

Expertise Management Systems

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Purpose







- Define expertise management systems
- Describe affected processes and functions
- Identify design and implementation issues

What is an “Expertise Management System”?

- An Expertise Management System **IS** a specialized Knowledge Management system that focuses on:
 - finding out and continually recording what people (“experts”) in an organization know (“expertise”)
 - making this expertise available to users so they can answer questions or solve problems that exceed personal or workgroup capabilities
- An Expertise management System **IS NOT**:
 - a document retrieval or file management system.
 - an “expert system” that provides diagnostic or problem solving functionality.

Supporting Technologies

Expertise management systems can use commonly available **social networking, relationship management, book marking, and collaboration technologies.** Here are examples:

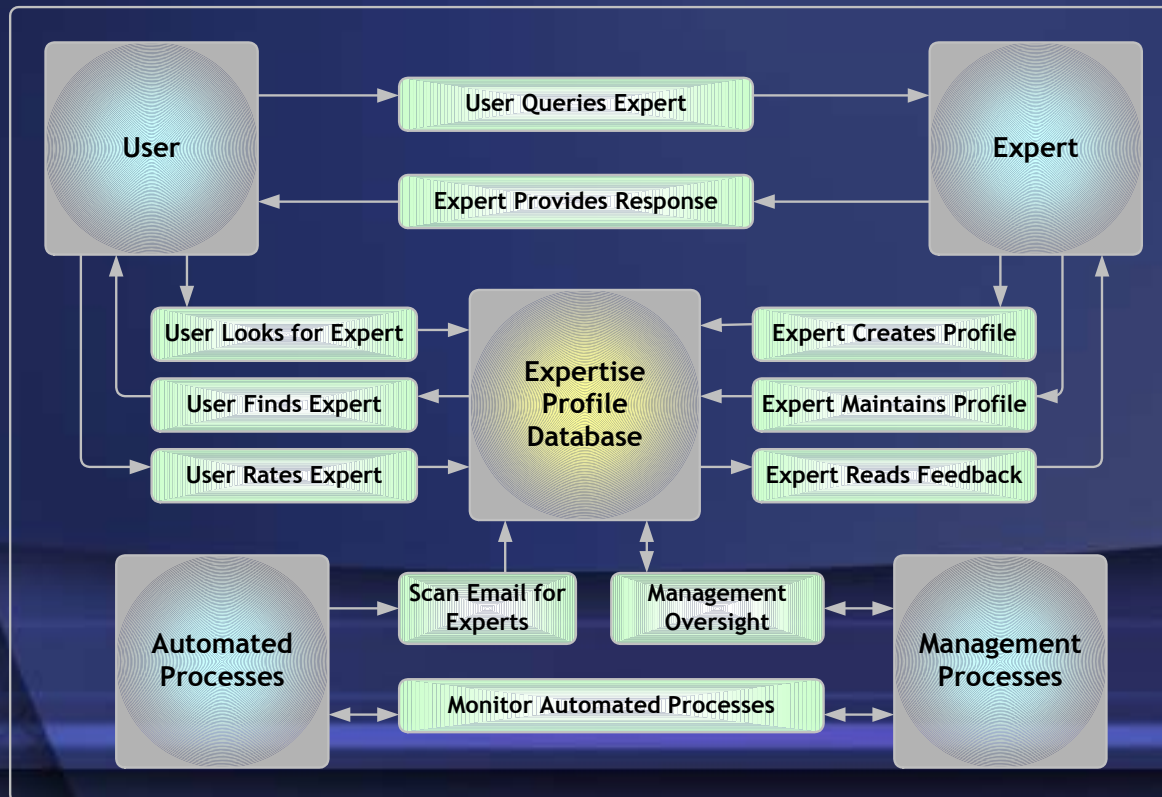
Technology		Applications
	Analysis of email & communication patterns	<ul style="list-style-type: none"> Analyze email source, target, and content data to identify who is most frequently connected with selected keywords and topics
	Tagging	<ul style="list-style-type: none"> Experts create and publish their own tags to define areas of expertise Users can search tags to locate an expert to contact
	Subscription (e.g., RSS)	<ul style="list-style-type: none"> Feeds can be generated at very high level (e.g., project blog) or very detailed level (e.g., individual tags) Users can subscribe to feeds and monitor “what is new”
	Network based search	<ul style="list-style-type: none"> Search can be generic (“search all network resources”) or specific (“search only expertise tags on network people pages”)
	User feedback	<ul style="list-style-type: none"> Refine search techniques and expert identification Support performance metrics. Help find out what works and what doesn’t
	Web based communication tools	<ul style="list-style-type: none"> Network based capture, recording, and communication of information via blogs and wikis Common link foundation is searchable and navigable People and Project pages can provide focus for tracking expertise

Expertise Management Core Processes

The following are the **core processes** that implementation of an Expertise Management System should address:

1. Identify the experts.
2. Describe the expertise of the experts.
3. Provide an expertise matching mechanism.
4. Enable users to communicate with experts.
5. Provide a feedback mechanism.
6. Manage the process.

Basic Expertise Management System Process Model



Core Processes & Participants

PROCESS	PURPOSE	PARTICIPANTS		
		Experts	Users	Managers
Identify the experts.	<ul style="list-style-type: none"> Determine who the experts are in the organization. 	<ul style="list-style-type: none"> Volunteer to serve as an expert. Nominate other experts. 	<ul style="list-style-type: none"> Participate in nomination of experts. 	<ul style="list-style-type: none"> Manage identification of experts.
Describe the expertise of the experts.	<ul style="list-style-type: none"> Create expertise taxonomy. Capture descriptions of expert knowledge. Maintain database. 	<ul style="list-style-type: none"> Supply information to populate the expertise profile. Maintain and update expertise profile. 	<ul style="list-style-type: none"> Participate in development and maintenance of taxonomy. 	<ul style="list-style-type: none"> Manage initial development of taxonomy. Manage construction and maintenance of a system that links the taxonomy's areas of expertise with the identity of experts.
Provide an expertise matching mechanism.	<ul style="list-style-type: none"> Enable users to locate experts who possess the knowledge they need. 	<ul style="list-style-type: none"> Participate in development of the expertise matching mechanism. 	<ul style="list-style-type: none"> Participate in development of the expertise matching mechanism. Use the expertise matching mechanism to identify potential experts. 	<ul style="list-style-type: none"> Manage the operation of the expertise management system. Maintain and support the expertise management system's underlying technology.
Enable users to communicate with experts.	<ul style="list-style-type: none"> Enable users to contact experts and obtain expert knowledge from them. 	<ul style="list-style-type: none"> Receive requests for expertise. Provide expertise. When appropriate, forward requests to other experts. 	<ul style="list-style-type: none"> Register request in expertise management system. Communicate with experts. 	<ul style="list-style-type: none"> Oversee system performance Oversee allocation of responsibilities and expenditures. Reroute request to minimize overload on experts.
Provide a feedback mechanism.	<ul style="list-style-type: none"> Support the ongoing generation, reporting, and use of metrics describing the overall process. 	<ul style="list-style-type: none"> Evaluate performance of related systems and processes. Update expertise profile to improve matching of requests with expertise. 	<ul style="list-style-type: none"> Evaluate quality, performance, and timeliness of expert response. Evaluate performance of related systems and processes. 	<ul style="list-style-type: none"> Monitor measurements of request outcomes in relationship to resources devoted to maintaining and operating the system. Continually improve operation of systems and processes.
Manage the Process.	<ul style="list-style-type: none"> Ensure that the process accomplishes its objectives in an efficient and cost effective manner. 	<ul style="list-style-type: none"> Cooperate in the ongoing evaluation and improvement of the overall system and processes. 	<ul style="list-style-type: none"> Cooperate in the ongoing evaluation and improvement of the overall system and processes. 	<ul style="list-style-type: none"> Manage the process. Cooperate in the ongoing evaluation and improvement of the overall system and processes.

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This presentation synthesizes information published in the author's web site "All Kind Food." A list of related articles is available here:

http://www.ddmcd.com/expertise_management_index.html

Appendix

Discussion Topics

- What is an “expert”?
- How do you identify experts?
 - Manual and automated (e.g., email analysis) techniques
 - Self nomination and peer nomination
- How do you manage constant changes to the population of experts?
- What is the system’s relationship to more traditional knowledge management systems (e.g., document management)?
- What aspects of the system should be automated?
- What role can workflow management or process automation play?
- How do you manage cross-silo or cross-organizational communication barriers?
- How do you measure performance of experts?
- How do you ensure that key experts aren’t overloaded?
- How many experts are needed?