14th IBIMA conference on Global Business Transformation through Innovation and Knowledge Management, 23 – 24 June, Istanbul, Turkey.

INTERMEDIATION IN INNOVATION COMMUNITIES:
THE CASE OF CENTIRO

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Abstract

The aim of the paper is to advance our understanding of the growing role of innovation communities, in particular the role of intermediaries in such communities, and also to look for new ways of learning in innovation communities using a new meeting format. The paper provides a literature survey on innovation communities, with an emphasis on intermediaries and their functions. A new form of meeting format called the "systemic meeting" is used to understand and enhance the knowledge and learning processes in the innovation community of Centiro, a rapidly growing Borås company specializing in IS/IT solutions for demand chain management. There is a wealth of knowledge available in different innovation communities, not the least in the global IS/IT community. But there is a dire need to develop the learning processes in order to get maximum benefit of that knowledge. Systemic meetings have shown to be powerful tools to surface the knowledge-learning interrelationship and to bridge the gap knowledge and learning in innovation communities. The paper focuses on a systemic meeting held as a part of a Logistics Change Management class at the University of Borås. However, building on that it also provides reflections on how systemic meetings can be used as a tool for intermediaries, or for companies who want to develop their intermediating position as a way to bridge the knowledge/learning gap. The paper will deepen our understanding of how systemic meetings can be used to develop innovation communities.

Keywords – innovation intermediaries, innovation communities, systemic meetings, knowledge management, systemic learning.

Introduction

The rapidly changing business landscapes with highly unstable customers demands; the survival is strongly connected to innovation capacity of the firm. Innovation will not only inject new blood but also a source of organic growth, revenues and competitive advantage (Drucker, 1988, 2002; Christensen, 1997; Denton, 1999, Jon and Johan, 1999; Darroch, 2002; Lyon and Ferrier, 2002; Oetinger, 2004; Simme, 2008). Open innovation (Chesbrough, 2003), disruptive innovation (Christensen, 1997) and user (driven) innovation (Thomke, Stefan; von Hippel, Eric, 2002) are taking over the old approaches to the innovation.

With the emergence of the knowledge era, companies are now looking for the useful knowledge and access and make use of that knowledge in their daily work is now a real challenge (Prahalad and Hamel, 1990). A shift has been seen to networking as a way to benefit better from internal and external knowledge, and communities of practice (Wenger et al., 2002) have emerged as a powerful conceptual tool for the companies to innovate and lead change (Saint and Wallace, 2003). Intermediaries (Chesbrough, 2006) or innovation intermediaries (Howells, 2006) also have emerged as a networking platform connecting many actors in innovation communities for knowledge exchange and innovation enabling (Winch and Courtney, 2007).

Intermediaries’ role has changed from that of a legislative and broker oriented facilitation of technology transfer (Hägerstrand 1952; Rogers 1962) to a more self sustained role which takes on the challenges of knitting together suppliers of knowledge with users of knowledge on a larger scale (Hargadon and Sutton, 1997). This involves establishing connections between system actors on different levels in innovation communities, for the sake of knowledge creation, knowledge transfer and knowledge use or learning (Lynn et al., 1996).

This broadened role creates a need for new tools and concepts. This paper investigates if and how the systemic meeting can be used as practical way to develop the intermediary position, with conceptual guidance from systemic theory. In particular it focuses on the suggestion formulated by this theory to look upon the intermediary position as a third position, intermediating between the learning or knowledge usage position as the first position and the knowledge creating position as the second position.

The credo of this paper can be summarised as follows: The industrial society, and even more so today’s knowledge society (Drucker, 1992), has brought with it a strengthening of the second position, the knowledge creating position. However, its connection to the first positions, the knowledge usage position, has not kept pace. If we are to benefit from all the knowledge created, and also if we are to develop new knowledge in more
responsive and hence value creating ways, the knowledge transfer and knowledge needs creation processes have
to be given more attention.

Research questions:

1. Can systemic meetings be used as an intermediary tool, and if so how?
2. Can systemic theory be used to enhance our understanding of the first question?

Intermediaries and their role in innovation communities

The basic role of innovation intermediaries connecting different system actors (seen as first position seekers and second position solvers) in an innovation community is explained by Howells (2006) as: “An organization or body that acts as an agent or broker in any aspect of the innovation process between two or more parties. Such intermediary activities include: helping to provide information about potential collaborators; brokering a transaction between two or more parties; acting as a mediator, or go-between; bodies or organizations that are already collaborating; and helping find advice, funding and support for the innovation outcomes of such collaborations.”

Howells (2006) has also identified a number of more specific intermediary roles: Foresight and diagnostics, scanning and information processing, knowledge processing and combination/recombination, gate keeping and brokering, testing and validation, accreditation, validation and regulation, protecting the results, commercialization and evaluation of outcomes.

This paper makes a distinction between the narrow and broad roles of intermediaries, the former being that of providing specific brokerage and knowledge exchange services and the latter being that of identifying and developing the needs and usages of such services as a part of a broad community interaction. The narrow role can be seen as any other second position knowledge service role in a value chain or demand chain, just like for example a transport company providing transport services in such a chain. The broad role is then seen as a role of third position integration, involving narrow role innovation intermediary services as well as all other services operative in a demand chain.

Systemic theory, as used in this paper, connects to the notion of complexity acknowledgement. Ordered knowledge, also the knowledge that is presented in services, represents complexity reduction or complexity “taming”. The second position approach to knowledge creation is based on real world extractions – measures, data, information etc; all that can be documented from the real world. The third position approach to knowledge creation on the other hand is based on real world excursions. Excursions mean actually going there on your own, out in the real world; not just relying upon the reports of others. The method of excursions has been used in research by for example ethnologists. In practical business contexts story telling has been used to acknowledge real world complexities. In most cases, however, it has been used in the form of edited stories, communicating a certain INTENTION in change processes. The systemic meeting instead works with spontaneous stories aimed at grasping the FACTUAL functioning of systems; be they demand chain systems or product defined systems.

Systemic theory suggests a shift from a WE THEN THERE apprehension of systemic roles to a mind format of I NOW HERE. Reports from the real world aim a WE THEN THERE oriented innovation processes – like in projects – working primarily with knowledge externalisation and combination (Nonaka et al., 2001). Excursions to the real work aim at I NOW HERE oriented innovation processes – like in self organised innovation initiatives – working also with knowledge internalisation and socialisation (Nonaka et al., 2001).

The systemic meeting as a tool for taking on the broad role of intermediation is based on spontaneous stories aiming for I NOW HERE oriented innovation processes. This includes the individual initiation of projects, the individual performance in projects and the individual use or project results, or knowledge.

There is a growing attention on the roles of intermediaries in SME innovation communities, especially considering SME’s lack of a solid knowledge base (Kirkels and Duysters, 2010) and lack of knowledge related resources. The paper will discuss the usability of the systemic meeting as an intermediating tool for managing
knowledge and connecting seekers (in this case Centiro) and solvers (in this case the University of Boras) in a regional innovation community.

The systemic meeting can be thought of as providing the *synapse* structure and function in business systems seen as living systems (or open systems or complex systems) knitting together “order cells” (or cells of knowledge) with “complex cells” (or cells of learning)\(^1\):

![Synapse diagram](image)

**Systemic meeting**

With its base in system and network theory, systemic meeting has the following steps:

1. **Uninterrupted story telling** – storytelling is a powerful tool to get insight into the real world complexities, innovate and lead change.

2. **Questions and answers** – clarifications of the story and deepen the understanding of the problem.

3. **Patterns recognition** – pattern recognition by the solvers based on their individual experience and understanding

4. **Recognition of choices** – possible actions stemming from the pattern recognition

5. **I NOW HERE** suggestions on possible actions

6. **I NOW HERE** reflection on suggested actions by the story teller

7. **Reflections on innovation capacity and building of such capacity**

For the knowledge flow and steps in systemic meetings see exhibit I:

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\(^1\) For a more elaborate discussion on this, see Sarv, Khan 2010 “The Oatly case”
Exhibit 1. Systemic meeting

1. Story telling

2. Questions and answers

3. Pattern recognition

4. Recognition of choices

5. Solvers Suggestions and
6. Seeker reflections

6. Suggestions for action (story creation)

7. Reflections on the community capacity for storytelling, story recognition and story creation – followed by action building innovation capacities
The Centiro story of a multi level and interactive innovation community

With the fast changing market demands and demanding quick response and short lead times, Centiro is providing world class logistics IS/IT services to its customers along the whole value chains. Centiro helps companies increase transparency, visibility, control and collaboration across their value chains. Involving their customers in the development phase not only increases the efficiency and effectiveness of the development. It also helps Centiro build a knowledge/learning coherent community for the development of the Centiro services. Also higher systemic levels, like that of Microsoft and the universities are part of that community. Centiro can be seen to have an intermediary position in the community. A systemic meeting with Centiro founder and president Niklas Hedin at the University of Borås explores the possibilities for further community developments.

The story of Niklas Hedin as told and evolving through questions:

"We increasingly find our inspiration and our business opportunities in what is happening among our customers’ customers, i.e. in what our customers can do with our products to increase their value for their customers. Likewise, we increasingly find ourselves in a situation where we are helping our vendors to develop their products, based on their recognition of what we can do for our customers.

We wouldn’t be able to participate in this multilevel quick-jumping if it wasn’t for our new ways to meet with our customers and our vendors. For example: We have developed a meeting form where have our customers discussing their business opportunities with their customers with access to the basic logics of our products. And likewise Microsoft, being our main vendor, base their product developments on seminars with some of their big and inventive customers. We have participated in some such seminars.

Our intermediating seminar meetings have developed into a service of their own. We try to change our business model, which has been that of a traditional software house, into more upfront revenues and less upfront costs. Traditionally software development has meant substantial development costs before product launches and product revenues. We try to change this in many ways and our seminars help us identify off the shelf or module services that can get our customers starting in streamlining their logistic links with their customers. To some extent we are also in a position where we negotiate reimbursement schemes based on customer savings. If they earn 30 euro per transaction they are more than willing to pay us 2 euro per transaction.

We base our services or products on IS/IT architectural knowledge as well as on demand chain knowledge. We sell services with large knowledge contents, and we know that our customers have a lot of learning and improvement opportunities from using our services. The mere use of the services generates improvements and learning, but the potential is higher if our customers transform into a demand chain strategy. Their logistics will then improve beyond solitary problem solving, such as late deliveries, low visibility, poor advance notifications and logistics waste. With a demand chain strategy our customers will be able to find new business opportunities. Many of our end consumer customers compete on markets where their products in themselves differ little from those or their competitors. They developing more demand responsive links to end consumer stores can then make all the difference. And many of our business-to-business customers will have even higher development potentials in making their parts of the supply chains more lean, agile and resilient. Our products can help them fulfil such strategies, but without an understanding of what our products can do, these strategies will never be formulated, much less implemented.

It is more and more apparent to us that these customer learning processes are our main business. We live on our customers’ improving their supply and demand chains, and our business idea is to help them with the journey, which is a journey of organisational learning and organisational change.
These customer journeys make our account management the heart of our business. Our account managers are our business managers and we make a lot of efforts to provide them with intermediary services that help them in their turn contribute to change and learning effective customer transformations. Highly visible customer product modules are part of this service, so that our account managers can enter our “store” and pick the right product at the right time. And likewise visible reimbursement schemes are another part, so that they can find good payment models for our services.

The launches of product services and reimbursement schemes make up an increasingly important development arena. If our account managers are the heart of our business, meetings between our account managers and our development people make up the vascular system. Our account managers return home with insights regarding our customers’ business progresses, not just progresses that are based on our products, but also other types of progresses. This constantly provides our internal development meetings with fresh and oxygen rich blood. Our account managers provide us with product feedback as well as customer and customer-customer recognition. The development meetings then become meetings between what we can do – as our development people perceives it – and what our customers need – as our account managers perceives it. The dialogue between the two perspectives is providing the blood pressure needed to invent new products and launch them successfully on the market.

Our development meetings need a supply of IS/IT and demand chain knowledge. IS/IT and demand chain professionals sitting in and participating in the meetings provides this supply, to the extent that it is not readily available through other channels, such as Microsoft platforms and services and such as Internet demand chain knowledge. And, by IS/IT and demand chain professionals participating in the meetings these professionals will also receive the type of feedback and recognition that they in turn need to develop their knowledge and their services. We have even found that our internal development meetings may serve as action research meetings for IS/IT and demand chain professors, as well as a number of other professors, such as pricing management and service management professors.

Of course our account managers returning home with product and customer insights will also provide benefits to our other customers. Many of our customers participate in user groups, which is also an arena for product feedback and customer and customer-customer recognition. But our internal development meetings form a virtual arena that can mean even more to our customers, because here we feel freer to investigate new product and business opportunities. This way, important insights from one customer can transform into important services for another customer.

So in summary we find ourselves in the middle of a large innovation community, spanning from end consumers in many cases to research. It is a demand and research driven community, and it is highly real. Developing that community will help our business grow, and with it a number of other businesses.”

This is what we “heard” Niklas Hedin (CEO of Centiro) say in a systemic meeting in a Logistics Change Management class at the University College of Borås. It does not represent a history based transcript only, but also a futuristic transcript. Some of the statements are Niklas’, others are our own, trying to imagine where Niklas Company Centiro might be going. The systemic meeting identified patterns and choices, FACTUAL patterns and choices as well as INTENDED or “could be”-“could become” patterns and choices. The students of the class helped discover present and potential patterns and choices, and we know for sure that they can elaborate the transcript in many ways, that they can create new Centiro stories. We – as teachers – only grasped some of their insights and recognitions during the class.
Reflections on possible community developments

In the morning, the class had dealt with modelling opportunities for innovation systems, or innovation communities. One of the models was based on a distinction between a left knowledge side and a right learning side:

<table>
<thead>
<tr>
<th>Knowledge side</th>
<th>Learning side</th>
</tr>
</thead>
<tbody>
<tr>
<td>- service presentations</td>
<td>- services usages</td>
</tr>
<tr>
<td>Knowledge in different forms</td>
<td>Learning in different forms</td>
</tr>
</tbody>
</table>

This two-sided model highlights the basic linking mechanism in value chain related knowledge chains or value chain innovation communities. Such communities may also be represented by the concentric circle model:

Centiro is presenting a number of knowledge based services to its customers, incurring change and learning at the site of its customers. In the same time, Centiro itself is changing and learning based on knowledge based services from its vendors. And the Centiro customers’ customers are changing and learning based on the services of Centiros customers. So we may add a number of circles or columns, or system levels, to the two-circle/two-sided models outlined above. And including the circles or sides of Centiros internal development meetings and their customer seminars – which also are meetings between knowledge and services – the number of circles or columns will increase even more.

Using the two models to clarify present and potential innovation community patterns, we see two basic developments or trends:

We can call the first an interactive or band knitting pattern, illustrated as follows:
The band knitting pattern contrasts with the old sequential pattern:

<table>
<thead>
<tr>
<th>Knowledge side - service presentations</th>
<th>New interactive or &quot;band knitting&quot; pattern</th>
<th>Learning side - services usages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge in different forms</td>
<td></td>
<td>Learning in different forms</td>
</tr>
<tr>
<td>Centrio developing modular services, ranging from traditional software services to customer strategy and customer product development services</td>
<td></td>
<td>Customers learning from usages of modular services and strategy and development services allowing for change and learning on a broader scale</td>
</tr>
</tbody>
</table>

The sequential pattern made learning slow and narrow, restricted to adjustments of routines. The interactive band knitting opens for a wider range of customer change and learning. For example, Centrio’s strategic services, and the company’s serviceification of service modules, make customer change and learning processes more broad minded and effective, hence lifting “the business Centiro is in” to newer levels.

Using the other model we also see an innovation community “splash” pattern (think upon the picture below as splashes from throwing stones in water):
The interactive band knitting is multi level. The knitting makes new technology, like the one Microsoft introduces based on its interactive band knitting with microprocessor and other type of research, transfer rapidly into new software services and new consumer products. Likewise – in the other direction – end consumer interfacing companies like Apple (one of Centiros’ customers) through their band knitting with end consumers will cause “pulses” in the other direction, pulses calling for new technical solutions and new software services.

So, what does the knitting and splashing patterns say to Centiro and others in the Centiro innovation system, or the Centiro innovation community? Together with more established patterns, like modularisation and serviceification, it forms a more systemic pattern in innovation communities. And just like modularisation and serviceification can be strategies or guiding concepts for companies like Centiro, knitting and splashing can too. And they cannot just for companies like Centiro, but also for University Colleges like that of Borås, and other actors in innovation communities, like for example Vinnova and Win-Growth programs. Lagnevik and Sarv (2008)² have showed how serviceification and modularisation of regional innovation system evaluation programs and regional foresights can be used as means for Win-Growth programs to strengthen regional innovation systems. They have also showed how enforcements of knitting and splashing strategies can become innovation community governance strategies.

Knitting and splashing, as little as serviceification and modularisation don’t become effective change strategies without learning. And the learning cannot be sequential, based on traditional research and traditional training. It can only be interactive, based on action research and experimental action. At least if we believe in the theories of systemic learning, and the experiences made from systemic meetings, and systemic meeting based governance.

Conclusions on the roles of intermediaries in innovation communities

We can distinguish between the narrow and broad role of intermediaries. The narrow role would be that connected to specific intermediary services, like in the Centiro case a number of IS/IT solutions for logistics information flows in demand chains. They all dwell in the “order zone” (complexity theory) and they are characterised by modularization and serviceification. The broad role would be that performed by the account managers, working in part through seminars with Centiro customers. These seminars dwell in the “complexity

² Lagnevik, M; Sarv, H: Innovation Community Governance – the food innovation case, working material 2008.
zone” (same theory) in that they acknowledge the complexity of Centiro’s customers change and learning processes. Also the internal Centiro seminars, those where account managers meet with the Centiro staff take a complexity acknowledging approach in that they are based on the account managers story telling on the Centiro’s customers change and learning processes.

The modularization and servicification of Centiro services help Centiro customers, through the help of the intermediating account managers, chose and pick among the services, in order to fit the progression of their logistics. It helps developing a demand or learning driven interaction between on the one hand the knowledge based IS/IT solutions and on the other hand the companies learning to use and benefit from these solutions. It thereby also helps materialise a “knitting and splashing” strategy of Centiro, as part of a larger innovation community.

The University of Borås, in this case the class of Logistics Change Management, like to be part of this community. Written of edited cases or stories have been used for many years now in business management and other types of education. But spontaneous stories forming a base for systemic dialogues and reflection, like in systemic meetings, presents the class with other learning opportunities. For one thing the class will have an opportunity to recognise more fully the developmental challenges of in this case Centiro. Real life and spontaneous stories provide a richness of impressions that cannot be supplied by written cases. For another thing the class will also get an opportunity to make suggestions and present solutions to support in this case the development of Centiro. The feedback from Centiro on the implementation of the suggestions and solutions will provide other learning opportunities than solely having feedback from class teachers. And for a third thing, and maybe most importantly, the students will have an opportunity to develop their own theories and understanding on the progress of innovation communities, and on the roles of intermediaries in such communities. Teacher knowledge can be presented in a more responsive way, as a part of mutual reflection.

The class was experiencing essentially the same situation as

- the account managers trying to present in a responsive way Centiro knowledge in the form of Centiro services in customer seminars
- the Centiro staff trying to present in a responsive way different types of staff expertise and staff developed (narrow intermediation) intermediary services in internal seminars
- the Microsoft staff trying to present in a responsive way what Microsoft can do to help taking on the challenges of Centiro and in turn Centiro customers and in turn Centiros customers customer’s all the way out to the end consumers, of for example Apple products

This way the systemic meeting held in the University class, in its’ addressing the whole community picture, boiled down the essence of “complex responsive systems” in action. The class was given an opportunity not just to read about the theories but also to experience them in the real life complexity as dealt with in the story telling – story recognition – story creation process of the systemic meeting.

The same option is open to Centiro. The class meeting gave Niklas Hedin the idea to develop Centiros internal and customer seminars in a systemic direction, through the use of the systemic meeting form, and through the use of systemic theory based conceptualisations, like the ones presented in this paper. This development is now in progress. It will hopefully form a base for further papers. We as teachers, and the classes that we give, will then have an opportunity to be part of the dynamic “knitting” and “splashing” processes evolving from Centiro formulating and implementing such strategies.

References


