxonomy extends to resources wider than the enterprise
- Limited resources and focus, or too complex an organisational environment to map

# Two strategies for taxonomy development





# Thank You!

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[www.straitsknowledge.com](http://www.straitsknowledge.com)