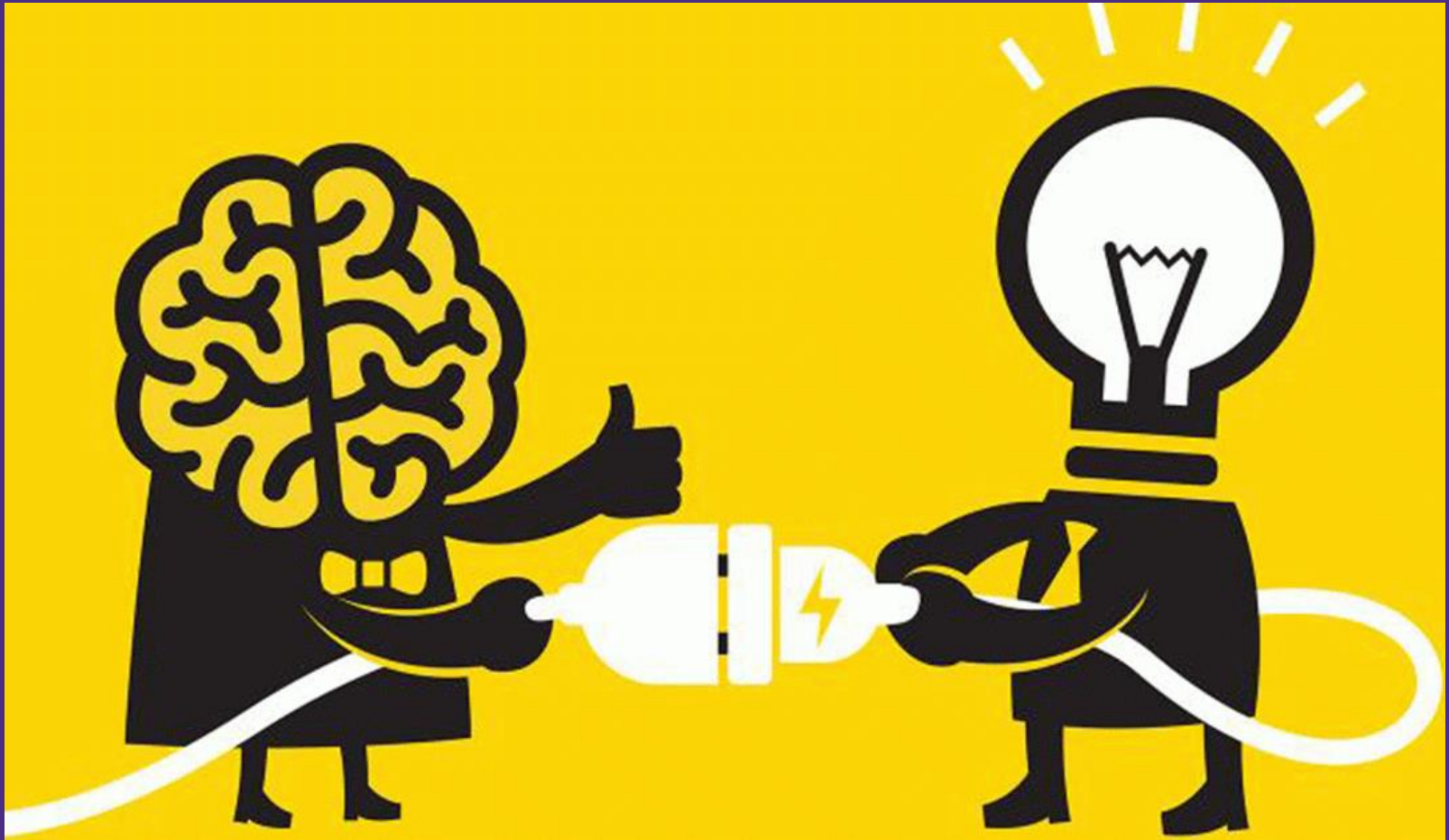UNIVERSITY *of* WASHINGTON

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Mike Doane

Associate Teaching Professor
Information School
University of Washington

Information Architecture
# Taxonomy / Ontology
Knowledge Management

DEFINITIONS

WHAT WE'RE TALKING ABOUT

> **Knowledge management (KM)** is the process of capturing, distributing, and effectively using knowledge within an organization.

> **Vocabulary management (VM)** is the process of using software to manage an organization's terminology, usually contained in a taxonomy.

> **Search** is used to discover or recover information from one or more content sources, including within an enterprise

> **Tacit knowledge** is contained in the thoughts and actions of an individual working within a company

> **Explicit knowledge** is knowledge from an individual that has been transformed into a form that can be consumed by others
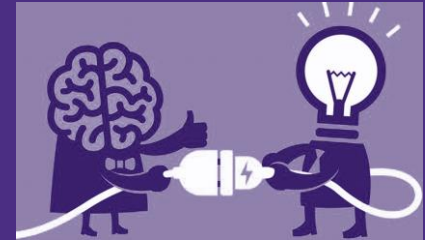
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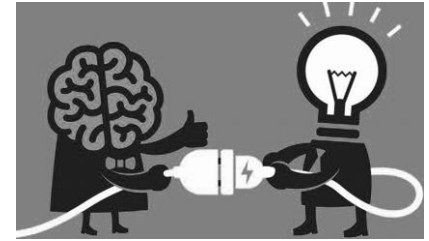
Provide an **assessment** of the overall knowledge management situation as it exists today and provide **recommendations** for developing a knowledge management strategy and framework.

THE BIG IDEA

WHAT'S IT GOING TO TAKE?

Extract tacit knowledge from individuals and small groups and make it explicit in a standardized format so others can access it and use it for their own knowledge gain

WHAT OTHERS SAY

MT how can zoom's transcript function be used to extract tacit knowledge from the mind of an experienced knowledge worker?

Zoom's transcript function can be used to extract tacit knowledge from an experienced knowledge worker by recording their verbal communication during a meeting or presentation, and then using the transcript to identify key insights or knowledge that may not be explicitly stated. The transcript can be analyzed for patterns or repeated phrases that indicate areas of expertise, or specific points where the knowledge worker provides valuable information or insights. Additionally, the transcript can be used to identify areas where the knowledge worker may need additional support or resources. However, it's important to note that extracting tacit knowledge can be difficult, as it is often unspoken and difficult to express.

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SUCCESSES
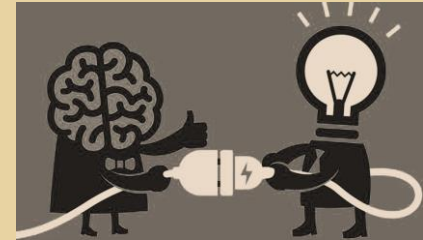
THE END RESULT...

> Company now has a **framework** for an in-depth **KM program**
> Employees no longer have to use **folders, email, or 'tap on the shoulder'** for finding information
> **Enterprise search** system being installed to uncover existing content
> Experienced employees are sharing their knowledge in a **recognizable, repeatable way**
> Content creation processes are being **standardized**
> More than 25 different software systems are being **optimized for search**

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SUMMARY
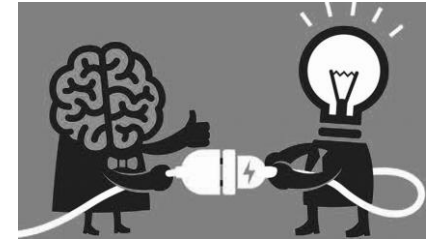
> Small, growing company needs a knowledge management solution to ensure that **newly-hired employees could easily discover and use highly-technical information** that is currently only in the heads of very experienced employees

> **Folder storage and email** is the current method of knowledge transfer

> No enterprise search, no vocabulary management

> **80+% of employees are 10+ years in the industry**; some with 20+ years

> **No HR onboarding**, no standardized set of content creation software

> More than **25 different software systems** used to create content

SOLUTION
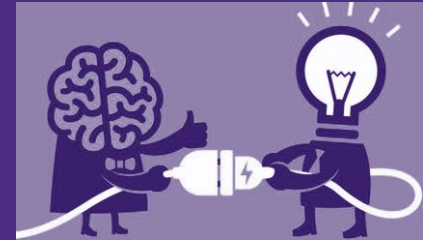
HOW SUCCESS WAS DELIVERED

> Developed a small set of core **information personas**
> Created initial **taxonomy** based on the company's domain
> Used **Zoom interviews** to capture tacit knowledge from experienced employees
> Cleansed interview **transcripts** to conform to a standard template
> Advised purchase of vocabulary management software (**PoolParty**) and search system (**Elasticsearch**)
> Advised to **document** content creation/management **processes**
> Advised to investigate how current software systems may be able to use **metadata**

KEY POINTS – Part 1

VALUE ADDED BY PROJECT

> **Lightweight information personas** were needed to provide the client a sense of who/why recommendations were made
> **Template** for using the Zoom transcript was standardized and included interviewee name, date interviewed, and topics covered in the interview
> **Interviews** were done with experienced employees first, covering employee job responsibilities, past project successes/failures, specific technical topics, internal company processes, etc.
> **Vocabulary/taxonomy** management system was needed to control internal terminology, integrate with search system

generic logo
company

QUESTIONS

Knowledge Interviews
Powering employee knowledge and growth through experts sharing their <u>experiences</u>

Persona: Experienced Engineer (project manager)

About: Subject matter expert (project management), sets deliverable deadlines, knowledge of industry standards, knowledge of company goals, sets deliverables

Creates: Design approvals, progress reports, content for investors, hiring requirements

Consumes: Engineering documents, company presentations, project schedules, target/performance metrics, internal funding docs, project schedules and timelines

Desired Info: Holistic engineering info, market opportunities, vendors, costs of parts, performance metrics

Needed Info: Management goals, knowledge of critical events, Design decision analysis, performance analysis, product costs, professional network on vendors

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Relevant to Looking for <u>Information</u>

1. What are **three** major blockers you experience right now to finding the right information? For example, "search doesn't work" or "I'm not sure search is showing me all the possible results" or "I know we've created this kind of document before, I just don't know where it is".
   - Blocker #1
   - Blocker #2
   - Blocker #3
2. What one major improvement would you want to see within the company regarding sharing information?
3. Do you see yourself more as a "consumer" of company content or a "creator"?
   - If consumer, what types of documents/information do you use the most?

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00:00:24.600 --> 00:00:39.479

Lynn Foster: What are three major blockers you experience right now to finding the right information, such as search doesn't work. I'm not sure. Search is showing me all the results, or I know someone's created this thing before. I just don't know where it is.

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00:00:40.570 --> 00:00:56.780

Maggie Smith: I think the last one honestly. Um A lot of this stuff that had been done previously went through two iterations of part numbering systems right before I came on, and then we changed it another time, and there was no real way

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00:00:56.900 --> 00:01:06.679

Maggie Smith: to search through it quickly. So it was basically a bunch of click-through folders and tell you on what you wanted. And sometimes you would sometimes

11

00:01:07.560 --> 00:01:10.229

Yes, I have another question on here. That's

12

00:01:10.370 --> 00:01:16.770

Lynn Foster: Do you spend more time browsing like clicking through folders or using a search system?

13

RESULT

Knowledge Interviews

Powering employee knowledge and growth through experts sharing their experiences

Name: **Maggie Smith**, Quality Engineer

Date: 11/16/2022

Interviewer: **Lynn Foster**

Topic: **Identifying Information needs**

Link to related video interview: abc.mp4

Keywords: Information blockers, search, document templates, learnings, quality program, information creation, information consumption

Summary:

Maggie identifies challenges faced when searching for information within the company, and the specific roadblocks faced when searching for unknown information or uncertainty around who in the company is the expert in the desired field of inquiry.

Transcript:

Lynn: So I've got questions here we can both look at it. I think this this first one is just asking what are the 3 sort of biggest blockers that you experience right now with finding the right information. So like searching or talking…

Maggie: Yes, I think one of them is searching. You know that in, in what I do, I deal with a lot of past mistakes, and so that involves kind of like, super deep diving on historical failures. And you know what happened in the past. And so it can be difficult to kind of sift through the layers of information. I think that the second issue, that's digitally, but the second issue is there's so much of the information that's in people's heads like you know you want to know about [product name] that failed 4 years ago. Dave can tell you all about. but it's not It's literally not anywhere else other than in Dave's head. Which is you know it's challenging and I think it costs

KEY POINTS – Part 2
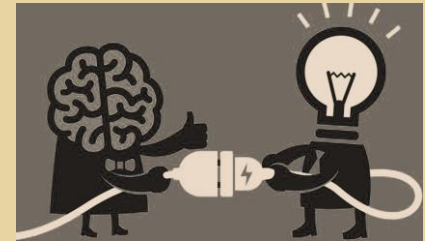
VALUE ADDED BY PROJECT

> **Search system** was recommended to provide for **integration** with vocabulary management software

> **Search system** also could scale for **use beyond just search** as the company grows over time

> **Content publishing processes** were identified to optimize how employees created content for use within search

> **Software systems** were identified to discover how, if any, **metadata** could be applied during content creation

TAKEAWAYS
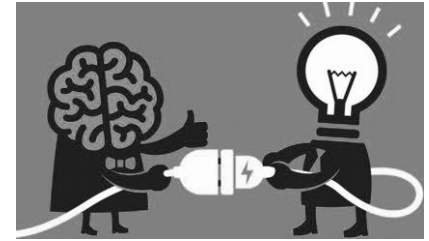
> **Knowledge harvested** from SME workers

> **Standardized format** for creating/storing/using content

> **More accurate and relevant** search results

> **Scalable solution** as company grows