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Intercultural challenges of knowledge focus strategy implementation in China

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Bachelor Thesis

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Introduction

China has experienced a tremendous growth over the last decade and more and more foreign companies invest in the country of the middle. While in its beginning, investments were mostly focuses in the area of manufacturing, companies are seeking to create more value on-site. Creating value means innovation and is the only way a company can sustain competitive advantage in the long term. The shift from simply executing concrete work schemes such as a worker in a factory does to value added work such research and development, marketing, consulting, finance, etc. is also a shift in requirements to the employee. Nowadays, it is not sufficient to simply learn work patterns and execute them with ones hand but instead, employees need to learn, combine information, work in a team, create new knowledge and share it. The main tool of the employee now becomes the head. Every developed country has experienced this shift and many companies have developed strategies which they call knowledge management or knowledge focus strategies, that is have set up tools and procedures to maximize the value created from the intellectual resources the organization has. However, as we shall see, most of the thought leaders in this area are not Chinese, thus have not taken the cultural aspect of the people of this large country into consideration.

Thus, this shift undertaken in China means that foreign companies need to overcome a number of challenges which they might have faced in their home country before but not necessarily in the same gravity. These challenges result from the differences in the Chinese culture compared to Western cultures[1]. Problems are therefore not of technical nature, solvable by an engineer but people related such as conflicts due to different styles of communication, thinking patterns, values, etc which are psychological or organizational nature. If any undertaking in China is to be successful, one needs to be aware of these differences in order to identify problem sources or synergy effects a priori and implement measures.

Research question

It is therefore the aim of this thesis to find out about these cultural differences:

1. Could the specific characteristics of the Chinese culture lead to challenges when knowledge focus strategies are attempted to be implemented?
2. If yes: What could be undertaken to overcome these obstacles and to even create synergy effects?

[1] by 'Western', the author refers to USA and Northern Europe

Methodology

In the field of knowledge focus strategy ('knowledge management') literature, there are many publications dealing with technical information systems or strategies to improve knowledge work among people. However, at the time of creation of this thesis, there was only one book dealing with intercultural issues of knowledge focus strategy (see Holden, 2002) which does not deal with the Chinese culture. On the other hand, there are many publications dealing with the Chinese culture which do not deal explicitly with knowledge focus strategy. The main approach of this thesis is therefore to combine the findings from both areas of business studies and combine them.

After that, several interviews were conducted with Chinese and non-Chinese from which shorter examples of real life situations and two business cases were produced. These practical experiences are then analyzed using the theoretical findings. At the end, the theses will conclude with a number of practical recommendations, companies can implement in their day to day business to improve their knowledge work with Chinese.

Terminology

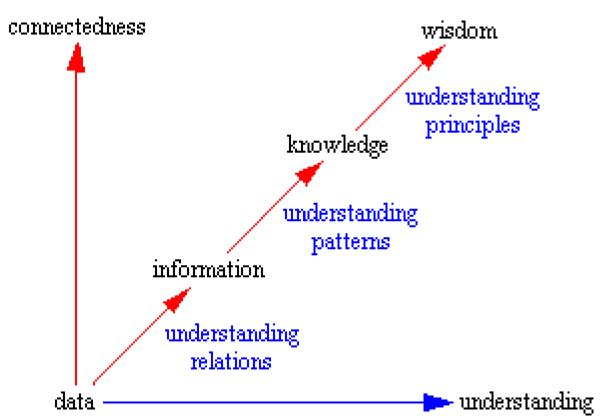
The most used term when it comes to strategies and tools, companies can implement to leverage on their intellectual capital is 'knowledge management' however, during the course of this study, the author agreed with the notion that this term itself is an oxymoron. That is why after the second chapter (What is Knowledge Management?") The term 'knowledge management' is not further used. Instead, the author adapted the term 'knowledge focus strategy'.

1. Information and Knowledge

Prior to further investigating the concept of knowledge management itself, the underlying concepts of knowledge and information need to be defined. That is, an academic analysis of knowledge management should start at its foundation, especially when it is a term as wildly discussed as this topic. On September 8th 2004, amazon.com contained over 3,657 books with the term "knowledge management" in its title. This increased interest in this topic can be explained by our current transition from an industry based on tangible goods to an information or knowledge economy based on intangible goods such as services, consulting, entertainment or other type of value added information. Thus, to understand this general notion, it might not be necessary the exactly define the underlying concepts of knowing but for academic work, the author finds that necessary. However, most books about knowledge management don't deal with definitions but start with the importance of knowledge management instead (Wilson, 2002). Adding to the problem is that the field "knowledge management" is discussed in multiple disciplines, such as business studies or computer science.

1.1 The DIKW model

In order to avoid any confusion about terms, this study will apply the DIKW (Data-Information-Knowledge-Wisdom) approach which gives definitions for "data", "information", "knowledge" and "wisdom". The model was first introduced by Milan Zeleny in 1987 (Sharma, 2004) who described the terms as "know nothing", "know what", "know how" and "know why" respectively (Zeleny, 1987 quoted by Sharma, 2004). More famous for the DIKW hierarchy however is Prof. Russell Ackoff (Ackoff, 1989).



Source: Bellinger et al., 2004

Data consists out of raw symbols, numbers or letters without context or meaning, while information puts data into context. A letter, a conversation, documentation, novels, news, but also cultural expressions, such as movies, music, paintings, poetry – all of this is information. Knowledge is then the result of understanding patterns in information and the ability to synthesize new information based on these patterns. When knowledge is accumulated over time, one can learn to understand patterns and principles in human action so that "knowledge can be put in context, combined and applied appropriately" (Schuler, 2003) resulting in wisdom.

1.2 The Philosophy of knowledge

The attempt to understand the concept of knowledge has been undertaken a long time before the DIKW was created and had created its own school of philosophy called epistemology. Over time, two main theories on how knowledge can be created have been developed: rationalism and empiricism.

1.2.1 Rationalism

Rationalism states that knowledge should only be based on reason. French Philosopher Rene Descartes (also known as Cartesius) formulated this notion. In order to achieve the ability to create absolutely true knowledge, one needs to dismiss all existing knowledge taught by others or resulting from sensory experience (as one can be deceived by his senses) and clear the mind. Then, two distinct and clear ideas being the existence of god and the existence of oneself[2] form the foundation for knowledge which is to be logically and systematically built through reason. Also, he defines that the mind is "more real than the body in which it is housed" (Hooker, 1996). This dualism between mind and body is known today as the *Cartesian Split*. Mathematics is the branch of science where rationalism has its most influence. For example, that 1+1 equals 2 is true by definition. Thus, the statement "2+2=4" is true by deduction. In epistemology, these truths are defined as rational or a priori[3] results (Droar, 2004).

1.2.2 Empiricism – Pragmatism

Rational truths often do not help us very much when we are faced with real life situations. Therefore, empiricism, the theory of knowledge creation through learning by sensory experience needs to be applied. And since the real world only contains very few rational

[2] The foundation comprises on the one hand the existence of god thereby proven by his perfection – god is perfect and therefore exists, if he did not exist he would not be perfect. God, also defined as benevolent, is not a deceiver and gives us innate ideas, thoughts, which are *distinct and clear*. On the other hand the foundation is comprised by the existence of one self which is proven by the very question if one exists since it is not possible for a non - existing being to question his own existence (*Cogito ergo sum, I think therefore I am)*

[3] 'a priori' comes from Latin and means "from cause to effect"

truths, one can think of exceptions and therefore defeaters of absolute truth claims. A claim that "all birds can fly" for example would be seen as true until one discovers the first walking bird such as a Kiwi. In epistemology, truths gained by experience are therefore called *a posteriori*[4] truths (Droar, 2004).

John Locke, "the founder of British Empiricism" (Nonaka & Takeuchi, 1995) and Charles Peirce, the founder of American pragmatism, therefore reject the rationalist's notion of innate thoughts and state that "all we know is what is given in experience" (OPT Design). Fore Peirce, There is no need for knowledge to be absolutely true as it should rather be useful in a given situation. Interrogating proposition without doubt will lead to idle discussion which is why "purely theoretical discussions are not real to Peirce" (ibid.). Science which tries to understand the real world around us needs therefore to apply both empiricism as well as rationalism. In physics for example, a scientist would first form his idea of a physical law for example through rational thinking and then trying to prove the law by experiments. Only in case he is able to back his knowledge claim (the physical law) with rational and empirical truths it is publicly accepted as current knowledge but can be disproved in the future by new empirical evidence.

1.3 Definition for knowledge

Similar to the diversity of perspectives on knowledge in philosophy, current literature on knowledge management has not yet agreed on a universal definition of knowledge. In the main literature, many definitions are available, depending on an either rationalistic or empiricist notion[5] the application of the knowledge theory and the school of thinking behind it.

"Justified True Belief" is one of the oldest definitions and was introduced by Plato in his in his work "Meno, Phaedo, and Theaetetus". "Justified True" means that the knowledge claim needs to be based on evidence which objectively proves its truthfulness and survive all tests which attempt to disprove it. "Belief" thereby means that the knowledge holder needs to believe in the truthfulness of the knowledge claim[6]. Nonaka and Takeuchi (1995) adopt this definition whereas they state that their stress lies on "justified belief" opposed to Western philosophy stressing the "truthfulness". As a result, they see knowledge as a "dynamic human process of justifying personal belief towards the "truth"" (Nonaka & Takeuchi, 1995, p.58).

[4] Derives from Latin and means "from effect to cause"
[5] See appendix II for literature review on knowledge definition
[6] It is therefore possible for an individual to state that "I believe in this knowledge claim although it is not true" whereas "This knowledge claim is true but I don't believe in it" would be self-contradictory.

Nonaka and Takeuchi also mention the existence of criticism of "justified true belief" by the Gettier examples and point out, that this "definition of knowledge is far from perfect in terms of logic" (Nonaka & Takeuchi, 1995, p.21). However, instead of elaborating on this criticism, they take over the common definition without defeating Gettier's counter-examples. The author does not see how these examples would defeat the definition[7].

1.4 Tacit and Explicit Knowledge

The Hungarian polymath Michael Polanyi considered that not all knowledge can be expressed in text, formulas or other forms of information. Additionally, he stated that especially during the process of scientific discovery, "informed guesses, hunches and imaginings that are part of exploratory acts are motivated by what he describes as 'passions'" (Smith, 2003). He called this area of pre-logical knowledge *tacit* and introduced it with "we can know more than we can tell" (Polanyi, 1976 quoted by Smith, 2003). The key characteristic of tacit knowledge is therefore that it is very hard or even impossible to express in words or other means of information channels thus very subjective and personal.

Nonaka and Takeuchi (1995) took on this separation of knowledge and applied it to the concept of knowledge creation within organization. They argue that Polanyi created his concept in a philosophical context and that it was also possible expand his idea in a more practical direction (p. 60). In doing so, they distinguish between cognitive and technical elements of tacit knowledge. Cognitive elements include mental models such as "schemata, paradigms, perspectives, beliefs, and viewpoints [which] help individuals to perceive and define their world" (p.60). The technical elements, on the other hand, comprise "concrete know-how, crafts and skills" (p.60). Tacit knowledge thereby tend include knowledge gained through experience while explicit knowledge tend to contain knowledge gained through rational thinking. He also argues that Westerners (most probably means US and Northern European cultures) tend to stress on explicit, while Japanese stress on tacit knowledge.

Tacit Knowledge	**Explicit Knowledge**
Subjective	*Objective*
Knowledge of experience	Knowledge of rationality
body	*mind*
Simultaneous knowledge	Sequential knowledge
here and now	*there and then*
Analog knowledge	Digital knowledge
practice	*theory*

Source: Nonaka & Takeuchi, 1995

[7] See appendix I for further discussion

For this very alteration of the original definition on tacit knowledge, Nonaka and Takeuchi are criticized by T.D. Wilson who argues that “tacit knowledge is an inexpressible process” (2002). Therefore, in case the mental models or know-how can be expressed, “they constitute not tacit knowledge, which […] is inexpressible, but expressible knowledge, which, when expressed, becomes information” (Wilson, 2002). As an alternative naming of Nonaka and Takeuchi’s concept he proposes the term of *implicit knowledge* (2002). Frank Miller (2002) goes even further and states that Polanyi would never agree that knowledge could be explicit since “for Polanyi, knowledge was only ever tacit. Once we attempt to make knowledge (i.e. what we 'know') explicit, it reverts immediately to an 'information' state again.”

1.5 Definition applied for this study

For this thesis, Nonaka and Takeuchi’s (1995, p.58) definition of knowledge will be used: “dynamic human process of justifying personal belief towards the “truth”” whereas the author sees

- “human process” as something which can be going on within an individual’s mind,
- “justifying towards the “truth”” as a process in which the knowledge claim needs to survive all defeaters which the knowledge holder has access to, and
- “belief” coming from either reason or experience.

Also, the DIKW definitions for data, information, and wisdom will be adapted which means that knowledge can contain information and data but not the other way around. Thus, expressed knowledge becomes information. Applied to Nonaka and Takeuchi’s version of tacit and explicit knowledge, that means that their designation of explicit knowledge becomes information and their version of tacit knowledge becomes knowledge which in turn needs to be distinguished between tacit knowledge, being knowledge that is not expressible and implicit knowledge which is knowledge that we can express but have not yet done. Therefore, it is not possible to manage knowledge. That is why in this study, the term ‘knowledge management’ will not be used. Instead, the term ‘knowledge focus strategy’ will be adopted from Sveiby’s (1997) terminology[8].

Explicit Knowledge → Information
Tacit Knowledge → Knowledge → Implicit knowledge (expressible)
→ Tacit knowledge (inexpressible)

[8] See appendix III for a further explanation

2. Knowledge Focus Strategy

We now see that knowledge is seen differently according to how it is used. As a result, strategies and tools with which organizations aim to leverage on the knowledge held by their members differ wildly as well. Sveiby (2001) distinguishes between two notions.

- IT-Track: Focus on information distribution to decision makers for timely use in decisions.
- People-Track: Focus on the human processes. Also, process orientation of knowledge creation

2.1 The IT track approach – Information Management

Projected on a timeline, the IT-Track represents the era pre-1995 and "is described as 'information portals', a period dominated by explicit representation of information necessary to support back and front office integration" (IBM, 2004). As information can be handled very efficiently with information technology, the main influencers of this era come from the computer science field[9]. As Information Technology improved greatly, during the early nineties and the internet evolved out of different worldwide information networks, business organizations began to see the value in intranets[10]. Thus, equally to the internet, any information displayed in the intranet became accessible by every employee of the organization. As then, these intranet pages would not only be static but dynamic, i.e. would only work as displays of information stored in databases, the intranet's scope of applications grew tremendously. The basic idea was to overcome the gap between individual knowledge and the organizational knowledge which is the sum of the knowledge of its individual members.

2.1.1 Information Portals

An information portal is basically a central directory linking to the different information repositories within a company. As many organizations already had large but decentralized information repositories, the main objective of this era was information centralization. Two main advantages arouse from that: Less 'reinventing the wheel' through sharing of information and methodologies and two, less dependence on individual employees.

[9] In a study on knowledge definitions, Wilson (2002) searched the Web of Science, an index which contains materials from all three citation indexes (Science Citaton Index® (1945-present), Social Sciences Citation Index® (1956-present), Arts & Humanities Citation Index® (1975-present), and concludes that until 1996, all papers which included the term 'Knowledge Management' in the title dealt either with decision-support systems or computer science. He states that "clearly, […] before the surge in publication in 1997, 'knowledge management' meant some [software] application" (Wilson, 2002).

[10] In his internship at Fiducia Management Consultants in Shanghai, the author submitted a proposal to the managing director to convince him to improve information management. See appendix XIV for the document.

2.1.2 Taxonomies

Only connecting information repositories proved not enough to connect the right information to the information seekers (see Conway and Sligar, 2002, Chapter 6). Information needed to be classified and categorized which is called taxonomy[11][12].

2.1.3 Success through compliance

Among the first movers of the IT-Track were big international consulting companies such as McKinsey, Bain or Accenture. Important for them was not only the existence of information portals and repositories but also their integration into their business processes. Consultants at McKinsey for example are required to feed and update information repositories in order to receive promotions (Sveiby, 1997, Chapter 9). Definitions of IT-Track knowledge focus strategy reflect this notion:

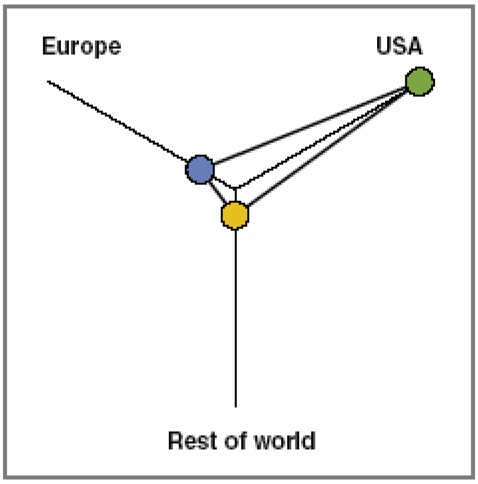
- "Policies, procedures and technologies employed for operating a continuously updated linked pair of networked databases" (Anthes, 1991, quoted by Brint.com, 2004).

- "Mapping knowledge and information resources both on-line and off-line; Training, guiding and equipping users with knowledge access tools; Monitoring outside news and information" (Maglitta, 1995, quoted by Brint.com, 2004)

2.1.4 Cultural perspective of the IT-Track approach

Looking at this 1st Generation approach from a country-cultural perspective, one could speculate that the US-American culture, which hosts the largest IT and software companies would be the main driver. In fact, for their European Commission survey, IBM (2002) surveyed the market for Knowledge Management software products and concluded, that the vast majority of solutions are coming from the United States:

[11] Originally refers to the "orderly classification of plants and animals according to their presumed natural relationships" (Encyclopædia Britannica, 2004b)
[12] See appendix IV for further information on taxonomies



"Of the 139 major (globally recognized) KM product vendor companies evaluated by IBM, only eight were from Europe and only five from the rest of the world"
Commercial Knowledge Management Products, Source: IBM, 2002

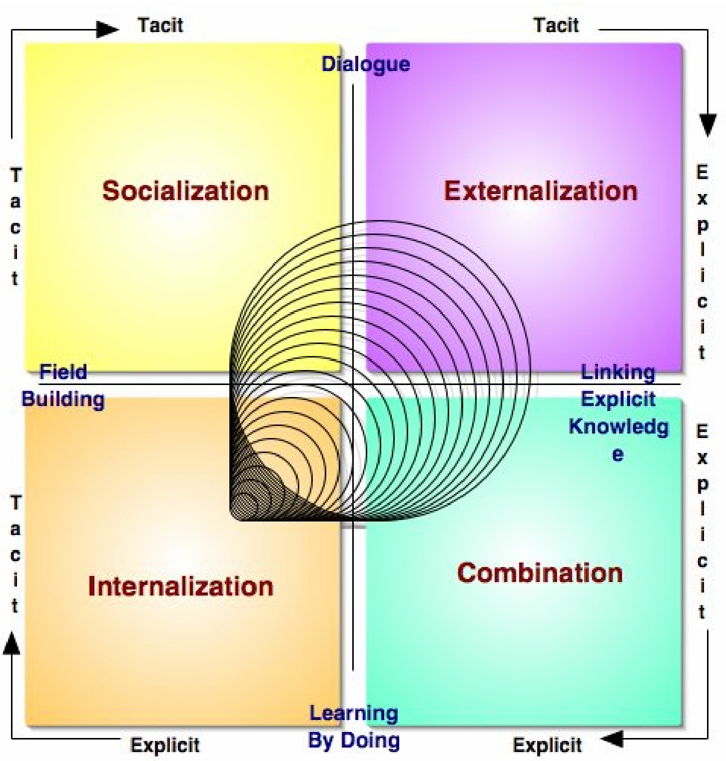
2.2 People Track of Knowledge Focus strategy

After many companies applied IT-Track approaches in their companies, resistance from employees was felt and many authors began to criticize the strong role of IT in knowledge work and began to stress the human side. For this study, a Japanese approach (Nonaka & Takeuchi, 1995) and European approach (Sveiby, 1997) were considered.

2.2.1 Knowledge Creation by Nonaka and Takeuchi

Nonaka and Takeuchi mainly criticize the IT-Track for not considering the process of knowledge creation[13]. Thus, their model focuses on the factors which enable the production of new knowledge in organizations. They see that during its creation and integration within an organization, knowledge undergoes four conversions. Socialization takes place when individuals work together and exchange knowledge informally (implicit knowledge) or gain it through sharing experiences (tacit knowledge). When implicit knowledge is then turned into information, it is *externalized* through analogies, metaphors, concepts, hypothesis[14] or models and can be distributed among the organization whose members can *combine* it with other information and create knew knowledge which can then be *internalized* by the rest of the organization through learning by doing and study. They name this process *knowledge spiral*:

[13] They mostly avoid the term 'knowledge management' but concentrate on their terminology of 'knowledge creation'. The two Japanese authors see in the term 'knowledge management', the representation of Western thought (IT-Track approach to Knowledge Management) which stresses on "the acquisition, accumulation, and utilization of existing knowledge; they lack the perspective of creating new knowledge" (Nonaka & Takeuchi, 1995, p. 49).
[14] The often inadequate alternatives to match thoughts with words during externalization can often help the process by its members reflecting and further developing their ideas.



Source: Clark, 2004

Management can thereby support this process by making sure that policies and work practices enable knowledge creation:

- *Organizational intention* provides members with a strategy and vision and thus with an idea what type of knowledge the organization is looking for.
- *Autonomy* grants individuals and teams necessary space to become creative.
- *Fluctuation* in organizational habits, routines and cognitive framework can result in creative chaos and breeding grounds for new ideas.
- *Redundancy* can be created by intentional overlapping of information, management responsibilities and organizational parts can lead to tacit and implicit knowledge sharing. One tool to realize this is job rotation among functional areas
- *Requisite variety* grants organizational members the access to the broadest spectrum of information possible which reflects the notion of the IT-track's centralization of information.

2.2.1.1 Organizational structure

Nonaka and Takeuchi see knowledge creation mainly taking place in teams and develop their Middle-up-down management process to maximize communication effectiveness with other teams and the bureaucratic part of the organization. Team members thereby work as knowledge practitioners and are responsible for "responsible for accumulating and generating tacit and explicit knowledge" (p. 152). The middle managers are the knowledge engineers and realize the knowledge conversion (from tacit to explicit and vice versa), thereby facilitate the knowledge spiral process. The top management manages the knowledge spiral process through policies and working practices and function therefore as knowledge officers. Translated into an organizational structure, synthesize the task-force and bureaucratic structure to a hypertext organization in which project teams and the bureaucratic layer coexist and both work with the same knowledge layer. Thereby, individuals should only belong to either a project or the bureaucratic layer in order to avoid conflict of interest or lost of focus.

2.2.1.2 Cultural considerations regarding the Nonaka & Takeuchi's approach

Already the title "How Japanese Companies Create the Dynamics of Innovation" (ibid.) states clear that the book solely reflects the knowledge strategies of Japanese organizations. Even their own case studies show that when applied to intercultural teams, their model can cause severe problems. Successful socialization, which is the strength of Japanese, is based on mutual cultural understanding. Attempting to share knowledge through socialization can cause problems in a cross-cultural environment[15].

2.2.1.3 The IT–Track reply to Nonaka and Takeuchi's knowledge creation model

While the Combination (Explicit-Explicit) and Externalization (tacit-explicit) phase of the knowledge spiral are covered by the earlier IT-Track tools (information repositories and taxonomies), new applications were developed for the other areas

Tacit/Implicit to Tacit/Implicit Online employee and expert Directories Instant Messaging, Chat, virtual meetings and forums	**Implicit to explicit** Multimedia software, presentations, 3D design
Explicit to Explicit information repositories, taxonomy, search engines	**Explicit to Tacit/Implicit:** Visualization software, multimedia online courses, Webcasts

Communities were now able to work together on developing projects without any face to face contact[16]

[15] Nonaka and Takeuchi themselves show in a case study, that major problems arise when Japanese and US engineers perform socialization (tacit-tacit). The Americans tried to communicate on technical issues using technical abstract logic. However, "few Japanese were good at articulating their experience" (ibid.) as they are used to communicating through shared experience. The low level of externalization of knowledge makes it very difficult to quickly bring people into the organization or move production to another country. Nigel Holden (2002, p. 75) comments that "Japanese-style socialization is a highly embedded form of culture-specific communication behavior" and is very difficult to share with other cultures due to the "most complex language barrier in the world – that which separates Japan from the rest of the world"

[16] See appendix V for more details and examples

2.2.2 Sveiby's concept of Knowledge Management

Sveiby criticizes the focus on technology and policies enforced through compliance. He sees knowledge focus strategy as being the "The Art of Creating Value from Intangible Assets"[17] (Sveiby, 2001). Like other authors, Sveiby refers to Polanyi's concept of tacit knowledge but adds that it also comprises rules consisting out of patterns. These can hinder *out-of-the-box* thinking which is often necessary for knowledge creation. To his view of knowledge he also adds value judgments and social networks[18].

2.2.2.1 Knowledge transfer

In his view, knowledge can be transferred via *information* or tradition. Information offers a cheaper method but is less efficient. Tradition is thereby the training of an apprentice by a master using demonstration and imitation, thus learning by doing. This method is more expensive but also more effective. Knowledge focus strategy therefore includes creating a balance between the two knowledge transfer methods:

Information	Tradition
Transfer articulated information	Transfers unarticulated and articulated abilities
Independent of the individual	Dependent and independent
Static	Dynamic
Quick	Slow
Codified	Not codified
Easy mass distribution	Difficult mass distribution

Source: (Sveiby, 1997, Chapter 4)

2.2.2.2 Organizational aspects

In his view there are two main traditions in a company: those of organizational competence and those of professional competence. The former thereby refers to the way "how to influence the ways in which other people use their competence" (Chapter 4) while the latter one rather describes the ways professionals, what Nonaka and Takeuchi call front-line employees, share knowledge and socialize. Skillful leaders "can channel these tensions into controlled explosions of creative energy" (Chapter 7) through working methods[19]. Comparing efficiency

[17] His definition of knowledge is thereby a very pragmatic, being "capacity to act" (Sveiby, 1997, Chapter 3) whereas 'act' can be practical (like driving a car) or intellectual (like analyzing a text).
[18] Interestingly, explicit knowledge, skill and experience are included in most knowledge definitions. In the DIKW pyramid, value judgments are included in wisdom. Social networks are very important in organizations and are essential to be included in a competence definition.
[19] Sveiby refers to models from organizations which need to deal with very high tensions between managerial and professional competence such as theatres, television companies, churches, monasteries, and circuses. One of the methods applied within these organizations is tandem leadership which is a form of dual leadership with one leader being in charge of the professional and the other for the managerial side of the business. That way, the

of industrial companies and knowledge organization, Sveiby states, that the leverage of the knowledge production process is the utilization of the professional work force which should be monitored at all times. As he sees socialization as being the most powerful form of knowledge creation, he gives several tools[20] how this could be improved.

Sveiby recommends a small company size and organic growth as a merger or acquisition would disrupt the corporate culture in destructive ways. Outsourcing and insourcing offer an alternative.

2.2.2.3 Criticism on the People-track

Although the people-track is right in pointing out the social dimensions of knowledge and human behavior, its constant rejection of the importance of IT systems oversees the fact that without IT, efficient management of a global company would not be possible. Therefore, “The role of information technology as an important driver and artifact in modern life should not be denied” (IBM, 2004). Also, the successes of Open Source Communities show that people are well able to collaborate on large scale projects on a sole virtual basis[21].

2.3 IT-Track vs. People Track

IT-Track	People Track
Natural sciences approach, Technology focus	Social sciences approach, Cultural/human focus
Knowledge as a thing	Knowledge as a process
Knowledge can be classified, structured and shared	Knowledge is build through evolutionary processes and organizational learning
Technology impact inevitable (essentialism)	Technology in human control (if used at all)
Knowledge embedded into formal processes and organizational functions	Knowledge embedded in informal processes and chance encounters
Knowledge Management as a separate discipline or as part of IT	Knowledge Management as an essential part of organizational capabilities (but difficult to isolate in terms of actors, routines and objects)
Knowledge Management as specified initiatives and programs, standards and technologies	Knowledge Management as an organic knowledge enabler based on creative encounters, constructive activity and social behavior

organization can maintain its administrative capability and at the same time a high level of creativity. Another form of managing the tension is giving professionals and managers different career paths and “serves the purpose of giving both groups a common language for knowledge creation” (Chapter 7).

[20] Tools for improving socialization include open space offices, encouraging communication between the colleagues, and piggybacking between a junior and senior employee, or among teams which enables learning by doing. For internalization, Sveiby suggests simulations such as a business game or role playing. These tools enable learning with a whole body experience in a way which is pleasurable for the individual which is important because “we know people learn best if they find learning pleasurable” (Chapter 7)

[21] The premise is of course a certain level of experience and expertise with IT media. Most employees in companies have most likely not attained such a level of familiarity.

Certainly, there is no right or wrong track. Effective knowledge focus strategy requires the synthesis of the two. Basically, for successful knowledge work, three processes need to be managed well in a company:

- Knowledge creation: requires the functioning of the knowledge spiral
- Horizontal knowledge sharing: requires trust and common context
- Vertical knowledge transfer: requires training and learning

3. Knowledge Focus Strategies and Culture

When working in a cross-cultural environment, it therefore becomes necessary to consider how culture can influence these processes. However, since the authors of IT- and People-Track knowledge focus strategy do not thoroughly consider intercultural aspects, this study will combine the area of business management (knowledge focus strategy) and intercultural studies.

3.1 What is Culture?

Before we venture forth analyzing cultural dimensions, it is necessary to define culture as this term is used in many contexts carrying different meanings. Hofstede who had the "biggest influence on culture-and-management studies" (Holden, 2002) sees culture as "the collective programming of the mind which distinguishes the members of one human group from another" (Hofstede, 1980, quoted by Wilson et al., 1996). Kroeber and Kluckhohn, the American anthropologists include more specifics, stating that:

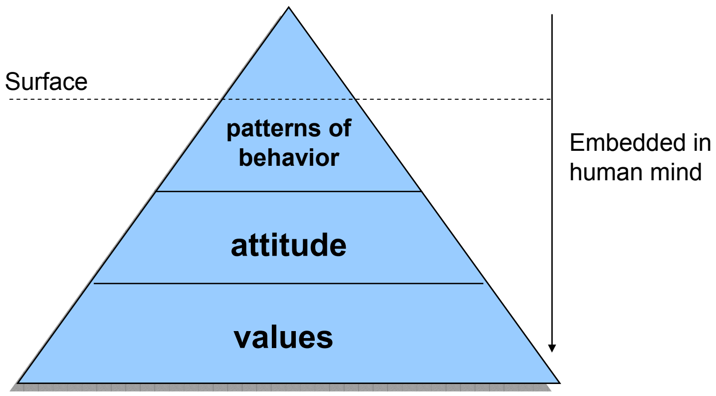
> Culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional ideas and especially their attached values; culture systems may, on the one hand, be considered as products of action, on the other hand, as conditioning influences upon further action. (Kroeber & Kluckhohn , quoted by Holden, 2002)

From this rather long definition, we can extract three very important elements of culture:

- Patterns of behavior, such as a greeting gesture (shaking hands or bowing) or the way one holds eating utensils.
- Traditional ideas, attitudes, such as the associations we build during our lives and attach to entities surrounding us (e.g. the taste of a spice could be associated with sweets in one culture while being a main course ingredient in another).

- Values – the core parameters of our idea of good and evil (e.g. helping others could be seen as a moral or legal obligation in one culture while not being practiced at all in another).

Looking from an intercultural perspective, an individual who whishes to adapt to another culture will probably not have much problems taking over certain patterns of behaviors and after some time develop similar attitudes. But the core values a person has which are formed by education from parents, teachers and other surroundings during upbringing are very difficult to change. Additionally, these three elements do not only differ in how deep they are embedded in the human mind but also in their visibility with patterns of behavior being most and values least visible. Culture can therefore be compared with an iceberg where only the smallest part is visible on the surface of the icy water but the largest part lies hidden in the deep:



The iceberg model of culture

Groups of human beings sharing a culture does not necessarily comprise a whole nation but can be any kind of community who share values, attitudes and patterns of behavior such as a family, a religious organization, a company or a sport club. Hence, one large culture can have many subcultures and one individual does therefore by definition belong to many cultures. Applying Snowden's (2002) system definitions, the system of culture and the human being is complex.

4. Chinese cross-cultural dimensions influencing knowledge focus strategy

When it comes to differences in national cultures, a lot of qualitative and quantitative research has been done in the past. Some authors, when comparing the myriad of national cultural characteristics, defined cultural dimensions on which they conducted benchmarks based on questionnaire surveys. However, even as cultures were benchmarked it needs to be clarified that it is not possible to make generalizations about national cultures. It is only possible to describe tendencies which affect probably around 60-70% of a population. One always needs to bear in mind that human beings are diverse with many exceptions – it is not intention of this paper to create stereotypes.

As in this paper, the focus is set on China the Chinese culture will now be looked at in detail. This includes the application of cultural dimensions from Hofstede (1980), Hall (1977) and Trompenaars (1997) which are relevant for knowledge focus strategies. For the sake of clarity, in this thesis, the use of the term *Chinese* refers to the ethnic group of Han Chinese. This limitation becomes necessary when considering that China also comprises 56 distinct minorities with their own cultural heritage and often own languages.

4.1 Understanding Culture through history

In order to understand the Chinese culture, one has to take a look at the country's history and living environment. And according to Reisach et al. (1997, p. 245), this begins as long as 5000 years ago when the Chinese developed a sophisticated system of agriculture. As land was spare and the preferred staple was rice, it was not possible for small families to live on small remote farms on their own. Also, the lack of land made the breeding of cattle difficult. The cultivation of rice demanded larger groups, consisting out of many families whose workforces needed to be organized collectively for different demanding tasks such as harvesting[22]. Also, for requirements like water supply, some families had to cut back their own necessities for the sake of the whole village community. That way, the villagers were able to produce sufficient food for survival.

The resources had thereby to be distributed somehow among the group. The situation of several individuals with the same claims and same status was thereby counter-productive since it led to friction and people spending more time on arguing than working. That is why over time, a hierarchical system evolved. In this system, nobody would be at the same position with another individual which made the distribution of goods more efficient.

Later, Confucius, one of the most important philosophers of Chinese society, formalized the basic rules which determine the position of each member of the society:

[22] As villagers did not own their field, harvesting was organized in a relay system with the collective workforce harvesting field after field

Ruler over subject	Husband over wife
Father over son	Brother over sister
Friend over friend (acc to age)	

Confucius's five unequal relationships, after Lin-Huber, 2001

Evidence for that can be found in the Chinese language which has words reserved to describe the hierarchical position of each family member. For example, there is no word for 'brother' but one for 'older brother' (哥哥, gege) and 'younger brother' (弟弟, didi). When Chinese are not related to each other, there hierarchical position is also determined by seniority or educational, professional or political achievement (Hu & Grove, 1991).

Confucius lived in a time when the country grew so big that the king could not centrally control it any longer and the nation fell apart into six to sixteen states (Reisach et al., 1997, p. 285). Rulers looked for legitimization of their authority and hired academics to develop philosophical concepts which could be translated into administrative and military systems. Confucianism and Daoism were the main influencers in that period with the former being made the state philosophy from the Han dynasty (206 B.C. – 9 AD) on. Confucius philosophy consisted out of four main ideas:

1. Ruling through compassion and example
2. Relationships as a basis of moral
3. Ritualization of behavior
4. Study and achievement grant access to power

Compassion and love for others (in Chinese described as 人 – *ren*) should be the first consideration of every individual before any kind of action. This idea is crucial for stability and harmony among the population which became the main enabler of governing the large Chinese country. In a government context, this means that rulers should govern their subordinates with passion and love rather than by rules and regulation. A leader should therefore be an idol for his subordinates, with the highest moral integrity. His people will then serve him with moral respect. This does not only apply to governments but also to business organization where the traditional Chinese boss acts more like a father figure than a professional superior. He does not only care for the professional wellbeing of his employees but also for their private wellbeing. It is not a rarity that Chinese employees seek their superiors for council on private matters such as marriage problems.

The next two ideas have the purpose to "create rituals and roles which accommodate the social needs of the population" (ibid.). The five unequal relationships are thereby the basis to determine one's role and the associated rituals. Living in conformity with these rituals however, did not "mean suppressing one's desires but instead learning how to reconcile one's own desires with the needs of one's family and community" (Riegel, 2002). The notion of being aware and acting according to one's position in the hierarchy of relationships is called 礼 – *li* in Chinese and often translated as 'etiquette'.

While these three ideas can be found in the characteristics of the rice farming culture, the forth point was rather new at his time. Access to power should not be distributed by birthright but through study and achievement. In order to be able to attain a powerful position in the government, one should complete a study of subjects such as reading and writing, calligraphy, rituals, etiquette, and literature. In theory, these studies were open to all social classes. Only in case an individual could pass the state school examination, one could take over responsibility in the administration. The purpose of this study was to teach the students about the past so that they could identify principles which would be applicable at all times. That is students were not encouraged to develop new ways to solve current political, social or other problems but to apply precedent cases from the past.

Confucius did not see himself as the originator of his philosophical ideas but rather as a messenger of old Chinese ideals, reflecting his "reliance on and love for the ancients" (Yang, 1958: *Lunyu* 7.1, quoted by Riegel, 2002). From this, we see two major changes in Chinese society. Firstly, all social classes gained potential access to power as long as they could afford one individual being occupied with study instead of working productively on the field. Secondly, the idealization of the old and defiance of the new led to an innovation-unfriendly environment. As soon as Confucianism reached his main influence over the Chinese society in the 11th century, there were no more radical inventions coming out of China anymore (Reisach et al, 1997, p. 251).

4.2 Individualism–Collectivism

With the cultural history in mind, China's position on benchmarks based on the cultural dimensions becomes clearer. Individualism–Collectivism, first defined by Geert Hofstede (1980), describes the relative importance of needs and goals of the individual compared to the group. And as Chinese farmers had to set back their own individual needs for the group, it makes sense that the "Chinese culture is considered strongly collectivist or group-oriented" (Alon, 2003). The main goal of an individualistic person is to maintain a level of freedom.

That can enable him to work and live independently but can also lead to isolation. Collectivistic cultures on the other hand attach high values to group harmony and stability which grants them security but also makes them dependent on others.

In a civil rights context, this means that the stability of the group is more important than the personal freedom of one individual. It can become necessary to take actions to the very disadvantage of individuals to ensure stability for the group. As so many people live together with so little resources, instability and civil unrest could have disastrous consequences for the whole population. That is why most Chinese accept harsh authority in order to prevent anarchy and chaos. The most extreme example of this case is the Tiananmen 1989, where student demonstrations against corruption in the government were suppressed by heavy military action, killing many individuals.

4.2.1 Face

For good deeds, individuals in individualistic cultures are awarded with pride which they take from self-realization. Misdeeds result in guilt and loss of self-esteem which takes effect even if nobody else knows about the individual's misbehavior. This is different in collectivistic cultures where good deeds are rewarded with recognition from the group and misdeeds result in loss of group-recognition and shame. Therefore, misbehavior only results in punishment if others know about it. It is important to mention at this point that no culture is either individualistic or collectivistic and that feelings of guilt and shame exist in every culture. However, the weighting is different and in China, collectivistic values are much stronger. The Chinese philosophy has a name for this value: *face* (面子 – *mianzi* in Chinese) meaning recognition and respect from others. What stands in difference to the Western view is that in China, *face* is treated as a social asset which can be given, maintained and lost (Lee, 2003, Chapter 14).

Losing face

There are many different ways how a Chinese person can lose face – mostly during communication. Direct criticism in front of others, especially in front of members of one's group, leads to a harsh loss of face. This also goes for critical questions and even for those questions to which the person needs to admit that he doesn't know the answer although he should. "I don't know" is not an acceptable answer in case others are listening and no proper relationship has been established between the questioner and the questioned. Other ways to lose face include "not fulfilling expectations or promises, or by breaking norms or social rules" (Zinzius, 2004, Chapter 2). It is also important to mention that those who take face from others automatically lose face as well because they were not able to act according to etiquette and consider the face of others. When this is the case, others will lose respect and will become very silent and uncooperative.

Giving face

Similar to how face can be taken it can be given, too. Praise in front of others, especially superiors, if done in a tactful manner, improves the reputation and group recognition of a person and gives him or her face. This is important when somebody wants to increase the willingness to share knowledge, thus build trust to share information and readiness to spend time on the knowledge transfer.

4.2.2 Bilingual communication and the use of technology

Face is a very important factor influencing communication of Chinese with non-Chinese. Because the education system in China strongly emphasizes vocabulary learning by heart and neglects dialog, most Chinese are very insecure when it comes to speaking in a foreign language. But as face forbids them to ask “Oh I didn’t understand, could you please repeat?”, the typical answer one will get when something is not understood is “Yes”. According to the authors experience “Yes” does not necessarily imply understanding and agreement but in the most extreme cases simply “I heard that you said words”. Zhouying et al. (1998) state that Chinese are therefore “much weaker conversationally than in reading and writing”.

That is why technology offers a great opportunity to improve communication and avoid misunderstanding which can arise during oral communication. It thereby helps, that despite the Confucianism tendency to honor the old and be conspicuous towards radical innovations, the Chinese society’s demand for new technology is tremendous. Cell phones, computers and broadband internet have experience a surge in penetration and usage. This is especially true in Chinese cities (see China Daily, 2004 and C114, 2005). After living in China for over a year, the author has yet to see a Chinese person without a cell phone or email account[23]. The high coverage of high-tech IT media is especially impressing when considering the relatively low income of a normal Chinese consumer, even in the coastal cities. When working with Germans for example, many Chinese complain about the relatively low acceptance of high-tech IT communication channels (Reisach et al., 1997, p. 179).

In the author’s experience, when non urgent matters need to be discussed, email is a good solution. However, emails can be ignored or lost when the recipient does not practice orderly

[23] Whereas the author has mostly socialized and worked with skilled employees with university degrees. In fact, China faces a very strong digital divide between the coastal cities and the still agricultural country side.

email management (most of the author's colleagues in all organizations he worked at in China stored all emails in their inbox without archiving them in folders according to topic or importance). Instant Messaging is thereby the best media to communicate when a fast response is needed. Reading requests instead of hearing them gives a Chinese person enough time to thoroughly prepare his answer without feeling too much pressure. Also, most instant messaging software programs offer archive functions of chat transcript which enables tracing back communication at a later point in time.

4.2.3 Shouren – Shengren

An important characteristic of the Chinese culture is that values like compassion and etiquette tend to apply only to one's own group. As every village operated on its own and "contact between communities was seldom" (Reisach et al., 1997, p. 247), outsiders received almost no rights and often were completely ignored. In the Chinese language, this concept is reflected in the terms 熟人(Shóurén: Inner people), describing the collective or group, and 生人(Shēngrén: Outer people), the unknown public. Foreigners are sometimes treated more politely as they are seen as guests (Lin-Huber, 2001). This distinction worked on the country-side but became problematic when China became increasingly urbanized. Everybody who has been in a public bus or metro in Beijing or Shanghai knows how brutal people push each other in order to get seats. In more extreme cases, victims of traffic accidents will be rather unlikely to find help by others. Unless someone they know or officials find them, people might watch the scene but would most likely not help. This is very different from other countries, where individuals have obligations towards the general public. In Germany for example, providing first aid to strangers is not only a moral but also a legal obligation ("Unterlassene Hilfeleistung").

4.2.4 Implications for knowledge focus strategy

Distinguishing between people inside the group and outside the group can mean an obstacle when it comes to teamwork which is often crucial in knowledge creation and transfer. That is because Chinese tend to be loyal to their group which in a business organization consists out of the direct superior and according team and other people in the organization to which the individual has a strong relationship. When the employee is now taken out of his original environment and placed into a multi-functional team which consists out of individuals from different departments, provinces or even nations, then "the Chinese employee will fight for the interests of his original group" (Reisach et al., 1997, p. 322) rather than for the goals of the team. Also, since the other team members don't belong to his groups, he is unlikely to feel obliged to them in any way. That could be a major obstacle for creativity and building trust which is necessary for knowledge sharing. Also, this tendency means an obstacle when it comes to building corporate cultures as communication from other channels apart from the direct superior are likely to be valued as less important.

> Mister Sridhar Vedala (2005) gives an example for this tendency. During a consulting project he conducted in Shanghai he dealt with the implementation of a shared services model for a multinational company. During the client's China market entry, each of the company's division set up its own subsidiary with its autonomous HR, Finance and Marketing, etc. departments. As the headquarters saw opportunities for cost savings, it was decided that those departments should be centralized into an internal service organization. However, during the implementation of that new service model, the consulting company encountered a major obstacle: "There was immense resistance to this change" (Vedala, 2005). This was because the subsidiaries were only informed about his change during the implementation and thus feared the loss of control and many were afraid to lose their jobs. This notion can be found in any country but what added to the problem in China was the concept of people inside the group and outside the group. Suddenly, the Chinese employees were asked to share their professional knowledge about HR, Marketing, etc. with an organization whose members were outside their group. Mistrust and the feeling of no obligation were the first obstacles in this situation. Vedala concluded that it would have been much wiser to communicate the need for change first and then build the service organization with the cooperation of the subsidiary organization. Since then, the local service departments would have been involved in this development, Vedala concludes that "there would have been less fear and more willingness to buy in" (ibid.).

> Yan Shen gives another example. She works as an information repository administrator at a multinational US technology company in China. Basically, her view on knowledge focus strategy resembles the IT Track view that IT systems form the basis of any knowledge management. At her company, there was a worldwide effort to centralize of information sources and make them accessible to everyone in the company. Before, smaller teams which had been working together for quite a while had been using team rooms for sharing best practices and best documents for example for presentations. When they were asked to grant access to these information repositories in China, many denied doing this, giving the reason that employees from other departments might copy their presentation without understanding them. Clearly, the concept of people inside the group and outside the group influences the willingness to share knowledge. As the employees in other departments were seen as individuals outside the group a high unwillingness to share practices was the result. Eventually, this problem was solved by requiring teams to publish abstracts of their presentations and other sort of produced information. That way, colleagues would be able to find the information abstracts through search engines but then would need to contact the author for the whole document.

Yet, the highest risk for a company is the danger of intellectual property theft. Many companies have had this problem which mainly occurs when the thief has no relationship to the owner and thus does not feel obliged to him. That was often the end for many joint ventures with the Chinese partner learning as much as he can about the foreign technology and using it to develop his own products. The fact that copycats can then be found at fairs, shows how little guilt is felt on the Chinese side (Reisach et al., 1997, p. 121). Also, when for example a multinational team, consisting out of foreigners and Chinese (50%/50%), it is most likely that the Chinese will form a group and not develop relationships to the foreign team members. Main reason for that are certainly the language and culture barriers. Sridhar Vedala, who works as a consultant in Shanghai gives an example:

> Another experience, I had is that Chinese tend to form subgroups in team with other Chinese. We worked for a long-term project with a larger team of ten to twelve people including 3 Chinese. After a while, the Chinese had formed their own sub-group and did not share their work practices with the rest of the team. When they needed to deliver, they gave us the result but did not describe their methodology something which is very important in knowledge management since it is sharing methodologies which enable you to avoid reinventing the wheel twice. (Vedala, 2005)

In that case, the Chinese members did not feel obliged to the foreigners and did not share their working practices with them. Although this case could be resolved through constant training and developing the relationship, it could be much worse in other situations. There is always the possibility that the subgroup leaves the company and uses the technology to create their own product. Once this damage is done, it is very difficult to recover the intellectual property. Even as the government has set up intellectual property laws, it is not properly enforced since China's judiciary is very immature and not able to enforce rules against the current governance through relationships. That is why most companies found the most practical solution to be forced licensing and reintegration with the original company. Something which a Westerner would not call an ideal solution but it works much better than insisting on one's right.

Considering this large problem, foreign companies face, it might be interesting to look at how Chinese companies deal with this issue. Jack Tennet, a technology consultant at a large US multinational IT company, interviewed for this study, talked about a study he did about the machine tool industry in Taiwan (Tennet, 2005). The 150 companies which were competing in that industry could all be traced back to three original large companies. Often, when a product development team created a new technology, it left the company and started its own venture. However, to maintain the Guanxi, superiors at the old company were offered stakes in the new company. From an industry perspective, Tennet concludes: "This way, the Taiwanese industry has developed an enormous flexibility to react to changes in demands and technology." (ibid.) This study focuses on Taiwan which is more developed than the mainland. However, Tennet adds that this cultural notion his not very different in the communist state (2005).

4.3 Power Distance

This cultural dimension describes the steepness of hierarchy and the degree of equality of wealth and power distribution within a society. Considering the teachings of Confucius, compassion for others is not enough but a system of hierarchical relationships is needed on which the rituals which compose behavior are based. No wonder then, that "China possesses the highest power distance […] among all Asian nations" (Zinzius, 2004). Interestingly, Reisach et al. (1977, p. 352) state that the steep hierarchy is a direct result from the collectivistic nature[24]. That is why Chinese are drilled from childhood on to accept harsh authority without questioning. Parents, teachers and superiors are idols to who one needs to listen and imitate. That leads to a learning culture which does not encourage independent thinking or assuming responsibility at an early stage but rather builds its entire education on a top-down knowledge transfer process. Not contradicting a superior is especially true when others are present. Considering the example of an international knowledge transfer workshop where an American team and a Chinese team are present, only the Chinese employee with the highest rank would talk and his subordinates would remain quiet – even if they realize that what the superior is saying is incorrect. Contradicting your superior in front of the other team would result in loss of face. So in case, an American engineer contradicts his manager during the discussions, the American team would lose recognition and respect from the Chinese team which would turn out to be counter-productive for the knowledge work.

Although Chinese are taught to totally respect hierarchy, they are also willing to learn other management ways. When Daniel Miller (2005) worked in a project involving the Acquisition of a Chinese company by a large multinational, he introduced rotation chairing to the team he managed. Every time the secretary of the group would be the chairman the next time and needed to prepare and coordinate the agenda with he other team members. This was a surprise for the Chinese team members who were used to the hierarchical superior constantly chairing the meeting. As time went by, the members got used to this situation and greatly improved their participation during the meetings as all of them knew the challenges which are behind chairing. This again shows the willingness of Chinese to learn new ways of working, even if they are not compliant with their traditional culture.

As responsibility is granted to employees only at higher ranks, one often finds in a Chinese business context, that almost all responsibility lies with the superior. Subordinates have practically no decision making power. That means in a business context which requires cooperation between teams or even departments that issues have to be escalated very early. In case a Chinese employee feels that a request for information or a council require a lot of time or effort, it could be the case that these requests would be completely ignored as they come

[24] see the example of resource distribution among the villagers on p. 20

from an outsider. In case cooperation with a Chinese person is needed, the matter should always be communicated with his superior.

Resulting from this high importance of hierarchical status, it becomes often more important for a Chinese person to know a person is before his opinion can be considered (Reisach et al., p. 354). This could mean a challenge in knowledge focus activities when the involved parties have unequal ranks. This goes especially for Chinese employees with high ranks when working together with other employees with lower ranks. In this situation, it would likely to be difficult for the higher ranked employee to accept intellectual guidance from the lower ranked employee or sharing a decision making process with him. For most companies which are to be successful in China, negotiations need to be handled by the highest ranking members of their business organization. For many German-Chinese negotiations, the German chancellor (highest ranking politician in Germany) takes over a managing role.

4.3.1 Chinese tendency to be not governable

There is however an important consideration regarding the strong hierarchical system of the Chinese culture. While Chinese might very well accept authority within their group, they reject authority on a larger scale if it targets micromanagement. This can be explained through the historical development of government in China. While from very early on, the administration was organized centrally, it's influenced mostly stopped at the border of cities and villages. Matters in these communities were handled internally and any interference from the central government rejected. That was not necessarily a disadvantage: "Beijing decides about foreign policy, prices and infrastructure projects without facing resistance from the local governments. On the other hand, the central government cannot make a village community or a company in Shanghai to adapt a certain behavior" (Reisach, et al., 1997). In this example, we see that the central government does not have a direct relationship with the local community or company and could therefore be considered as an entity outside the group to which the local community has no obligation. Thus, large companies might face the problem in China that the Chinese subsidiary might see the headquarters as outsiders and feel little obligation to them.

Daniel Miller (2005) remembers an occasion when he worked at a multinational IT company in Hong Kong. The China subsidiary had an opportunity for billion dollar contract for a communications project with the main Chinese public TV station. This opportunity was declared a top priority and senior managers from the Asia Pacific level joined the engagement phase. However, for some reason, the account manager for this client appointed by the Chinese subsidiary was a fairly junior local employee who did not have too much business experience and neither spoke English (e.g. he could have had Guanxi with somebody in the TV station).

That made work with the senior Asia Pacific (AP) managers very difficult as most of them, coming from a US or Japanese background, did not speak Mandarin. Telephone conferences and emails were handled in Chinese. The senior AP managers demanded that the Chinese subsidiary should replace the account manager with an English speaker. However, these requests were ignored and the work continued to be in Chinese with the AP staff giving up on the project. "The resistance against Asia Pacific was immense" (ibid.). In the end, the project was lost.

4.4 High Context / Low Context

Edward T. Hall (1997) defines the cultural dimension of context which in communication describes the amount of information one needs to transmit and understand a message. Low context cultures need direct and explicit verbal explanations with a lot of information while high context cultures are able to read between the lines, decoding the information one is often not willing to express directly. Hall (1977, quoted by Seelye, 1996) states that "China, the possessor of a great and complex culture, is on the high-context end of the scale". This stands in contrast to other cultures, like Germany or USA, which tend to be low context oriented (Reisach et al., 1997, p. 326).

4.4.1 Encrypting messages to maintain face

When Chinese are confronted with situation where direct communication (e.g. direct, frank response to a direct question) would result in loss of face, they engage in indirect communication in order to maintain face. Reisach et al. (1997, p. 336) distinguish between three different methods Chinese can use to realize this:

1. *Omitting*: When for example, one sends a fax asking for 16 bit chips equipment, possible answer could be a list of 8 bit chips. That doesn't have to mean that the Chinese side didn't understand the request but that they do not have the 16 bit chips ready for sale yet. On the other hand, when a Chinese person wants to mention criticism about a matter he could talk positively about the other matters and completely leave out the matter to be criticized. That way, high context cultures tend to understand that not mentioning the matter indicates a problem while low context cultures tend not to think about that at all.

2. *Cushioning*: When cushioning, hints are given that shall indicate that there is a problem instead of omitting it completely. For example "We are happy that you are interested in obtaining 16 bit chips from us. You know that you could always depend on us in the past" could mean "We don't have 16 bit chips ready for

shipment yet but you can rely on us trying as hard as we can to get the desired equipment ready for you ASAP".

3. *Sympathy*: After explaining a certain method to a Chinese colleague, a possible answer could be "That is interesting. I would like more information about that". A low context person should understand this as "I'm sorry, could you repeat that again? I'm afraid I didn't fully understand". Also, "What are you planning to do tomorrow? – Interesting! Then I guess you would like to be fit for tomorrow" could mean "I think we have worked enough for today, lets call it a day".

Understanding these different ways to encrypt messages is very important in knowledge transfer when it needs to be ensured that the knowledge has been absorbed, thus the underlying information been understood. In low context cultures, a simple "Something unclear? Any questions?" might be enough but the Chinese are taught first to think and then to talk. A Chinese would tend to not directly ask for more clarification but rather think about it by himself and maybe contact friends who might be able to explain it to him. An often successful method applied in this context is letting the receiver explain the transmitted information in his own words. However, this should be done with care as it can result in the loss of face, especially in front of others.

4.5 Universalism vs. Particularism

Trompenaars' (1993) dimension of Universalism/Particularism describes the importance of rules and the breadth of situations and individuals they are applicable to. Strong universalistic cultures attach the highest importance to laws and enforce them to virtually every situation and individual through independent empowered institutions. The main goal of universalism is therefore to follow principles. Conflicts are won when one party is right. Particularistic cultures make it dependent from the situation and their relationship to the involved parties whether or not to apply rules or morals. The main goal is to keep the relationship in tact rather than upholding a universal principle. In case the government has good relationship with a business, special agreements can be made which move outside the regulatory parameters.

China tends to be particularistic while Western countries tend to be more universalistic (Reisach et al., 1997, p. 298). In the Chinese culture, the concept of people inside and outside the group determine for example whether morals should be applied or not at all. Due to the Confucian and communist background of the country, a judiciary state was not necessary before 1979 when the country began its transition towards a market economy. However, with the emergence of private business and foreign investment, it became necessary to set up a functioning legal system. China's government is putting much effort in building such a framework and enforcing it. However, most conflicts are still solved through negotiation supported by third parties with who the conflict parties share relationships. In 1997, only "2% of state owned enterprises (SOE), which still form the economic backbone of China, employed legal advisers" (p. 123). That is most important to consider for foreign companies when it comes to conflict resolution with Chinese firms. Confucius evaluates the effectiveness of laws from a governance perspective:

> If the people be led by laws, and uniformity among them be sought by punishments, they will try to escape punishment and have no sense of shame. If they are led by virtue, and uniformity sought among them through the practice of ritual propriety, they will possess a sense of shame and come to you of their own accord.
> (Yang, 1958: *Lunyu* 2.3; see also 13.6., quoted by Riegel, 2002)

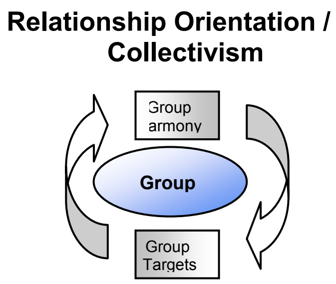
A strong universalistic approach in business might not always be advantageous either. When a company has a conflict with one of its customers, insisting on its rights might uphold the principles of the company-buyer agreement but destroy their relationship resulting in the client switching to another company.

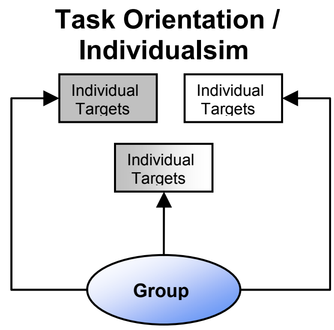
4.5.1 Trust

On the other hand, the advantage of laws and a system which enforces them is clear: although they might not solve each situation in the best possible way, laws build a reliable framework for compulsory practice for everyone in the society. That is strangers can be trusted easier as eventual strong misbehavior could be punished through legal action. In a relationship based culture however, misbehavior would be punished through destroying relationships and punishment of other related people. Thus, the risk of getting hurt through trusting the wrong people is potentially higher in relationship oriented cultures. Something which will hurt China in the long run as relationship building requires time and will be an obstacle for economic development.

4.5.2 Particularism leads to relationship orientation

The characteristic of Universalism and Particularism is connected to the notion of task and relationship orientation. As the name indicates, task relationship oriented cultures focus on logical and technical coherences while relationship oriented cultures focus on the people with who they work. That is why Chinese tends to be relationship oriented while Germany and the USA tend to be rather task oriented with Germany having the strongest task orientation (p. 306). This has major implication for conflict resolution. While task orientation leads to solving a conflict through logical arguments and factual compromises, relationship oriented parties will try to focus on improving the relationship. Loyalty and integrity is seen as a more important quality than technical competence. A relationship orientation is the result of collectivism and Particularism.



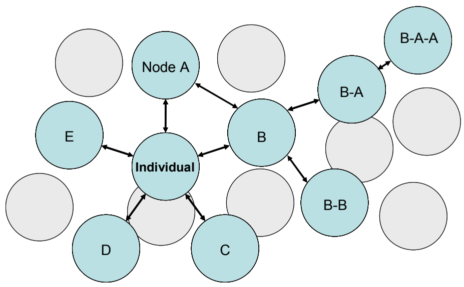


4.5.3 Guanxi

The necessity of relationships which make things happen also forms an essential part of Western business culture. The American saying “it is not important what you know but who you know” and other terms like “Vitamin C” which stands for connections show the importance of these relationships. The basis of those relationships would mostly be common professional backgrounds and personal affection. The main difference to the Chinese concept of 关系 – *GuanXi* is the attached hierarchical positioning and the according moral obligations. Peter Li (2004) defines Guanxi as a “special informal institution that governs and facilitates a privileged access to particularistic reciprocal favors via strong dyadic ties” while he sees this institution consisting out of implicitly assumed routines based on morals. Favors are therefore not given out of charity but the receiver is obliged to return the favor in the future.

As an example we could take the attempt of a village family to exercise influence to the government which they tried to realize by having at least one member working in the administration. But as studying disabled this member from working productively, the whole family (thus not only parents and children but also uncles, aunts and further relatives) often selected the smartest individual and collected funds to enable him to study. The student then feels high pressure from his family to perform well during his studies and once his examination is passed and a position in the government assumed, he has an obligation to repay his investors either by monetary means or by preferential treatment. A more universalistic westerner might perceive this as being nepotistic but for a Chinese, this the traditional way which proved to work in his culture for thousands of years. In fact, most children immediately start paying their parents parts of their income after studies to pay back the cost incurred through their upbringing.

But Guanxi does not only include relationships with families but also with colleagues, business acquaintances, friends and others. Also, a Chinese would try to keep an overview over the relationship between his relationship nodes and the other relationships of his relationship nodes:



Similar to connections in Western countries, Guanxi is also utilized as an information pool which can grant access to information resources or empirical knowledge. Next to its governance function[25], knowledge transfer does often take place along the lines of the Guanxi network. Also, when a Chinese enters a new field of business or a new geographical area, the first thing he will try is to establish a direct relationship with somebody who is somehow connected to his network. A Chinese saying says: “Once you have access to a relationship node, you gain knowledge about the whole area”. That is why for many Chinese, it is not only important to find notes which open them gates to new territories but also to be nodes for others. Opening the gate for somebody else is a favor that others will pay back for in time. Thus, the reciprocal nature of Guanxi encourages the formation of intermediaries that do not necessarily add much value and discourage knowledge sharing.

This high importance of Guanxi has strong implications for knowledge focus strategies. It seems likely that Chinese will trust information which comes from Guanxi more because it is validated through relationships than information which lies in a corporate database. Also, attempts to formally institutionalize Guanxi, for example by requiring employees to enter all their contacts into a directory system will likely fail as employees would be unwilling to give away their most important asset. A company will have to accept that their employees will tend to prefer to get their information from private rather than from corporate sources.

[25] See internet-startup case at p. 45

4.5.4 Mono- / Polychronic time orientation

When task and relationship oriented working styles are projected over time, Edward T. Hall (1977) defines two different attitudes. Monochronic thereby stands for the tendency to do one thing at a time while Polychronic is the opposite, thus doing many things at the same time. China tends to be polychronic, while other countries like Germany and the USA tends to be monochronic (Reisach et al., 1997, p. 312). This tendency has implication for planning in business. While monochromic working styles enable the arrangement of meetings and task deadlines in advance, polychronic cultures need the constant nurturing of the relationship. Reisach et al. (1997, p. 311) give the example of a meeting between a German and a Chinese which they arrange two months in advance. However, while the German does not think it is necessary to engage in further communication until he arrives in China, the Chinese culture considers communication according to half-life period[26] as more appropriate. In the end, the German arrives in China without the Chinese partner being on a business trip.

Monochronic cultures tend to manage their tasks using a calendar while “the typical Chinese manager does not even possess a calendar” (ibid.) and act in a more flexible, improvised manner. Thus, a Chinese side demanding execution of a joint undertaking according to exact timeframes is a sign of mistrust towards their partner (ibid.). If one wants to successfully coordinate work with a Chinese, one tends to have more communication to stay in his mind.

Even as polychronic time strategies may sound negative in this context, it is important to note that monochronic approaches require a stable environment in which stakeholders work reliable in a monochronic fashion, a jurisdictional governance model supports such an environment because it gives clear, universal rules for transactions. In a culture where governance is realized through dynamic relationships, monochronic strategies are likely to fail because they don't provide the necessary flexibility which is needed to respond to the ever changing environment.

Another aspect has major implications for knowledge management. In monochronic cultures, numbers and facts are the basis of every business undertaking. In polychronic cultures on the other hand, numbers and facts presented in documents have rather prestige functions. I.e. when dealing with stakeholders, it is more important to maintain or improve reputation than actually sticking to the true numbers. Reisach et al. (1997, p. 312) conclude that this is one of the reasons why “Chinese statistics tend to be less reliable”. This cultural aspect needs to be

[26] Thus, communication after one month, 2 weeks, one week, 4 days and 2 days – every time with a comment or little question.

carefully kept in mind when communicating on results, capabilities or improvements internally in the organization or externally with partners.

4.5.5 Language influencing thinking

According to Reisach et al (1997, p.259), mentality, thus thoughts, feelings and demands of human being "is substantially formed by the structure of its language". That is, the way we think is largely influenced by the way we communicate which in China greatly differs from Latin-based languages. The way the Chinese language is constructed follows a system of combination of syllables. However, there are far fewer syllables in Chinese than for example in German or English: "the 3,000 most used words (in total there are more than 50,000) are expressed using only 420 syllables" (Reisach, 1997, p. 264). In German, for example, these words can be expressed using syllables from range of more than 10,000 varieties (ibid.). As a result, in Chinese, one syllable can carry from 5-80 different meanings making emphasis on context crucial. Also, grammar lacks strict distinguishing between noun, verb or adjective, as well as conjugation, declination or any other alteration of a word to modify its meaning. The Chinese word '大' (pronounced 'da') for example can mean 'big', 'size' or 'to grow'. This also adds to the notion that meaning lies in the context, the application of words, rather than in the words themselves.

4.5.5.1 Technical implications on IT systems

These differences in language structure have for example also technical implications which need to be considered if knowledge system, thus information repositories with search engines and taxonomy are localized. To enable usage of Chinese language, algorithms need to be refined. According to Li Chen[27] (2005), a programmer in China who works primarily on natural language processing, handling Chinese is more difficult than handling English. For a simple search function for example it suffices in English to identify words by the space surrounding them and then look for similar phrases within a dataset. However, as Chinese characters are not separated by space and there is no clear distinction between verbs, adjectives or nouns, one has to use large dictionaries to identify different meanings. He adds: "The approach deeply affect the capability of handle new words. Since it's very hard to [constantly] update [the dictionary], actually the criteria of what is a new word is very fuzzy" (ibid.). Thus, before a company implements existing information management systems to China, the language issue needs to be taken into consideration.

[27] Name has been changed to preserve anonymity

4.5.5.2 The Characters

This high degree of the Chinese language's ambiguity is somehow limited through its written form. Here, one meaning and the according syllable are attached to one pictographic character (there are about 50,000 characters). Also, another major difference to Latin-based languages becomes apparent. While the latter way of writing words only imply its pronunciation, the Chinese system of characters which are constructed using pictographs imply meaning and sometimes pronunciations. This is done using 214 basic pictographs, called radicals, which are used in many characters with some implying imply meaning and others pronunciation. As an example we consider the word '人 – *ren*' which next to "compassion to others" also means "man". The English writing 'man' only tells us how the word is pronounced (or 'mæn' in phonetics) while the Chinese character is a simplified pictograph of a person with two legs. Two *ren* symbols – "从" in one character (pronounced *cong*) includes meanings like 'going together', 'follower' or 'to follow' while three 'ren' symbols –"众" in one character (pronounced *zhong*) means 'people' or 'crowd'. Chinese characters can be combined to form words but there is no spacing between the words. Also, one characters can have different pronunciations and meaning. But even if their language might be more difficult to handle these days, the Chinese are very proud of their writing which has survived thousands of years and enabled the administration of such a big country as although people spoke very different dialects depending on their region, they all used the same characters. This is even true today as Cantonese and minorities can still communicate with Mandarin speakers through the characters.

4.5.5.3 Implication on thinking and differences in rationales

Reisach et al (1997, p. 267) deduct from the specific structure of the Chinese language tendencies in thinking and state that while Latin based languages are mainly processed in the left side of the brain (analytical and formal thinking), the Chinese language is mainly processed in the right side (thinking in associations and images). This has turned the Chinese into "masters of combination and [Europeans] into masters of abstraction" (ibid.). Here we also see parallels to the philosophical discussion of knowledge. The process of abstraction and thinking in categories and work in deductive ways reflects the *rationalist's* approach to knowledge definition while the thinking in associations and ambiguity reflects the *pragmatist's* view of knowledge. As a matter of fact, the comparison of Chinese and European thinking structures strongly reflects the comparison of pragmatism and rationalism:

West	East-Asia [China]
Truth (theory)	Reality (practice)
Non contradicting statements are true, e.g. "A circle is a curved line whose points all have an equal distance from the center point"	Objectively observable facts are real, "There is no 100% perfect circle in the world"
100% solutions are aimed	80% solutions are acceptable
Absolute ideas, tendency to idealism and fatalism	Idea of relationships of things to each other, tendency to realism and pragmatism
Formulas, abstract terms	Imaginatory terms and concrete stories
Intelligence: exact understanding of truth (principles, theories) --> thinking	Intelligence: exact understanding of reality (situations, examples) --> learning, memorization
Main questions: How? and why? --> theoretical analysis	Main questions: what for? Where for? --> empirical synthesis
Deductive problem solutions	Inductive problem solutions
Innovation: invention of new methods and things	Innovation: finding new applications

After Reisach et al., 1977, p. 271

These different tendencies in thinking have heavy implications on knowledge work because the processes of argumentation are very different. The West seems to favor formal knowledge based on the epistemology of deduction and analysis (which may be responsible for fragmented, static and deterministic theories), while the East seems to favor informal knowledge based on an epistemology of induction and synthesis (ibid.). One wonders whether the traditional Chinese point of view would agree to the claim that all knowledge has to survive all counter arguments. Applying the concept of Guanxi, knowledge can also become true when the source is trustable.

When expressing an opinion for example, a deductive thinker would first state the bottom-line of his argument and then bring supporting arguments. Conversely, an inductive thinker would first bring supporting arguments, starting with the weakest and bring the main conclusion at the end, if at all. Often, when deductive thinking is combined with high context communication, the bottom line is not even explicitly mentioned but is synthesized by the listener (ibid.). This consideration is important when it comes to knowledge transfer as on the one hand, an inductive thinker might be shocked by the deductive thinker’s directness while on the other hand a deductive thinker might not be able to catch the hints given between the lines.

When it comes to quality control of knowledge work, there are also diverging attitudes resulting from the two different tendencies. Western cultures which tend to be more theoretically oriented, thus rather perfectionists aim for 100% solutions. That means in knowledge work that the different parts of the product need to be coherent, consist out of reliable data and should be the best possible solution for the demanded requirements. On the other hand, more reality oriented cultures tend to be satisfied with 80% solutions and value response time and cost effectiveness at least as equally important as thoroughness of knowledge work (ibid.).

An example for that gives Daniel Miller (2005) who recalls a consulting project for which the company was asked to redesign the enterprise architecture for a major Asian telecommunication company. The sales team made efficient use of the knowledge portal system and found a proposal and lessons learned from a team in the US which had done a similar project in the past. However, after they successfully won the project, they simply took the US deliverable and made cosmetic changes to be applicable for the Chinese client. They client was not happy at all. “Reverse engineering was pervasive!” says Daniel, “It might work with a DVD player – you take one apart and build a model based on your findings, but it doesn’t work in consulting due to the different backgrounds and situations of the client” (ibid.).

Another example gives Yan Shen (2005). She often experiences the copying and presenting of information without proper understanding. An example is the inclusion of project methodology, comprising methods how to ensure project planning, execution and governance, in customer presentation. Often, engagement teams in her company showed presented their clients the use of their own methodologies and emphasized this to be a competitive advantage compared to other companies. Customers might value the fact that there is a methodology but not really care about their application as they are more interested in the result. Thus, during project delivery, methodologies were not always used in a strict way to enable flexibility during the course of the project. Yan Shen (ibid.) concludes: “Most Chinese customers have the same understanding. So in the proposal, it often is just a marketing thing”

5. Two Business Cases

To further demonstrate these findings, two business cases will follow the cultural analysis. The first case describes a joint US-Chinese design start-up company. It shows examples of culture influencing work at the execution level of a very small enterprise. The second case describes the experiences of a senior manager who took over the position of a general manger at a China division of a multinational US company. This case therefore deals more with culture influencing the knowledge work at the highest level of a large company.

5.1 Knowledge work in a joint US-Chinese internet start-up

Name of the company and involved individuals have been changed to ensure anonymity

5.1.1 History of the company

In 1999, when Peter Smith was studying Fine Arts at the University of Pennsylvania, he decided to learn Chinese and signed up for a language exchange program. Li Ping, a Chinese business student was assigned to him, which meant that not only two different national cultures but also two different professional cultures met. But out of difference rose interest and the two became acquainted with each other. When Peter then decided to go to China in 2001, his friend Li Ping helped him to find his way around and organized accommodation for him. Back in the US, he continued his freelance work as a web designer and developed the goal to work in China and mentioned his ambitions to start a company to Li Ping who reacted in a neutral manner. In 2002, Peter went to Shanghai to study Chinese at a language university for one semester. During this time, he had frequent contact with Li Ping and improved the relationship further. Favors like helping with local authorities or other Chinese-intense activities were met with favors like training English and GMAT skills. At the end of the semester in 2003, the two decided to found a Chinese design company together. Li Ping explained why he waited a longer time before making that decision: "Guanxi is the basis of every business in China and in order to make good Guanxi, you have to be patient and begin small. Normally, I don't do business with people I haven't known for 4 or 5 years" (Smith, 2005).

5.1.2 Relationship orientation vs. task orientation

Li Ping puts it in words which could not be clearer. For him, as a Chinese, the relationship is more important than anything else. He might have seen before that Peter's design and organizational skills were exceptional and that he already had a stable client base in the US. But that was not the main decision factor. For Li Ping, it was most important whether Peter could be trusted because unlike in the US, there is no legal certainty and almost the only governing element is their relationship. And to fully get to know another person, especially in regard of his integrity and loyalty takes time.

Peter (ibid.) on the other side was quite surprised that Li Ping decided to become his business partner: "I came back [to China], actually not expecting him to be my partner because he hadn't done it the year before. What I was not aware of was that the things that were happening were a progression of steps. Looking back, it's easy to see." He was surprised because the situation hasn't changed from a task orientation: Peter was still freelancing designer jobs for US clients and studying his Chinese.

5.1.3 Creating common grounds, apparently…

The two sat together and talked about their values and their visions for a company. Both agreed that the firm should be positioned to target the mid-price level market, mainly by hiring local designers and by maintaining a high quality Western standard level at the same time. About the way of these discussions, Peter (ibid.) notes: “We seemed to talk about very specific terms like quality and success but later it became clear that we actually meant completely different things”.

This first caused problems when the company was 6 months old and a small try-out project was won from a large Chinese multinational technology manufacturer. The dilemma, the two partners faced was whether to deliver a service quality which would satisfy Western quality standards but would exceed the time budget by far or to deliver a mediocre service and staying profitable. Peter’s position was that this project was a unique chance to build a good relationship with the large company. He saw the higher costs involved as an investment which would eventually pay off in the long term. Li Ping however saw these increased costs as a loss in the short term and argued that this high quality standard was not requested by the client. This not only shows a difference in national cultures but what Sveiby calls a clash of professional and organizational competence. After a while, the marketing team of the large Chinese client got very positive feedback from other departments for the materials Peter made. It was even decided to use the material in many more areas and channels than originally planned. Also, this triggered more projects coming in.

Another conflict occurred when it came to the office. Peter preferred an old warehouse that was redesigned to serve as an art studio. At these places, space was abundant and the surrounding art studios would create an atmosphere of creativity. Li Ping however warned that they would not be able to bring customers to such a site as they were expecting a more professional office building. Such a warehouse location would hurt their reputation and lower their status. The compromise was an upper class residential apartment which was pretty enough to impress customers but still cheaper than any office location. When it came to furniture, Li Ping wanted the cheapest possible models which Peter would not accept as in his view, the right interior design with a certain level of comfort would enable creativity. The two solved this problem by building their own furniture, thus taking advantage of Peter’s design and sculpturing skills he learned at university and Li Ping’s ability to locate high quality raw materials to low prices.

5.1.4 Differences in Chinese vs. Western design practices

In the meantime, the first projects from Chinese clients came in and the company started operating. However, one of the lessons, Peter learned very fast is when customers asked for Western style, what they actually wanted was as Western as Chinese food in the US is authentic Chinese: “When I presented my new, Western style, innovative designs to our customers, I could see pain on their face”. Most Chinese customers do not whish to stand out of the crowd. Their marketing materials should be appealing but not disrupt the market standard. This is because of the collectivistic nature of the Chinese which does not value uniqueness. “The nail that stands out gets hammered down” or “The bird which leaves the nest first gets shot” are sayings which confirm this tendency.

Having seen many Chinese designers work, Peter compares the tendencies of American and Chinese designers:

> The Western designer often takes higher risks by drafting very creative designs with top quality. The bad side is that this takes forever and costs the client a lot more. The typical Chinese designer I have seen so far tries to complete a project assignment as fast as possible, does not take any risks and thus delivers something which fulfills mediocre quality expectations of the client (ibid.)

Peter explains this unwillingness to invest in the long term by the recent historical events China experienced in the twentieth century. First the revolution in the beginning of the century, then Japanese occupation, then civil war between communists and nationalists, then the great leap forward, then cultural revolution. Most of these events were destructive, making people lose what they had built up for decades – “So it became absurd for people to plan 20 years ahead. Most people now rather think how they can rich in 2 years” (ibid.).

For the next project for the Chinese technology company, marketing material for an international trade fair was needed. The client would supply the technical information and photos while Peter would do the design concept and layout. However, the photos had such bad quality, that they were not usable by any Western standards. So Li Ping and Peter tried to convince the client to commission a professional photographer to work together with the designers in order to produce high quality, high resolution photos which could even be reused after this project. Li Ping looked at Peter and smiled: “You know, Peter, in China, we never reuse photos”. That is because the actual company would assume that for future contracts another company would be chosen which would shoot their own photos in order to increase profit margins. As a result, no company ever said to the Chinese technology company that they could reuse material. But as Peter succeeded to convince the client to do this long-term investment, he not only saw the marketing material being used for other fairs and other countries but also saw the photos being reused by competing design companies which received other projects which was ok, since the photos belonged to the Chinese technology company.

5.1.5 Training the new employee

After the first half year, the first Chinese employee was hired. Peter (ibid.) remembers: “We were quite lucky to get Jun Ping because he is very open to a Western perspective and prefers to concentrate on the work itself rather than relationship surrounding the work”. That added much value to the design work as Jun Ping could understand client’s wishes and also bring in more cultural knowledge which, in design, includes cultural symbols and Feng Shui. However, there were still strong cultural differences which on the one hand created synergy effects but on the other hand also meant obstacles for knowledge work.

On the positive side, Jun Ping’s education of memorization made it very easy for him to learn every keyboard short cut for design application functions by heart and therefore be much faster in operative work. Peter could therefore concentrate on the creative part while Jun Ping could put the concept into the concrete designs.

On the negative side were Jun Ping’s file management practices. Learning from years of freelancing experience, Peter had developed a file naming and structuring convention whit each client having a folder and projects being subfolders. Filenames should have the date first in year, month and day order so that it would be clear which file was created when. Peter sat down with Jun Ping and explained him the reason behind and the practical benefits of this convention and received a nodding head and an ‘OK’. “At first, I believed that if I explained him why I want him to keep the convention it would be easier for him understand and do it”. However, the next time Peter saw him working on a project, the files were saved in a folder on the desktop with no file naming that would indicate neither the customer nor project. This made Peter frustrated and he explained it again with the same effect. After a while, Peter used another approach, telling Jun Ping that he would make Peter look bad when customers called and asked for files which he would not be able to find because Jun Ping did not use the file convention. This was something Jun Ping understood because he would not want his boss to lose face in front of his customers. Also, Peter observed Jun Ping and the next time he saved something, he prompted him and told him exactly where to store it and how to name it. After doing this four to five times, the behavior was ritualized and accepted by Jun Ping. Once it seemed normal and not new anymore, he could begin to see the benefit and extract the meaning himself.

In this example, we have different cultural aspects playing an important role. First of all, due to the stronger hierarchy of the Chinese business culture, employees in Jun Ping's position don't have any responsibility and are not wanted to think about the reasons of rules. Also, a system of conventions seemed to be too universalistic, which the particularistic mind would dismiss as not necessary in every situation. But as the employee was shown the perspective that his not fulfilling these rules could result in his superior's loss of face, he thought twice. At the end, concrete instructions like those Peter gave him the moment he saved the files was something he would follow due to his obligation to respect the hierarchy and the ritualization of file saving behavior fits into the Confucianism concept of ritualizing all behavior. Peter sums up the lesson learned: "Principles don't' stick, rituals do!".

Another negative aspect was very similar to the reuse photo concept. When Jun Ping thought that a project was done, he did not archive the source and files and deleted them. This was the only time Peter became very serious with his employee and told him that in case he deletes source code another time, he will need to leave the company. This surprised Jun Ping: "why do I need to keep it? I will just do it again". Not having to reinvent the wheel is one of the main ideas of any knowledge focus strategy and according to Peter's and his colleagues experience not practiced in the design business in China[28].

As Jun Ping became better and better, Peter had to think about a way how he could retain him. Being a small company with the financial resources were very limited. Thus the solution for Peter on the one hand was to improve the relationship with Jun Ping. On the other hand, Peter tried to only give him work which benefits him from a training perspective and try to let him do creative and fun projects even if they don't have a direct benefit for the company. "I think that way, I can offer him something he can hardly find at other companies" says Peter (ibid.). According to his experience, due to the strong hierarchical structure and the very short-term profit orientation of Chinese competitors, employers do not weight very much whether work is beneficial or fun for their employees. That works well in the village where members of the organization have no alternative but creates problems when employees have a large number of other companies to go to as citizens of larger cities do. In fact, McKinsey recommended Chinese software companies in 2004 to "do more to develop their employees to reduce the

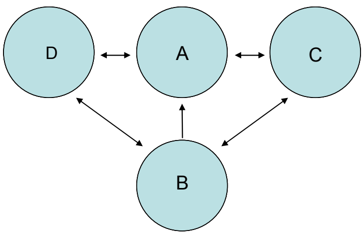
[28] During the author's work at a multinational IT company and management consulting company in Shanghai (both times the colleagues vast majority being Shanghainese), when asking how working files could be archived and backuped he was looked upon in surprise: "We don't do backups". Similar to the example above, the behavior of archiving projects was ritualized in the first two cases and has become a part of day2day business.

annual employee turnover rate that it estimates at about 20% "(DragonVenture, 2005). A turnover rate of 20% is in fact very high. Even the United States which is notorious for hiring and firing practices only gets to 14% (ibid.).

5.1.6 Guanxi

A good example of how complicated and long-lasting Guanxi obligations can be shows the following case Peter experienced with his business partner. As Peter had to get his visa extended, Li Ping wanted to get sure that the matter is taken care for properly. He called his ex-schoolmate whose husband works at the Visa office. Suddenly, the visa was extended without the usual hassle at the immigration office. As a thank you, the official at the immigration office received a free dental check at a clinic where the mother of Li Ping's wife helped a colleague to become director 30 years ago. That turned out to be the big jump in his career and would oblige him for a long time to do favors for her. This Guanxi at the dental clinic was also used when the family was once stopped by a policeman while driving in their car about ten years ago. The mother asked the officer about the bad quality of his teeth and whether or not he would like to forget the ticket and have a free dental check up instead. The police officer agreed and received free dental checkups from now on. As time went by this police man became the chief for one of the districts in Shanghai. Every time Li Ping or one of his Guanxi has trouble with the police in that district, one phone call is enough and the tickets disappear.

Being also very particularistic, the Chinese culture's Guanxi also has a governance dimension. When A does not depend on B but B on A, the nodes C and D which both depend on both will make sure that B's position to A will not be too disadvantageous.



That is why it is unbeneficial for A that C and D know about his relationship to B. What results from that is a general unwillingness to share relation specific information with others. For example, Li Ping does not tell any business partner that the administrative employee of the company is his wife. That way he maintains a stronger position in his Guanxi and prevents other contacts to use this marriage against him.

Peter’s employee also used Guanxi as an information source. For example, when one client asked for printing stickers, Jun Ping opened his MSN instant messaging client and renamed his nickname which is displayed in the user-list of his online contacts to ‘Jun Ping-where can I print stickers?’. As most of the people in his Guanxi use MSN, they immediately saw what he needs on their MSN bar and contacted him. When Peter asked him why he wouldn’t look into the yellow pages he answered “Why should I trust entries in a yellow book if I don’t know what and who is behind it?” (ibid.). Looking at the collectivistic nature of the Chinese culture, this attitude makes sense. The Yellow Pages readers are most likely people outside one’s group. Therefore, morals such as honesty do not apply which results in very little trust put into what the ads claim and the ads most likely not containing reliable information.

5.1.7 The future

As the largest part of differences could be overcome and clients increasingly value the company’s design quality standards, Peter plans to expand his company further, finding investors and new employees. His cultural knowledge will definitely be advantageous for this undertaking.

5.2 Improving communication at a China division of a US multinational company

Name of the company and General Manager have been changed to ensure anonymity

5.2.1 History

In 2001, the multinational US company XYZ realized that its Chinese division did not present very satisfying results. Also, communication with headquarters was disappointing. Thus, it was decided to replace the General Manager (GM). Sabrina Lee was chosen to be the new Chairman, General Manger due to two reasons: Firstly, she had a long experience working for this company in their other divisions and was therefore familiar with Western business methodologies. Secondly, she had extensive work experience abroad and was multilingual which would help her with intercultural issues. The fact that she was American Born Chinese was also an enabler for her new role: “I had 500 total full-time and part-time colleagues, of which all were local Chinese except 1 from Hong Kong and 1 from Singapore” (Lee, 2005). Ultimately, every function of the China business reported directly to her.

5.2.2 Initial challenges

The beginning of her assignment was rather difficult, as her team did not yet trust her: "the colleagues were concerned that I was sent by the Corporate Leadership Team to 'spy' on them and criticize their work" (ibid.). That had implications on their communication style with prestige of numbers and facts being more important than the actual situation. Also, the fact that most of the employees were hired by the formal General Manager did not help. As a result, it was clear that the first priority of her new job was to build relationships with the members of her team.

Another problem was not only the mistrust Sabrina faced herself but also the lack of trust among the departments. Sabrina recalls:

> "When I first arrived, Sales and Marketing were barely speaking to each other. In one instance before I arrived, Trade Marketing and Marketing got into a fight. Although their offices are across the hall from each other, instead of speaking directly to each other, they emailed each other, resulting in a stack of emails about 3 inches high." (ibid.)

Clearly, communication between the departments needed to be improved in order to improve knowledge sharing.

5.2.3 Focusing on people first

To improve this situation, Sabrina worked primarily with soft measures. Firstly, the team needed to be convinced that she had good intentions and that she was sincere in her attempts to help the division: "I told colleagues that we wouldn't spend any time blaming each other for problems as we are one team and as Chairman, I ultimately take responsibility for everything that happens with the company". (ibid.)

Secondly, to improve the relationship between the departments, a common goal needed to be developed and communicated to the senior managers. Therefore, a senior leadership team which included all functional heads and was chaired by Sabrina started to meet on a monthly basis for a full day in order to effectively communicate the most important organizational issues by the whole team. Also, communication outside these meetings to ensure more time-effective responses was encouraged. For the results of these meetings to be available later on as well, departments were required to prepare presentation in writing which would be shared not only at the meeting but also stored in central information repositories and available for later consideration as well as subsequent communication with the functional heads' teams. Also, for the departments of Marketing, Sales, and Supply Chain/Operations, an S&OP (Sales and Operational Planning) meeting was arranged on a monthly basis in order to coordinate sales forecasts with production planning. Additionally, management communication about sales objectives, marketing plans, etc. to the employees was established as well so that they were informed where the company was at and where it was going and to enable them to ask questions in case there were obscurities. Seeing the results internally was also a motivation for them as the positive numbers gave them face as well as proof that their hard work was paying off.

As the relationships among the team members and to the GM improved, the staff became much more honest about the real problems: "We focused on solutions first. Then, how we could learn from past mistakes, but no individuals were ever made to 'lose face'". The focus on solution and not on responsibility is thereby the key to successful review sessions. Identifying who is responsible for mistakes in front of the team would immediately lead to a loss of face and therefore reduce the willingness of the group to continue an open discussion. After a while, as the team concept became more established, willingness grew among the team members to become more pro-active with constructive suggestions and even take responsibility for them: "However, it was a constant task to keep up the team spirit and colleagues often needed to be reminded that we were one team but we did make a lot of progress". This concept was not only applied to the senior level of the company but managers were encouraged to pass on this culture down the hierarchy. "When we made decisions as a leadership team, I would ask each manager a minimum of three times if they truly agreed with the plan" recalls Sabrina – "this was to ensure that managers were truly in agreement with the plan vs. just being 'polite' and deferring to hierarchy". Clearly it took a lot of effort to change management culture within the company. (ibid)

After communication was improved within the China organization it also needed to be improved with global headquarters. Sabrina spent a lot of time explaining that "global was only trying to help our business, not impede it". Thus she ritualized reporting procedures such as monthly business reviews which kept headquarters apprised of their progress but also gave the China team the opportunity to showcase their progress. As global management internalized and agreed with the China strategy, more research projects were funded with global budgets and the Chinese management team saw the benefit of their initial investment of time and effort. Sabrina summarizes: "We went from being the country with the worst communication back to global to the country with the best […] the team really started to see the value of strong communication back to headquarters". (ibid)

5.2.4 Improving IT infrastructure

As now the people side of knowledge work was improved it was time to focus on the IT side as well. There were still offices which communicated to the organization via fax. Thus, investment in computers and servers upgrades was increased to ensure more efficient and effective communication. Also, internal information repositories were installed where employees could log in and secure the latest information on Supply Chain. On the file management side, policies were introduced that all working files needed to be backuped before leaving the company so that successors would not have to start from scratch. Also, the personnel change was communicated to stakeholders one month in advance so that they would be able to prepare the handover to the successor. However, it was still important to respect the Chinese cultural working behaviors. When it came to the sales staff for example, they had to be granted their right to handle their Guanxi by themselves. Tolerating low transparency in this area turned out to be of advantage as their good relationships to their customers ensured business to go on as usual during the SARS period. Sabrina remarks: “I’d still like to see greater information sharing, more consistent use of the websites that were available to them but in total, we grew our business, beat our profit targets, and learned to function as one team”. She shows that in order to be successful in China one has to be willing to find a way in the middle between Western task-oriented business practices and Chinese relationship practices. All in all, her undertaking in China was a success: “We were very successful, growing our business by +20% in 2003 vs. the previous year despite SARS”. (ibid.)

5.2.5 Follow up

The division was eventually purchased by another multinational company with Sabrina managing the handover. However, after the transaction, she left the company but still maintains good relationships with the staff.

6. Conclusions

What the cultural analysis and the case studies show is that compared to Western countries, the needs of the Chinese people are the same as those of any human being, but as the culture exists in a different environment and faces different challenges, it has found different solutions. The important consideration is that one needs to be aware of them, in order to avoid frictions and develop common understanding through communication and training. This study will therefore conclude with a set of practical recommendations, companies from Western cultures can apply to increase their effectiveness in China:

6.1 Relationships

Most likely in every country, people work better together if they know and like each other. But in China, building relationships is most important because this is the only protection people have. That takes time and personal effort to build a relationship. Strongly separating private and professional life will probably not be possible in China if one is to be successful.

<u>Teamwork</u>: Chinese people are good team players in their group. Hence, it is crucial to turn the working team into a group. This can be done by socializing activities on the weekends or after work. In the West, this might be seen as cost, but in China, it is an investment that will pay back in the long term.

<u>Knowledge creation</u>: The Chinese group orientation can be utilized for knowledge transfer through emphasis on tacit/implicit to tacit/implicit knowledge conversion (shared experience and informal communication). The Chinese are similar to the Japanese in this point.

<u>Guanxi</u>: When working in China, there is no way around Guanxi. It is important to support the relationship building with stakeholders. This goes especially for government officials. Also, it will be common for Chinese colleagues to retrieve much of their professional knowledge from their Guanxi network.

6.2 Hierarchy

As we have seen, hierarchy is very important to Chinese and that their loyalty goes primarily to their direct superior, not the company. That is why any change in working behavior needs to go through them.

<u>Knowledge transfer</u>: The most effective way of knowledge transfer is therefore top-down. That means for any company more effort in management training and communication. For

example, if the company sets up an online employee directory which requires employees to upload information, make their superiors teach them how to do it. Emails with instructions from a central department will most likely be ignored if the direct superior doesn't support it. *No relationship* means *No obligation*.

Trust and Intellectual Property: As many companies have experienced painfully, there is a higher risk of information theft and counterfeit production by the business partner in China. That was often the case because foreign business partners engaged business relationships with too much trust, sending blueprints, technical specification of core technology. Building trust in China takes time. Building the relationship with employees should be done step by step, giving a little bit more access to confidential information with each step. The Chinese perspective needs to be considered: If he has all necessary information to build the product alone and does not feel obliged to the foreign partner due to a weak relationship, why should he keep sharing the profits with him? It is therefore important to keep the relationship based on reciprocal necessity. That is something Japanese companies are very good at in China.

Escalation: When knowledge work with a colleague from a different team is not going the way it should and more effort is required from the Chinese side, the issue should be escalated, albeit with an awareness of the potential implications and costs in terms of face and Guanxi. Chinese employees are most likely not entitled with the same decision power Westerners do to manage their own work tasks.

6.3 Pragmatists

As we have seen, Chinese tend to be more practically oriented. There are no absolute truths, no question for sense of life. That makes *thinking out of the box* easier but upholding principles more difficult. As we mentioned earlier, facts and numbers are sometimes utilized to preserve face, not to reflect reality. One needs to be reminded of that when listening to sales presentations. Moreover, 80% solutions might be acceptable for a pragmatist, as long as time and money can be saved. In some areas, this might be beneficial whereas in others, one needs to insist on perfection (e.g. work safety measures).

6.4 Education

The Chinese education system is based on memorization. That can be of advantage in knowledge work. Peter Smith (2005) and his employee leveraged on this difference. Peter created the innovative design concepts and his employee put it into concrete images. However, the Chinese education and face concept makes communication in a foreign language more difficult for them. Here, effectiveness of communication can be improved through instant messaging and email. Also, a mix of channels can help, e.g. phone and instant messaging together.

<u>Training</u>: Training in China is most effective through tradition. Many Western working practices are not common in China. So it will improve learning efficiency if employees is given more time to get used to them. Repeated demonstration and coaching will do better than a one-time lengthy explanation. As Peter Smith (2005) said: “Principles don’t stick, rituals do”.

Building awareness and adjusting oneself to act upon it takes time and practice. There will still be frictions ahead but with the willingness to adapt and accept compromises, most of these challenges can be managed. Then, one can focus on what one has actually come to China for in the first place: business.

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* = Name of interviewee and all names of involved individuals or organizations have been changed to preserve anonymity

Appendix

I The Gettier Counterexamples

In 1963, E. Gettier published his criticism on the knowledge definition of "justified true belief". He argued that although a knowledge holder believed in a knowledge claim, and justified his belief by finding "adequate evidence" for it, a "sufficient condition of the truth of the proposition" (Gettier, 1963) that he knows the knowledge claim would not be fulfilled. That is because a belief based on invalid assumptions could lead to true conclusions. He produces two examples on which he elaborates his position:

Firstly, the Jones and Smith example that describes a situation in which Smith and Jason both apply for a job position. Smith then produces a knowledge claim according to which Jones is going to get the position and has ten coins in his pocket (I). With evidence being that the president of the company assured him that Jones would be selected in the end and that Smith himself counted the coins in Jones' pocket ten minutes ago. Therefore, Smith concludes that the man who will get the job has ten coins in his pocket (II). Gettier states that Smith's clearly justified for believing that II is true because it is a conclusion from I for which he has strong evidence. In the example, however, it turns out that Smith gets the job and that Jones really has ten coins in his pockets which defies proposition I. Unknown to Smith however, he himself also has ten coins in his pockets which makes proposition II true. Therefore he II was true but was based on I that was false.

However, the main problem the author has with Gettier's argumentation is the statement that justification is met when "adequate evidence" (1963) is held. In the example, it is "adequate" that Smith considers the president's assurance that Jones would receive the job position as sufficient evidence that Smith would get the job. However, there are more possible factors that could influence the company's decision. For example the level of the president's influence over the hiring decision or the president's intention when he gave the assurance. In my opinion, justification should be a process in which the individual should evaluate all available truths and defeaters in order to produce an ultimately undefeatable evidence to support his knowledge claim. That is all truths and defeaters from the past, present, and future. Thus, knowledge cannot be seen as a single, absolute but rather as a dynamic process.

II Different knowledge definitions

During the literature review for this study, a myriad of knowledge definitions was considered which vary according to the philosophy behind it.

"Information in context" is a definition which forms the basis of the DIKW model.
Context is thereby defined differently. Rationalists see it as the coherent whole and ultimately true body of knowledge while pragmatists see it as the usefulness in a particular situation. The concept of context can supply information with meaning but does not necessarily include either usefulness (pragmatist viewpoint) or absolute coherence with the total body (rationalist viewpoint).

"Knowledge is understanding based on experience" by William James (quoted by Firestone & McElroy, 2003)
"The most essential definition of knowledge is that it is composed of and grounded solely in potential acts and in those signs that refer to them." By Charles Peirce (quoted by Firestone & McElroy, 2003),
"Knowledge is social acts" (quoted by Firestone & McElroy, 2003)
Since these definitions are based on understanding of experience, and the criteria of usefulness for social action, these definitions represent the pragmatist's view of knowledge.

"Knowledge is experience or information that can be communicated or shared" (Allee, 1997 quoted by Christensen, 2001) is based on experience and information. However, to say that "knowledge is information that can be shared" is problematic since this leads to the question which information is not shareable. But as information consists out of data which is always shareable, the definition equals information and knowledge, neglecting the difference of these two concepts. Additionally, Allee (1997 quoted by Christensen, 2001) has the viewpoint that "we literally cannot know anything without a word to describe it" and therefore binds knowledge exclusively to information. Her view on knowledge is very limited as language is only one out of many information channels such as visuals, sounds or practical demonstration. A defeater of her definition would be the fact that it is still possible to transfer knowledge without the use of language and often necessary when two individuals don't speak the same language.

"Knowledge, while made up of data and information can be thought of as much greater understanding of a situation, relationships, causal phenomena and the theories and rules (both explicit and implicit) that underlie a given domain or problem"
Bennet 2x "Characterizing the next generation knowledge organization"

> "'Knowledge' is defined as what we know: knowledge involves the mental processes of comprehension, understanding and learning that go on in the mind and only in the mind, however much they involve interaction with the world outside the mind, and interaction with others." (Wilson, 2002)

According to Wilson, knowledge can only be in the minds of people. Although not directly expressed, the definition includes the empiricist ("interaction with the world) and the rationalistic ("comprehension, understanding and learning") viewpoint on the creation of knowledge. However, it is not directly mentioned that knowledge claims need to be justified. Adding to his knowledge definition, Wilson (2002) says that knowledge is bound to the thinking structures of each individual and when these wish to share it, they compose messages which are then decoded by another individual. However, "the knowledge built from the messages can never be exactly the same as the knowledge base from which the messages were uttered" (Wilson, 2002). The degree of loss of meaning thereby depends on the clarity of information. A mathematical theorem, e.g. the Pythagorean theorem of a2 + b2

> “Knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices and norms”
> (Davenport & Prusak, 1998).

This definition concentrates on the definition of organizational knowledge which due to the authors does not only include experience and contextual information, expert insight (which would probably include their wisdom as well) but also values. The element of truth and justification is missing, leaving out the criteria of validation of knowledge claims. The statement that knowledge can be embedded in documents and repositories shows that knowledge is seen as tangible which other academics would call *information (NOTES)*.

“Knowledge is a term applied to the best performing beliefs, belief predispositions, and knowledge claims in question of an agent – that is, the individual or group that holds the belief or belief predisposition, or expresses the knowledge claims in question – in the course of the agent assessing the performance of those claims” (Firestone & McElroy, 2003). Thereby, they state that their definition does not require knowledge to be absolutely true but only temporarily true fallible when not able to survive our future tests.

III Can knowledge be managed?

Definition of Management

As the word “to manage” and “management” are used in many different contexts, it has a very broad meaning. The Encyclopædia Britannica (2004) contains several definitions:

> “1 : to handle or direct with a degree of skill: as a : to make and keep compliant <can't manage her child> b : to treat with care : HUSBAND <managed his resources carefully> c : to exercise executive, administrative, and supervisory direction of <manage a business> <manage a bond issue>
> 2 : to work upon or try to alter for a purpose <manage stress> “

The definitions under (1a) and (1c) describe an active action with direct influence over an object. For example, to manage a computer would involve a skillful installation of software, organization of its files, maintenance of the operating system, etc. Similar to that, definition (2) describes the same direct influence but adds a purpose. To manage employees would mean to make and keep them compliant to company policies and work expectations. To treat with care could for example mean to handle a resource in the most efficient or effective way.

But applied to knowledge, there is a large discussion in the academic community whether ‘to manage knowledge’ is an oxymoron or not. The consultant Karl-Erik Sveiby summarizes these notions and sees that people either tend to see knowledge as objects that can be “identified and handled in information systems” (Sveiby, 2001) and tend to work in technologically oriented fields such as computer and information science. Thus, he calls this notion the ‘IT Track KM’ and equals it with information management. According to them, knowledge could be managed by finding “useful knowledge, bottle it, and pass it around” (Hildebrand, 1995; Stewart & Kaufman, 1995 quoted by White, 2002). In this literature, the terminology of information and knowledge are also often used synonymously (Wislon, 2002).

On the other hand, researchers and practitioners working or being educated in humanistic fields, such as philosophy or psychology tend to see knowledge as “complex set of dynamic skills, know-how etc, that is constantly changing” (Sveiby, 1996) and thus calls it the ‘People-Track KM’ and equals it with management of people. They stress the tacit nature of knowledge, often defy it’s explicit nature and doubt whether knowledge can be made and kept compliant. They argue that knowledge holders have only limited control over their knowledge. They can gain new knowledge through reason and experience but it is hard or even impossible to forget knowledge. Therefore, it is even more difficult to manage the knowledge of another mind which could be done only indirectly by providing or inhibiting access to information channels or learning by experience. For example, an organization could make an effort to require its employees to learn certain information and test their resulting knowledge through exams. Frank Miller (2002) states that considering the tacit nature of knowledge “the notion that we can 'capture' knowledge becomes ludicrous, just as ludicrous as the notion that we can 'capture people's thoughts'”. Wilson points out the difficulty of organizing knowledge since knowledge, although appearing to have been forgotten, can sometimes remerge when it is needed which results in us having “very little control over 'what we know'”.

IV Taxonomies

Conway and Sligar (2002) thereby differentiate between three types of taxonomies when it comes to the organization of information:

- Descriptive taxonomies: A comprehensive search engine is connected to the information databases which users can use to search for desired types of information. Important thereby is, that the search engine not only searches for the exact phrases the users enters but also for synonyms and other matching words on its vocabulary lists. For example, in case an employee searches for methodologies of “market entry strategies”, the search engine would automatically look for “market penetration strategies”. Google provides such a search engine which is connected to most pages of the internet.

- Navigational taxonomies: Information within the organization is structured into a directory based approach. The labeling of categories can thereby be done according to the firms preferred set of vocabulary. The advantage of this taxonomy is that users often discover new formulations of information categories they would not have thought of during when using a descriptive taxonomy. Yahoo is an example of a directory which aims to categorize most internet pages worldwide.

- Data Management Vocabulary: This taxonomy comprises a “short list of authorized terms without any hierarchical structure that is used to support business transactions” (Conway and Sligar, 2002, Chapter 6) which is important when brining information within the company into the same format. For example, when describing a market, the analysis should include a globally used set of criteria (e.g. market size in dollars, number of competitors, etc.) so that other marketing personnel can successfully mine for market report information in the future. “Without a shared taxonomy, a company risks developing islands of data that cannot be shared or easily utilized by the rest of the organization.” (Chapter 6)

To work efficiently, an organization’s central information portal should employ all three taxonomies in order to enable efficient access to required information by its users.

V IT-Track's response to knowledge conversion

Socialization: Improving internal communication
Also, in order to increase knowledge sharing apart from the information databases, communication between the employees was improved through the usage of information technologies. Firstly, world wide employee directories were set up which contained information such as job functions, reporting managers or contact information. IBM for example created its BluePages which enables IBMers to upload information about their skills, project and community involvement. For easier communication, companies then also set up instant messaging applications which enable employees to directly chat with their colleague. IBM for example set up an application called *Sametime* which is directly linked to BluePages, thus every employee automatically has an account and only needs to start the application which is installed on every workstation.

Online Collaboration, Virtual Teams
Information technology also enabled the facilitation of collaboration using a database-driven model. Work would then not only be uploaded into an information repository once it has been finalized but created with several knowledge workers cooperating. The first mover in this direction was the Open Source community around the operating system Linux which created software through online collaboration in virtual teams consisting out of users who often never had face2face contact in their life. Software applications, such as online forums, enabled these users thereby to discuss project plans and current issues online and store different versions of project outcomes in a database. Therefore, different versions could be traced back to track changes which became especially important when programming errors needed to be fixed. A pioneer in this field is *Sourceforge* (http://www.sourceforge.net), an online collaboration community which hosts many of the most popular open source developments.

Soon, Corporations especially saw the value of those systems and set up online collaboration platforms for their own products. Sun Microsystems for example set up a collaboration website for *Jini* programmers (Jini forms part of the Java programming language which was developed by Sun) which hosts many projects by non-Sun developers and also serves the company as a platform to communicate with the Jini community.

Communities of practice
Similar to virtual teams, organizations set up communities of practice where members of the organizations working on similar topics could exchange their experiences and work approaches. For example, trainers within a worldwide organization could join the community of practice for training and learning. At the community, the trainers would be able to share their approaches to grading students, running student evaluations for the class, motivation techniques etc. The goal behind sharing practices is that over time, members share ideas and help each other and that best practices will spread throughout the community thereby increasing the efficiency of the whole organization. These communities work often informally at first but can evolve to formalize their common practices into guidelines and standards and even can "become more integrated into planning, budgeting and operations" (McDermott) but still differentiate themselves from teams or taskforces as there is no formal hierarchical differentiation among its members. That leads to the distribution of influence according to expertise and knowledge rather than status. As they saw their effectiveness, organizations began to facilitate the development of communities by helping them to identify their goals, sponsor meetings and raise awareness among managers about their accomplishments.

Internalization: E-Learning
Information technology also greatly improved a company's possibilities when it comes to employee training. Internet technology enabled the creation of online courses which can include media such as sound, video or animations. These courses are available to all employees with access to the intranet and do not require classrooms or teachers, thus greatly

reducing costs. IBM for example offers a myriad of online courses about a broad scope of topics to their employees at no costs and Sun Microsystems utilized compulsory online training to raise awareness of the company's ethical standards.

But not only training profits from increased use of information technologies. When communicating to the employees where the company is going, the leaders of an organization can also utilize the media technologies. For example, Scott McNealy, the CEO of Sun Microsystems hosts a Radio Show on a monthly basis to inform his employees about the current developments within the company and the companies view on the market. In many other companies, senior management also use webcasts to talk to the employees about current issues.

VI Email Interview with Sabrina Lee

Position: General Manager of a division of a US multinational company in China
Interviewer: Stefan Broda
Date: 21.2.2005

Topic: Knowledge Management in China, senior management perspectives

Author:
Could you tell me about your work assignment in China, what you found in China when you arrived, what measures you took and what the resolution was? It would be great if you could consider aspects like knowledge sharing (communication) and creation.

Response:
First, my background: I worked as the Chairman, General Manager, and Marketing Director for a division of Company XYZ in China. Every function ultimately reported into me including Marketing, Sales, IT, HR, Finance, Business Development, Trade Marketing, Supply Chain/Operations for HR issues as well, etc. I had 500 total full-time and part-time colleagues, of which all were local Chinese except two from other Asian countries but both spoke fluent English and Mandarin. The division I worked in was subsequently sold to another company on a global basis. I was placed in China by XYZ to help revitalize the business and prepare it for sale to this company. Once the team started trusting each other and working together, we were very successful, growing our business by +20% in 2003 vs. the previous year despite SARS, inventory issues, and a previously declining business (business in 2002 was down 70% vs. 2001).

As you say, trust and GuanXi is very important in building the business in China. Although I am Chinese-American and speak Mandarin, it was very clear when I first arrived in China that I needed to quickly build relationships with the key functional heads and gain their trust. This took a lot of time and because the business had not done well in the previous year, the colleagues were concerned that I was sent by the Corporate Leadership Team to "spy" on them and criticize their work. In addition, the previous GM whom I replaced, had hired most of the colleagues. However, once they got to know me, understood that I was also willing to listen to their concerns, we got past the initial mistrust and were able to communicate effectively. With that said, when I first arrived, I believe that colleagues were afraid to tell me the truth about why problems were occurring. In addition, certain functions did not get along; they blamed each other for the sad state of the business. Sales and Marketing were barely speaking to each other. In one instance before I arrived, Trade Marketing and Marketing got into a fight. Although their offices are across the hall from each other, instead of speaking directly to each other, they emailed each other, resulting in a stack of emails about 3 inches high.

Needless to say, one of the first things we did was to establish the concept that we are all one team and that all functions must work together in order to grow our business. We created a Senior Leadership Team (I served as Chairman) where all the functional heads were members. We would meet formally for a full day once a month to rigorously go through issues but would also communicate constantly to ensure that issues were handled as quickly as they arose. Further, each function was required to prepare a written presentation for these monthly meetings so that information could be shared not only at the meeting but brought back to be shared with each functional team. Further, Marketing, Sales, and Supply Chain/Operations had S&OP (Sales and Operational Planning) monthly meetings to ensure our sales forecasts were in line with production forecasts and that production could meet our product needs. Supply Chain would share written presentations on production efficiencies and Marketing and Sales would share marketing plans, sales objectives, and results. Further, these functions would communicate constantly in between these meetings to ensure we were on track.

Once we were all working as a team, everyone was much more open to sharing information. I told colleagues that we wouldn't spend any time blaming each other for problems as we are one team and as Chairman, I ultimately take responsibility for everything that happens with the company. Therefore, colleagues were more comfortable proactively bringing problems forward as they weren't "afraid" that they would get in trouble. We focused on solutions first then, how we could learn from past mistakes, but no individuals were ever made to "lose face." The team concept actually caused colleagues to accept more responsibility, as they felt very comfortable raising issues and helping to solve them. In regards to Chinese culture, I think some of the experiences in the past, including major events like TianAnMen Square in 1989, trained many people to be fearful about expressing their ideas or taking responsibility for problems. However, once colleagues felt that they were in a "safe" environment, information flowed more readily and smoothly. It wasn't always perfect, and colleagues often needed to be reminded that we were one team but we did make a lot of progress.

In terms of working with the global team based in the US, the team learned that global was only trying to help our business, not impede it. We went from being the country with the worst communication back to global to the country with the best (according to the global team). Although initially it was a bit frustrating for the Marketing colleagues who had to provide more communication back to headquarters, including monthly business reviews (which didn't exist before), once global agreed to our strategies, they funded many of our research projects which gave us more money from our own P&L to spend on media and promotions. Hence, the team really started to see the value of strong communication back to headquarters.

In addition, we all agreed that IT was one of the most important functions in the company. Without our computers, we really couldn't get anything done. Hence, we upgraded our IT consulting firm in our satellite office to ensure better and timelier resolution to server problems. We upgraded our server so that email communications between our different offices in China would be more efficient. We purchased computers for key sales offices who beforehand had to fax information and had no email addresses. We provided email addresses to critical colleagues who previously had to phone or fax each individual that they wanted to communicate with. Further, our Supply Chain group, working with IT, developed a knowledge management website where colleagues could log on to secure the latest information on Supply Chain. We ensured monthly management communications, both written and in person to all our colleagues so all colleagues would be aware of what was happening with the integration, our progress on sales, as well as give them an opportunity to ask questions. As we were selling our company to another company, there were a lot of questions about what would happen to the colleagues as well as to the business.

Further, we required Marketing (working with Sales and Trade Marketing) to outline clear sales targets 3 months in advance, develop forecasts for a rolling 18 months so Supply Chain could plan and order materials accordingly, and we presented our results very clearly to all colleagues so they could see their progress and be proud of their own efforts as well as the teams.

We changed KPIs (key performance indicators) for sales people to include targets not only on direct sales to the dealers but also to include inventory management, merchandising and promotion. This moved colleagues away from "short term" thinking ("I just want to sell and make my target this month so I can get my bonus") to more strategic thinking ("if I overload my customers, then I will have inventory issues and will not be able to meet my sales targets the following months. Therefore, I must also ensure we have great promotions in the stores to drive increased consumer sales as well"). Note: it wasn't necessarily because our sales people were short-term thinkers that they previously only worried about the immediate sale, the structure was set up to reward this behavior.

We improved our finance processes to streamline them and make them easier to use. We restructured our sales force to include a Sales Admin and Retail Operations function (so sales people could focus on sales to customers) and added a Business Development function to ensure long-term strategic planning on the business vs. short-term only. We developed 10 year strategic plans where none had existed before. All of the efforts outlined above helped the team to understand that we were making great progress, were planning for the future. All these improvements helped them to truly feel that they were key contributors to the progress we were making.

Because of the uncertainty of being purchased by another company, we did have a higher turnover rate than in normal circumstances, which was understandable as many colleagues wanted to find a new job before they were "fired." Hence, many folks had to take on additional responsibilities (but we always compensated them for it) and we ensured that each colleague developed a transition document to be used by their replacement. All files from departing colleagues were saved so that new colleagues could benefit from their use and so we wouldn't lose critical data. We also ensured that our vendors, suppliers, partners, etc. received at least a months notice that a colleague was departing so they could wrap up urgent matters and prepare for the "new" person.

Throughout all these changes and improvements, we still kept a great respect for the way things are done in China. It's because of the strong GuanXi that our sales folks had with our dealers and customers that we were able to grow our sales despite their concerns that we were selling our business to another company that may not be as positive about our brands in the future. Because Chinese show a great respect for senior management, we ensured that senior managers took the time to listen to their teams, and asked them repeatedly to raise concerns, as it would help us make better decisions. When we made decisions as a leadership team, I would ask each manager a minimum of three times if they truly agreed with the plan. Myself and other senior managers would reinforce that we were looking to everyone for new ideas and didn't just want a bunch of "yes men" in our ranks. Everyone was treated with respect. It wasn't always perfect, but we did our best to instill these values while understanding that Chinese colleagues may not always proactively bring up their disagreements. That is why we took the time to ask the questions over an over again to ensure key players were in alignment.

And yes, throughout all these advances, there was a lot of coaching, training and development. We ensured that our sale colleagues got formal training from respected consultants once a month, often during the weekend. We constantly coached colleagues, reminding them that it's okay not to know the answer as long as they commit to getting the answer (but don't make up an answer just to save face). The key was to give a lot of positive feedback, reward for performance, and make people feel good about the contributions they made to the business. After all, every single colleague was critical to building our business.

Net, net, we made a lot of progress in 1 ½ years, bringing in the concept that open and honest communication is rewarded while still respecting the need for strong GuanXi with our customers and dealers and taking the time to ensure colleagues had every opportunity to voice their opinions, knowing that voicing their opinions may have been counter to their culture in the past. We proactively upgraded our systems, developed the appropriate websites and communication channels to allow sharing of information while also still using forms of communication that colleagues were more comfortable with including telephone calls to management on a one-to-one basis (every colleague had access to my personal mobile phone number and many still call me today, at even the most junior levels just to check in). Again, it wasn't perfect, there was still room to improve but we did make strong headway as a team and I left the company feeling very proud of how well the team worked together and embraced the concept of one team. I'd still like to see greater information sharing, more consistent use of the websites that were available to them but in total, we grew our business, beat our profit targets, and learned to function as one team.

VII Instant Messaging interview with Li Chen

Position: Programmer at a US multinational IT company
Interviewer: Stefan Broda
Date: 16.2.2005

Topic: Technical implications on natural language processing: Chinese Language

Author: Hi
Li Chen: yes
Author: I found you via bluepages when I looked for "NLP"
Author: natural language processing
Li Chen: it's my former job responsibility :)

Author: I'm doing a study on KM in China and was analyzing the differences between latin based lanugages (English, German, etc) and Chinese

Author: The differences are striking. e.g. both languages have around 50,000 words. but in English and German, you use 10,000 syllables to make them while in Chinese you have less than 500 that must have immense implications on NLP, right?

Li Chen: that's interesting. I'm not very familar with German.

Author: German and English are very similar from the language structure point of view. German has more complicated grammar though (e.g. there are 3 types of "the")

Li Chen: I see

Li Chen: the size of syllable set make difference in speech recognition. In written language, same syllables may map to many (10-100) characters --- Chinese character is single syllables

Author: Im sorry that I contacted you without proper introduction. I just find the topic very interesting and was very interestd to talk to one of our experts in IBM.

Li Chen: It's all right.

Author: :)

Author: I also found that chinese characters are very different from latin based writing
Li Chen: can you read Chinese?
Li Chen: unfortunately, the pictograph information is lost in computer. A Character is just a double byte code

Author: I can read a little bit. But what would you say are the differences in algorithms regarding English and Chinese?

Li Chen: the major difference could be: for Chinese we usually rely on a dictionary to identify word, where in English you can use space as delimiters. The approach deeply affect the capability of handle new words. Since it's very hard to update the dictionary with new word, actually the criteria of what is a new word is very fuzzy

Author: you mean new Chinese words are more difficult to handle?
Li Chen: yes

VIII Telephone interview with Daniel Miller
Interviewee: Consultant at a US multinational IT company
Interviewer: Stefan Broda
Date: 21.2.2005

Topic: Knowledge Management in China, cultural perspectives

Author: What is your impression of knowledge work in China?

Miller:
Oh, knowledge sharing is horrendous! In the West, it seems that the more you know the better but you have to share your knowledge so that other value you as an expert. In China, it seems that the less you share your knowledge, the more valuable it becomes! And in China, the strong resistance against foreign influence adds to the problem.

Author: Resistance against foreign influence. Very interesting! Could you talk more about that?

Miller:
Sure, take the project we could have had with company ABC in Beijing. It was a billion dollar opportunity and they place a local kid on the job who didn't speak English and had no idea about the business. But this opportunity was declared top priority so AP managers got involved. These are really senior guys and come mostly from the US or Japan. On phone conferences, the Chinese account manager would just talk in Chinese and nobody would understand a thing, all information he gave us was Chinese as well. The AP guys were very frustrated and asked the China subsidiary to replace him but they just didn't do it. They said "Ok, we will improve the situation" but then didn't do anything, just ignored them. In the end, we lost the project. The resistance against Asia Pacific was immense.

Author: Are there other aspects you find are an obstacle for knowledge work?

Miller:
We had a project with a telecom in Hong Kong for a enterprise restructuring. We won the project but then for the deliverable, the Chinese team just took a US deliverable which was similar and added some cosmetic changes. It did not fit at all to the background of the Chinese client. And they were not impressed at all. Reverse engineering was pervasive! It might work with a DVD player – you take one apart and build a model based on your findings, but it doesn't work in consulting due to the different backgrounds and situations of the client.

Author: The examples you give me sound pretty negative. Is it improvable?

Miller:
It definitely is. Although their culture does sometimes hinder us to apply Western knowledge work styles, they are always willing to learn. I would say the younger the better. And you can implement new practices, even if it breaks traditions. For example, during an M&A project, I led a team and on the first meeting I told them that I would not chair the meeting every time. They looked at me pretty surprised. You know, in China, the chairman is called chairman because he is the only man who chairs. But I said that every time, there will be a secretary who takes the minutes and will be chairman next time. So he has to communicate the minutes afterwards and plan the agenda and coordinate it with the team members. After a while when everyone had been chairman and secretary, they were much better in meetings. They all knew what tough of a job it is. Sometimes I'm just surprised how little effort it takes to get such improvements!.

IX Personal interview with Peter Smith
Position: Entrepreneur in Shanghai, Founder of a design company
Interviewer: Stefan Broda
Date: 17.2.2005

Topic: Culture influencing Knowledge Management in a joint venture design start up company

The interview was very informal and took longer than 8 hours. The protocol below is a summary of the conversation. As the author has a good relationship to the interviewee, information from the interview was complemented with information exchanged at other informal occasions.

Author: So let us talk about Guanxi.

Smith:
Ok, lets look at the diagram you made for your thesis. I was telling you before how Li Ping does not want other people to know that Isabella was his wife. There is a reason for that because if other people know that they have a connection, they know can use that against them. So if you screw me over, I'll tell A and then you are screwed over too. So that is just another way people control knowledge about Guanxi.

The other thing I wanted to say about this is that I am constantly amazed about the level of complexity of these networks. If you start to put it together, it just goes on forever. I'll tell you a little anecdote to make it clearer: So there was a time when I had a visa issue. It wasn't a big issue, a minor one but it needed to be resolved. Li Ping says "I know someone who works in the visa office who will sort this out". I don't think that it was any law breaking but just making sure that my visa application was taken care of and I got the right result. The person that he knew was his ex-classmates husband. So we go to this ex-classmates husband and get sure that the thing is taken care of. In return, we get him a free dental checkup at Isabella's Mother's former coworkers dental clinic. So Isabella's mother was a nurse and back at that time 30 years ago and through some Guanxi I don't know she helped this doctor to become director at this well-known dental clinic. And this was his big career break. So for his entire life he would owe her. And now it's a card in her hand. Every time she wants to help somebody, she'll say: "Hey, I know this dentist. Maybe you might wanna check him out for free".

So then later on, the same Guanxi came up again when I was in the car with Isabella and Li Ping and parked in an area where it was illegal to stop. The police officer pulls us over and starts to write a ticket. So Li Ping is like: "No, no, no" but the officer wouldn't listen and issues the ticket. Then, Li Ping says: "I don't think this is necessary because I know the chief in this district". The officer doesn't believe him first but then calls the office to find out. Indeed, after the call the ticket disappears in the officer's pocket and we are free to go. So it turns out that 10 years ago, when Isabella's mother was in a car and pulled over by a cop, she used the dental Guanxi to avoid the ticket and started to build a relationship with the officer. Now, this guy is police chief in this district and every time somebody has trouble with the police there, the matter resolves itself and the chief gets a dinner or a dental checkup. They hook up in ways which would be unbelievable by Western standards. But I see two things here: One, its very functional and two, you always have to refresh your Guanxi network. So often you might just do things as gestures without its really being needed.

Author: So, Guanxi is important in private life. How about business?

Smith:
Very important! My business partner always says: "Guanxi is the basis of every business in China and in order to make good Guanxi, you have to be patient and begin small. Normally, I don't do business with people I haven't known for 4 or 5 years". The best example is my own company. I knew Li Ping for many years in university where we studies together in language exchange program. I visited China afterwards a couple of times and told him that I wanted to do business in China in the web design field. Although he never explicitly said that he wouldn't do it with me, he also wasn't really enthusiastic about it. So when I came back, I actually was not expecting him to be my partner because he hadn't done it the year before. What I was not aware of was that the things that were happening were a progression of steps. Looking back, its easy to see.

Author: Ok, I see. So now you have a business partner. What happened then?

Smith:
We sat down and wanted to get things straight on our perspectives and our goals. We agreed to deliver top quality on mid-prices so we are cheaper than the international design firms but more expensive than the Chinese low-cost companies. At this day, we seemed to talk about very specific terms like quality and success but later it became clear that we actually meant completely different things. You know, after half a year, we had a project for a huge company and I made a decision to spend much more money than they give us to deliver top quality. I look at it in the long term. We exceed their expectations and will get more projects later. But Li Ping wasn't very happy. For him, the project was a total failure because we made a loss. He didn't see it the same way I did. But after time, as the work delivered got a lot of good reviews from the customers and more projects came in, my way kind of became right in his eyes. Not because it was the right way but because he gained more face. Most of he communication went through him.

Author: Lets talk more about your work. Were there any cultural differences between you and your customers?

Smith:
Definitely! You know, in the beginning, I had customers who told me: "hey, you are Westerner! Could you give me a Western design?" But when I presented my new, Western style, innovative designs to our customers, I could see pain on their face. That was too new to them. They would stand out of the croud. In the US, you have to reinvent yourself from time to time. Just look at Madonna and how often she changed her style. The way I see the market in general is that the Western designer often takes higher risks by drafting very creative designs with top quality. The bad side is that this takes forever and costs the client a lot more. The typical Chinese designer I have seen so far tries to complete a project assignment as fast as possible, does not take any risks and thus delivers something which fulfills mediocre quality expectations of the client.

Author: So a more short term orientation on business? Also short term orientation in working style?

Smith:
Oh god. I need to tell you this story. You see, at that one big company, we had another project coming in to design a product portfolio leaflet for a fair in Vietnam. The photos they gave us were crap… taken with a digital camera. So we asked them to commission the photos to a professional photographer so that they could not only be used in this project but also later for other work. Actually, my business partner looked at me, smiled and said: "You know, Peter, in China, we never reuse photos". That struck me. They never invest in good pictures because they assume that the client would choose another design company for the next project which

would want to take photos by itself. It doesn't cost much but it brings a little bit more profit. It think that has something to do with the Chinese being screwed over all the time in their history. First Revolution, then Japanese occupation, the civil war, great leap, it goes on and on. Every twenty years there were destructive events in china which made them loose what they built up for decades. So it became absurd for people to plan 20 years ahead. Most people now rather think how they can rich in 2 years.

Another example is Jun Ping, who we hired as work got more. Actually, we were quite lucky to get Jun Ping because he is very open to a Western perspective and prefers to concentrate on the work itself rather than relationship surrounding the work. When he works, its very different from me. He is the short-cut expert. You have to watch him work with photoshop. Its absolutely insane. He knows literally all short-cuts and if a function has no short-cut he programs them. That way you see him move his mouse a bit but the main action is on the keyboard where his fingers rush from one combination to the next. I think the Chinese education system helps a lot. Probably learning short-cuts is just like learning characters.

Author: Any cultural differences with him regarding knowledge transfer?

Smith:
Oh yes. Whereas I have to add that these problems were only at the beginning. I was really frustrated with him but figured out a way to overcome our differences and he is definitely a good learner with the right attitude. For example file conventions. As you know, I had been working many years in the US as freelancer so I knew how important correct file management is if you ever want to find stuff later on again. But for Jun Ping, that was quite different. When he thought that a project was done, he deleted it. He told me: "why do I need to keep it? I will just do it again". I couldn't believe it!
So I tried to teach him the way I wanted him to do it. At first, I believed that if I explained him why I want him to keep the convention it would be easier for him understand and do it. But that didn't work at all. He told me "OK" and nodded with his head but then just saved the stuff on the desktop. How am I supposed to find that when he is not in the office? That would really make me look bad when a customer call me and needs a file and I cannot find it. I told him that too and suddenly he listened more carefully. Probably didn't want me to lose face. So next time I saw him save something I stopped him and told him exactly how to name it and where to put it. After a while when he had done it for 4 or 5 times, he began to see the benefit himself and could understand the value of the convention. I tell you… in China; Principles don't' stick, rituals do!

Author: Very interesting. Lets go back to Guanxi. Would that be something you partner or employee would get knowledge from?

Smith:
Definitely. For example one time, a customer needed stuff printed on stickers. I had no idea where to get that so I asked Jun Ping and he just renamed his MSN nickname. And suddenly his friends and colleagues which build up most of his Guanxi now contacted him and told him that they knew people who probably knew that. So after a couple of chats he had a name and an address. I told him that in the State we use yellow books to get that kind of information and he just looked at me in a strange way and said: "Why should I trust entries in a yellow book if I don't know what and who is behind it?"

Author: Sounds like you are getting along pretty well with him.

Smith:
Very good! We have overcome our initial differences, still have some issues from time to time but you have that everywhere I guess. So I face the bit of a problem how I can keep him. The thing is that our company is really small and I don't have a lot of money. But I don't

want him to go to other companies. So what I do is to try to give him work which helps him develop himself and to let him do fun and creative stuff even if it's not profitable for the company. That is something our Chinese competitors don't really care about. They just make their employees do stuff without caring about their development. Sometimes it hurts because for some jobs which are boring and competitive you get a lot of cash, like photo editing. But I think that way, I can offer him something he can hardly find at other companies.

X Personal interview with John Tennet
Interviewee: Consultant at a US multinational IT company
Interviewer: Stefan Broda
Date: 2.2.2005
Media: Personal interview

Topic: IPR in China

Author: When it comes to knowledge and China, many companies have fallen victims to IP theft. How do Chinese companies handle this internally?

Tennet:
This is a very interesting topic. About five years ago, I did an industry analysis in Taiwan focusing on the machine tool market. There were about 150 competitors which could be traced back to three original large companies. It happens all the time that teams leave the company after developing a cool product to found their own enterprise. The whole industry down there is built upon that way and in my three year China experience, it is not any different on the mainland.

Author: But doesn't IP theft lead to the destruction of relationship and therefore Guanxi?

Tennet: That is right. This is why for example if you have one team which has good relationships to each other it is less likely that one will break out of the group and damage the others. Looking closer at the machine tool industry in Taiwan, one can see that once a team leaves the company, the former superior invests in the new venture which maintains or sometimes even improves the Guanxi. This way, the Taiwanese industry has developed an enormous flexibility to which they can react to changes in demands and technology.

XII Telephone interview with Sridhar Vedala

Position: Partner at a management consulting company in Shanghai
Interviewer: Stefan Broda
Date: 22.2.2005

Topic: Knowledge Management in China, cultural perspectives

Mister Sridhar Vedala founded a consulting company with fellow students from business school in Shanghai with offices in Europe, the US, Korea and India. Offering strategy development services, he often deals with knowledge work related issues.

Author:
Thank you very much for the opportunity to talk to you. This study mainly focuses on Chinese culture focusing knowledge creation and sharing. Have you encountered that during your work?

Vedala:
Yes indeed, for a multinational company, we implemented a shared services framework. What happened was that during their China expansion, each company's division set up its own offices in the different cities which were autonomously organized, each with their own finance, HR, etc. So it was the objective of our project to centralize these services into internal service organizations – a process that requires each subsidiary to give up control and share their knowledge with the central organization. There was immense resistance.

Author: Could you elaborate on that?

Vedala:
The restructuring was decided from the corporate level in headquarters and only communicated when it was already implemented. Everybody was scared to lose his job. I think the company could have saved a lot of trouble if it had discussed this change with the China offices in advance and let them be part of this development. Then there would have been less fear and more willingness to buy in.

Author:
Lets talk about implementing knowledge sharing practices. What do you think is important to consider in China?

Vedala:
I think the most important aspect in China are the people. You have to create common grounds for them so that trust can develop. Also, the commitment of senior commitment is crucial to the success of any policy because that who the employees listen to.

Another experience, I have is that Chinese tend to form subgroups in team with other Chinese. We worked for a long-term project with a larger team of ten to twelve people including 3 Chinese. After a while, the Chinese had formed their own sub-group and did not share their work practices with the rest of the team. When they needed to deliver, they gave us the result but did not describe their methodology something which is very important in knowledge management since it is sharing methodologies which enable you to avoid reinventing the wheel twice.

Author:
Where do you see where knowledge work is going in the future?

Vedala:

I see a big change in the Chinese culture. The younger generation, especially the freshly graduated 18-24 years old, is much more willing to adapt new management practices and are more loyal to companies because they want to build a successful career in the long-term. It is much easier to work with them, than with somebody who is 30 for example. And that holds true through industries.

XIII Personal interview with Yan Shen
Position: Information repository manager at a US multinational IT company in Shanghai
Interviewer: Stefan Broda
Date: 18.2.2005

Topic: Knowledge Management in China, cultural perspectives

Author:
Could you tell me about Chinese culture and knowledge work. Would you say that there could be challenges?

Yan Shen:
I think that in general, you have the same problems everywhere in the world. However, what culture influences is the weight of each of these problems. As a result, in China, some things could work better while in the US others could be more difficult and the other way around. One occasion were culture was an obstacle was the centralization of our knowledge repositories worldwide. Before that, our teams worked with Lotus Notes teamrooms which were restricted to the team. But as they were asked to upload all their content to a central database, they did not want to do it. They said that they didn't' want others to copy & paste it without fully understanding it. So the solution was for us to let them have their little privacy and keep the main info secret but they had to write abstracts with meta-keywords so it was locatable by other employees. In case they want it they would need approval from the team leader.

Author:
Copy & Pasting without understanding it. I heard complains like this before. Does that happen often?

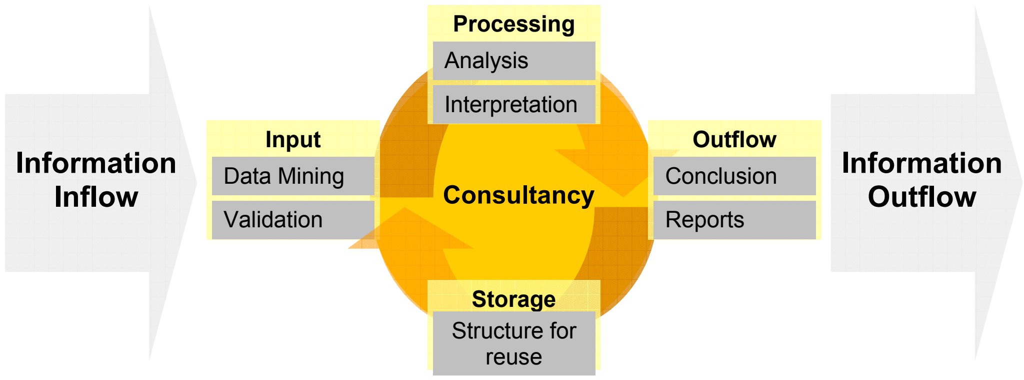
Yan Shen:
I think it does. Take the presentation of methodology for example. When we present to the customer, we always tell them that our work follows a certain set of patterns to ensure quality. But you know, this is not the Chinese way – we sometimes prefer to keep things more flexible. Most Chinese customers have the same understanding. So in the proposal, it often is just a marketing thing.

XIV Information Management Proposal for Fiducia Management Consultants

1. About Information Management/Knowledge Management in general

is the gathering, validation and analysis of information, as well as recommending strategies based on these finding. This resembles the Fiducia's value proposition which makes Information Management to its core competence.

A Consultancy's Value Proposition: A Flow of Information



2. Fiducia's development

As FMC has been growing into four different locations, it has become increasingly difficult to manage the also growing base of information. That is:

1. FMC has recruited more consultants over time and increased its diversity how people think and deal with information. Everybody has its own way to structure and work with intangibles.

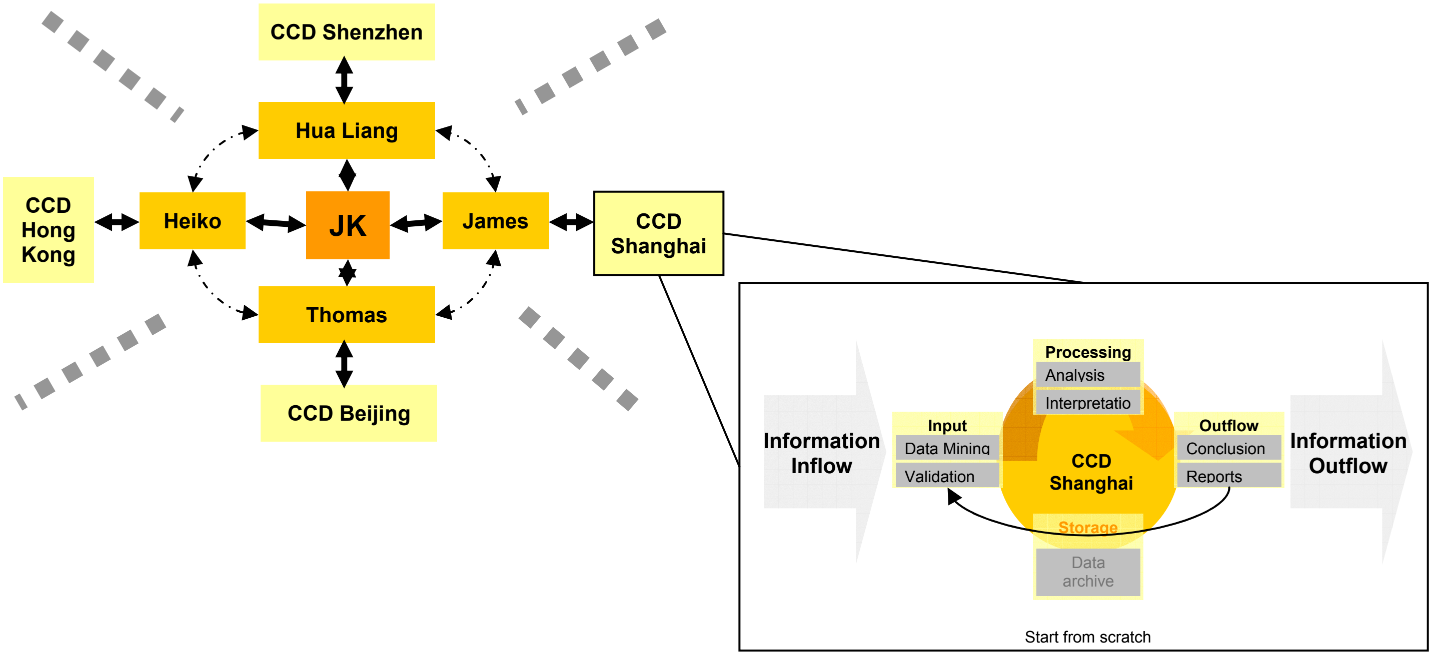
2. The geographical distance between the offices means an obstacle for communication in the day2day business which constrains the mutual understanding on what kind of information is present in each different location and how it is structured.

3. The Main Problem:

Adding value to information is Fiducia's core competence, but:

1. **There is nobody in charge of managing this information**
2. **There is no long-term strategy how to manage information and workflows**
3. Current information is widely fragmented
4. Information is not reusable on a company-wide basis
5. Current tools, like Powernet are not sufficiently used

4. Current Situation at Fiducia



Currently, the information flow within Fiducia is quite different from the Consultancy example above. In the case of the China Consultancy Department (CCD), each office has its very own information flow.

5. Major improvements to be made at Fiducia

We see two major elements which can be improved by a more sophisticated information management:

The information flow: through an increase of internal communication

Current Situation		**Improvement**
Patchy communication between Senior Management and no communication between staff from different Offices	→	More internal communication establishes more interpersonal links. Issues and problems could be shared by the whole department, company-wide.
Example: CCD Beijing conducts a market research in the industry of super-alloys. The brother of an employee in CCD Shenzhen is a metallurgist. With increased communication between the staff, he would be aware of the Beijing market research, involve his brother and add substantial value to the project.		

An increase in internal communication would accelerate and broaden the information flow and therefore widen Fiducia's knowledge resources.

Additionally, further involving the employees in company-wide issues will make them feel more belonging to Fiducia instead of their respective department which will increase their loyalty to the company as a whole.

Information storage: Through centralization and structuring of information

Current Situation		**Improvement**
There is no central storage for current project data. Employees often work with files on many computers which can be inefficient because there is no central control and unified structure	→	With a central platform and unified structure, there would be no doubt at any time, where what information is located. This increases a departments effectiveness

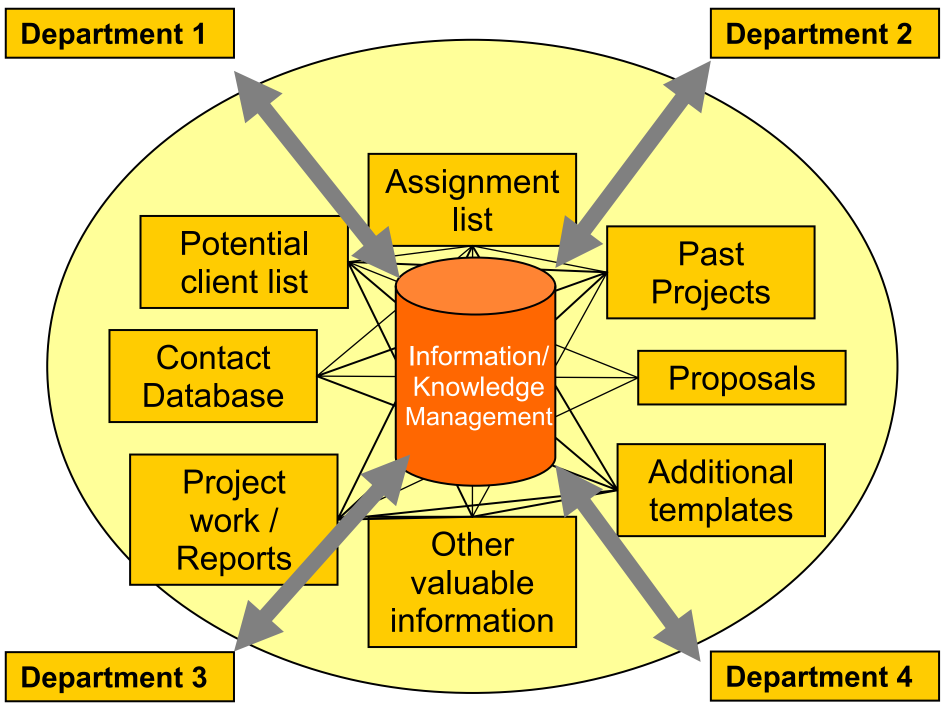
Example: A team is working on one report file. Instead of each team-member working with its own version on his PC's desktop, there is one file on a central platform with a history function. That is all previous changes on the document can be tracked and reversed.

Current Situation		**Improvement**
There is no central project archive where Fiducia's value added work is stored. Almost every project is started from scratch.	→	Archiving project data in a central structured storage enables employees to reuse value-added material which already has been created.

Example: CCD Shanghai has to assess the market size of turbochargers in mainland China. CCD Beijing previously assessed the market for Diesel Trucks for another client. Through the central storage, CCD Beijing can use large parts of their analysis.

The main idea is to have one central place where all data, being current or archived is stored in a structured and codified way so that it can be easily distributed and reused within the whole company.

Central Information Storage and Communication platform



All central documents interact with each other and automatically communicate with the staff.

With these improvements being implemented, Fiducia will further capitalize its knowledge resources which make the organization more efficient and effective.

6. How the industry implemented information management

Most of the worlds leading companies have experienced the same problems. And because in most companies intangible assets are the most mission critical, the position Chief Information Officer (CIO) was established who is in charge of streamlining and improving the company's internal IT organization, short Information Management.

7. How to implement Information Management in Fiducia

- **Developing an information management strategy needs to be top management priority**

Analysis of the current situation

- The Information Manager needs to examine each department in each office and analyze:
    - The amount of information archived
    - The structure of this information
    - The workflow and information flow
    - Communication with other offices / departments

Development of a long-term information management strategy

- The gathered information needs to be analyzed. Inefficiencies uncovered
- He then has to bring the senior managers together and agree on:
    - A common structure of information storage
    - A common workflow
    - A common structure of communication

→ These will be the requirements for the information infrastructure

Strategy Implementation

- The agreement on information structure, workflow and communication will be turned into company policy
- All staff will be actively trained to comply with these policies
- The policy will be enforced and its compliance ensured

8. Dedicated position of Information Manager for to two reasons

Lack of continuity

Since most employees of Fiducia work on a project to project basis, they are not able to continuously work on a long-term internal undertaking. There would be a great planning session but after that, other issues would occupy the staff which makes it very difficult to realize these plans.

Conflict of interest

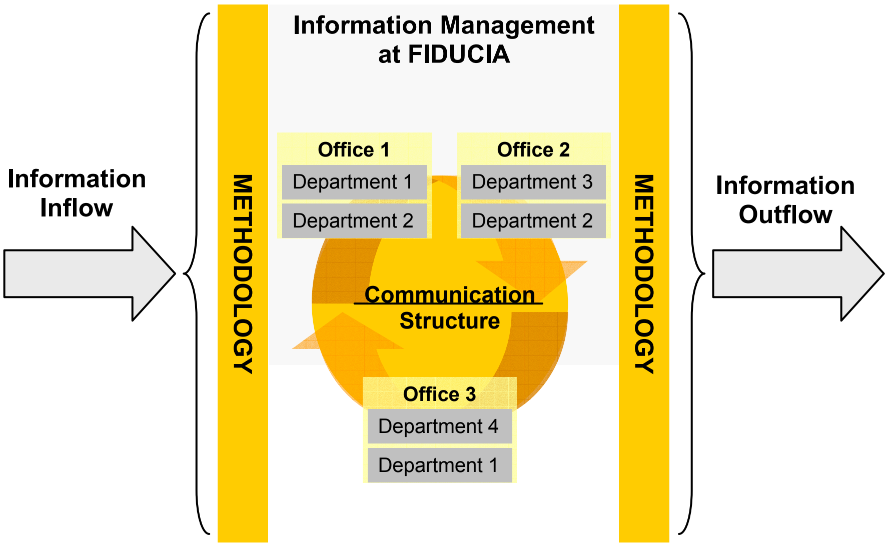
Archiving information and writing up the work done requires time for which in the beginning, many managers will not see the value. Hence, they will probably assign the documentation of employee's work insufficient priority in favor of working on new projects.

9. The work load of the Information Manager

The Information Manager has two major tasks:

1. *Implementing a central information management (Knowledge Management) system → <u>30% of work</u>*
    - Analysis of the current situation
    - Development of a long-term information management strategy

- Strategy Implementation
- The information bases need to be brought together brought into the agreed structure
- Management of the construction of the required information infrastructure by directing the offices' IT staff



2. *To implement this system → <u>70% work</u>*
   - Train whole staff to adopt the new system and working methodologies
   - Continuously fit the information infrastructure to staff's needs.

Step two will be the main work for the Information Manager with more than 70% of his time. The key success factor for the implementation is to win the support of the senior management. And as the Information Manager cooperates with the senior management in designing the information system, he must at least possess a senior management position. That is people always resist change which can mean a major obstacle for the Information Manager when this resistance is coming from above.

10. Requirements for the position

1. Managerial skill
2. Strong Leadership
3. Technical understanding, experience with Information Technology