


Global Knowledge Management Context and Barriers

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Collaborative Course Development!

Thanks to my colleagues Prof. Dr. Markus Bick and Prof. Dr. Franz Lehner who have developed parts of the Knowledge Management Course which we taught together during the Jyväskylä Summer School Course 2011.

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Who am I?

- Ph.D. student at the Department of Computer Science and Information Systems
 - Globalization competences
 - Competence assessment in the IS domain
 - Comparative studies between Finland and Japan
- Doing research in the Global Information Systems team
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Contents of this lecture

- Context
 - What is it?
 - Context models
- Cultural context
 - Culture models
 - Organizational culture analysis
 - Discussion task
- Barriers and success factors
 - KM barriers
 - Global barriers



Context



- Context denotes all **influence factors** which have an **impact on KM situations** but which are not immediately affected by the design of KM project
 - Cultural context
 - Strategy
 - Infrastructure
 - Policies
 - Barriers,



Context

Purpose

- Understanding the situation of KM and its potentials
- Adapting interventions and tools to this situation

Challenges

- What are the aspects that matter (the most)?
- What are models to be used?
- How to distinguish the important and irrelevant aspects?



Global KM context

Societal aspects

- Culture
- Policies
- Legislation
- Technology infrastructure (networks, access, ...)

Organizational aspects

- Type of organization
- Sector / products / services
- Organizational culture
- Partnership structure

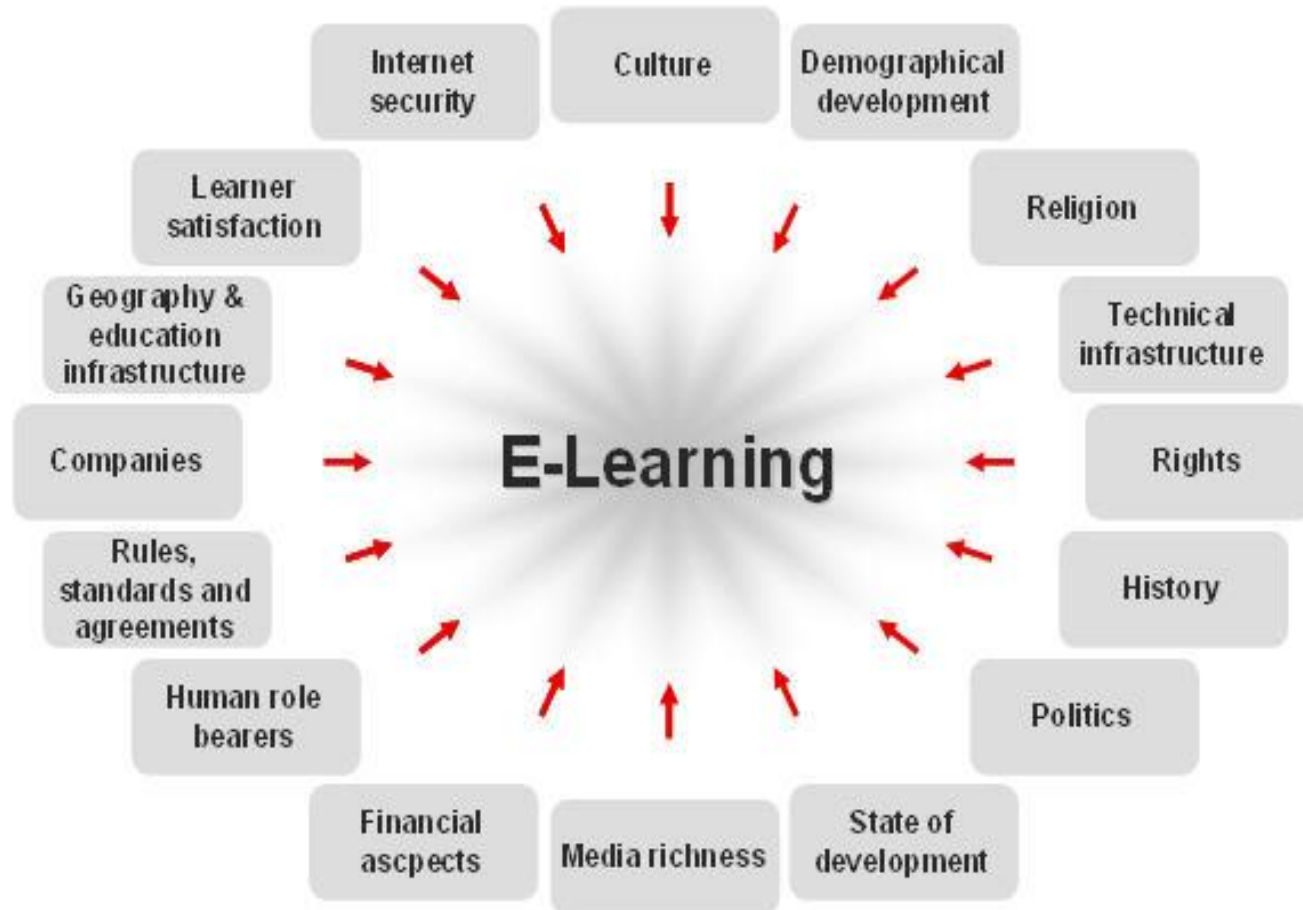
Individual aspects

- Barriers
- Language
- ICT / globalization competences



An initial context model

(Richter & Pawlowski, 2010)



- Starting points for society level
- Pick & choose list of aspects
- What influences partnerships & external KM?



Samples of context influences

- Human-oriented instruments
 - How are KM interventions perceived (culture)?
 - How is concrete knowledge shared (e.g. legislation: critical technologies)? How is privacy / IPR perceived?
- Technology-oriented instruments
 - Which technologies can be used (infrastructure)
 - Which technologies are well adopted (e.g. mobile video streaming, Google vs Baidu, ...)
- Process design
 - Culture & organizational practices influence business processes
 - Roles and responsibilities (culture, who is responsible for KM, who owns KM)
 - External processes: trust aspects



Definitions of culture

- ❏ *“Culture is the **collective programming of the mind** which distinguishes the members of one category of people from another.” (Hofstede, 1984)*
- ❏ *“Most social scientists today view culture as consisting primarily of the symbolic, ideational, and intangible aspects of human societies. The essence of a culture is not its artifacts, tools, or other tangible cultural elements but how the members of the group **interpret, use, and perceive** them. It is the values, symbols, interpretations, and perspectives that distinguish one people from another in modernized societies; it is not material objects and other tangible aspects of human societies. People within a culture usually interpret the meaning of symbols, artifacts, and behaviors in the same or in similar ways.” (Banks et al. 1989)*



Definitions of culture

- Culture is defined as the “[...] **definitive, dynamic purposes and tools** (values, ethics, rules, knowledge systems) that are developed to attain group goals.” (Mabawonku, 2003)
- Culture includes “[...] **every aspect of life**: know-how, technical knowledge, customs of food and dress, religion, mentality, values, language, symbols, socio-political and economic behavior, indigenous methods of taking decisions and exercising power, methods of production and economic relations, and so on.” (Verhelst, 1990)
- “The system of **shared beliefs, values, customs, behaviors, and artifacts** that the members of society use to cope with their world and with one another, and that are transmitted from generation to generation through learning.” (Bates, Plog, 1990)



How does culture influence KM?

- Impact on
 - Working style
 - Group behavior
 - Communication
 - Design
 - etc.
- How to represent culture / which aspects should be analyzed?
- How do these aspects influence KM processes?

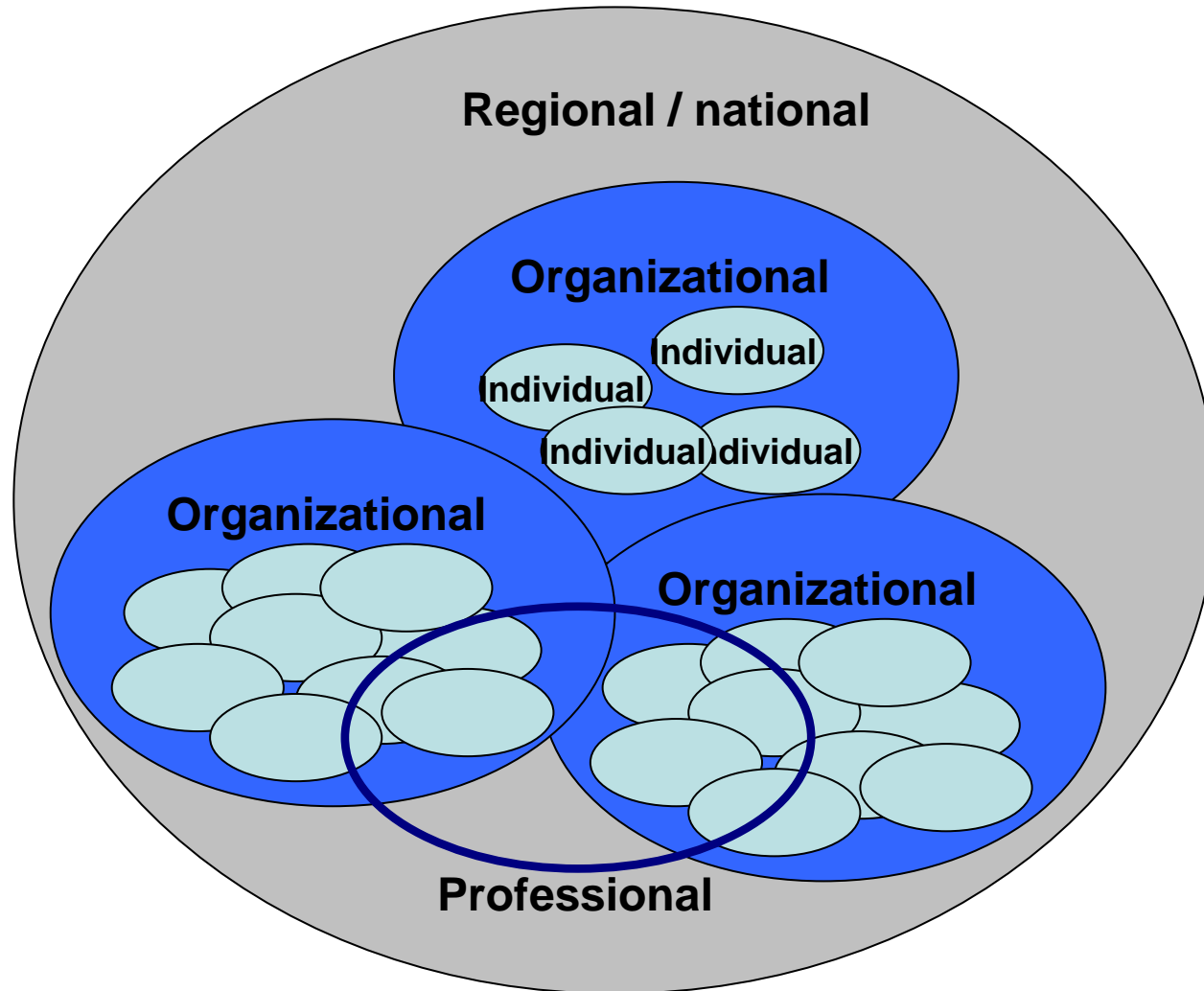


More perspectives on culture

- Organizational or corporate culture
 - Management style, rewards, working atmosphere
- Professional culture
 - Formal education within a group of professionals
- Functional culture
 - Functional roles within the organization
- Team culture
 - Common work experiences



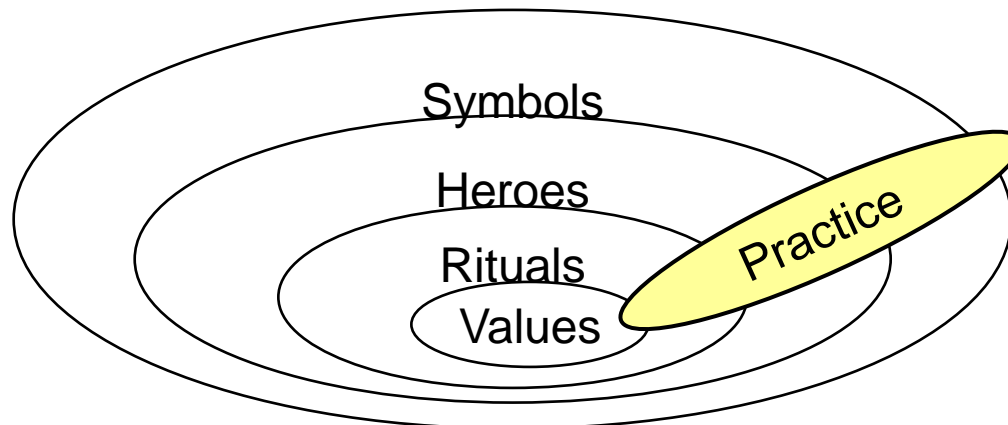
Culture levels



Hofstede's "Dimensions of culture" (1)

- Model to compare cultures
- Culture as a set of typical attributes / behaviours (manifestations of culture)
 - Values
 - Rituals
 - Heroes
 - Symbols

- Based on a study for IBM in 64 countries / follow-up studies
- http://www.geert-hofstede.com/hofstede_dimensions.php



Hofstede's "Dimensions of culture" (2)

Dimensions:

- Power distance index (PDI)
 - Common position to diversities within a country and the people's position towards authorities
- Individualism index (IVD)
 - Degree, to which individuals in a country wish to be free from dependencies to other persons and the authorities
- Masculinity index (MAS)
 - Degree to represent gender roles as part of the common norm, school, family and workplace as well as politics
- Uncertainty avoidance index (UAI)
 - How do individuals feel threatened by uncommon or insecure situations
- Long term orientation (LTO)
 - Time-orientation of a society (e.g., planning horizon)



Hofstede's "Dimensions of culture" (3)

Country/Region	Score	Rank	Country/Region	Score	Rank	Country/Region	Score	Rank
Germany	26	70	Germany	67	18	Germany	66	11-13
Austria	11	74	Austria	55	27	Austria	79	4
France	68	27-29	France	71	13-14	France	43	47-50
Spain	57	45-46	Spain	51	30	Spain	42	51-53
Portugal	63	37-38	Portugal	27	49-51	Portugal	31	65
South Korea	60	41-42	South Korea	18	63	South Korea	39	59
Brazil	69	26	Brazil	38	39-40	Brazil	49	37
Guatemala	95	3-4	Guatemala	6	74	Guatemala	37	61-62

Values for Power Distance Index (PDI)

Country/Region	Score	Rank
Germany	65	43
Austria	70	35-38
France	86	17-22
Spain	86	17-22
Portugal	104	2
South Korea	85	23-25
Brazil	76	31-32
Guatemala	101	3

Values for Uncertainly Avoidance Index (UAI)

Values for Individualism Index (IDV)

Country/Region	Score	Rank
Germany	31	25-27
Austria	31	25-27
France	39	19
Spain	19	35-36
Portugal	30	28-30
South Korea	75	6
Brazil	65	7
Guatemala	n.a.	n.a.

Values for Long-Term Orientation Index (LTO)

Values for Masculinity Index (MAS)

- Finland:
- PDI: 33
 - IDV: 63
 - MAS: 26
 - UAI: 59
 - LTO: 41



Power distance index (PDI)

Low	High
<ul style="list-style-type: none">• Equal treatment of all employees• Employee centered education• Team members initiate some communication and discourse• Leaders (in terms of position) are experts who transfer impersonal truths• KM activities between different hierarchy levels	<ul style="list-style-type: none">• Team members dependent on leaders• Team members treat their boss with respect• Training suggested by boss• Leaders initiate all communication and discourse• Bosses transfer personal wisdom• KM activities between similar levels



Individualism index (IVD)

Individualism	Collectivism
<ul style="list-style-type: none">• Team members' individual initiatives encouraged• Team members are expected to speak up when seeing communication needs / issues• Team members get tasks according to interests• Successful KM activities increase economic opportunities and/or self-respect• Knowledge ownership by individuals• Individual knowledge should be valued and rewarded	<ul style="list-style-type: none">• Team members' individual initiatives discouraged• Team members only speak up in class when sanctioned by group• Tasks are associated according to groups• Successful KM activities provide entry to higher-status group• Knowledge ownership by groups / group leaders• Group knowledge should be valued

Masculinity index (MAS)

Masculinity	Femininity
<ul style="list-style-type: none">• Brilliant bosses are admired• Best performer is norm• Competition in the work place, increased barriers to knowledge sharing• Team members overrate own performance• Failing is a disaster	<ul style="list-style-type: none">• Friendly bosses most liked• Average performer is norm• Over-ambition unpopular• Team members underrate own performance• Failing is a minor incident



Uncertainty avoidance index (UAI)

High	Low
<ul style="list-style-type: none">• Team members want to know right answers• Leaders / colleagues are supposed to have all answers• Emotions can be expressed• Pressure among team members to conform• Knowledge sharing as future investment	<ul style="list-style-type: none">• Team members want good discussions• Leaders may say “I don’t know”• Emotions should be controlled anywhere• Tolerance for differences• Knowledge sharing in problematic situations



Long term orientation (LTO)

Long term orientation

- Team members attribute success to effort and failure to lack of effort
- Working hard is norm
- Talent for applied, concrete sciences
- Children learn to save

Short term orientation

- Team members attribute both success and failure to luck and fate
- Enjoyment is norm
- Talent for theoretical, abstract sciences
- Children learn to spend



Issues to consider based on Hofstede

- Power distance
 - How is knowledge shared between hierarchy levels?
- Individualism
 - Who “owns” knowledge, is it a common good in an organization?
- Masculinity
 - Are there different ways of sharing knowledge?
- Uncertainty avoidance / Long term orientation
 - Is knowledge management seen as help for future problems?



Critical analysis on Hofstede

- Empirical study in a homogenous (corporate) culture
 - 1968 and 1972 inside IBM
 - However, results were evaluated in hundreds of settings
- Relative values seem to be stable (while absolute values are changing)
- Not applicable to all contexts
- Interpretations for KM and specific components (e.g., communication) are questionable (see previous slides 😊)
- KM should take those categories as guidelines for discourse
- KM should be designed based on more detailed cultural aspects (e.g. media / software use, communication behavior, roles and responsibilities, ...)



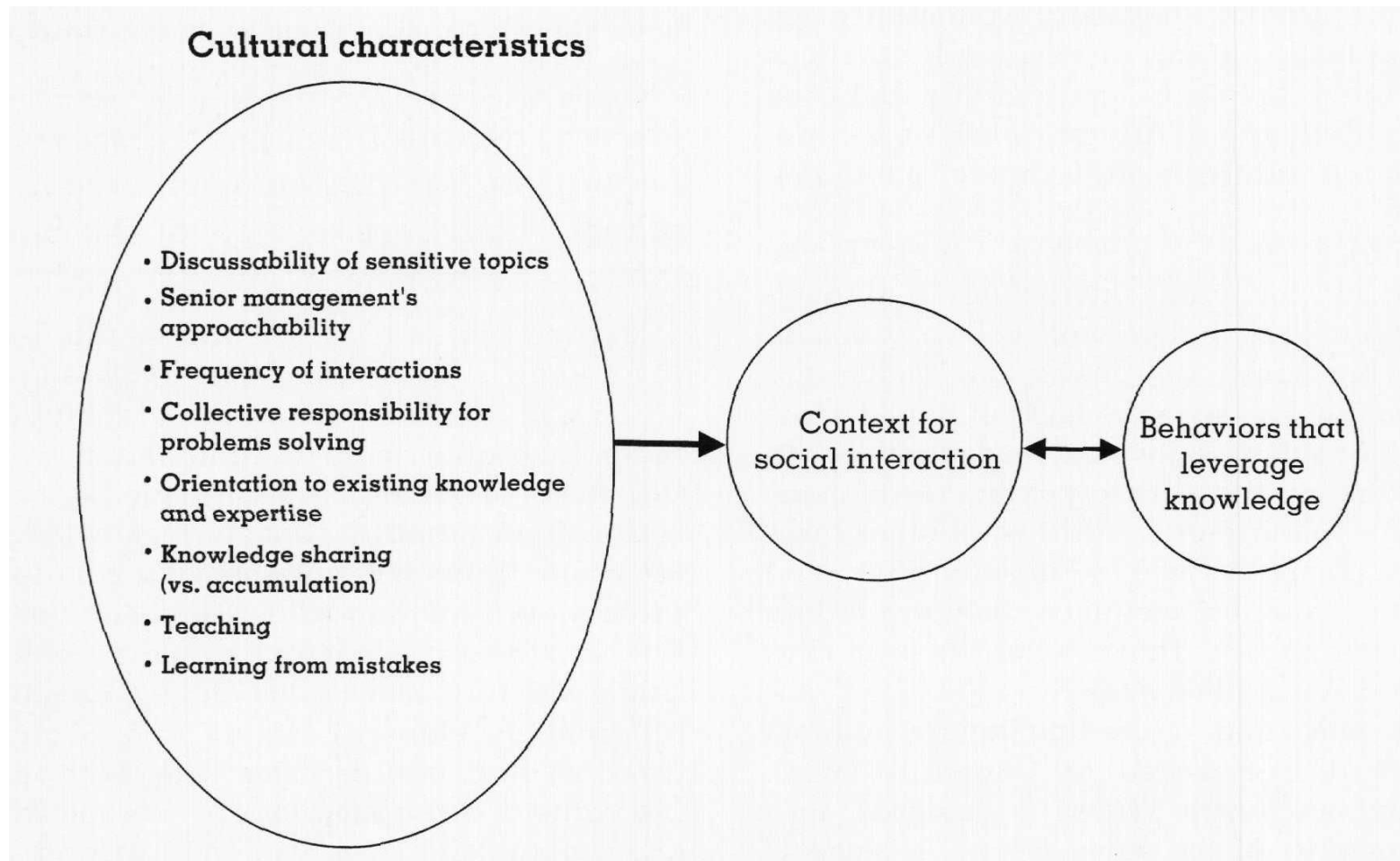
Trompenaars (1998)

- Congruent with Hofstede's study, but with additions
- Dimensions:
 - Individualism vs. collectivism (similar to Hofstede)
 - Universalism vs. particularism (rules vs. relationships)
 - Neutral vs. affective (range of feelings expressed)
 - Specific vs. diffuse (range of involvement, e.g. work vs. leisure)
 - Achievement vs. ascription (how status is accorded)
 - Internal vs. external (controlling nature or letting it take its course)
 - Time orientation
- More heterogeneous study environment
- As can be seen, many other aspects can be studied to define culture



Analyzing culture: Characteristics

(De Long & Fahey, 2000)



KM Success factors and guidance

(De Long & Fahey, 2000)

■ Cultural assumptions

- Which knowledge is common and useful?
- Analyze cultural influences on priorities (e.g. knowledge sharing vs. project management)
- Identify critical knowledge tasks (e.g. customer knowledge)
- Identify current practices

■ Understanding and defining knowledge

- How do different groups define (important, common, priority) knowledge?
- Identify skills / motivation for different instruments (e.g. knowledge repositories)

■ Importance of individual knowledge

■ Enable cross-function knowledge sharing



KM Success factors and guidance

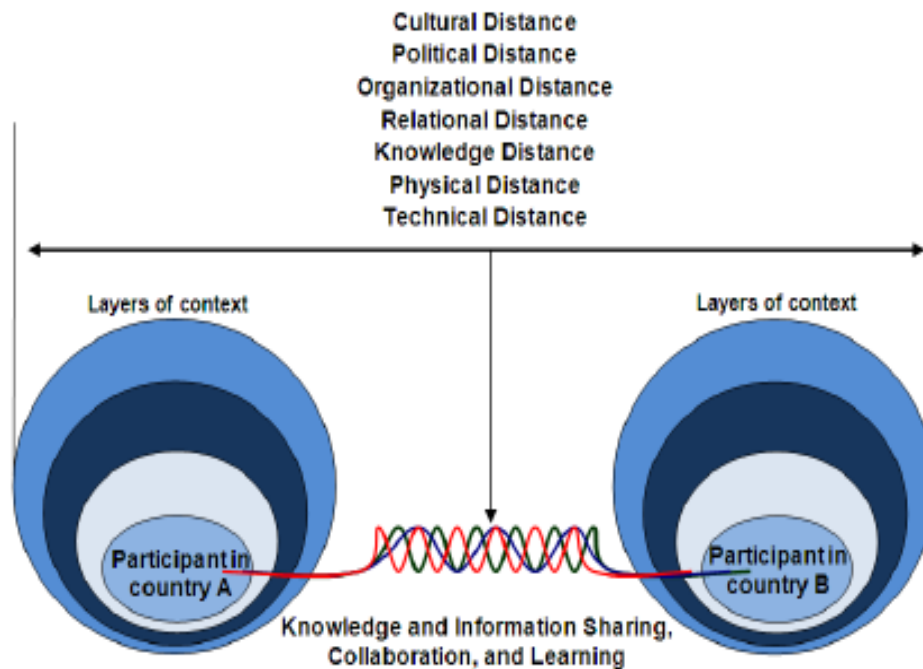
(De Long & Fahey, 2000)

- Enable cross-function knowledge sharing
 - Changes of ownership of knowledge?
 - Which new behavior patterns are needed by leaders
 - Provide examples of practices
- Culture as context for social interaction
 - Vertical interactions
 - Approachability
 - Horizontal interactions
 - Interactivity
 - Sharing and teaching
 - Dealing with mistakes



Analyzing culture: Distance

(Dawes et al., 2011)



Layer	Factors
Knowledge and Information Content	<ul style="list-style-type: none"> ○ Type ○ Value ○ Sensitivity ○ Confidentiality ○ Degree of standardization ○ Embeddedness ○ Codifiability
Organizational Context	<ul style="list-style-type: none"> ○ Goals and interest ○ Trust and past relationships ○ Executive support ○ Perception of risk ○ Perceived costs and benefits ○ Organizational culture ○ Leadership ○ Authority and hierarchical structures ○ Rules and procedures ○ Resources ○ Absorptive capacity.
National Context	<ul style="list-style-type: none"> ○ Culture ○ Political support ○ Laws and policies ○ Language

Culture context - summary

- Culture models are abstract, focusing (in most cases) on national culture
- Take the models as an orientation
 - General orientation: abstract models such as Hofstede
 - Detailed design decisions based on organizational and detailed cultural characteristics
- Use the models as a discussion issue: observe, reflect, ask, discuss and share!
- GKMF provides selected attributes for societal, organizational and individual influence factors
 - Base for adaptation
 - Templates and representation of attributes



Consequences to KM in practice

- How to relate cultural influence factors and knowledge intensive processes?
- Culture as the main driver for:
 - Identifying common knowledge
 - Understanding knowledge sharing processes
 - Defining and analyzing roles and relations
 - Creating trust and awareness
 - Motivation and attitudes
- Building culture profiles and culture competences
- Identify cultural barriers
- Relate culture to key processes and interventions



Sample attributes on the org. context

Category	Description	Sample Values / Attributes
Individual: Personal Characteristics	Description of individuals' characteristics	<ul style="list-style-type: none"> • Demographic data (name, age, gender, ...) • Qualifications • Competences • Globalization competences • Educational preferences • ...
Individual: Barriers	Potential barriers towards knowledge management utilization	<ul style="list-style-type: none"> • lack of time • fear about job security; • Lack of awareness • use of strong hierarchy, position-based status • insufficient capture, evaluation, feedback, communication • differences in experience levels; • lack of time and interaction • poor verbal/written communication and interpersonal skills; • age and gender differences; • Lack of networking skills • Lack of trust • ...



Sample attributes on the org. context

<p>Context: Organizational Characteristics</p>	<p>Description of organization characteristics</p>	<ul style="list-style-type: none"> • Name • Size • Type (private, government, NGO, ...) • Sector (healthcare, automotive, ...) • Vision • Strategy • ...
<p>Context: Organizational Barriers</p>	<p>Potential organizational barriers towards knowledge management utilization</p>	<ul style="list-style-type: none"> • lack of leadership and managerial direction / strategies • shortage of formal and informal spaces to share, reflect and generate (new) knowledge; • lack of a transparent rewards and recognition • insufficient corporate culture • shortage of appropriate infrastructure supporting sharing practices; • deficiency of company resources • communication and knowledge flows are restricted • physical work environment and layout of work areas • internal competitiveness within business units, • ...



Sample attributes on the org. context

Context: Success factors	Success factors for KM in organizations	<ul style="list-style-type: none">• Integrated Technical Infrastructure• Knowledge Strategy that identifies users, sources, processes, storage strategy, knowledge• Clear knowledge structure• Motivation and Commitment• Organizational culture supporting sharing and use of knowledge• Senior Management support including allocation of resources, leadership, and providing training• Measures are established to assess the impacts• Clear goal and purpose for the KMS• Search, retrieval, and visualization functions• Work processes incorporate knowledge capture and use• Learning Organization• Security/protection of knowledge• ...
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KM in organizational context

- summary

- Models to represent culture...
 - Have been developed for different purposes and context
 - Vary in their level of abstraction
 - Can be used as a guideline to identify influence factors
- No model is validated to cover all influence factors for a design and development process
- Besides, other requirements have to be taken into account!



Task (20 min)

- In small groups, **discuss your own cultures**. You can consider the following questions (some or all if you are fast) and prepare to present your results to others. Please add any other questions or aspects not in the list which you find appropriate.

1. Describe a typical relation between leaders and team members.
2. Describe how leaders and team members communicate. Who makes decisions, how are they communicated?
3. Who communicates, is communication different to people on different hierarchy levels?
4. How is knowledge transferred (from boss to team members, in all directions)?
5. How far ahead are (project) plans made? Are decisions final once they are made?
6. How important is risk management?
7. Is knowledge sharing seen as important for future projects?
8. Who owns knowledge, an organization, a group or individuals?
9. How are errors seen, are they normally admitted and communicated? Are they seen as helpful for personal learning (learning from mistakes)? Are they usually hidden or not communicated openly?
10. How are critique and complaints handled, directly or through other channels?
11. Who is an expert, is it depending on position or actual knowledge or achievements?



Barriers and success factors

- Knowledge management projects fail often
- Which are the main barriers to successful knowledge management activities?
- Which are success factors?
- How do those barriers and success factors differ in global settings?

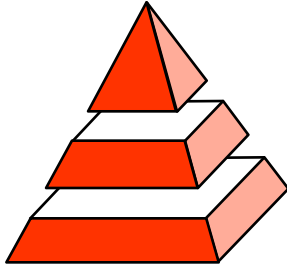


What are barriers?

- Discussed from the viewpoint of an individual or group of people
- Can relate to social interaction and as an example to factors that hinder or challenge knowledge exchange
- Might relate to challenges and risks when adopting or using a specific technology
- Challenges set by diverse workers, hierarchies and cultural influences within an organization
- In many cases tied to a specific context
- Can be presented as a wider concept “cultural distance”
 - ...or as a question that is formed from the problem:
“How to reward contribution?”

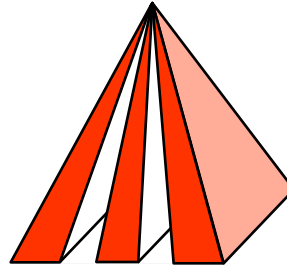


Barriers



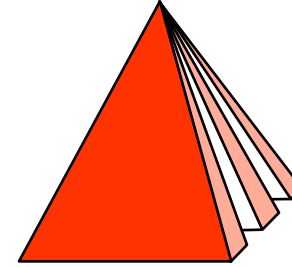
**Organizational
and hierarchical**

+



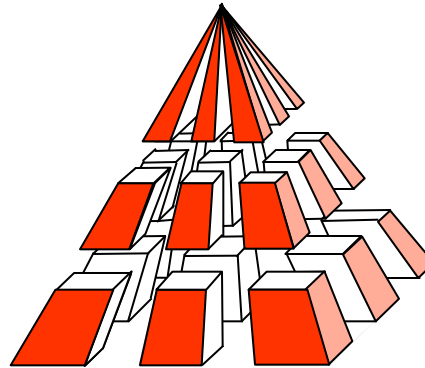
**Dependent on business
process and project**

+



**Location, time, culture
and language**

=



“Knowledge Islands”



Success factors - barriers

- Critical success factors (CSF)
 - What is necessary to achieve a mission
- The relation between a barrier and a success factor is not always clear
 - Not always counterbalanced in a way that overcoming a barrier means a success
 - Not all success factors can be derived from barriers
- *However, barriers are a starting point to understand success factors within a specific context*

Geographical dispersion of individuals

CSF

“set meeting schedules and rules of engagement”

“conduct periodic face-to-face meetings”



Success factors

■ Holistic, integrated and standardized approach

- KM integrated within culture, coordination, and leadership
- Consider relationships and interdependencies
- Avoid isolated solutions, e. g., different, incompatible communication systems, no standards, different knowledge processes,
- Knowledge processes and ICT platforms for KM should be standardized throughout the organization and integrated with the existing business processes.

■ Knowledge-oriented culture

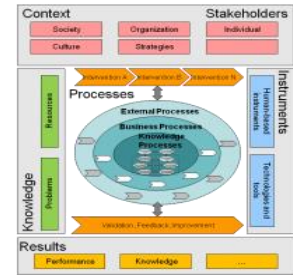
- Supportive organizational culture
- Open and communicative atmosphere
- Supporting a knowledge-oriented culture through e. g., communication of success stories and best practices, through the acceptance of errors as well as promoting individual responsibility

■ Management support

- Top management to strategic knowledge goals, allocate sufficient budgets to the KM initiative
- Providing good example for the change of behavior
- A knowledge champion can act as a coordinator for management support as well as key speaker and motivator for the initiative.



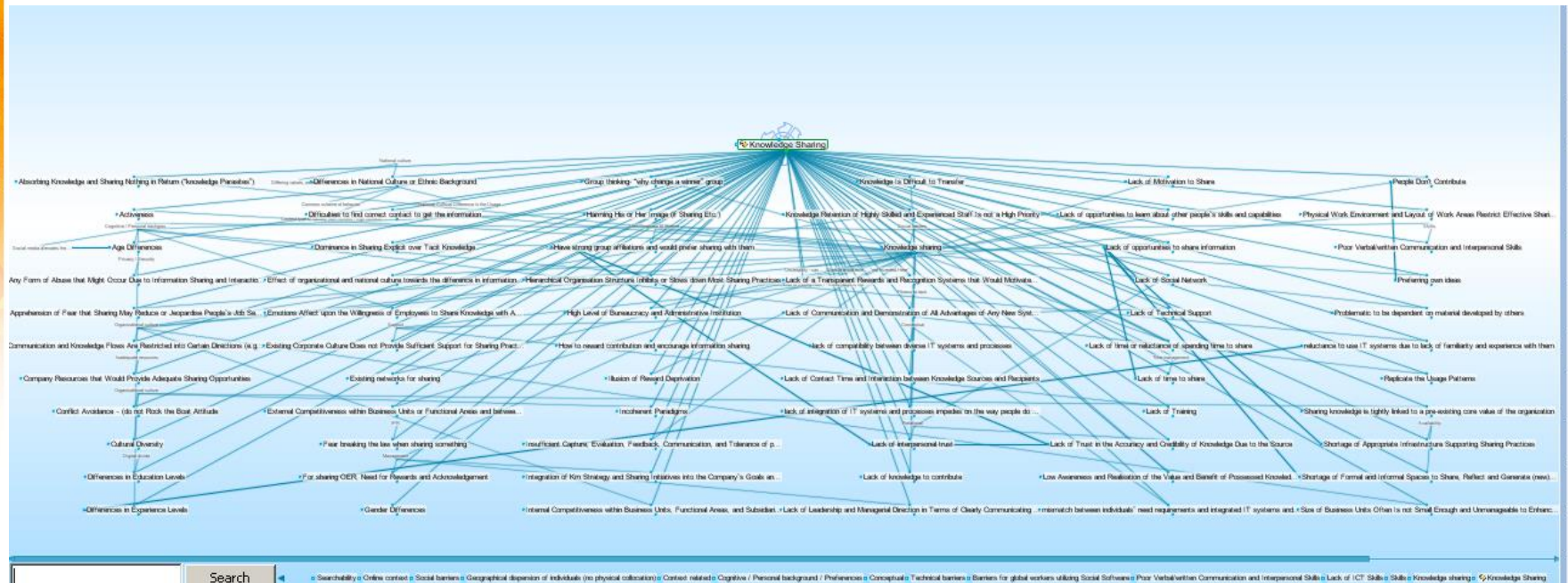
The challenge



- Analyzing the cultural, organizational, and individual context
- Identifying barriers and potential success factors
- Choosing and creating solutions (= interventions / methods)
 - Aligned with strategies and processes
 - Addressing barriers
 - Involving all stakeholders
 - Not overloading people
 - Choosing and creating solutions (= interventions / methods)
- Utilizing barrier-knowledge in KM processes



KM barriers



(Pirkkalainen & Pawlowski 2011)



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KM barriers



- The bottleneck is usually **knowledge sharing**
- Common ways of categorization (if categorized at all)
 - Individual, organizational, technological (Riege 2005)
 - Individual, social (Disterer 2001)
 - Individual: Loss of power, revelation, uncertainty, motivation
 - Social: Language, conflict avoidance, bureaucracy and hierarchy, incoherent paradigms)
 - Individual, social (Bures 2003)



Knowledge sharing barriers



Barrier	Description
Lack of interpersonal trust	Level of trust in a company, between its sub-units, and its employees seems to have a direct influence on the communication flow and thus the amount of knowledge sharing (Riege, 2005).
Lack of opportunities for sharing (<i>resources, time, networks, infrastructures</i>)	Appropriate infrastructure and resources to facilitate sharing practices within and between functional areas is the basis of a successful KM (Schlegelmilch and Chini, 2003).
How to reward contribution and encourage information sharing	Managers may have to force people to transform their organisation into knowledge-embracing cultures. No matter which reward and recognition system is chosen. (Riege, 2005.)
Lack of motivation to share	Sharing only if it's important to their work, if they feel encouraged to share and learn, or if they wish to support a certain colleague (Wheatley, 2000).
Fear of harming his or her image if sharing	Fear that sharing may reduce or jeopardise people's job's security or even employee's corporate position.
"Knowledge is power" - Loss of Power through Sharing	By providing knowledge to the colleague, the exclusivity of influence is reduced (Bures, 2003).



KM barriers - summary

- Management / coordination / support
- Financial
- Skills
- Social aspects
- Technical
- Organizational / national culture
- Conceptual



KM barriers (1)

Management / coordination / support

- How to reward contribution
- Lack of transparent recognition and reward systems
- Lack of leadership and managerial direction
- Integration of KM strategy into company's goals
- Unrealistic expectations of employees
- Lack of training, lack of technical support, etc.

Financial

- Resources for providing adequate sharing opportunities

Skills

- Poor verbal/written communication and interpersonal skills



KM barriers (2)

Social aspects

- Lack of trust
- Knowledge is difficult to transfer
- Lack of motivation to share, unwillingness to share
- Knowledge is the power (loss of power through sharing)
- Knowledge parasites
- Group thinking (“*Why change a winner group?*”)
- Difference in experience levels
- Unwillingness to receive:
 - Preferring own ideas
 - Doubt validity and reliability of received knowledge
 - Have strong group affiliations
 - Too proud to accept knowledge
- Apprehension of fear that sharing may reduce or jeopardize people’s job security
- Age differences



KM barriers (3)

Technical

- Shortage of formal and informal spaces to share (use and generate) knowledge

Organizational / national culture

- Internal competitiveness within business units, functional areas, and subsidiaries can be high
- Hierarchical organization structure inhibits or slows down most sharing practices
- Social practices (elements of corporate culture) of the community (team, department, institution, etc.) affect the knowledge and its consequent sharing
- Differences in national culture or ethnic background; and values and beliefs associated with it
- Sharing knowledge is tightly linked to a pre-existing core value of the organization
- Conflict avoidance – *“Do not rock the boat”* attitude

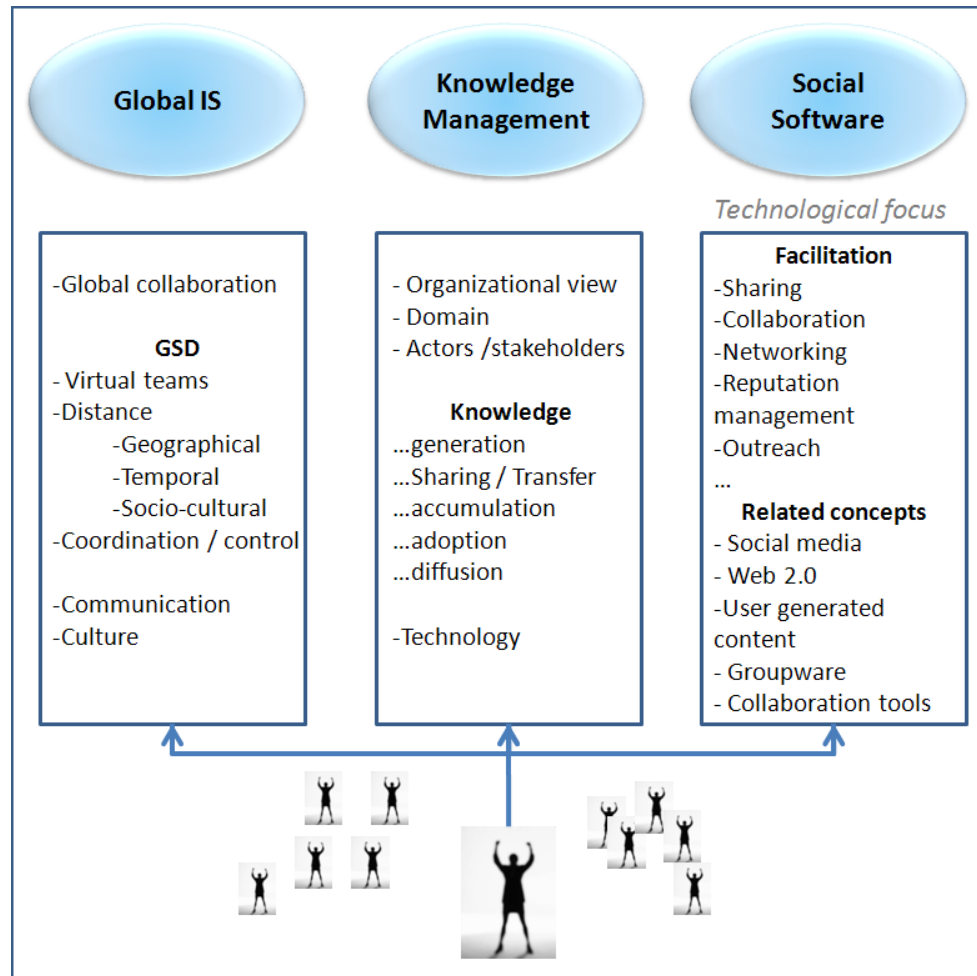
Conceptual

- Lack of integration of systems and processes on people’s working behavior, mismatch between user needs and systems/processes etc.

Do not focus on the distance factor (global component)



Relation of concepts



(Pirkkalainen & Pawlowski 2011)



Global barriers



POLITICALLY CORRECT by Jim Huber



[Understanding-the-Culture-of-Socia](#)

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...long traditions!



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Global IS barriers

Barrier	Description
<i>Cultural and language distance</i>	Do the collaborators share the same language, skills as well as cultural norms, corporate culture, interpretations etc. Most occurred barrier in Noll et al., (2010) analysis on collaboration barriers in global software development (GSD).
<i>Geographical distance</i>	Distributed collaboration (within a country or cross-border). Third most occurred barrier in Noll et al., (2010) analysis on collaboration barriers in GSD.
<i>Temporal distance</i>	Distributed collaboration (time-zone differences). Second most occurred barrier in Noll et al., (2010) analysis on collaboration barriers in GSD.
<i>Lack of trust</i>	Geographic, temporal, and cultural distance have a significant impact on trust among globally distributed team members (Noll et al., 2010).
<i>Infrastructure</i>	In distributed collaboration teams and employees must rely on technology to support the communication (Noll et al., 2010).



Global IS barriers - summary

- Leadership / coordination (team aspects)
- Organizational culture / national culture
- Geographical / temporal
- Social aspects (relational, communication / collaboration etc.)



Global IS barriers (1)

Leadership / coordination (team aspects)

- Lack of overlapping hours
- Coordination breakdown
- Reduced trust
- Lack of group awareness and team spirit
- Incompatible views of the problem
- Synchronizing work between locations

Organizational culture / national culture

- Cultural diversity (influences values and practices of people)
- Solidarity (how quickly members pursue shared objectives regardless of personal ties)
- Multi-disciplinary settings
- Time perceptions (may have different views on deadlines, timelines, work rhythms, etc.)
- Unbalanced technological usage and expertise
- Communication flows restricted into certain directions
- Lack of common usage and norms
- Unbalanced expertise
- Unbalanced power in decision making processes
- Lack of common conceptual understanding



Global IS barriers (2)

Geographical / temporal

- Geographical dispersion
- Different time zones

Social aspects (relational, communication / collaboration etc.)

- Weak ties among individuals (not knowing in advance)
- Lack of interpersonal awareness
- Lack of mutual trust
- Lack of possibilities for synchronous communication
- Trouble in finding correct contact
- Multilingual setting (language distance)
- Loss of communication richness
- Delayed responses
- Misunderstandings
- Lack of informal communication
- Unclear roles and responsibilities
- Lack of absorptive capacity (learning/adapting)



Social Software

- ▣ Various ways to define
 - No right or wrong
 - ...but still better and worse ways of describing
- ▣ Similarity to social media:

The meaning of the term of social media is twofold. On the one hand, social media refers to online content transmitted via new media. For example, Zheng et al. (2010) suggested that “social media is online technologies”[1]. In this context, social media refers to more importantly, social media refers to technologies based media that support social information aggregation and understanding emphasizes “media” with different social media might have different technical, functional, and social characteristics, and provide different communication channels. They may differ in modality (i.e., text-based, audio, video, etc.), capability (i.e., bandwidth), time difference (i.e., synchronous and asynchronous), and message distribution (i.e. one-to-one, one-to-many, many-to-one, and many-to-many), etc. In terms of media usage, different media might differ in operability (i.e., if the media interfaces are friendly enough.), reliability (i.e., can the media accurately and quickly transmit what we want to send?), availability (i.e., can the media be easily gotten?), etc.

(Zheng et al. 2010)

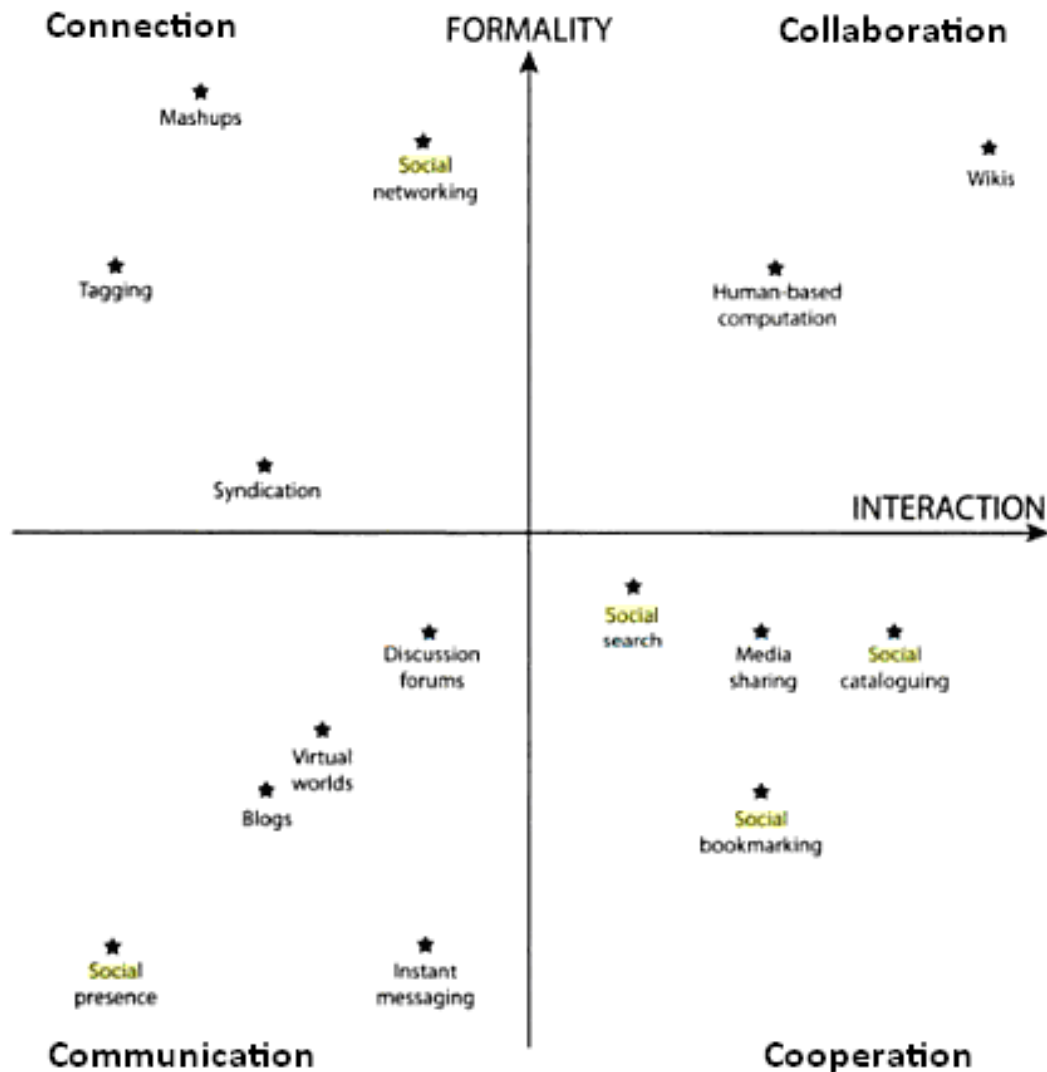
Social Software

“Social Software enables an interactive way of collaboration, managing content and connecting to online networks with other people. It supports the desire of users to be pulled into groups in order to achieve their personal goals”

(Wever, Mechant, Veevaete & Hauttekeete 2007)



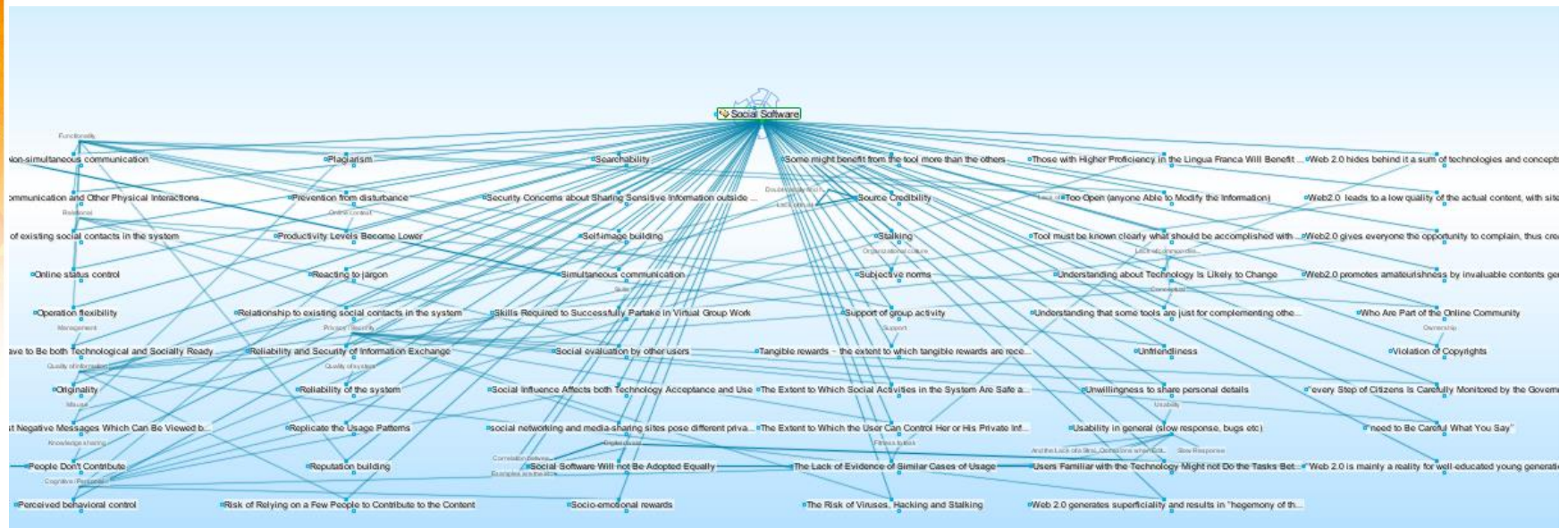
Social Software



4 Cs of Social Software (Cook 2008)



Social Software barriers



(Pirkkalainen & Pawlowski 2011)

... 119 barriers from literature



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Social Software barriers

- Very much discussed at the moment
- Same barriers discussed under different terminology
 - Social software, social media etc.
- Related to knowledge sharing, group collaboration etc.
- Higher education, business and IT, B2B...
- At the moment trying to recognize relevant barriers
 - No clear context-aware understanding of the biggest problems



Social Software barriers

Financial

- Resources, time

Management / coordination / support

Technology fit

Organizational culture

Social

- Relational, knowledge sharing, skills, cognitive, background, preferences

Technical

- Availability, interoperability, functionality, usability, conceptual, privacy/security, misuse

Quality

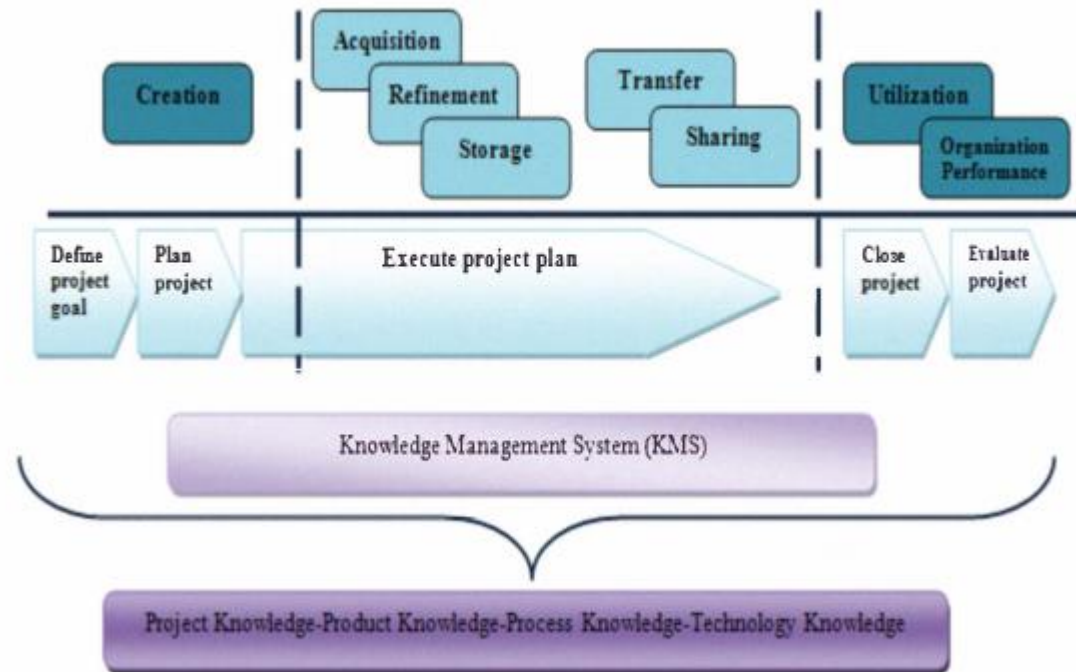
Legal

- IPR / copyright



Identifying and utilizing the barriers

- Crucial in requirements analysis to execution



Knowledge phases carried out according to project life cycle (Beiryaei and Vaghefi 2010)



Thank you



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