

Analyzing Knowledge Management Systems: A Veritistic Approach

Palash Bera
Sauder School of Business
The University of British Columbia
Vancouver, Canada

Workshop on Philosophy
and Informatics, Cologne
March 31, 2004



- **Objective:** To analyze knowledge management systems by veritistic social epistemology

- **Outline:**
 - Veritistic social epistemology
 - Knowledge Management Systems
 - Applying Veritistic analysis to KMS

2

Veritistic Social Epistemology (VSE)

- Social epistemology: focuses on social dimensions of knowledge and/or knowledge-production
- VSE: role of social factors in the production of knowledge
 - Humans commonly seek truth
 - Knowledge is properly conceived in terms of truth

3

Veritistic Social Epistemology

- "Which practices have a comparatively favorable impact on knowledge as contrasted with error and ignorance?" (Goldman, 1999)
- Practices that foster true belief are epistemically good and therefore be promoted
- In everyday life a certain value is placed on having true beliefs rather than false beliefs or no opinion:
Veritistic value or V-value

4

Veritistic Analysis

- Example of V-value- A person **S** has an interest in a yes/no question: *is it the case that P has occurred?*

Possible states	V-value	Result
S believes P= TRUE	1.0	Knowledge
S believes P= FALSE	0	Error
S withholds judgment	0.5	Ignorance

- Veritistic analysis: change of V-value over a period of time
- Over a period of time if S changes states, then V-value will either increase or decrease depending on whether P is true or false
- Veritistic analysis yields veritistic outputs

5

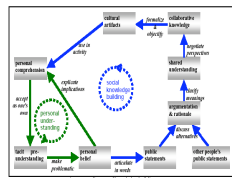
Veritistic Analysis

- A high increase in V-value of beliefs indicates an increase in the level of knowledge of the user.
- If V-value of an entire community increases then the knowledge of the community also increases
- Veritistic gain: Increase in V-value of the users whose beliefs have been modified.
 - User moves from false belief to true belief by receiving correct information
 - User is able to draw correct conclusion from this information
 - There is a veritistic gain to the user
- Analysis not applicable to cases where users have no interests in a domain

6

Knowledge Management Systems

- Knowledge
 - Beliefs accepted as knowledge through social interactions (Stahl, 2000)
 - Organizational knowledge is formed & shared by processes that are essentially social
- Knowledge Management Systems (KMS) are IS or IT products that make available knowledge to the users, which otherwise might have been difficult to obtain



7

Classifying KMS

- Based on where the knowledge resides and extent to which it is structured (Hahn & Subramani, 2000)
- Structured knowledge: inherent or imposed
- Unstructured knowledge: difficult to impose structure

8

Veritistic Analysis of KMS

CLAIM 1: Structured knowledge is more credible to the users than unstructured knowledge

- Based on similar analysis on information
 - Users exposed to structured information would infer the same knowledge (Hicks et al. 2002)
 - Credible sources are described as "trustworthy" (Self, 1996)
 - Unstructured information is dynamic and prone to misinterpretation
- Unstructured knowledge is often possessed by individuals in organizations
- To access unstructured knowledge, first find its sources and then find mechanisms to transfer the knowledge

9

Veritistic Analysis of KMS

CLAIM 2: KMS that manage structured knowledge bring more veritistic gains to users than those that manage unstructured knowledge

- From Claim 1, beliefs of users would change more positively using structured knowledge than unstructured knowledge
- If KMS can increase the state of belief of the users from False to True, False to Partially-true or Partially-true to True, then KMS bring veritistic profits to users
- Using KMS that manage structured knowledge will bring positive change in user's belief
- Assumptions made in this analysis

10

Veritistic Analysis of KM practices

- V-analysis can also be generalized to the practice of KM in organizations.
- If on average the practice of KM increases the V-value of the user's belief status, then the overall practice of KM in the organization will bring veritistic profits to the users.

11

So What?.....

- Veritistic analysis can suggest identifying KMS that users are most likely to use
- Users would like to use KMS that bring more veritistic gains to them than others
- Users tend to use KMS that increase their stock of true beliefs
- Veritistic analysis consistent with the current KMS usage

12

Summary

- Knowledge in organizations is formed and shared by social processes
- A high V-value of beliefs indicates an increase in the level of knowledge of the user
- By using KMS, individual's beliefs can be modified
- Not all KMS will have an equal impact in modifying user's beliefs
- KMS that manage structured knowledge bring more veritistic gains to users than those that manage unstructured knowledge
- Users would like to use KMS that bring more veritistic profits to them than others
- KMS that manage structured knowledge will be preferred over KMS that manage unstructured knowledge

13

Contribution

- Analysis of knowledge in KMS
- Predicting KMS usage
- Evaluating a technology oriented social practice
- Suggested future research:
 - Evaluating other tech oriented social practices (CMC)
 - Comparing tech oriented social practices

14

Questions?

15