Sharing Tacit Knowledge in Multidisciplinary Groups: The OSG Approach

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Summary

The Open Science Gallery (OSG) is a new kind of meeting for multidisciplinary groups of people who want to share knowledge but barely know each other. OSG creates a socialising space which enables group members: 1) to find each other based on shared passion and 2) to build suitable teams around relevant new ideas.

1 Introduction

One of the main tasks of our team at FFHS consists in promoting collaboration among academic researchers, with the main goal of producing new ideas for collaborative research activities (mainly projects). These researchers all belong to SUPSI (Scuola Universitaria Professionale della Svizzera Italiana, to which FFHS is associated), a geographically distributed university organisation with various autonomous research groups who seldom work together and with many group members who, for different reasons, barely know the group members of other groups. Where do you begin for promoting collaboration in such a scenario?

In their model of organisational knowledge creation Von Krogh et al. (2000) emphasize five knowledge-creation steps, which are (1) sharing tacit knowledge, (2) creating concepts, (3) justifying concepts, (4) building a prototype, and (5) cross-leveling knowledge. Following this model, the first step in our mentioned scenario would be to “share tacit knowledge”: and this is not easy. In fact, even after 20 years of knowledge management practice, tacit knowledge still seems too mysterious and is often ignored by managers because it cannot be controlled. But this is exactly what you should not do: rather than being controlled, knowledge creation needs to be enabled, and is in this similar to the growth of a plant, which also cannot be controlled but only “enabled” by appropriate cultivation. How to enable the sharing of tacit knowledge (step 1) and the creation of concepts (step 2) in the mentioned scenario?

This is the question that we in our geographically distributed organisation had to address and that we answered by means of our approach of an Open Science Gallery, an interaction method and context for enabling knowledge creation (Von Krogh et al. 2000, 176 ff) by means of a face-2-face meeting with the purpose of building interdisciplinary teams around new ideas.

2 Knowledge Sharing Model

One approach that makes tacit knowledge appear less mysterious and enables a better understanding of it has been provided by the SECI model of knowledge conversion (Nonaka & Takeuchi 1995). For our purposes we have developed a variation of the SECI model in which we focus on the foundations of knowledge sharing and which, for this reason, is called "Basic Knowledge Sharing Model" (Fig. 1).

Both models are based on the distinction of two kinds or dimensions of knowledge: a) explicit knowledge, b) tacit knowledge. Explicit knowledge is knowledge that one could easily express or which is already expressed (by spoken words, written in documents or by other means that make it perceivable). But this is not the whole knowledge base. As Polanyi wrote: "one can know more than one can tell" (Polanyi 1966, p. 8) and this "more" is a second kind or dimension of knowledge called "tacit" knowledge, the knowledge that one cannot easily express and that has not been expressed (because we are not able to do it, because it would take too much time, etc.); notice that this is the larger part - maybe 80% or even more - of our knowledge base: in fact, we are much faster in thinking and doing than in speaking and writing! Compare for example riding a bicycle with a spoken or written description of how to ride it. Metaphorically we could also say that explicit knowledge is only the shadow of tacit knowledge.

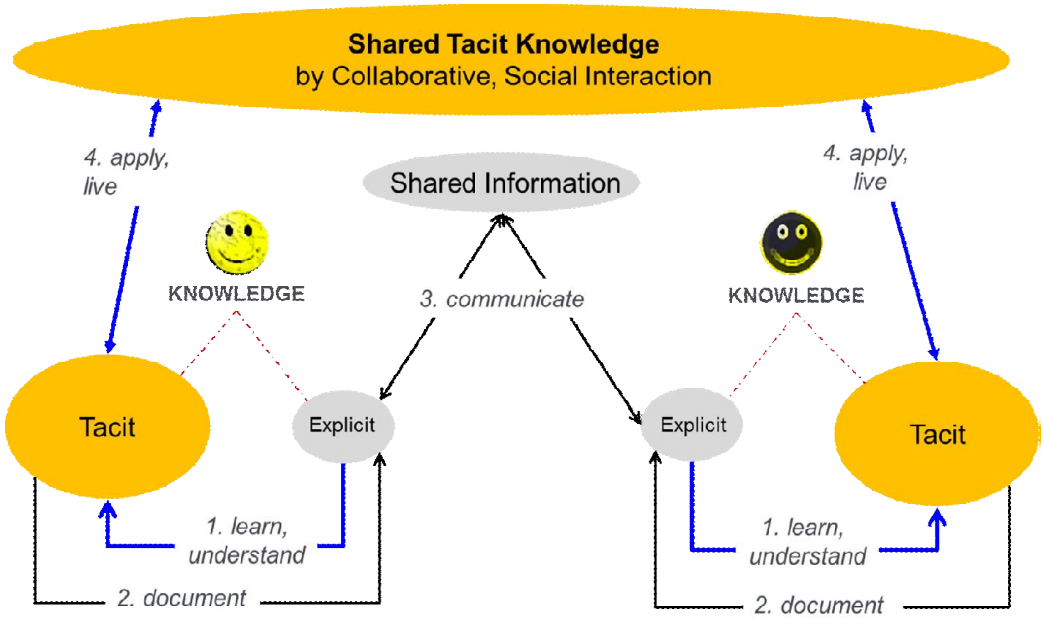

Figure 1. Basic Knowledge Sharing Model - IECS

Differently from the SECI model, in our knowledge sharing model we begin by explicitly considering two individuals, each with her knowledge base, and look at how knowledge conversions proceed first *within* the two persons and then *between* them. As a consequence we start *within* the individual by considering first the knowledge conversion from explicit to tacit, called "internalization" (1. to learn, to understand); then we consider as second the reverse knowledge conversion, from tacit to explicit, called "externalization" (2. to document). In a third step we look at the knowledge conversion from explicit to explicit called "combination", which in our case is seen as communication in the sense of an exchange of information (3. communicate) *be-*

tween two individuals; finally we come to the crucial, fourth step called "socialization" in which tacit knowledge is shared *between* the two individuals by means of interactions (4. apply, live).

Thus the sequence of our model is 1. Internalization >>> 2. Externalization >>> 3. Combination >>> 4. Socialization, or abbreviated IECS by using the initials of these steps, like in SECI. Regarding socialization and collaboration it is important to notice that in these interactions tacit knowledge "*is commonly and easily conveyed by narrative, although narrative exemplifies rather than exhaustively describes such knowledge*" (Linde 2001). Other practical ways to share tacit knowledge are listed by Von Krogh et al. (2000:83): direct observation and narration, imitation, experimentation and comparison, joint execution. They also mention conversations as an enabler of tacit knowledge sharing (2000:125ff) and suggest that tacit knowledge can be seen as the clay that participants of knowledge-creating conversations work with and form eventually arriving at new concepts (Von Krogh et al.: 135).

3 Open Science Gallery

The term Open Science Gallery (OSG) has a specific terminology, conveying in its three words the essence of our method that connects the three dimensions of ethical values, intellectual relations and physical space:

- OPEN refers to the ethical value that there is no right or wrong, nor good or bad, as Hamlet said (Act 2, scene 2), as long as two people (or more) share interest in an idea. By this we want to encourage creativity, inspiration and innovation.
- SCIENCE adds the relational dimension of expertise, which is granted to everyone: thus each participant is seen as expert and invited to share his or her expertise with colleagues from other disciplines.
- GALLERY indicates the spatial setting where participants meet. A bright room and pin-boards as catalysers with posters as boundary objects (Wenger 1998) to facilitate social interaction. Based on the definition of the gallery as "a covered passageway" the term also indicates a protected area for people and their ideas.

An OSG session needs about 100 minutes and follows a procedure composed by 8 basic steps (Figure 2):

1. *Introduction and seed question* (5'): an OSG starts with some explanations about the format and a predefined seed question. This question should simply help participants to start conversations; as such it can be very generic but should also try to trigger the knowledge-related passions of the participants; for example one could ask: "If you think about your skills and interests, to what project idea would you apply them?" or just "What boosts your passion?".
2. *Creating personal interest cards* (5'): Afterwards, each participant receives 4 previously prepared business cards (already displaying her profile picture, name and organisational unit); the task here is to complete the card with keywords expressing personal interests.
3. *Creating posters* (15'): Once the cards have been completed, participants are invited to create a poster in which (alone or together with colleagues) they answer the seed question (not mandatory!). These can be ideas for projects, discussions or anything else. To do this, they choose a free pin board which has

been prepared with large sheets of static paper (it easily adheres to the board and can easily be removed or moved to another surface) and describe their idea writing or drawing.

4. *Visiting posters* (15'): The format doesn't distinguish between the poster owner and visitor: All participants walk around in the posters' gallery, visit the posters and pin one of their business cards on each poster they are interested in (Figure 3).

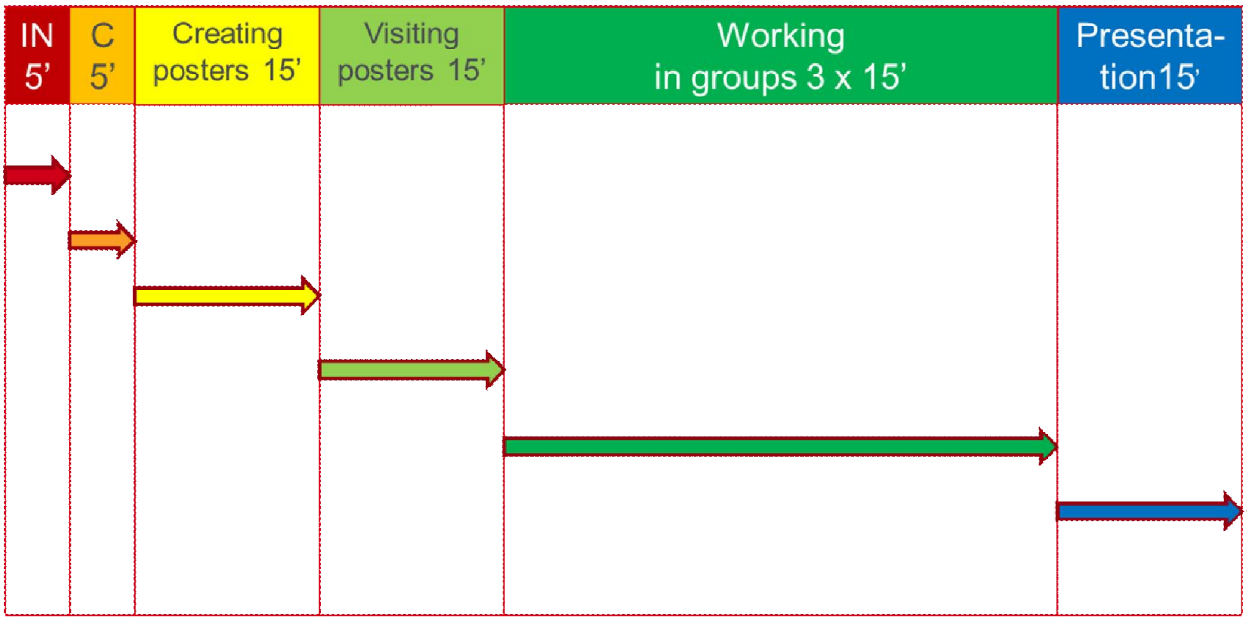

Figure 2. OSG Session Diagram

Figure 3. Poster visit (2014).

5. *Building groups*: The group building process is self-organising and happens during the poster tour. Participants select among all the posters they visited the one which they would like to work on and join the owner there. If the owner is momentarily absent, participants continue their walk in the gallery and return later.
6. *Working in groups* (3x15'): Once the interest groups have been established, they start working on their idea. Group members are allowed to leave their

current group and join another one, but only two times, one after 15 minutes and one after 30 minutes.

7. *Visualising outcomes*: During the group work participants should write down their conclusions and plans for the final plenary presentation; to this aim they are invited to use a portion of a "poster wall" (a huge paper band of 1.50 x 6 metres).
8. *Presenting outcomes* (15'): At the end of the workshop, all groups come together in a plenary session for briefly presenting their results and the next steps in front of the poster wall (Figure 4).

Figure 4. Presentation in front of the poster wall (2014).

The OSG differs from traditional Open Space formats (Owen 2008). While Open Space Technology is focused on a specific thematic purpose, with OSG the purpose is to build teams around *new* ideas; the themes of these ideas are free and the seed question merely serves to initiate discussions.

Therewith, the OSG is aligned with Nonaka's et al. (2000) model of dynamic knowledge creation: the OSG aims to create new knowledge by bringing its participants in a socialising space ("ba") together. Here they are invited to share their skills and passions and to go into a deeper dialogue to transcend tacit and explicit knowledge. Furthermore, the OSG creates a safe environment. This is important for the sense of well-being of a person (Richter 2008) and particularly for introverted people; moreover, according to Segar (2009), this is the biggest weakness of Open Space. The OSG addresses this weakness by giving all participants the space (and peace) to tell and share their ideas. Another difference from Open Space is the focus on passion, the best companion of any project: OSG aims at supporting people in activating their ideas-related passion and at the same time be completely free in how to do it.

4 Experiences and Conclusions

As already mentioned, FFHS and its parent institution SUPSI are a geographically distributed organisation with various autonomous research groups. One of the instruments for fostering collaboration consists of an annual full-day face-2-face workshop between researchers of the two institutions. The workshop focuses on promoting cooperation and advancing social ties among geographically distributed

researchers with professional and cultural differences and who, in many cases, never worked together and barely know each other.

During the 5th edition of this research workshop which took place on October 24, 2014 in Brig (Switzerland) the OSG was applied and constituted the context of the main part of the meeting which opened with a keynote speech. This OSG was attended by 32 participants from 11 units distributed in 7 different geographical locations; they created 22 posters, established 10 interdisciplinary groups and developed 4 project ideas (2 of which were later submitted for grant applications while the other two are still in progress).

This pilot experience gave us the opportunity to learn some important lessons about the OSG method that will guide our future improvements:

1. First, we found that participants of the OSG loved to interact and to create ideas. They appreciate the method's openness by working on ideas which do not usually form part of their daily activities. However, people should not feel abandoned. Hence, the facilitators have to find the right balance between free space and guidance. This is a key requirement for enabling social encounter.

2. Furthermore, the poster wall turned out to be an appreciated way of involving the plenum in the outcomes of the group works. People liked this approach of having a plenary shared space. A vertical display surface enhances collective visibility. A group of people, who were working on a single idea at a poster (in a "safe environment") share now their idea with all other participants using a huge paper wall collecting all ideas. Its function consists in making all ideas and information immediately visible to anyone in the room, in one single place (Doorley & Witthoft 2012: 44).

3. We also learned from our pilot that the OSG process needs some improvements. Participants felt partially confused and unsafe about what they should do as next. Hence, a detailed agenda displayed on a projector and careful facilitation could help to bridge this weak point. In particular, the group building process must be simplified by making participants familiar with the concept of self-organisation.

4. Finally, we saw a need for better integrating introvert people as well as participants who are not spontaneously creative. It turned out that the current way of giving participants an open and safe space for their ideas wasn't enough for all kind of persons. In particular, participants who have difficulty being outgoing and creative need a more sensitive approach (for instance by building trust among all participants).

In future we plan to collect more experiences like the one mentioned by applying the current version of our approach to different meetings, events and workshops within our organisation and to further develop both the method and its theoretical foundations based on these experiences.

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