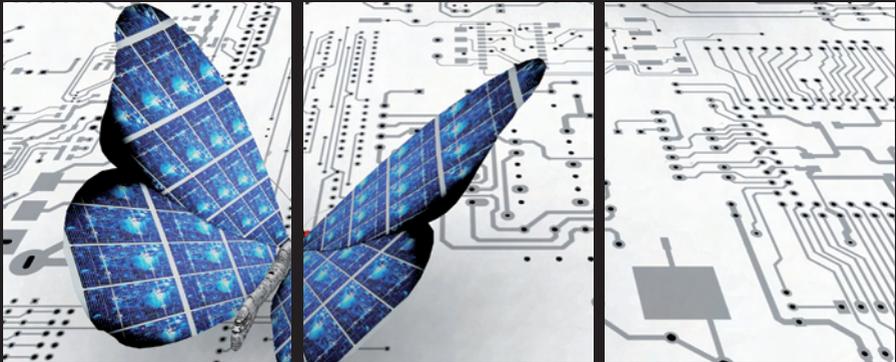# Innovation and Transformation Through Knowledge Management

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Innovation and Transformation Through Knowledge Management

is published by Ark Group

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ARK2240

The innovation conversation

By Keith De La Rue

RECENT RESEARCH has shown that conversation is important for improving innovation. It has also been found that conversation improves group and individual performance and knowledge sharing. This article will address some of the principles of innovation and how conversational techniques can be harnessed to improve business outcomes.

Innovation can mean many things, from minor tweaking of a business process to a totally new invention or discovery. Innovation is also a very hot topic. A search for 'innovation' on Google yields over 400 million results. Yet there are also many different ideas on *how* to innovate.

One of the most common images of discovery and invention is the lone genius in the laboratory, conceiving grand plans for the new and spectacular. Another is the dramatic 'Eureka!' moment of inspiration – Newton under the apple tree, or Archimedes in the bath. Yet as widespread as these notions are, most invention and innovation does not happen this way.

Where innovation comes from

In his book *Where good ideas come from*[1] Steven Johnson challenges this common belief. His study reveals that before any major breakthrough can be made, certain other things need to have already been put in place. Johnson uses the term the *adjacent possible* for this process. At any stage of human development, only certain things are achievable. It is only after these are achieved that the next step can be taken.

Johnson talks about good ideas coming from a 'collision between smaller hunches'. He found that most major ideas have come to fruition through the *sharing and recombination* of previously unrelated ideas: 'Progress is more about one door leading to another door.'[2] Michael

Michalko has also commented[3] on this concept, citing a number of historical inventions that were made possible by combinations of previously unrelated elements.

One example of the *adjacent possible* is the invention of the modern printing press. Before this idea could arise, three other things had to have already been invented: paper, ink, and movable type. Without these first existing, then there could have been no invention of the printing press – the idea could not have existed in any practical sense.

The original Guttenberg printing press was also a *combination* of ideas – it brought together the mechanics of a wine press with the process of engraving on blocks of wood. The original concept of the telephone has been recombined with other ideas to give us everything from the fax machine to the internet and the Apple iPhone.

Good ideas are thus built from a 'collection of existing parts'. In order to innovate and generate new ideas, we must bring existing ideas into contact with each other as much as possible. This will allow us to increase the options for the next possible move.

Expect the unexpected

While investigating the scientific method in the 1990s, Kevin Dunbar[4] found that new ideas in science tend to emerge more from lab meetings where scientists present their data to each other than from solitary research work. In particular, he found that it was the *conversations and debates* that followed the presentations that were the most important. It was the questions asked in these debates that triggered breakthroughs – questions that forced rethinking of data and assumptions.

We can thus bring disparate ideas into contact with each other through conversation. Get people with different knowledge and experience together to share their ideas and expose people to new ideas. Use discussions to mix and match the ideas, and see what new things emerge.

In his book *The Wisdom of Crowds*,[5] James Surowiecki states that groups can produce overall performance that is superior to that of any of the individuals in the group when addressing certain types of problems, given the right conditions.

Surowiecki's conditions for a smart crowd are:

■ Diverse membership;
■ Members who are allowed to think independently; and
■ A way to effectively pool knowledge.

This indicates that the more we can provide places for broad, disparate groups of people to meet and hold open conversation, the better we can solve problems and innovate. As Johnston states: 'It's not that creative individuals don't matter; it's that connectedness makes us more creative.'

Creating this diversity isn't always easy. The more specialised that professional disciplines become, and the more rigid and isolated the 'silos' are in organisations, the more difficult it is to create the right environment.

Some of the most creative periods in history have been when disparate gatherings have been commonplace, such as in the coffee-houses in Europe during the Enlightenment in the seventeenth century. Innovation requires similar places where different ideas can be brought together and openly discussed.

The development of the internet has provided a platform for connectivity between people on a massive scale – across areas of knowledge and all of the historical chasms between culture, language, and class. In particular, the recent emergence of social media is providing the modern equivalent of the coffee-house conversation.

Let's talk about it

'Conversation is a meeting of minds with different memories and habits. When minds meet, they don't just exchange facts: they transform them, reshape them, draw different implications from them, and engage in new trains of thought. Conversation doesn't just reshuffle the cards: it creates new cards.'[6]

Communication is fundamental to human existence, and conversation is at the heart of communication.

In most organisations today, people are driven by an increasing pressure to meet targets or key performance indicators. This model is all too often applied to innovation, as well as day-to-day business. One of the paradoxes of this pressure is that we are discouraged from spending

time in 'idle' conversation around the proverbial water-cooler; yet we seem to spend countless hours in meetings that don't always help us achieve these targets.

Recent research has reinforced the importance of conversation to many fields of work; not least innovation.

Philosopher, historian, and author Theodore Zeldin has written extensively about conversation. In his work, he has highlighted the importance of the *kinds* of conversations we have. His particular interest is in *transformative* conversations – the conversations from which we are 'prepared to emerge a slightly different person'.

Zeldin draws on Socrates' idea that when two individuals are put together, they are able to achieve more than either individually. Now, just over 2,400 years after Socrates, research is supporting this idea. Zeldin also links this to innovation: 'invention and progress comes from finding a link between two ideas that have never met'.

Collective intelligence and the myth of the idea monopoly

'Having a bunch of smart people in a group doesn't necessarily make the group smart.[7]

Conversation can lead to the whole being greater than the sum of its parts. A research team led by Anita Woolley[8] in 2010 found evidence for the *collective* intelligence in groups – an intelligence that was not related to the intelligence of the individual members of the groups.

Group intelligence was found to relate to *how* the members of the team worked together. This depended on the *social sensitivity* of the group members, and the readiness of the group to allow members to take *equal turns* in the conversation. Conversely, in groups where one person dominated, 'the group was less collectively intelligent than in groups where the conversational turns were more evenly distributed'.

Woolley's research also found that teams with a higher number of women exhibited higher collective intelligence. Although this was not an objective of the research, further investigation found that this result was due to women, on average, having greater social sensitivity than men – in practice, the

presence of socially sensitive people of either gender produced better team performance. However, this does lead to the suggestion that groups composed only of men may not perform as well as mixed groups.

The implications of these findings for organisations are significant. In most organisations, work teams are led by people placed in dominant 'manager' roles. This research suggests that in these cases, team performance will be lower than if all members are allowed to play equal roles.

The research also indicates that team performance can be improved by the selection of team members, and by teaching team members to interact in more socially sensitive ways. In any organisation where status, hierarchy, or individualism are important, this approach may be challenging to implement effectively.

The increasing complexity in the business environment over recent years has also led to the need to change the traditional 'command-and-control' model for leadership. Recent research by Groysberg and Slind[9] also highlights changes taking place in communication and information flow within organisations, and the need for a new process that is 'more dynamic and more sophisticated. Most important, that process must be conversational'. To address this, they have developed a new model of leadership they have called 'organisational conversation'. The challenge to leaders is to be more facilitative in approach, rather than controlling.

This may also be a personal challenge to team members with special expertise in the field of the team's task. Although these people may have a great deal to contribute to the team, they need to allow others to take turns in conversations. They may have expertise in their field, but there is no monopoly on ideas – all ideas need to be aired where innovation is required.

The benefits of friendship

'… these findings highlight the connection between social intelligence and general intelligence.'[10]

Another recent study has investigated the impact of social interaction on *individual* intelligence. This research, by psychologist Oscar Ybarra, shows that certain types of conversation actually improve individual mental function.

The type of conversation tested was a brief, friendly conversation – the type of conversation you have when getting to know another person. These conversations only need to be brief; ten minutes is enough to make an impact.

Ybarra's team looked at one specific aspect of mental function – executive function. This includes working memory, self-monitoring and focus – skills that are critical to problem-solving. The study results suggested that the improvements in performance '… come about because some social interactions induce people to try to read others' minds and take their perspectives on things'. So the more you try to put yourself in someone else's shoes, the more you improve your own mental performance.

One important finding of the study was that this effect only occurred after *friendly* conversations. Conversations that were of a more competitive nature were found to have no effect on mental function.

The practical application of this research in organisations is also significant. It implies that introducing people around the table at a meeting can actually improve the problem-solving capabilities of the group. To be effective, these introductions should not just be a simple 'name and position' litany, but should allow for sufficient sharing for people to actually get to know each other as friends.

Conversely, it also implies that holding meetings in a competitive or dominated environment actually reduces the ability of the attendees to effectively solve problems.

The conversation toolkit

There are many facilitation techniques and conversational knowledge sharing tools available to support the style of conversations discussed here.

One approach well known to many working in knowledge management is The Knowledge Café, as practiced by David Gurteen.[11] This 'brings a group of people together to have an open, creative conversation on a topic of mutual interest to surface their collective knowledge, to share ideas and insights and to gain a deeper understanding of the subject and the issues involved'. Zeldin's ideas are central to the Knowledge Café – 'conversation is intrinsically creative'.

The Knowledge Café provides an environment where people sit around small tables, encouraging participation and equal turns in a series of

conversations. As the conversations progress, the attendees are able to spread the discussed ideas further through swapping to other tables. Key ideas can be further shared in the final plenary discussion.

One of the notable principles of the Knowledge Café is that no detailed agenda is used, and no notes or action lists are collected – the entire point of the session is the *conversation*. Other conversational tools may be more targeted at specific outcomes.

This technique can support innovation, as it is just the *topic* of discussion that is defined. Provided that people with a broad cross-section of backgrounds and perspectives are invited to attend the Café, the principles of innovative conversations discussed above can be achieved.

Another facilitated conversational technique is Open Space Technology,[12] a self-organising format based on a simple set of rules aimed at encouraging emergent conversations and outcomes. There are many other similar techniques that support the conversational principles discussed above.

Another important aspect of an innovative conversation is that it is *divergent* – it must allow ideas to be brought into the conversation and openly discussed. This is sometimes referred to as the 'Yes, and…' approach. This approach is in contrast to the *convergent* conversation, all too familiar in many organisations, where ideas are closed off with 'No, because…' or 'But…'.

Extending the conversation

Many of today's conversations may need additional support from technology. An additional finding from Woolley's research team was that group intelligence could be improved by equipping groups with 'better electronic collaboration tools'.

As we can't always meet face to face, our conversations may take place partially or totally online. The internet has provided a platform to support this in ways not previously possible; the emergence of social media has boosted this dramatically.

Social media tools provide many of the functions needed to enhance conversations between groups of people; as well as platforms for virtual conversations between people who are unable to meet face-to-face. Social media can be used to expand our networks and find people who can help us.

Yammer[13], for example, is a particularly useful platform for online conversations within organisations or communities, where conversations are started by the prompting question: 'What are you working on?' Yammer promotes a conversational style and immediacy that helps to keep conversations at a level where effective interaction can take place. It can also help to connect people within organisations who would otherwise never meet face to face.

As Johnson has suggested, it is through building these broad personal networks that we can 'find other people who have that missing piece that will complete the idea we are working on'.

We need to talk!

From the information presented here, it can be seen that when used in the right way, conversation can improve innovation, along with improving the performance of people, both in groups and as individuals.

When arranging a meeting for the purpose of innovation, the following checklist may be helpful:

- Has the meeting commenced with introductions that tell me something about all the people present and helps me to understand them personally?
- Are all the participants entering this conversation with openness and a willingness to be changed as a result of the conversation?
- Is everyone being sensitive to others, and allowing equal turns in the discussion?
- Are the discussions friendly, constructive and supportive?
- Do we have people with a sufficiently wide range of expertise and viewpoints present in the conversation?

If the meeting is missing any of these basic elements for success, it may be best to either draw it to a close, or seek to address the shortfalls as soon as possible.

Note: Parts of this article are based on 'The Art of Conversation', an article published in Thomson Reuters Online Currents, Volume 25, Number 2, April 2011.

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