Goals and Tactics on the Dark Side of Knowledge Management

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Abstract

The knowledge management literature focuses on the bright side of KM; it barely mentions the dark side, in which knowledge is distorted, suppressed, or misappropriated due to personal or organizational motives. This paper presents a framework for categorizing dark side examples, and uses it to organize 30 examples culled primarily from recent news accounts. The paper's contributions include its method for exploring the dark side of KM, its initial categorization of dark side goals and tactics, and its demonstration that dark side manipulation may occur throughout processes of knowledge creation and use.

1. Introduction

The Call for the HICSS-39 mini-track on the Ethics of Knowledge Management (KM) says, "In the real world, politics is often the dominant influence and knowledge manipulation, the dark side of knowledge management, is its prime weapon. In the world of politics we are accustomed to the notions of spin, deception, and propaganda. The business world is no different."

Although a great deal has been written about KM (e.g, [8], [32]), the dark side of KM is largely ignored. Most discussions of KM take a utopian view that the goal is to capture essential knowledge and make it available wherever needed. Further, that knowledge will be collected and distributed accurately and with the best of intentions, leading to efficiency, better decisions, and protection of intellectual property. Not mentioned is the possibility that KM activities could be motivated by inappropriate goals or intentions to commit crimes. A Google search on "dark side of knowledge management" found only eight results, one of which is the abstract of an ETHICOMP 2004 paper [18] that contained the same description of the dark side of KM that was in the Call for Papers. In other words, the dark side of KM appears to be a largely unexplored area where there is no theoretical material and almost no descriptive material.

The importance of the exploring the dark side of KM is evident from the many recently publicized government and corporate scandals. The fallacious stories of weapons of mass destruction that were used to justify the current Iraq war can be viewed as an example of KM gone astray. In the corporate realm, aspects of KM permeate stories of criminal activities at Enron, MCI, Tyco, HealthSouth, Parmalat, AIG, and Adelphia. In each of those situations, people conspired to enrich themselves and mislead investors. The perpetrators needed to keep track of their own knowledge of these situations while falsifying other knowledge. These stories were publicized widely because of their impact and venality, but even the many organizations that are run ethically often encounter gray area situations that border on the dark side of KM because they involve selective disclosure of information or slight misrepresentations in order to produce better impressions or avoid embarrassment.

To develop a basic understanding of the goals and tactics associated with the dark side of knowledge management, we adopt an exploratory stance [15, 19] rather than a theory-testing stance that would be more appropriate in an established area. We use recent news articles to identify dark side KM tactics that seem motivated by attempts to further political, economic, or personal goals. The paper's contribution includes its method for exploring the dark side of KM, its initial categorization of dark side KM tactics, and its realization that dark side manipulation may occur anywhere in the process of creating and using knowledge (not just in the presentation of existing knowledge). Future research could improve or extend the categories, could generate formal methods for identifying examples of dark side KM, and could lead toward a KM framework that encompasses the light side, the gray areas, and the dark side.

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This paper distinguishes between light and dark goals related to KM. It presents a 3 x 3 framework for categorizing actions reflecting the dark side of KM, and then identifies dark side tactics in each cell. It validates the framework by presenting 30 examples, mostly from news reports, illustrating dark side tactics. It concludes by describing a next step for development of ideas about the dark side of KM.

2. Definition of knowledge management

This paper defines KM as a conscious activity of making and implementing decisions related to the acquisition, refinement, maintenance, and use of information and knowledge. This definition bypasses the endless debate about the difference between information and knowledge. Following Wilson [32], it assumes that anything that is made explicit enough to be managed must be expressed as some form of information such as facts, concepts, beliefs, images, messages, formulas, and procedures.

Figure 1 illustrates the domain of KM. The core is the information and knowledge that is being managed. Essential facets include the people who perform the activities, the culture within which the activities occur, the processes that are performed, and the technology that is used. Different KM approaches emphasize the facets to differing extents, but ignoring any facet completely will result in an incomplete view of KM.

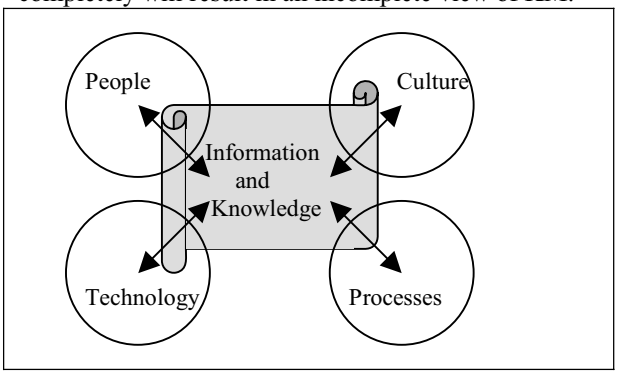

Figure 1. Facets of knowledge management

The KM literature typically implies that the goal of KM is to capture knowledge and make it available in a form that is accurate and useful. KM nirvana occurs when everything in Figure 1 is in alignment: The knowledge exists, the people are motivated, the culture supports KM, and appropriate processes and technology are used to achieve happy outcomes. The dark side of KM looms when motives are impure. We define the dark side of KM as KM activities that directly reflect unethical motives. Hovering between the dark and light is the gray side of KM, which reflects ethically ambiguous motives. Categorization of motives as ethical, ethically ambiguous, or unethical is obviously important, but this is a much broader topic than KM and has been discussed in various guises for centuries using a variety of value systems and definitions of ethics.

3. Dark and light goals

Assume that KM takes place within a world of light or dark goals of the people involved in KM and related activities. There are three groups of actors:

- Knowledge providers perform activities related to creating and disseminating knowledge. They include knowledge creators, refiners, maintainers, and communicators.
- KM decision makers design and guide activities related to creating or disseminating knowledge.
- Knowledge recipients use knowledge based on their personal and corporate motives.

In the dark side of KM, unethical motives engender at least three types of goals in decisions related to capturing and using knowledge:

- Distortion: Introduction of biases by selecting, combining, and/or manipulating specific knowledge in order to represent that knowledge in a way that is favorable to particular interests, viewpoints, or beliefs.
- Suppression: Creation of obstacles and prohibitions that make it difficult or impossible to create, access, or use knowledge that might be contrary to particular interests.
- Misappropriation: Theft, modification, or inappropriate revelation of knowledge.

These dark side goals are reverse images of light side goals. Distortion is the dark side of shaping knowledge so that it can be used effectively. Suppression is the dark side of controlling access to achieve legitimate purposes. Misappropriation is the dark side of making appropriate use of knowledge.

Table 1: Interplay of light and dark motives in KM

Dark motives by knowledge recipients	Goal: Misappropriation of knowledge	Result: A web of distortion, suppression, and misappropriation
Light motives by knowledge recipients	Underlying assumption of most of the KM literature	Goal: distort and/or suppress knowledge
	Light motives by knowledge providers and KM decision makers	***Dark motives by knowledge providers and KM decision makers***

Table 2: Tactics on the dark side of knowledge management.

Creation, acquisition, and refinement of knowledge	* Purposeful failure to collect relevant knowledge. * Coding of knowledge with the intention of misleading * Analysis performed in a way that purposefully introduces bias.	* Failure to allocate funds or personnel needed to collect relevant knowledge * Coercion by implying or threatening personal consequences if an analyst or other individual's work does not represent specific biases.	* Theft of knowledge as it is being created or refined. * Modification or sabotage of a knowledge refinement process.
Storage and retrieval of knowledge	* Storage of knowledge in a way that is likely to cause distortion * Retrieval of knowledge using methods that distort the knowledge.	* Destruction of existing knowledge * Refusal to allow access to existing knowledge * Storage of knowledge in a form or location that purposefully impedes legitimate access. * Failure to retrieve knowledge that should be possible to retrieve.	* Modification or sabotage of existing knowledge. * Insertion of inappropriate content into knowledge that is being retrieved.
Distribution and presentation of knowledge	* Use of euphemisms or inaccurate characterizations that misrepresent the essence of specific knowledge. * Distribution of knowledge biased by omission or rewording of relevant material; exaggeration or overemphasis of less relevant knowledge * Misrepresentation of facts, motivated by personal, economic, or political benefits	* Suppression of distribution by declaring existing knowledge a secret. * Coercion by implying or threatening personal consequences if specific knowledge is divulged. * Establishing deniability for decision makers by making sure they never learn about details that might be embarrassing or illegal. * Failure to present relevant facts, motivated by personal, economic, or political benefits	* Failure to distribute important knowledge that is needed. * Inappropriate, unethical, or illegal distribution of information, thereby harming individuals, groups, or organizations. * Fraudulent or otherwise inappropriate sale or transfer of knowledge
	Distortion of knowledge	***Suppression of knowledge***	***Misappropriation of knowledge***

Table 1 illustrates the interplay between light and dark motives in KM. The KM literature typically assumes light motives by knowledge providers, KM decision makers, and knowledge recipients. Three of four cells of Table 1 identify dark side possibilities. The knowledge providers or decision makers may try to distort or suppress knowledge. The knowledge recipients may try to misappropriate knowledge. Dark motives by several sets of actors can lead to a web of distortion, suppression, and misappropriation.

4. Categorizing dark side situations

The two dimensions of Table 2 provide a framework for categorizing situations in which the dark side of KM is enacted. The first dimension is the three dark side goals mentioned above. Each of these goals may be expressed and achieved throughout the process by which knowledge is acquired and disseminated.

The second dimension is a simplification of Zack's five-step process for producing knowledge products [35]. Zack's steps include acquisition, refinement, storage/retrieval, distribution, and presentation. On the dark side of KM some of these steps seem to merge. For example, it is sometimes difficult to say whether dark goals appear in acquisition, in refinement, or both. The same can be said about whether dark goals appear in distribution or presentation. Accordingly, the framework in Table 2 reduces Zack's five-step process to three steps:

- Creation, acquisition, and refinement of knowledge
- Storage and retrieval of knowledge
- Distribution and presentation of knowledge

Table 2 shows the 9 cells created by combining the two dimensions. Each cell contains one or more tactics that are part of the dark side of KM management. Entries in Table 2 were produced by reviewing news articles published between 2003 and 2005, identifying examples of dark side tactics, and trying to match the examples with the most applicable cell in the framework. Trial and error iterations produced the current table. Future reinterpretations based on a larger sample of articles might use different categories to do a better job of classifying dark side tactics.

The next section presents examples, mostly from current news articles, that represent instances of distortion, suppression, and misappropriation, respectively. Each example is a very brief attempt to

summarize one of many issues mentioned in a full article. Each example is presented only to identify instances that illustrate specific dark side tactics. There is no attempt to represent spirited pro and con arguments that are presented in some articles. The reader should assume that some of the examples might misrepresent the actual situations. Also, many examples are related to current American politics. It is assumed that parallel examples with different content probably existed during previous presidencies.

Also notice that many situations involve what might seem to be a web of distortion, suppression, and misrepresentation (see Table 1). For example, John Bolton, a nominee for U.S. Ambassador to the United Nations, was accused of "vastly understating his role in seeking to oust a CIA analyst in a dispute over Cuba," (suppression), seeking to deliver overstated testimony to Congress about Syria's nuclear, chemical, and biological weapons programs (distortion), and improperly sharing highly classified information – the names of certain agents - with a subordinate (misappropriation). The National Security Agency refused to share those names with two Senators trying to analyze the situation (suppression). Bolton's supporters argued that the criticisms were misrepresentations (distortion) because they vastly over-emphasized several incidents in Bolton's 20-year career. [13,14]

5. Examples of dark side tactics

This section identifies examples of dark side tactics that were found in news articles, several web searches, and articles previously archived for teaching and other purposes. Given the exploratory nature of trying to find and categorize dark side examples, there was no reason to restrict the examples, other than requiring that they were published in reputable publications.

The examples are organized using the framework in Table 2, first by motive (distortion, suppression, and misappropriation) and then by step a KM process. The relative frequency of examples in the various categories may be related to the relative frequency of dark side activities, but the ad hoc nature of the data collection precludes such inferences from the data.

5.1 Distortion during creation, acquisition, or refinement

This may include purposeful failure to collect relevant knowledge or purposeful miscoding of information/ knowledge that is being created, acquired, or refined.

5.1.1 Non-reporting of patient intoxication by emergency rooms. In 38 states of the United States, "insurers have the option of denying medical reimbursements to patients under the influence of alcohol or narcotics. Most U.S. "emergency rooms and trauma centers don't routinely run blood-alcohol tests or 'tox screens' on patients thought to be intoxicated" because that information might affect their reimbursements. Analysis of the resulting emergency room data would understate the incidence of alcohol- and drug-related problems. [37]

5.1.2. Other manipulation of clinical information. In December 2003 the *British Medical Journal* published an article [36] that reviewed "strategies to optimize data for corrupt managers and incompetent clinicians." Unethical methods for meeting waiting time targets include:

- Add staffing during the single week of the year when audits occur.
- Schedule appointments during vacation time for the patient; when the patient does not appear, the counter goes back to zero.
- Delay registering ambulance patients until the staff is ready to see them.
- If the hospital is full, remove the wheels of a trolley to make it a bed.

Other areas for manipulating results include:

- Upcode diagnosis to increase reimbursement.
- Upcode patient risk factors to make medical results seem more impressive.
- Transfer patients to reduce hospital deaths
- Upcode the type of operation.
- Provide insurance to patients with least need.

5.1.3 Predetermined rulings on mercury. "The Environmental Protection Agency's inspector general charged that the agency's senior management instructed staff members to arrive at a predetermined conclusion favoring industry when they prepared a proposed rule last year to reduce the amount of mercury emitted from coal-fired power plants. … Citing anonymous agency staff members and internal e-mails, [the report] said the technological and scientific analysis by the agency was "compromised" to keep cleanup costs down for the utility industry." Republican Senator Inhofe "lashed out at the inspector general, a Democrat, saying, "This is another example that Nikki Tinsley has politicized the office." [2]

5.1.4 Quick, but inaccurate field service reports. A field service representative explained what he called "pencil whipping" the data submitted after each repair. Since providing a specific code for each repair step would take too long with the voice response system he was using, he simply gave a vague blanket

code that applied to the entire visit. He understated the actual repair time for one visit by about half because he "got beat up last month" when repairs of this type took too long. To make sure his labor utilization rate would not be too low, he then overstated the hours on installations or preventive maintenance calls. Analysis of field service data would yield inaccurate results. [25]

5.1.5 Biased articles in medical journals. The editor of the prestigious *New England Journal of Medicine* became concerned that pharmaceutical companies exert too much influence on reports of research they sponsor. "A survey of 107 medical-school research centers, shows that half would allow sponsors of their research to draft manuscripts reporting the results while limiting the role of the investigator to suggesting revisions." In a relevant instance, "regulators forced several drug companies to add strong warnings about a link between antidepressants and suicidal tendencies among young people to medication labels. … Some unflattering findings about the antidepressants hadn't been published, potentially creating an overly positive portrait of some of the drugs." [38]

5.1.6 Circumventing internal controls in an insurance company. The large insurance company American International Group (AIG) admitted "that accounting problems are likely to cut its net worth 3.3%, or by $2.7 billion." … It noted that "former executives at times had been able to 'circumvent internal controls over financial reporting.'" The press release noted, "in certain instances, improperly booked transactions 'may also have involved misrepresentations to management, regulators and AIG's independent auditors.'" [11]

5.1.7 Fabrication of a biological weapons threat. "One of the most painful errors concerned Iraq's biological weapons programs. Virtually all of the Intelligence Community's information on Iraq's alleged mobile biological weapons facilities was supplied by a source, code-named 'Curveball,' who was a fabricator … Defense Department collectors … abdicated their responsibility to vet a critical source; Central Intelligence Agency (CIA) analysts … placed undue emphasis on the source's reporting because the tales he told were consistent with what they already believed; and, … Intelligence Community leaders failed to tell policymakers about Curveball's flaws in the weeks before war." [9]

5.2 Distortion during storage and retrieval

This might occur if storage or retrieval methods were designed to introduce bias.

5.2.1. Internet search engines. At various times the order of answers from search engines have depended on whether merchants paid to be listed first. The user may not be aware of this practice or the way it introduces bias into the retrieval process.

5.3 Distortion during distribution and presentation

Distortion during distribution occurs with the introduction of biases such as omission or pruning of knowledge that should be included, or exaggeration of less relevant or misleading knowledge. Distortion during presentation is misrepresentation of facts, motivated by personal, economic, or political benefits.

5.3.1 News segments produced by the U.S. Government. "In all, at least 20 different federal agencies, including the Defense Department and the Census Bureau, have made and distributed hundreds of television news segments in the past four years, records and interviews show. Many were subsequently broadcast on local stations across the country without any acknowledgement of the government's role in their production." [4]

5.3.2 Government spokesmen posing as newscasters. "The comptroller general has issued a blanket warning that reminds federal agencies they may not produce newscasts promoting administration policies without clearly stating that the government itself is the source. Twice in the last two years, agencies of the federal government have been caught distributing prepackaged television programs that used paid spokesmen acting as newscasters and, in violation of federal law, failed to disclose the administration's role in developing and financing them." [16]

5.3.3. Health claims by Kentucky Fried Chicken. The US Federal Trade Commission investigated TV commercials in which KFC (Kentucky Fried Chicken) "implied its products could help consumers eat more healthfully and lose weight." The ads "tout KFC chicken breasts as less fatty than a Burger King Whopper and say that KFC's Original Recipe chicken can work well in a low-carbohydrate diet. … The Center for Science in the Public Interest, a consumer group, sent a letter to the FTC complaining that the ads were 'outrageous' because KFC's fried-chicken meals are 'unhealthful and clearly difficult to fit into a healthy, balanced diet.'" Disclaimers in the ads were small and hard to read. [20]

5.3.4. Fabricated report about Niger uranium purchase. In his Jan. 28, 2003 State of the Union Address, President Bush said, "The British

government learned that Saddam Hussein recently sought significant quantities of uranium from Africa." Later it was revealed that most of the intelligence community believed the Niger uranium purchase was a fabrication. In early 2002 the CIA had sent Joseph Wilson to Niger to check out rumors. He concluded, "there was little chance that any such transaction transpired." It is unclear how the discredited information made its way into the speech. … "Did the president know that on January 28? If not, who failed to tell him? Why did he cite the Brits rather than our own government? Did Dick Cheney know about Mr. Wilson's findings? If not, what staffer kept them from him? Why did National Security Chief Condoleezza Rice and Defense Secretary Donald Rumsfeld make the same baseless charges on a Saddam-Niger connection? In contrast, why did Secretary of State Colin Powell omit any such reference in his key United Nations presentation in early February?" [12]

5.3.5. Measure progress against past prediction instead of current reality. To make budget goals easier to reach, "administration officials have decided to measure their progress against a $521 billion deficit they predicted last February rather than last year's actual shortfall of $413 billion. By starting with the outdated projection, Mr. Bush can say he has already reduced the shortfall by about $100 billion and claim victory if the deficit falls to just $260 billion. … Administration officials are also invoking optimistic assumptions about rising tax revenue while excluding costs for the wars in Iraq and Afghanistan as well as trillions of dollars in costs that lie just outside Mr. Bush's five-year budget window." [1]

5.3.6. Sugar reduction to be downplayed in diet guidelines. Although obesity is an increasingly serious problem in the U.S., the Report of the Dietary Guidelines Advisory Committee "lacks any direct recommendation that added sugar should be reduced. … In the previous five sets of guidelines, sugar consumption was addressed among the specific recommendations, which are what most people see. In 1980, it was, 'Avoid too much sugar.' In 2000, the guidelines said, 'Choose beverages and foods to moderate your intake of sugar.' …. The chairman of the Nutrition Department at Harvard School of Public Health, sees no shades of gray. 'It's very clear now that soft drinks and sweetened beverages do contribute to obesity,' he said. 'The government can't allow those to be promoted to children.'" [7]

5.3.7. White House aide repeatedly edited government climate reports. "A White House official who once led the oil industry's fight against limits on greenhouse gases has repeatedly edited government climate reports in ways that play down links between such emissions and global warming, according to internal documents." … [He] "removed or adjusted descriptions of climate research that government scientists and their supervisors … had already approved. In many cases, the changes appeared in the final reports." … One sentence originally read, "'Many scientific observations indicate that the Earth is undergoing a period of relatively rapid change.' … [He] modified the sentence to read, 'Many scientific observations point to the conclusion that the Earth may be undergoing a period of relatively rapid change.'" [24]

5.4 Suppression during creation, acquisition, or refinement

Suppression during creation and acquisition involves prohibiting creation or collection of relevant knowledge and/or failure to allocate funds or personnel needed to collect relevant knowledge. Suppression during refinement involves coercion by implying or saying directly that people will suffer personal consequences if their analysis does not conform to specific biases.

5.4.1 Amazingly low high school dropout rates. Dropout rates in urban U.S. high schools are 20% to 40%, but a dozen of Houston's poorest schools reported dropout rates less than 1%. School principals were under intense pressure to minimize dropouts. A deputy superintendent sent a memo "warning principals to 'make sure that you do not have any students coded '99,' whereabouts unknown.' Too many 'unknowns,' she wrote, could prompt a state audit — the last thing Houston leaders wanted." The whistleblower who reported the situation to a local television station "was reassigned, for four months, to sit in a windowless room with no work to do." [33]

5.4.2. Scientists instructed not to use latest scientific knowledge. "The southwestern regional director of the United States Fish and Wildlife Service has instructed members of his staff to limit their use of the latest scientific studies on the genetics of endangered plants and animals when deciding how best to preserve and recover them." … [These decisions] "must use only the genetic science in place at the time [a species] was put on the endangered species list - in some cases the 1970's or earlier - even if there have been scientific advances in understanding the genetic makeup of a species and its subgroups in the ensuing years." [3]

5.4.3. Censorship of chat rooms. While in China, a *New York Times* reporter posted a message in a China-based chat room on sohu.com calling for multiparty

elections and said, "If Chinese on the other side of the Taiwan Strait can choose their leaders, why can't we choose our leaders?" [That message] "went on the site automatically, like all other messages. But after 10 minutes, the censor spotted it and removed it." [17]

5.5 Suppression during storage and retrieval

Suppression during storage includes destruction of existing information or knowledge, refusal to allow access to existing knowledge, and storage of knowledge in a form or location that makes it very difficult to retrieve. Suppression during retrieval involves failure to retrieve information or knowledge that should be possible to retrieve.

5.5.1 Lost email messages. "In June 2004, a Morgan Stanley technology executive signed a court document certifying he had handed over all emails the firm had agreed to produce in a suit filed against his firm. But according to a deposition quoted in court papers, two weeks earlier he had told Morgan Stanley lawyers, 'The storage folks found an additional 1,600 backup tapes in a closet.' … To the Florida judge overseeing the case, [the] certification was false and one of many instances in which Morgan Stanley 'deliberately' violated her orders to turn over documents, including some embarrassing to one of the firm's bankers." [10]

5.6. Suppression during distribution and presentation

Suppression during distribution may include declaring that existing knowledge is a secret; failing to disclose relevant knowledge; threatening personal consequences for divulging existing knowledge; and establishing deniability for decision makers by making sure they never learn about details that might be embarrassing or illegal. Suppression during presentation involves failure to present relevant facts, motivated by personal, economic, or political benefits.

5.6.1 Failure to disclose a flaw in pacemakers. "A medical device maker, the Guidant Corporation, did not tell doctors or patients for three years that a unit implanted in an estimated 24,000 people that is designed to shock a faltering heart contains a flaw that has caused a small number of those units to short-circuit and malfunction. The matter has come to light after the death of a 21-year-old college student …. Guidant acknowledges that [the student's] device, known as a defibrillator, short-circuited." [21]

5.6.2. Revealing bad news is a career-limiting move. "An obscure government actuary … rocked Washington with accusations that the Bush administration had muzzled his economic forecasts for overhauling Medicare. [He] calculated that it would cost more than $500 billion to provide a prescription drug benefit over the next 10 years, but says his boss threatened to fire him if he shared the information with Congress. Lawmakers passed the bill relying on a much lower - and politically palatable - figure of $400 billion. … [His] boss, who has since left government to become a health industry lobbyist, denied making any threats." [28]

5.6.3. Revealing bad news is a career-limiting move. "The jury in the criminal fraud trial of the former HealthSouth chief executive Richard M. Scrushy …[asked] to hear playback of conversations secretly recorded by federal agents and a former chief financial officer who was cooperating with the government. 'If you want to go public with all of this, then you might as well get ready to get fired,' Mr. Scrushy was heard telling the financial officer … on March 17, 2003, the day before federal agents raided HealthSouth headquarters." [29]

5.6.4. The right to suppress certain information. Vice President Dick Cheney's energy task force "met in 2001 and produced pro-industry recommendations for sweeping energy legislation now before Congress. The Bush administration fought hard to keep the panel's workings secret, arguing that public disclosure would make it difficult for any White House to solicit candid advice on important policy issues." … In an 8-0 opinion, an appeals court ruled that "two private groups that sued failed to establish that the government had a legal duty to produce documents detailing the White House's industry contacts." [34]

5.7. Misappropriation during creation, acquisition, or refinement

This includes theft of knowledge as it is being created and modification or sabotage of a knowledge creation or refinement process.

5.7.1. Call Center Workers Steal Information and Money. "Former employees of a call center in Pune, India, were arrested this week on charges of defrauding four Citibank account holders in New York, to the tune of $300,000." … They "obtained personal identification numbers from these account holders in the course of their work." … and transferred "funds from these accounts to their own accounts and fake accounts that were created for this purpose in Pune." [26]

5.8. Misappropriation during storage or retrieval

This includes theft, modification, inappropriate access, or sabotage of existing knowledge while it is being stored or retrieved.

5.8.1. ChoicePoint sells personal data to identity thieves. The data broker ChoicePoint has 19 billion data files "full of personal information about nearly every American adult. In minutes, it can produce a report listing someone's former addresses, old roommates, family members and neighbors. The company's computers can tell its clients if an insurance applicant has ever filed a claim and whether a job candidate has ever been sued or faced a tax lien." In October 2004, ChoicePoint discovered that files had been accessed by an identity thief. Months later they estimated that personal information about 145,000 people had been compromised. [22]

5.8.2. Personal information compromised at nine universities. A *Wall Street Journal* article identified nine incidents in early 2005 in which a university either discovered or announced that stored information about students, applicants, alumni, or faculty had been comprised or stolen by hackers. [36]

5.9. Misappropriation during distribution or presentation

This includes:

- fraudulent or otherwise inappropriate sale or transfer of knowledge,
- harming individuals or groups by identifying them under circumstances that require secrecy.
- misrepresentation of facts, motivated by personal, economic, or political benefits

5.9.1. Army covers up friendly-fire death of athelete. Pat Tillman, formerly a professional football player, "was killed in a barrage of gunfire from his own men, mistaken for the enemy as he got into position to defend them. Immediately, the Army kept the soldiers on the ground quiet and told Tillman's family and the public that he was killed by enemy fire while storming a hill, barking orders to his fellow Rangers. After a public memorial service … the Army told Tillman's family … that he had been killed by his own men." … Tillman's father "blames high-ranking Army officers for presenting 'outright lies' to the family and to the public." [30]

5.9.2. Identity of undercover CIA agent divulged by columnist. "The investigation into who at the White House leaked the name of an undercover C.I.A. officer has become much more intense in the last few weeks. … At least a handful of White House aides have had to appear before a federal grand jury." … "The goal of the inquiry is to determine who told the syndicated columnist Robert Novak that Valerie Plame, the wife of former Ambassador Joseph C. Wilson IV, was an undercover C.I.A. officer. In a column that appeared in The Washington Post on July 14, Mr. Novak attributed the information to two 'senior administration officials.' Disclosure of an undercover officer's identity can be a crime." [27]

5.9.3. Report about Italian death in Iraq posted after censoring was nullified. "Italian media have published classified sections of an official US military inquiry into the accidental killing of an Italian agent in Baghdad." … A student at Bologna University "found that with two simple clicks of his computer mouse he could restore censored portions of the report." … The previously censored information includes names of US military personnel and recommendations about rules of engagement. [31]

5.9.4. Web site sells virus-writing tools – legally. The Web site of American Eagle Publications sells virus writing sells a CD containing source code for 14,000 viruses. "It also includes virus-writing tools, newsletters about "destructive code" and a database describing how different viruses work. …. There is little law-enforcement officials can do to fight back. The reason lies in the law: Publishing source code that can be used to construct viruses isn't illegal. What is illegal, according to the U.S. Computer Fraud and Abuse Act of 1986, is to release a virus with the knowledge that it will harm others." [6]

6. Conclusions

This paper defined the dark side of KM as KM activities that directly reflect unethical motives. It explored the dark side of KM by:

- identifying three types of dark side goals
- proposing a framework for categorizing dark side tactics
- categorizing relevant examples, most of which were found in recent news.

This concluding section reflects on:

- the completeness of the framework
- the importance of gray areas
- a next step for future research.

6.1 Completeness of the framework

The distribution of 30 numbered examples across the nine cells in Table 2 illustrates that the dark side

of KM is not just about "spin, deception, and propaganda," terms mentioned in the Call for Papers. Rather, it involves the impact of dark motives on activities that occur across the entire process of creating, refining, storing, retrieving, distributing, and presenting knowledge.

Of the 30 examples, 15 were categorized under distortion, 8 under suppression, and 7 under misappropriation. The categorization was highly subjective, but the summaries of the 30 examples were included to illustrate that real world examples fall into each cell.

The relative frequency of the different types of dark side tactics among these examples is of little significance for two reasons. First, the examples were mostly whatever attracted one person's attention in the several months since reading the Call for Papers for the HICSS mini-track on the Ethics of KM. Other relevant examples were identified but not included because they weren't as striking or because they couldn't be summarized in a few sentences. Second, and more important, in many cases it was unclear where a particular example belonged. Some examples involved a combination of distortion and suppression. In other cases it wasn't clear whether the distortion or suppression was best associated with creation/ refinement or distribution/ presentation. Zack's [35] definition of the steps in KM is clear, but the motives that drive dark side examples often affect several different activities in a KM process.

The framework in Table 2 is based on a definition of the dark side of KM that emphasizes dark goals rather than dark results. A framework based on dark results would probably include something about mistakes, accidents, and incompetence. Thus, a revised version of the framework in future research could include competence as a third dimension and could attend to the nature of the outcomes (even though outcomes will not be known in examples involving situations that have not yet been resolved).

Also, notice that the framework is based on KM activities, rather than use of information that results from KM activities. Many examples of dark side outcomes occur because people do not use the information they have. An example is the prescient 1977 report of the Cabinet Committee to Combat Terrorism. [5] This paper's framework for the dark side of KM ignored the disuse of relevant information. Future research might include that issue.

6.2 Importance of gray areas

The boundary between the dark side of KM and gray areas of debatable ethics is quite broad because many ambiguous situations involve a multiplicity of self–serving and altruistic motives. For example, American doctors sometimes shade or misrepresent diagnoses either to increase their own income or to help patients receive reimbursement from insurance companies. Separating the financial incentives from the altruistic motives is sometimes difficult, and in either case, an insurance company would consider the doctor's response as a dark side example. Similar gray areas exist in many of the other types of situations.

Gray areas apply to all three of the roles mentioned earlier, KM decision makers, people who perform KM activities, and knowledge recipients. Issues related to knowledge recipients were not fully addressed in Table 2 because many of those issues appear at the intersection of the dark side and the gray areas. In relation to each of the three types of motives, areas that are often gray, especially when the spotlight is on knowledge recipients, include the following:

- (distortion) Willingness to accept distorted knowledge without questioning; for example, willingness to accept exaggerations and omissions in statements by corporate and political leaders.
- (suppression) Willingness to have important knowledge suppressed; for example, willingness to accept forced silence about topics that should be discussed, such as the incompetence of leaders or the sleazy ethical choices by one's employer.
- (misappropriation) Willingness to accept misappropriation of knowledge; for example, willingness to accept and not challenge improper acquisition of trade secrets or unethical spying.

A final gray area involves situations in which knowledge in the heads of specific employees is de-valued by encapsulating that knowledge in software, thereby making it available to less skilled employees and de-skilling employees who originally had the knowledge. Trends toward outsourcing and globalization rely to some extent on transferring knowledge work to low-wage foreign countries or to contractors. The result is de-valuing knowledge and skills that employees may have acquired over many years, sometimes making those employees redundant.

6.3 A next step for future research

A Google search before writing this paper found only one previous paper [18] that discussed KM's dark side. This paper provided a framework, identified dark side tactics, presented examples, and identified relevant issues that [18] did not cover.

The most direct step forward starts with alternative definitions of the dark side of KM addressing:

- whether the use, misuse, and disuse of KM products is relevant
- whether mistakes and accidents are relevant
- whether incompetence is relevant
- whether legality or illegality is relevant
- how to handle gray areas.
- treatment of conflicting, but legitimate motives

Each alternative definition should be used to propose a categorization framework that should be applied to categorize (or exclude) examples, goals, and tactics. At minimum this would support an interesting dialogue about the meaning and significance of the dark side of KM. Ideally, it would lead to greater awareness of the dark side issues and incorporation of that awareness into future discussions of not only of KM, but of the ethics of creating and using information in organizations.

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