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Successes and Failures of KM:
A Tale of Two Initiatives

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“It was the best of times, it was the worst of times…”

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“IT complements any good work you’re doing. The IT won’t help unless you’ve got a good process in place” (Richard Venn, Western Sussex Hospitals NHS Foundation Trust—Mathieson [2015]).

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Table 1. A PAIR examination of KM Process and Outcome

	Productivity	Agility	Innovation	Reputation
KM Process	Productivity of a process that makes sense, predictions, evaluation, or decisions about a situation	Agility of a process that makes sense, predictions, evaluations, or decisions about a situation	Innovativeness of a process that makes sense, predictions, evaluations, or decisions about a situation	Reputability of a process that makes sense, predictions, evaluations, or decisions about a situation
KM Outcome	Knowledge that aids organization's productivity	Knowledge that aids organization's agility	Knowledge that aids organization's innovativeness	Knowledge that aids organizaiton's reputation

Holsapple (2015)

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“The Research Core of the KM Literature”

(Wallace et al., Int. Journal of Info. Mgt., Vol. 31, 2011)

- Bibliometric analysis and a content analysis on KM literature based on 21,596 references from 2,771 source publications
- 27.8% used no identifiable research methods
- Of the remaining refereed articles:
  - 60% employed mainstream social sciences research
  - 40% used provisional methods as a substitute for more formally defined or scientifically-based research methodologies

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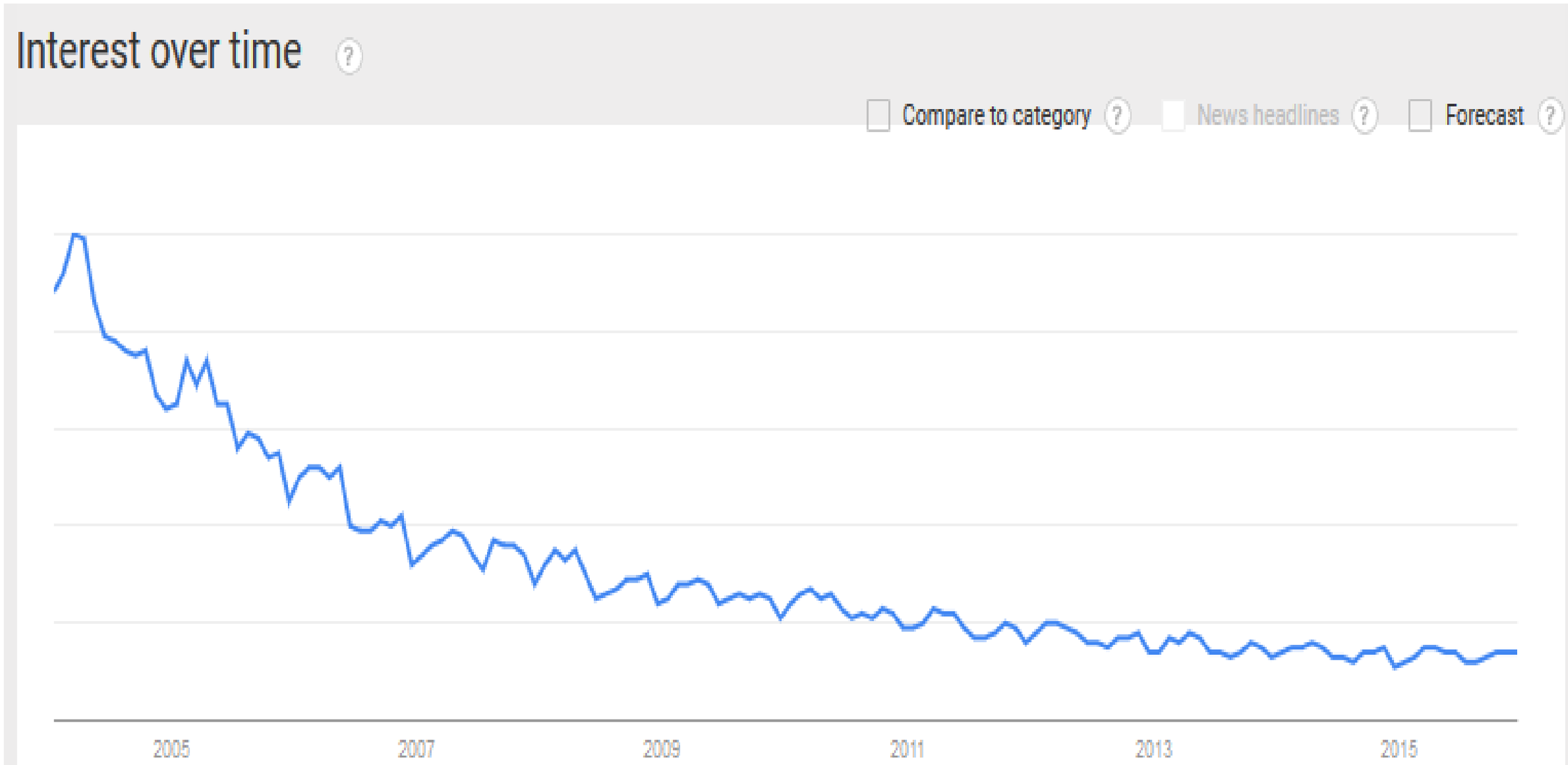
Knowledge Management Google Searches Trend Since 2004

(Google, 2015)



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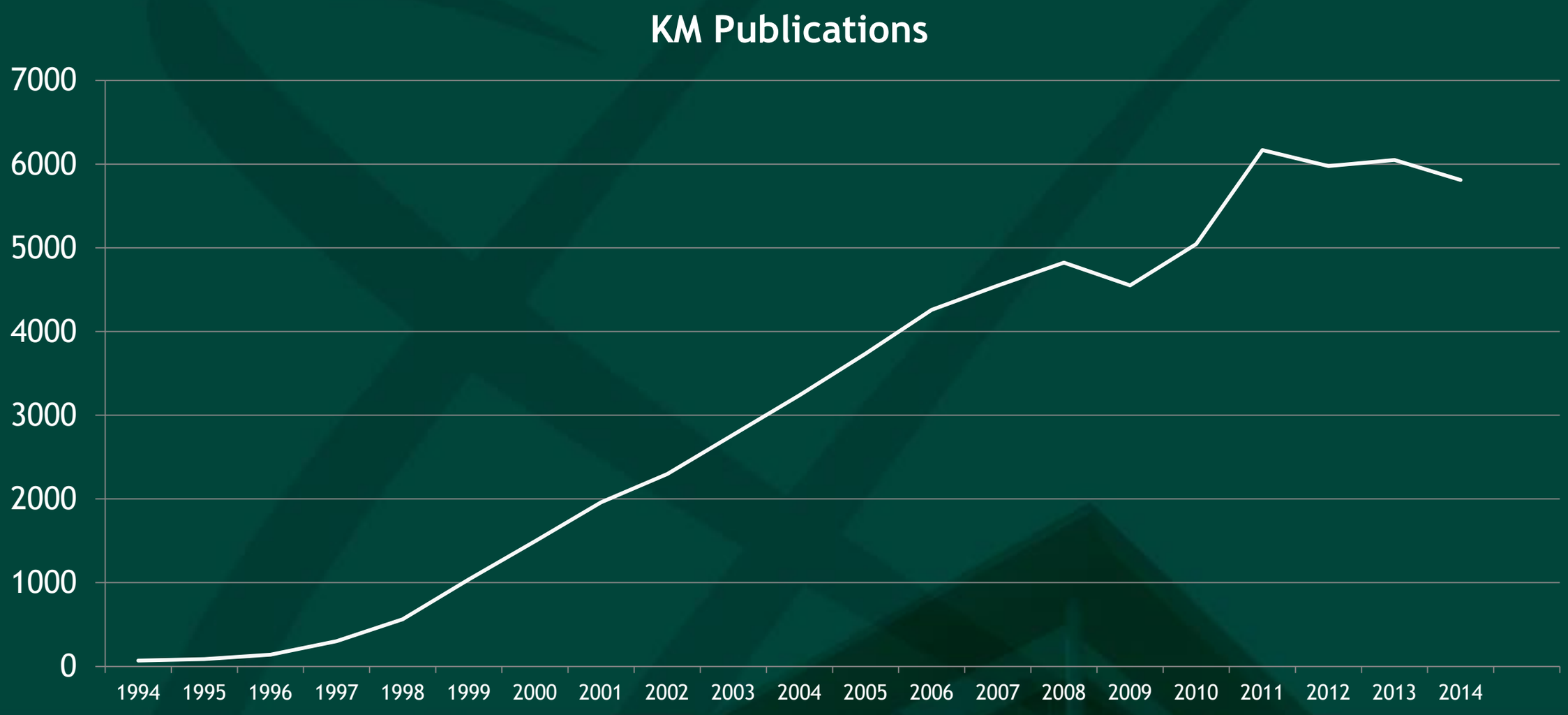
Number of academic publications with “Knowledge Management” keyword (Ribiere, 2015)



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Key Categories Why KM May Have Difficulties

(34 experts, 111 reasons; Ribiere, 2015)

- Culture
- Measurement/Benefits
- Strategy
- Organizational structure
- Governance and Leadership
- IT related Issues
- Lack of KM understanding / Standards

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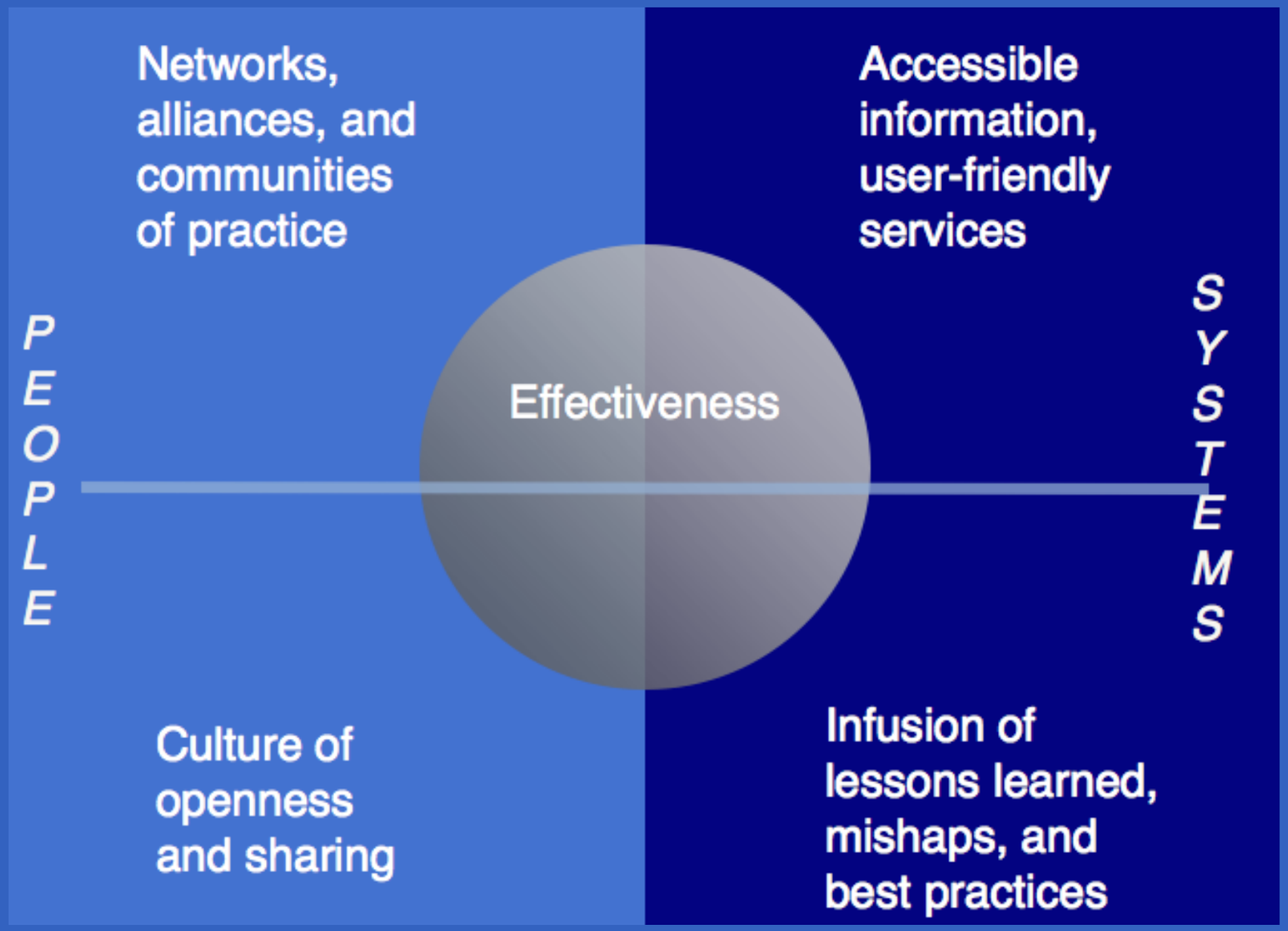
NASA Knowledge Services Strategic Framework

(Hoffman, 2015)



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“Any NASA knowledge management approach needs to be adaptable and flexible to accommodate the varied requirements and cultural characteristics of each Center, Mission Directorate and Functional office. A Federated model was the best fit for the Agency, defining the NASA CKO as a facilitator and champion for Agency knowledge services, not to serve as an overseer and direct manager.” (Ed Hoffman, NASA CKO, 2015)

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KNOWLEDGE MAP

NASA Engineering Network Communities of Practice

The NEN website is only accessible from internal NASA Networks. Click Here to visit the NEN.

The Office of the Chief Engineer has launched an initiative to implement Communities of Practice centered around engineering disciplines and led by NASA Technical Fellows. A NASA Community of Practice is a distributed, peer-driven network of individuals, engaged in a specific discipline, who come together to share their collective knowledge and learn from one another.

Community members work together to identify common problems and explore solutions, and they often develop and implement best practices. Collective disciplines are identified by shared passion for a subject, a shared level of practice within a discipline, and trust and willingness to solve problems collaboratively.Collocated individuals within a discipline commonly share ideas or discuss work challenges. By extending localized interaction to an online, facilitated forum, community members benefit from exposure to a broader set of related information resources, access to a wider field of peer expertise, and expanded opportunities for knowledge sharing and collaboration. Online forums also overcome traditional boundaries of time, distance, and organizational silos.

Links

NASA Engineering Network: Communities of Practice, Technical Disciplines

NASA's Sharing of Technical Expertise Through CoPs

(Topousis et al, 2012)

- Ask an Expert (5 CoPs using this feature)
- Need to modify an organization's behavior to encourage cross-disciplinary knowledge sharing to avoid the silo effect
- Senior management needs to set the stage for CoPs to succeed
- 10-20% labor commitment for each community leader to architect, champion, and manage his/her community

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“Organizational Readiness for Successful Knowledge Sharing: Challenges for Public Sector Managers,”
(W. Taylor, G. Wright), (IRM Journal)

Effective knowledge sharing depends on:

- An open leadership climate
- A capacity to learn from failure
- Good information quality
- Satisfaction with change processes
- Performance orientation
- A vision for change

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FCC—Another Story (KM Audit)

- The main advantages of a KM initiative were perceived as being: (1) standardization of existing knowledge in the form of procedures/protocols; and (2) facilitation of the re-use and consolidation of knowledge about operations.
- The main approaches used to improve knowledge assets and knowledge sharing are: cross-functional teams, communities of practice, the intranet, and documentation/newsletters.
- The main approach for improving creation and refinement of knowledge is "lessons learned analyses."

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FCC—Another Story (KM Audit) (cont.)

- The key knowledge that may be lost is: knowledge of non-published considerations behind decisions (i.e., undocumented history of policy/implementation reasons for specific decisions).
- The potential inhibitors to KM are time pressures, high turnover of personnel, insufficient resources, and usual turf protection.
- There is typically little to no organizational buy-in about KM among staff and management.
- There are no formal training programs or formal efforts to support knowledge management; in some cases, KM is supported by on-the-job training and mentoring programs.

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FCC—Another Story (KM Audit) (cont.)

- Typically steps have not been taken to reward and motivate people to encourage a knowledge sharing environment and knowledge retention.
- Most people regularly use or have access to the intranet and the internet, but typically don't have, or use, more advanced technologies such as software decision support systems which aid the decision makers in their analyses.

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Symptoms Suggesting Need for KM

- Frequent transitions of senior management.
- Valuable expertise has “left the organization” due to better job offers and retirements.
- Professional employees are "transient" in many areas, suggesting the need to capture valuable expertise before those employees leave.
- The training and development budget should be increased, which needs to be augmented to maintain and replenish human capital.

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Recommended KM Goals

- Further increase and facilitate employee access to the information and knowledge they need to perform their jobs efficiently, effectively, and consistently.
- Further improvement with respect to the quality and "comfort level" (i.e., reliability, impartiality) of FCC decisions.
- Capture and store, to the fullest extent possible, employee knowledge that is critical to FCC's operations and other key FCC decisions.
- Instilling a culture of information and knowledge sharing and reuse within FCC.

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Cultural Considerations

- Chief Technology Officer was driving this KM strategy (although, the Managing Director saw value in KM)
- "Trust by verify" approach (attorneys, engineers, scientists)—although, many law firms have a CKO
- Need to show value and quick wins

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Learn from KM Implementations (APQC)

- CoPs are a central part of a KM strategy (sponsorship, membership, roles & responsibilities, accountability and measurement, and supporting tools)

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IBM's Global Business Solutions' Knowledge Sharing Measures

Professional Development

- Increase visibility, recognition and reputation in organization
- Foster personal connections and grow their personal networks
- Promote continuous learning / knowledge sharing culture

Productivity

- Accelerate time to locate & access expertise
- More rapid identification of people who can positively influence business outcome
- Increase opportunities for innovation
- More expedient knowledge creation & sharing
- Reduce time to perform activities

Knowledge Sharing

- Increase awareness and leverage of expertise in the business as it evolves
- Increase x-department / x-geo collaboration
- Accelerate pervasive dissemination of knowledge (codified and tacit)
- Optimize the use of content through social networks

Collaboration

- Increase amount of informal and formal cross department & cross geo collaboration
- Visibility of formal and informal communities – information flow / collaboration & health of network
- Visibility of expertise & faster reciprocal contact due to social network introductions
- Increase efficiency and effectiveness of collaboration

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Key CoP Success Factors

(Probst and Borzillo, 2008)

- 57 CoPs from major European and US companies
- Stick to strategic objectives
- Divide objectives into sub-topics
- Form governance committees with sponsors and CoP leaders
- Have a sponsor and a CoP leader who are "best practice control agents"
- Regularly feed the CoP with external expertise

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Main Reasons for CoP Failure

(Probst and Borzillo, 2008)

- Lack of a core group
- Low level of one-to-one interaction between members
- Reluctance to learn from others
- Lack of identification with the CoP
- Practice intangibility

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CoP Framework/Roadmap (APQC)

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Key Questions Before Starting a CoP
(CISCO, 2013)

- Do my community goals align with the corporate priorities?
- Is my target audience large enough to consume and generate content?
- Does my team understand the endurance necessary to run a successful community?
- Is my team resourced to work and collaborate with members?
- Do I have a strong content pipeline for at least the next 90 days to get the community going?
- Have I identified KPIs that align to my business goals?

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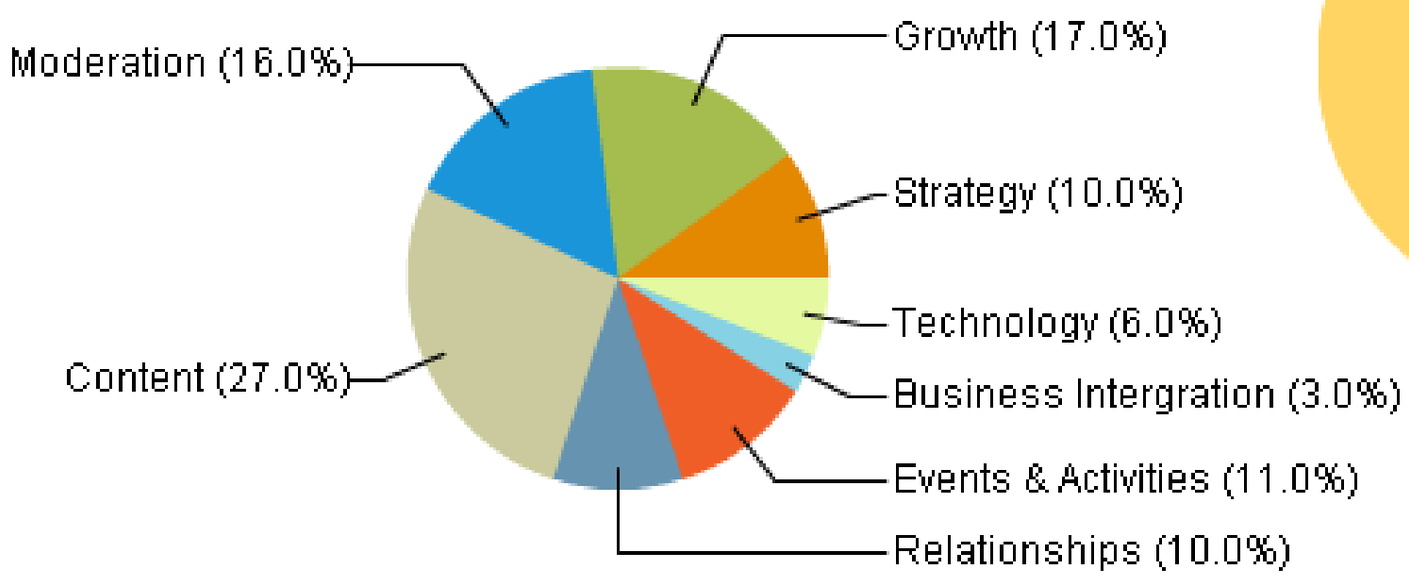
Community Facilitation Time

Online Facilitators on Knowledge Hub



6.3

hours per week on average

https://knowledgehub.local.gov.uk/group/facilitatorscommunity

Community Assessment Interview
(McDermott)

- What has the overall value of the community been to you and your team?
- Remember when the community discussed “topic x”, what specific knowledge, information, and/or data did you use?
- What was the value of that for you as an individual? Can you express that in numeric terms, such as time saved?

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Community Assessment Interview

(McDermott) (cont.)

- Can you estimate the value of that knowledge to your business unit in cost savings, reduced cycle time, increased quality of decision-making or reduced risk?
- What percentage of that value came directly from the community? What are the chances you would have learned it without the community?
- How certain are you of the above estimate?
- Who else used this information?

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“10 Rules of the Road”

#1

Have a Senior Champion & Align Your KM Strategy With Your Organizational Strategies, Goals, and Objectives

#2

Develop a Well-Designed KM Implementation Plan (People, Process, and Technology)

#3

Develop a Formal Knowledge Retention Strategy—Start from Day One of the Employee's Life with the Organization

#4

Incorporate KM as Part of Human Capital Strategy, Succession Planning, Workforce Development, Strategic Planning, and/or Quality Management

#5

Be Thoughtful in Your Approach (Knowledge Audit, Social Network Analysis, etc.)

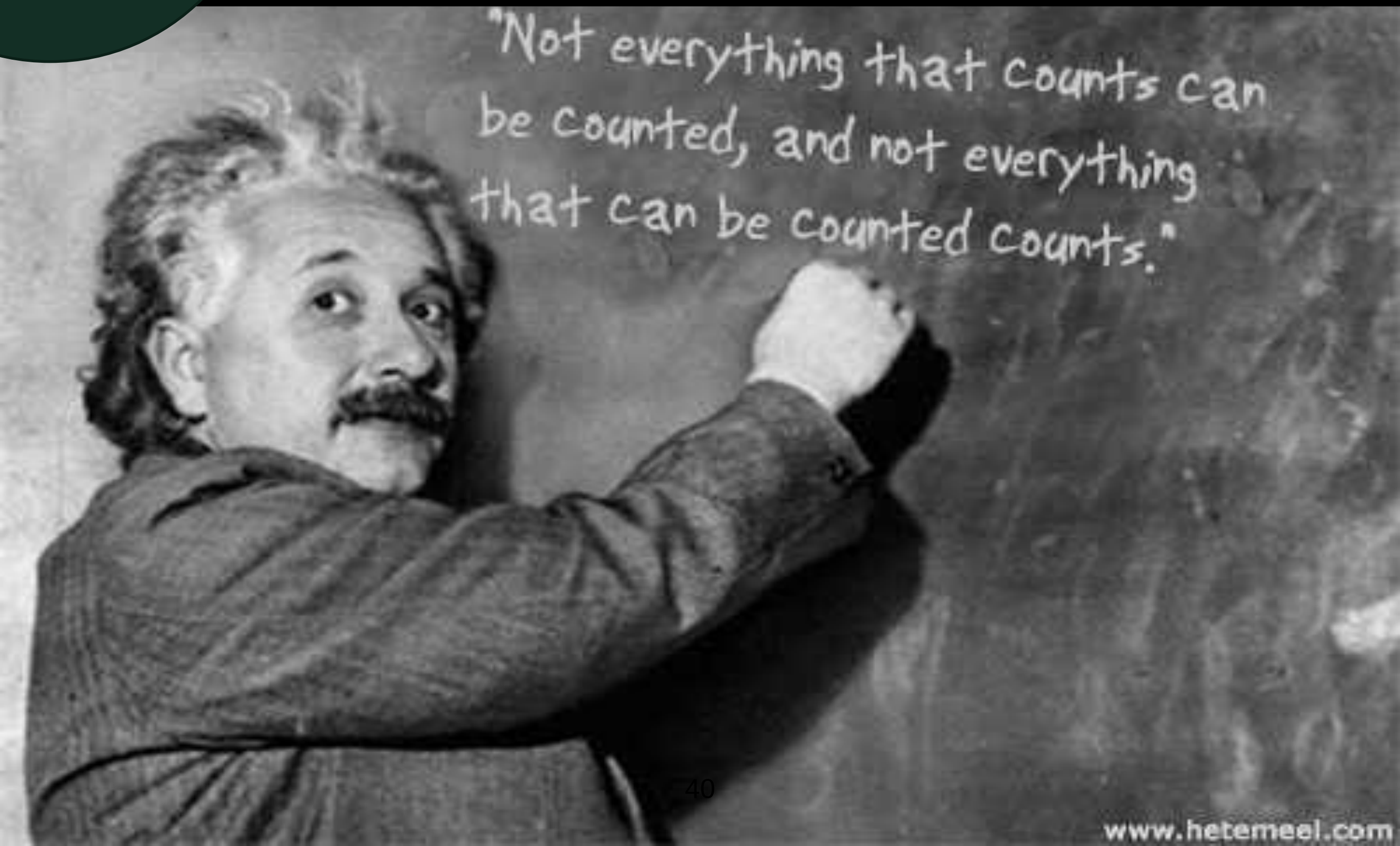
#6

Align Your KM Approaches to Fit Your Organizational Culture

#7 Celebrate the Successes, Then Bring in the Bittersweet Stories

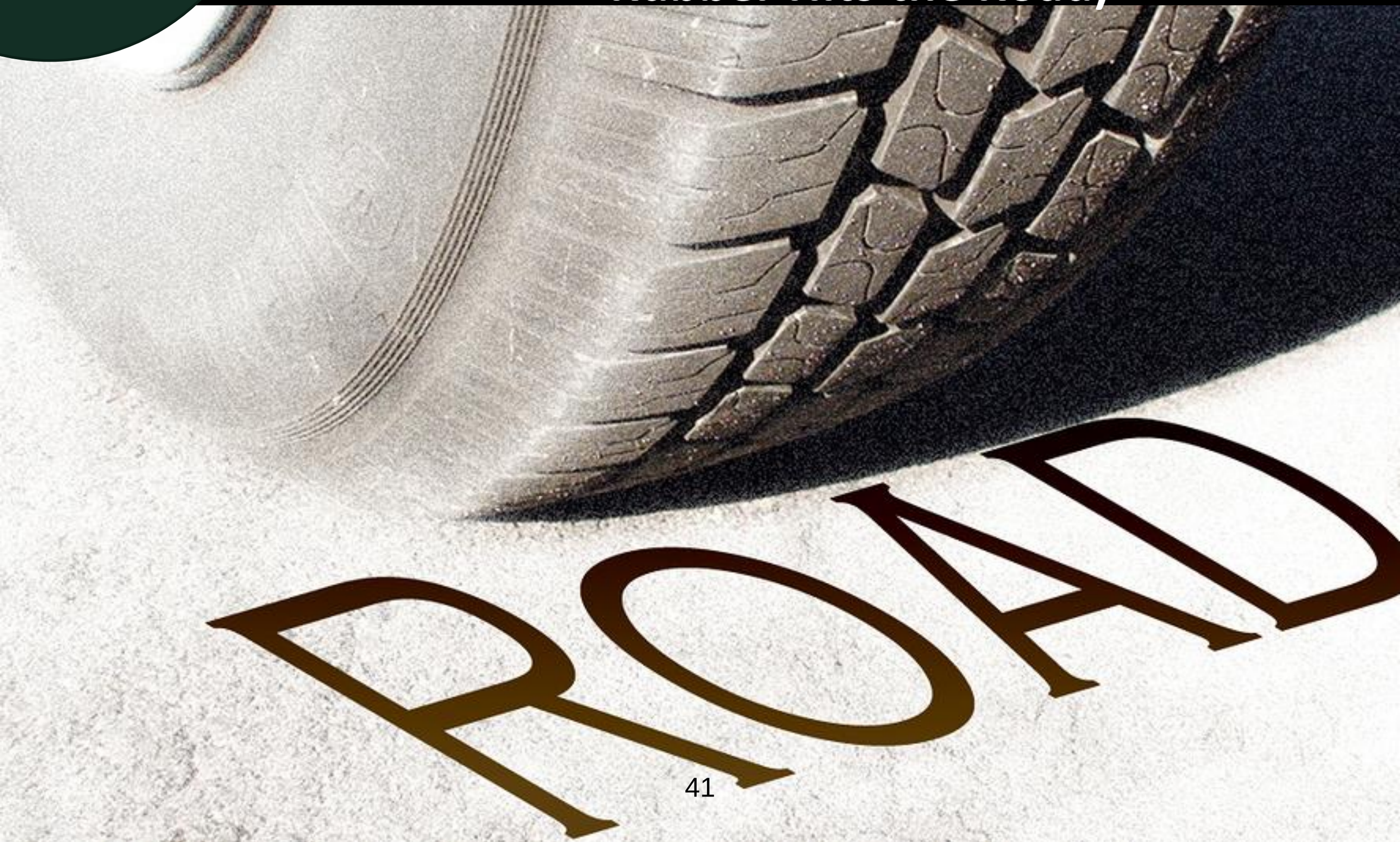
#8

Develop KM Metrics (Especially Outcome Measures)



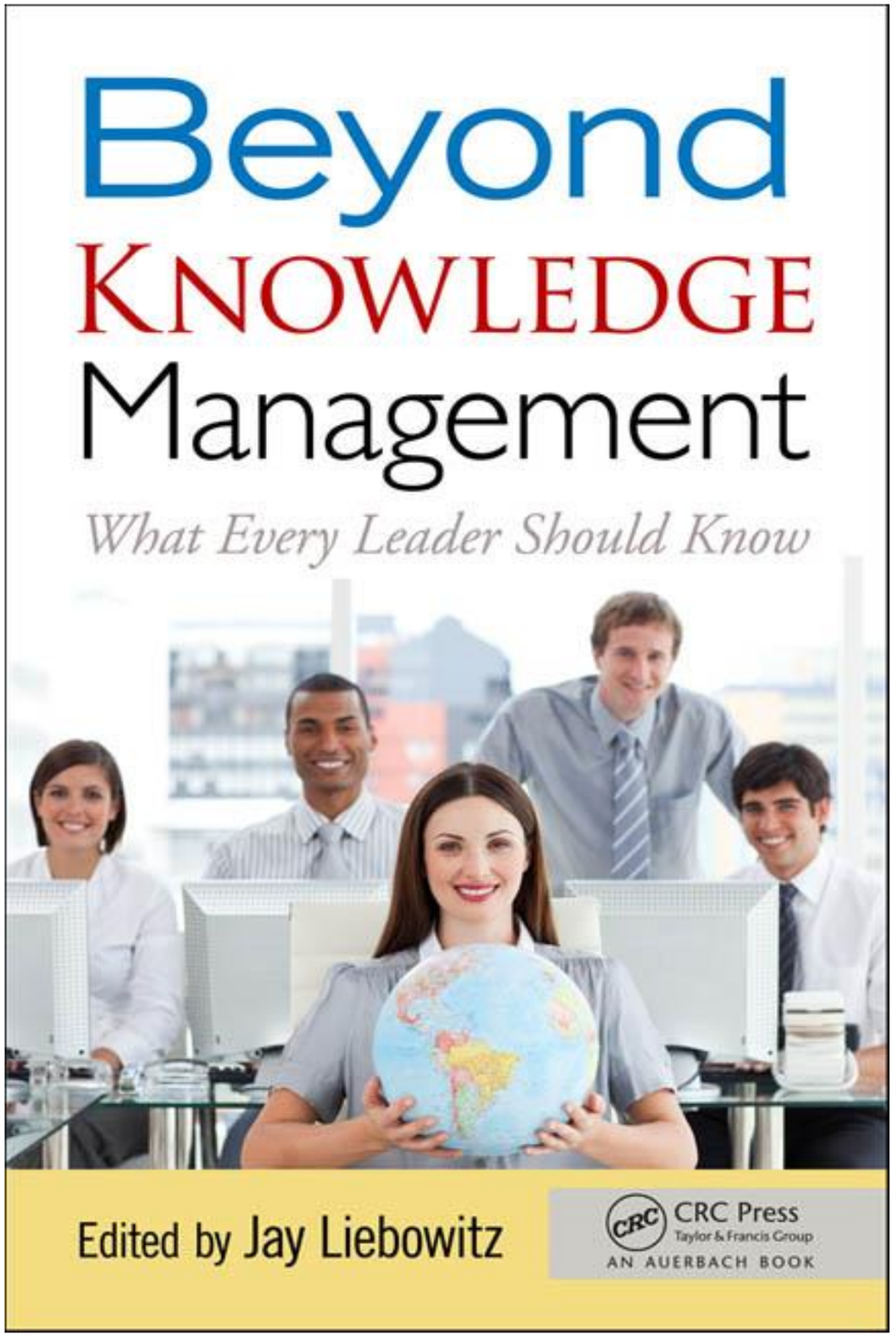
#9

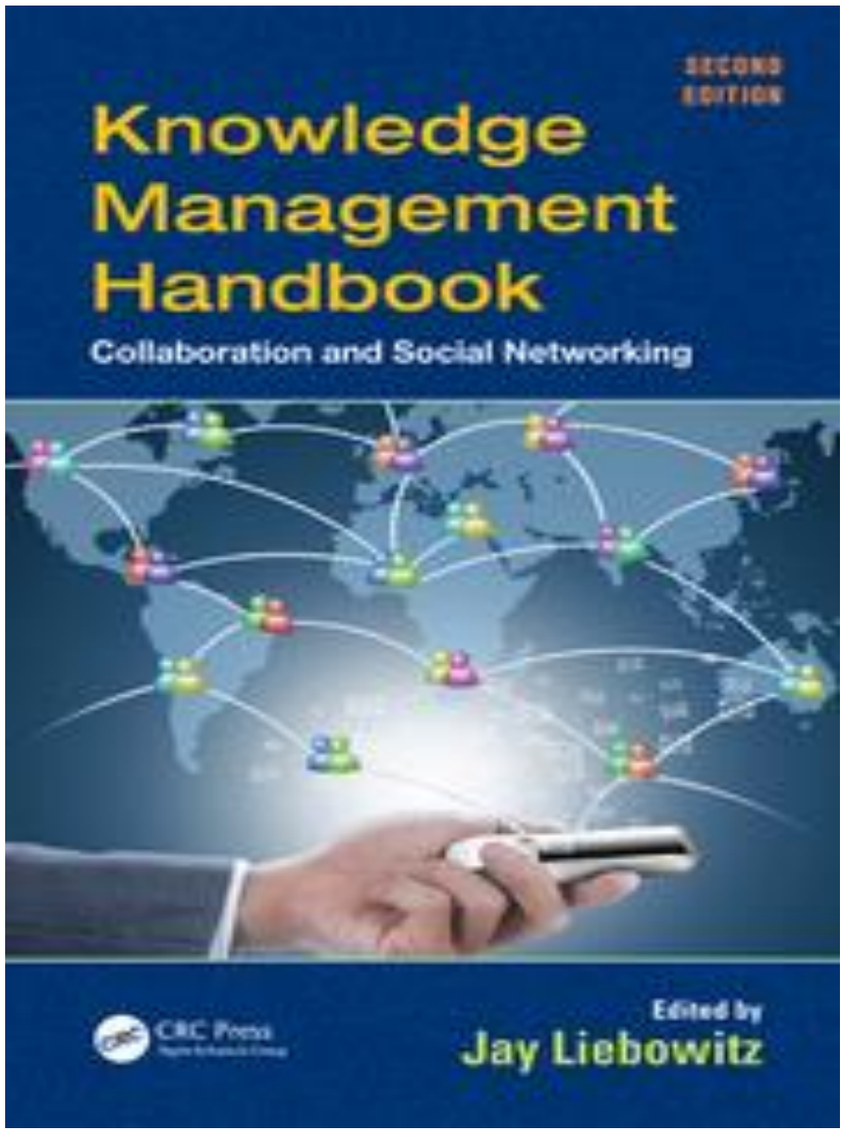
Don’t Force-Fit Technology (People/Culture/Process Are Where The Rubber Hits the Road)



#10

KM is Just One Part of Your "Strategic Intelligence"





Knowledge Sharing Tenets for Success

- Enhance reward and recognition system to include learning and knowledge sharing competencies
- Acquaint people with knowledge sharing and its benefits
- Share the message that with creativity comes failure and we all benefit from talking about our successes and our failures
- Integrate knowledge sharing into everyone's job
- Educate people about what types of knowledge are valuable and how they can be used
- Make sure the technology works for people, not vice versa

NAS TRB KM Guide (2015)

NCHRP

REPORT 813

NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM

A Guide to Agency-Wide Knowledge Management for State Departments of Transportation

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Published: July 2016

Successes and Failures of KNOWLEDGE MANAGEMENT

Case studies and leading research demonstrating how to leverage knowledge within organizations to improve decision making and facilitate innovation.

Contributions Include:

- *Clyde W. Holsapple, (University of Kentucky, USA) discusses parameters of knowledge management success*
- *Ed Hoffman (NASA Headquarters, USA) explores success and failure co-existing in NASA through REAL Knowledge and the James Webb Space Telescope (JWST)*
- *Yolande Chan (Queen's University, Canada) and Nadege Levallet (Ohio University, US) examine knowledge loss and retention - the paradoxical role of IT.*
- *Eric Tsui (The Hong Kong Polytechnic University) shares lessons learned from nearly two hundred cases of KM journeys by Hong Kong and Asian Enterprises*
- *Vincent Ribière and Francesco Calabrese, (Bangkok University, Thailand) discuss why companies are still struggling to implement Knowledge Management - with answers from 34 experts in the field*
- *Seth Earley (Earley Information Science, USA) explains how organizations can build their knowledge processes for long-term sustainability*
- *John S. Edwards (Aston Business School, UK) shares views on processes – perhaps still considered the poor relation in the knowledge management family?*
- *Anthony Wensley (University of Toronto-Mississauga, Canada) offers some personal reflections on major challenges through KM successes and failures*

... and much more!

Successes and Failures of Knowledge Management highlights examples from across multiple industries demonstrating where knowledge management has been implemented well, and not so well, so others can learn from these cases on their knowledge management journey. Knowledge management deals with how best to leverage knowledge internally and externally in organizations to improve decision making and facilitating knowledge capture and sharing. It is a critical part of an organization's fabric and can be used to increase innovation, improve organizational internal and external effectiveness, build the institutional memory, and enhance organizational agility.

Starting by establishing KM processes, measures, and metrics, the book highlights ways to be successful in knowledge management institutionalization through learning from others' mistakes and successes. Whether an organization is already implementing KM or has been reluctant to do so, the ideas presented will stimulate application of knowledge management as part of a human capital strategy in any organization.

Key Features

- Provides keen insight for knowledge management practitioners and educators
- Conveys KM lessons learned through both successes and failures
- Includes straightforward, jargon-free case studies, and research developed by the leading KM researchers and practitioners across industries

Edited by:
Jay Liebowitz, Distinguished Chair in Applied Business and Finance at Harrisburg University of Science and Technology, United States.

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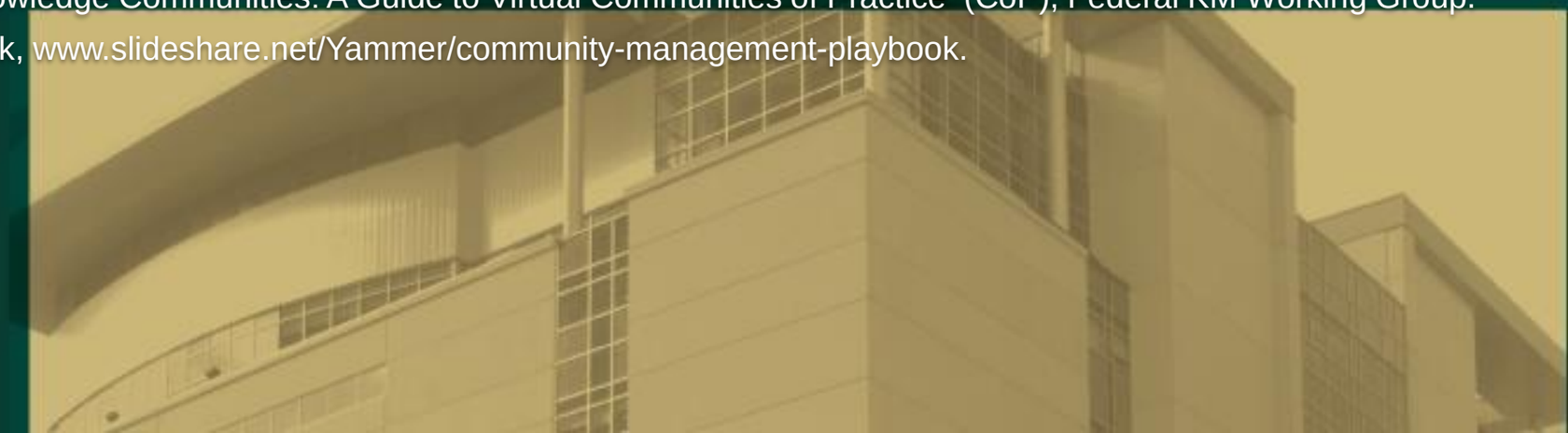

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