Considering tacit knowledge when bridging Knowledge Management and Collaborative Decision Making

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I. Background theory and assumptions

I.a Our vision knowledge within the organization

I.b Ethnographic workplace study

I.c Incommensurability: when communication breaks down

II. Propositions

II.a Implementation of new activities enabling to retain and to use knowledge created during the collaborative decision making process

II.b Awareness that knowledge is not an object

II.c Analysis of the conditions and limits so that codified and formalized knowledge will have the same meaning regardless who is receiving it
Our three fundamental postulates:

Knowledge is not an object

Knowledge is linked to the action

Company’s knowledge includes two main categories of knowledge
“we can know more than we can tell” Michael Polaniy, 1958

Based on Shigehisa Tsuchiya’s works, 1993
Tacit Sense-reading

Information → Data

Person P₁

Tacit Knowledge A

Person P₂

 Tacit Knowledge A

Low commensurability
Strong commensurability
"by participating in the routine activities"
Participant observer

Novice

Recorder

Explicit Knowledge

The Analyst in Decision Aid

Tacit Knowledge

Brigitte Jordan, 1996

Bernard Roy, 1996
Brigitte Jordan, 1996

Ethnographic workplace study

“by participating in the routine activities”

Participant observer

Assimilate the tacit knowledge known by “the natives”
incommensurable

“change their meanings or conditions of applicability in subtle ways”
\[ f = ma \]

\[ mg = \frac{md^2s}{dt^2} \]

\[ mg \sin(\theta) = -ml \frac{d^2\theta}{dt^2} \]
Incommensurable interpretative frameworks

Thomas Samuel Kuhn, 1970

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Thomas Samuel Kuhn, 1970

\[ f : \text{nature} \mapsto \text{terms} \]
\[ f^{-1} : \text{terms} \mapsto \text{nature} \]
\[ f^{-1}(\text{element}) = \boxed{A \neq B} \]

\[ g : \text{nature} \mapsto \text{terms} \]
\[ g^{-1} : \text{terms} \mapsto \text{nature} \]
\[ g^{-1}(\text{element}) = \boxed{B \neq A} \]
Thomas Samuel Kuhn, 1970

$f^{-1}(KM) = \text{Tsuchiya, Polanyi, concept of Ba, SECI Model, etc.}

\begin{align*}
g^{-1}(KM) &= \text{Tsuchiya, Polanyi, concept of Ba, SECI Model, etc.} \\
h^{-1}(KM) &= \text{Documentation, formalization, wiki, etc.}
\end{align*}
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1. Implementation of new activities enabling to retain and to use knowledge created during the collaborative decision making process

2. Awareness that knowledge is not an object

3. Analysis of the conditions and limits so that codified and formalized knowledge will have the same meaning regardless who is receiving it

1. Knowledge Management activities

2. Tacit knowledge

3. Interpreting explicit knowledge
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CDM Process

Knowledge

The concept of Ba (Nonaka and Konno, 1998)
The SECI Model (Nonaka and Takeuchi, 1995)
Knowledge is not an object

Knowledge Management is not reduced to the management of an object

but is the management of the activities creating, retaining and using knowledge

The participant observer of Jordan (1996)
Even when (1)

Even when (2)

Interpretability of disseminated information is not ensured

Incommensurability (Kuhn, 1970)
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(1) Knowledge Management activities
(2) Tacit knowledge
(3) Interpreting explicit knowledge
<table>
<thead>
<tr>
<th>Level</th>
<th>Implementation of new activities enabling to retain and to use knowledge created during the collaborative decision making process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>There is no activity introduced in order to retain or to use knowledge created within the collaborative decision making process.</td>
</tr>
<tr>
<td>2</td>
<td>Individuals are aware of the necessity to introduce activities likely to retain or to use knowledge created within the collaborative decision making process, nevertheless nothing is done.</td>
</tr>
<tr>
<td>3</td>
<td>Knowledge management activities are introduced in a local, informal and no hierarchized way.</td>
</tr>
<tr>
<td>4</td>
<td>There is a reference model and knowledge management activities are introduced within collaborative decision making. They can be formalized and a global knowledge management perspective is planned or conceivable.</td>
</tr>
<tr>
<td>5</td>
<td>Knowledge management activities are integrated parts of every collaborative decision making process.</td>
</tr>
<tr>
<td>Aspect → Level ↓</td>
<td>(2) Awareness that knowledge is not an object</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>The stakeholders of collaborative decision making processes use the terms “information” and “knowledge” equally.</td>
</tr>
<tr>
<td>2</td>
<td>Individuals are aware that there is a difference between information and knowledge, nevertheless nothing is introduced in order to exploit tacit knowledge held by individuals.</td>
</tr>
<tr>
<td>3</td>
<td>Individuals are aware that there is a difference between information and knowledge. Some activities aim at highlighting and sharing, in the sense of Davenport and Prusak, tacit knowledge.</td>
</tr>
<tr>
<td>4</td>
<td>Collaborative decision making processes consider knowledge as resulting of the interpretation by someone of information. Tacit knowledge is a local and not hierarchized concern.</td>
</tr>
<tr>
<td>5</td>
<td>Collaborative decision making processes considers knowledge as resulting of the interpretation by someone of information. They integrate individual and collective learning and tacit knowledge transfer.</td>
</tr>
</tbody>
</table>
| Aspect →
| Level ↓ | Analysis of the conditions and limits so that codified and formalized knowledge will have the same meaning regardless who is receiving it |
| 1 | Individuals are simple users of collaborative decision making technologies. |
| 2 | Sometimes individuals are actors of collaborative decision making processes as well as users of collaborative decision making technologies. |
| 3 | Individuals are actors of collaborative decision making processes. They create their own knowledge interpreting information. Interactions with others individuals in order to validate these interpretations are limited, rare and not maintained. |
| 4 | Individuals are actors of collaborative decision making processes. They create their own knowledge interpreting information. Interactions with others individuals in order to validate these interpretations are hierarchically imposed. |
| 5 | Individuals are actors of collaborative decision making processes. They create their own knowledge interpreting information and these interpretations are done in interaction with others individuals without any hierarchical intervention. The validity of the interpretations is ensured. |
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III. Perspectives

III.a Refine our characterizations confronting them with the field doing ethnographic workplace study
III.b Towards maturity levels of tacit knowledge consideration...?