Community Action Research[1]

Peter Senge and Otto Scharmer

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This article presents an emerging approach to building knowledge for large scale transformational change. Laying behind this approach is a core premise: that Industrial Age institutions face extraordinary challenges to evolve which are unlikely to be met in isolation. Collaboration and joint knowledge building is vital. Competition, which fueled the Industrial era, must now be tempered by cooperation. Without this balance, organizations of all sorts will be unable to survive the hyper-competition of today's global marketplaces. While competition and competitiveness remain the mantra of traditional market advocates, the frenzy for optimal return on financial capital today threatens health and sustainability on all levels, not only of individual institutions but of their members and indeed the larger social and natural systems in which they are embedded.

Community action research represents an approach to collaborative knowledge creation with which we have been engaged now for some ten years. Community action research builds on the tradition of action research by embedding change oriented projects within a larger community of practitioners, consultants, and researchers. Like action research, community action research confronts the challenges of producing practical knowledge that is useful to people in the everyday conduct of their lives (Reason and Bradbury, Introduction). Like action research, community action research values knowing-in-action, embracing Humberto Maturana's dictum that "all knowing is doing, all doing is knowing." But, unlike traditional action research, community action research focuses on:

> 1. fostering relationships and collaboration among diverse organizations, and among the consultants and researchers working with them;

> 2. creating settings for collective reflection that enable people from different organizations to "see themselves in one another;"

> 3. leveraging progress in individual organizations through cross-institutional links so as to sustain transformative changes that otherwise would die out.

For example, Gustavsen's (Chapter 1) account of cross-institutional democratic dialogues in Sweden in order to develop "learning regions" is a good example for what we refer to as community action research. In short, community action

research places as much emphasis on building cross-organizational learning communities as on undertaking action research projects.

Such communities grow from common purpose, shared principles, and common understanding of the knowledge-creating process. The purpose, building knowledge for institutional and social change, defines why the community exists. Shared principles establish deep beliefs and ground rules for being a member of the community. Understanding the knowledge creating process enables everyone to see how their efforts fit within a larger system — a continuing cycle of creating theory, tools, and practical know-how — and how they inter-depend on one another.

Today, this knowledge-creating system is profoundly fragmented in the fields of management and institutional change. The consequences are ivory tower university research disconnected from practical needs (Levin and Greenwood, Chapter 9), consulting projects that generate intellectually appealing change strategies that never get implemented, and "flavor of the month" management initiatives that lack any underlying theory or long-term strategic coherence and engender more cynicism than commitment within organizations. The ultimate consequence of this fragmentation is the inability of Industrial Age institutions of all sorts — corporations, schools and universities, and public and non-profit organizations — to adapt to the realities of the present day. Especially in times of deep change, sustaining adaptive institutional responses requires better theory, method <u>and</u> practical know-how.

But bringing the theory of community action research to life involves conditions that are only just now being understood. It starts with genuine commitment on the part of a group of managerial practitioners from diverse organizations, consultants and researchers to work together. It further requires an agreed upon system of self governance and learning infrastructures that enable relationship building, collaborative projects, and sharing insights across the entire community and beyond. Lastly, it entails appreciating and encouraging emergent learning networks that arise in ways that can be neither predicted nor controlled.

The aim of this paper is to present the basic ideas underlying community action research and illustrate their potential to produce both organizational impact and new knowledge. While building such communities is challenging, the alternative

is continued reliance on traditional, fragmented consulting and academic research, and on episodic organizational change programs driven by top management's latest ideas. We believe this status quo will never produce the breakthroughs in theory and practice needed to reinvent Industrial Age institutions.

A Brief History of One Effort at Community Action Research: From the MIT Center for Organizational Learning to SoL (The Society for Organizational Learning)

In 1991, a group of large, primarily US-based corporations came together to found the MIT Center for Organizational Learning. Is it correct to abbreviate this as OLC YES THIS IS CORRECT. USE OLC ?[i] The collaborative originated from interest in applying the "five discipline" tools and principles for organizational learning (Senge 1990, Senge. et. al. 1994) and from a belief that sustaining progress with such tools required deep and extensive change, and that this was more likely with a group of organizations willing to work together, providing examples, help, and inspiration to one another (Senge 1993).

During the early 1990s, the collaborative gradually grew into the beginnings of a community. This incipient community was evident in enthusiasm for early successful projects (eg., see Senge et. al. 1994 and Roth and Kleiner 1996) and for support extended to those involved in projects that ran into difficulties (e.g., Wyer and Roth 1997). For example, when managers left firms that were not prepared to sustain innovations they had initiated, they immediately began helping other consortium companies who were not so cautious.

But, as the MIT OLC community grew to include about 20 member companies and many change projects within those companies, basic problems became evident (Bradbury 1999). It became increasingly awkward to be organized as a research center at MIT. As responsibility for the success of the community became more widely shared, in a sense the "center" became increasingly distributed.   Ambiguous power relationships developed. Dealing with the cross-currents of a "de-centering" organization diverted increasing amounts of time away from research and initiating new projects. Revenue growth slowed and staff expansion to serve the growing community was deferred. At the same time, despite slowing growth, the overall revenue volume was several

times what it had been when the Center was founded and there was pressure from the MIT administration for a larger share of the OLC revenue to go to traditional faculty research.

Beginning in 1995, a design team was formed, composed of twenty five people including representatives from member companies, senior consultants and researchers, including several MIT faculty. The task was to rethink the OLC. It was clear to all that the promise of this emerging learning community was being lost amid growing complexity and confusion.

A Theory of Learning Communities

The OLC redesign team met for almost two years. What some had hoped would be a quick identification of solutions became instead a deep and demanding process of reflecting on who we were and why we were here. We were fortunate to be guided in this process by VISA founder Dee Hock. Dee's ideas on "chaordic organizations," radically decentralized organizations which consistently generate order out of chaos, inspired the group to imagine that there might be a viable alternative to the centralized organization structure of the OLC (Hock 1999).

Eventually, we realized that where the MIT OLC had succeeded, the success arose from three sources: a talented group of people committed to linking deep change at the personal and organizational levels, employing powerful tools based in deep theory, and a common aim to better integrate research and practice. In effect, there existed a common purpose although we had never articulated it: building knowledge for organizational transformation. There also existed an implicitly shared understanding of what we meant by knowledge and knowledge creation: advancing theory, tools, and practical know-how. What we had never addressed was how best to organize to support this common aim.

In the second year, a guiding image emerged which catalyzed the shift from reflecting on our past to creating our future. We began to think of the knowledge creation process metaphorically as a tree. The roots symbolize

underlying theory, below the surface — yet, though invisible to many, the ultimate determinants of the health of the tree. The branches symbolize tools and methods, the means whereby theory is translated into application. The fruit of the tree is the practical know-how whose tangible benefits ultimately prove the value of the knowledge.

The tree is a living system. It continually regenerates itself, creating new roots, branches, and fruit. This self-creating arises from the interdependence of the elements. Can you imagine new branches being created in a tree without roots? Or fruit that arises without branches? Moreover, the system as a whole nurtures itself.   What happens if all the fruit is consumed and none falls to the ground? Of course, there will then be no new trees.

This simple metaphor of living interdependence has powerful implications for thinking about knowledge creation. In contrast to this model of living interdependence, the present managerial knowledge creating system is deeply fragmented. Academics create theory with little connection to practice. Consultants develop tools that are often unrelated to theory. Managers focus exclusively on practical know how and results. Members of the OLC redesign team observed that, in their eagerness to "eat all the fruit," managers may actually undermine future advances in theory, method and, ultimately, new know-how and results. "The picture of the tree showed me that I had a personal responsibility for better theory, which was a completely new awareness," says David Berdish, director of process leadership and learning for Ford's Visteon corporation.

Lastly, the tree as a living system embodies a transformative process that has deep parallels with the transformative nature of genuine learning. For the tree, this transformative process is photosynthesis, whereby complex carbohydrates are produced from the "fixing" of atmospheric carbon dioxide with water and nutrients drawn up through the tree's roots. These carbohydrates are the building blocks for the tree's fruit. Just so, at the heart of all learning is a deep, transformative process that creates new awarenesses and new capabilities, the building blocks for new practical know-how. The byproducts of this transformative process are especially interesting. Carbon fixing releases

oxygen, without which life as we know it would not exist. So too does genuine learning release the life and spirit that pervades an organization where people are growing.

The tree's transformative process is driven by energy from the sun, just as the learning process is driven by the energy of committed people. Thus, it was natural that, when it came time to pick a name for the new organization that emerged from rethinking the MIT OLC, we chose the Society for Organizational Learning <u>SoL</u>, Spanish for sun.

Over this two year period, the simple picture of the tree emerged as an icon for the OLC redesign team. It also became a springboard for articulating a theory of what constitutes a learning community. A learning community is a diverse group of people working together to <u>nurture and sustain a knowledge creating system</u>, based on valuing equally three interacting domains of activity:

- <u>research</u>: a disciplined approach to discovery and understanding, with a commitment to share what's learned;

- <u>capacity building</u>: enhancing people's awareness and capabilities, individually and collectively, to produce results they truly care about; and

- <u>practice</u>: people working together to achieve practical outcomes.

Such a community continually produces new theory and method, new tools, and new practical know-how.

The following diagram shows the three domains of activity and their consequences. (the activity streams or flows are represented by the solid arrows; the rectangles represent accumulated consequences of activity streams, stocks increased or decreased by the flows arising from these activities; the lighter, curved arrows represent causal connections among and between the different domains).

<u>Insert FIGURE 1 about here</u>

The activity of research produces a flow of new theory and method, which accumulates in a stock of theory and method. But general method, the sorts of approaches taught to graduate students, differs from practical tools, tested and refined extensively in real work situations (the second set of stocks and flows in the diagram). This is typically the work of consultants who develop reliable approaches to address practical problems. Tools and methods do not just help in solving problems, they also help in developing new capabilities. Hammers are essential to carpentry but they are equally essential to creating carpenters.   In the words of Buckminster Fuller (1976), "If you want to change how people think, give them a tool the use of which will lead them to think differently."   So, creating and using tools is the core activity in the domain of capacity building, the ultimate result of which is new practical know-how (the third set of stocks and flows in the diagram). This is the domain of managerial practice. Because practical know-how is inseparable from the practitioners who embody that know-how, it disappears when those who embody it leave the system. "Knowledge (is) primarily tacit... deeply rooted in an individual's action and experience" (Nonaka and Takeuchi 1995, 8) Thus, the stock of practical know-how must be continually replenished through new knowledge creation.

In a new field, the cycle of theory creation and its extension into practical tools and ultimately into a broad base of practical know-how may take many years. If this new knowledge represents a deep shift in prevailing ways of thinking and problem solving, it may take generations. Consider, for example that the Quality Management movement begun in Japan in the 1950's and gradually spread worldwide by the1980's had its roots in theory established in the first half of the 19th century, Poisson's law of large numbers and Quetelet's binomial or "normal" curve. By the turn of the century, basic statistical theory and method were taught widely in university sciences classrooms and, by the 1920's, were being applied by statistics experts to analyze variation in production lines. But, the quality management revolution really only started after World War II, when people like Deming and Juran, building on earlier work by Shewhart (1931), led the movement to translate the philosophy and method into ideas and tools like control charts that could be understood and used by non-experts. This then led to capacity building and practical know-how and results on a significant scale. One interesting feature of this example

is the critical role of consultants in developing and applying the tools that bridged theory and practice through capacity building -- Deming's personal letterhead said, simply, "consultant in statistics," and he frequently credited other consultants and managerial practitioners with crucial ideas and practical insights in his writings (e.g., Deming 1982).[ii]

But, why does the knowledge creating cycle take so long? Can it be accelerated? To address such questions we need to understand how this knowledge creating system becomes fragmented. This arises through breakdowns in each of the major linkages that interconnect the three domains. Sources of these breakdowns can be found in the taken-for-granted attitudes and activities of each of the respective professional communities. In effect, while incomplete learning cycles within organizations usually can be traced to cognitive or structural causes (March and Olsen 1975, Kim 1993), differing cultures and institutional norms create additional sources of fragmentation for the larger knowledge creating process. In short, the worlds of academia, professional consulting firms, and managerial practitioners in both business and non-profit organizations differ in ways that make greater integration extremely difficult.

For example, the development of new theory and method is isolated from the larger system through breakdowns in both "outputs" and "inputs." In particular, assessment of most academic research is dominated by peer review. While peer review is a valid source of outside critique of new theory or analysis, it rarely considers the practical consequences of research. As a result, the outputs of most academic research, journal articles, have little impact outside self-defined academic communities. Although the array of journals continues to expand, this is driven by the growing number of academic researchers to needing to publish, and most are readable only by the initiated. The fundamental problem with this entire publication-review-promotion system is that it is self-referential. The academic paper mill tends to produce a growing number of papers in increasingly narrow fields. (Levin and Greenwood, Chapter 9)

Most academic research is equally fragmented in its "inputs." Few academics spend enough time in work organizations to appreciate the actual challenges confronted by managerial practitioners and engage in mutual learning. Those that attempt to do so find that they confront significant dilemmas. For example, to understand deeply what is going on within a work situation, it is necessary to gain the confidence of the practitioners in that setting. This often takes more time than academic researchers can give, and it also takes establishing a perception of adding value. As Edgar Schein puts it, managers are unlikely to tell an outsider what is really going on unless that outsider can offer real help. (Schein, Chapter 21) Researchers there to "study" what is going on are rarely seen as providing much help, so people are not likely to share with them the most important, and problematic, aspects of what is happening. Connecting practitioners knowledge, much of which is tacit, to developing better theory and method requires a genuine sense of partnership between researcher and practitioner based on mutual understanding and on embracing each others' goals and needs. This rarely occurs in academic research.

The consulting profession generates its own forces of fragmentation. For example, most consultants aim to solve problems, not to develop new capabilities on the part of their clients. They practice what Schein (1999) calls "expert consulting," selling technical solutions to technical problems. But most difficult problems in work organizations are not purely technical. They are also personal, inter-personal, and cultural. The consequence is that expert consultants' solutions often prove difficult to implement. Large consulting firms are driven by "billable hour" business models that require common problem solving frameworks that can be applied by large numbers of expert consultants. These firms are naturally in conflict about teaching manager clients how to do what they do, because they regard their problem solving skills as the key to their competitive advantage. In short, although expert consultants may develop new tools, they usually do not employ these tools to build their client's practical know-how.

Lastly, managerial practitioners play their own part in fragmenting the larger system through defining their work as producing results not knowledge. For example, with today's emphasis on short-term results, they look for consultants

who can provide quick fix solutions to pressing problems rather than challenge prevailing assumptions and practices. This often results in a kind of co-dependence between consultants and corporations. Consultants get better and better at quick fixes. But these quick fixes only mask deeper issues. The deeper issues remain unaddressed, which means that new, often more difficult, problems will arise in the future. These then require more quick-fix consulting. Some firms, like AT&T, realizing just how strong this reinforcing cycle has become, have even declared temporary moratoriums on external consulting, in a extreme move to stop the vicious spiral. **(**Lieber, 1997)

The net effect of these breakdowns is that the knowledge-creating system is dominated by the "minor connections" that link each stock back to its own respective in-flow, as suggested in the figure below:

Insert FIGURE 2 about here

In other words, theory begets theory: new theory development is driven primarily by current theory, rather than by wrestling with the dilemmas and challenges of managerial practice -- as academics talk mainly to other academics. Similarly, consultants continually extend their tools in order to remain competitive, but with little connection to articulating and testing new theory -- for that would mean exposing private theory to public scrutiny. And practitioners continually share their views and tacit knowledge with one another.. As with the other minor linkages of the knowledge-creating system, this sort of "single loop" learning is important (Argyris and Schoen 1996).   But it rarely leads to breakthroughs in new capabilities. For this new theory, method and tools are needed that challenge current assumptions and practices.

In summary, the sources of fragmentation arise due to self-referential, self-reinforcing activities in each of the three professional worlds of academia, consulting, and managerial practice. Each creates its own separate island of activity rather than contributing to research, capacity building and practice as interacting domains within a larger system. These breakdowns in the overall

knowledge-creating system do <u>not</u> result in no growth in theory, tools, and practical know-how; rather, they result in fragmented and superficial growth.

These are the challenges confronted in building learning communities. They require a kind of meta-knowledge, knowledge of the knowledge-creating process itself. Building such knowledge is the fundamental task of community action research.

Operationalizing the Theory: Guiding Ideas, Infrastructure, and Common Work

Within the SoL community, we have approached this challenge of reintegrating the knowledge-creating system on three levels:

      1. Establishing a shared statement of purpose and a shared set of guiding principles, and

      2. Developing infrastructures that support community building, and

      3. Undertaking collaborative projects that focus on key change issues, and that create concrete contexts for further deepening common purpose and improving infrastructures.

<u>Guiding ideas</u>

Leading management thinkers from Deming to Drucker have pointed to the importance of constancy of purpose and mission as the foundation for any enterprise. Retired CEO Bill O'Brien, an influential elder within the SoL community, has argued that the core problem with most corporations is that they are governed by "mediocre ideas."(O'Brien 1998) Dee Hock says that it took two years to develop the purpose and principles that led to VISA's innovative decentralized design (Hock 1999). So, it was not entirely surprising that the OLC redesign team took almost as long to articulate its guiding ideas (SoL 1997 and Carstedt 1999 and SoL web page), such as

      SoL is a global learning community dedicated to building knowledge for fundamental institutional change (who we are) -- specifically, to

help build organizations worthy of people's fullest commitment (why
we are here) --
by discovering, integrating, and implementing theories and practices for
the interdependent development of people and their institutions (how
we make it happen)

In addition, The SoL Constitution incorporates a set of 14 core principles like

• people learn best from and with one another, and participation in
learning communities is vital to their effectiveness, well being and
happiness in any work setting (<u>learning is social</u>); and

• it is essential that organizations evolve to be in greater harmony with
human nature and with the natural world (<u>aligning with nature</u>)

The potential impact of such guiding ideas comes form the depth of the
commitment to them, and from how they become the foundation for day-to-
day practices. Commitment comes alive in what we do not what we say. For
this reason, much of the effort in the past two years has focused on developing
the learning infrastructures that can help leaders at all levels to succeed in their
change efforts and learn from and share their experiences.

<u>Infrastructure for Community Building</u>
There is a dramatic difference in the speed and likelihood of new ideas moving
into practice in different fields, depending largely on the infrastructures that
exist. For example, new knowledge in areas like electronics, biotechnology,
and engineering materials move much more quickly from laboratory to
commercialization than does new knowledge in management.   One reason is
the infrastructure created by venture capital firms, which enables people to
continually search out promising new technologies and financially support
practical experimentation in the form of new companies and new products. By
contrast, in the social sciences and management there is infrastructure to
support research (cf, foundations like the National Science Foundation) but
little to support practical experimentation. This is the gap that the SoL
community is seeking to fill, knowing full well that innovations in social
systems may be inherently much more challenging to "move" from concept to
capability than technological innovations.

To date, there have been efforts to develop three types of infrastructure that better interconnect learning and working within the SoL community:

Type 1: Intra-organizational learning infrastructures revolve around specific projects and change efforts within individual organizations. For example, in 1996 a large US based Oil Company, OilCo, established a Learning Center. The intent was not only to support many education and training efforts but to be a catalyst and hub for a variety of research projects on learning and change. As one illustration, the Learning Center supported a learning history study of the "transformation" process at OilCo that began in 1994 (Kleiner and Roth 1997). The aim of the study was to help the 200 or so leaders directly involved and many others within the company to make sense of a complex array of changes in philosophy, management practices, and organization structure (Kleiner and Roth 1998). Unlike the typical "roll out" of corporate change efforts, leaders at the OilCo Learning Center sought to encourage broad based inquiry into the interactions among personal, team and organization changes involved in the multi-year process. The study focused on tough and complex issues, such as pursuing a new business model, diversity, establishing a new governance system that broke apart the traditional corporate power monopoly, and developing new management behaviors. The OilCo Learning Center continues to engage in a variety of studies on the multiple levels of significant change processes, including a recent study of the impact of "personal mastery " education programs (Markova 1999).

In many SoL company projects, innovations in infrastructure are the heart of the project. For example, many teams have created "learning laboratories" as a core element of their change strategy. These are intended as "managerial practice fields" where people can come together to inquire into complex business issues, test out new ideas, and practice with new learning tools (Senge 1990). To illustrate, several years ago, sales managers at Federal Express created the "global sales learning lab," a learning environment aimed at bringing together FedEx people and key customers to explore complex global logistics issues.(Dumaine, 1994) Similarly, product development teams have created learning laboratories so that engineers from diverse expert groups can better understand how their best efforts

at local solutions often end up being sub-optimal for the team as a whole, and the overall development effort (see Senge et.al. 1994, pp.554-560, and Roth and Kleiner 1996 and 1999).

These and many similar experiences have underscored the crucial role of innovations in learning infrastructure in successful change processes. Managers everywhere struggle with how to integrate working and learning. Perhaps the most common symptom of this struggle is the familiar complaint that new ideas or skills do not transfer from training sessions to workplaces. This should come as no surprise. Traditional training efforts violate two key learning principles: learning is highly contextual and learning is social. As asserted in SoL's founding principles, people have an innate drive to learn if engaged with problems that have real meaning for them and with people with whom they must produce practical results. The reason that innovations like learning laboratories are so important is that they embed the learning process in the midst of the work process.

Type 2: Inter-organizational learning infrastructures support Type 1 infrastructures by linking people from different organizations to help, coach, and support each other. "Most radically new ideas and the skill sets or know-how that are needed to implement them," says Edgar Schein, " "are too complex to be acquired by practitioners from academics or consultants." Schein argues that although consultants or outside researchers may be useful in the initial stages of a learning process (through, for instance, introducing new ideas or starting a learning process toward new capabilities) "a second stage learning process is needed where the practitioners learn from others... who understand the opportunities and constraints afforded by the culture of the occupational community in which they operate."(Schein 1995, 6-7) This same sentiment is expressed in SoL's principle of "cross-organizational collaboration."

Examples of SoL's inter-organizational infrastructures include the Annual Meeting, during which members reflect on progress in the community as a whole; capacity building programs open to all members; company visits (especially useful for new members); periodic meetings hosted by member companies. The importance of these as community-building gatherings cannot be overstated. Participants in SoL's 5-day "Core Competencies of Learning Organizations" course frequently remark that they are surprised and relieved to discover how many other organizations struggle with the same problems. "I thought we were the only

ones who had this problem," said a sales manager from a Fortune 100 firm. "It is really useful to discover that people from other very successful corporations have the same issues, and to see how they are wrestling with it." Such gatherings can be surprisingly generative. Some of the OLC/SoL's most significant change projects were inspired by ideas generated from these cross-company visits and learning journeys. Today, SoL has a new sustainability consortium — a group of companies working together to apply organizational learning tools and principles in order to accelerate the development of sustainable business practices — in part because executives at the semi-annual Executive Champions' Workshop have spent the past two years exploring stewardship and the evolving role of the corporation. Similarly, one of the larger corporate SoL members has today a major company wide "re-invention" process that is, in many ways, inspired by what happened at OilCo in the mid-1990s. The executive VP of Marketing learned about OilCo's efforts from OilCo executives who hosted a SoL meeting in 1996. "I was very impressed with the depth of conviction and willingness to experiment of the people (at OilCo)," said the executive. "Two years later, when it became apparent that there was an opening for deep rethinking and renewal in our company, I remembered what I had seen at (OilCo)."

From our experience, creating effective inter-organizational infrastructures depends most of all on the quality of conversations that such infrastructures enable: their timeliness, relevance, and depth. In all the examples cited above, a real effort was made to create an environment of safety and personal reflection, so that people focus on what they truly care about, rather than on making impressions (as happens all too often in many cross-company meetings). The result is twofold: conversations that are candid and generative, and an evolving web of deepening personal relationships that is the manifestation of genuine community.

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Type 3: Organization-transcending learning infrastructures support Type 1 and 2 infrastructures by creating the larger contexts, such as the formation of SoL itself. The creation of inter-organizational connections cannot be left to chance. But there is a real dilemma as to who has the responsibility and ownership for making it happen.

In addition to articulating a theory and a set of guiding ideas, the two year process that led to the creation of SoL established a novel concept of organizing: a self-

governing society based on equal partnership of companies, researchers, and consultants. SoL is incorporated as a non-profit membership society with individual and institutional members in three categories: practitioner, research, and consultant. It is governed by an elected council composed equally of the three types of members. The SoL organization exists to serve the SoL community in pursuit of its common purpose.

Moreover, the intent underlying SoL is to not to create a single learning community but to establish a foundation that can allow for a global network of learning communities to emerge. The way that people in different parts of the world will pursue SoL's purpose and principles will vary naturally. Each SoL community, or fractal, represents a distinct embodiment of a common pattern, while also being unique. In enabling this sort of growth, SoL is seeking to embody a core growth principle from nature: unending variety of forms from simple building blocks. Unlike a franchise or other structure that is replicated, each SoL community has to generate itself out of its interpretation of SoL's purpose and principles. In effect, the commonality among the global community emerges from the underlying theory and guiding ideas, not from an imposed common form. While the commonality comes from adherence to the purpose and principles, the variety comes from the "environment" from which each SoL fractal emerges.[iii]

Throughout all of these changes, a consistent message is the importance of common purpose beyond self-interest and shared responsibility — the foundations for true community. Each group that incorporates a SoL assumes responsibility for its form, function, local strategy, staffing, budget, and membership. The SoL global network provides help, mainly through interconnecting with other SoLs around the world. The SoL global network is itself governed by elected representatives from the member SoL communities. In this way, SoL very much resembles VISA, what Dee Hock sometimes calls a "bottoms-up holding company." But whereas a holding company is typically bound together by a common goal of business profit, the SoL community worldwide is bound together by the common purpose of building and sharing knowledge for organizational transformation.

Collaborative projects
Guiding ideas and infrastructures for learning are necessary conditions for community building, but the process of community building centers on people

engaged in meaningful collaborative work. In order for learning communities
to take root and continually renew themselves, people must be excited about
what they are doing together and accomplishing, not just about their common
ideals and processes.

Yet, there are deep dilemmas in how such collaborative work comes about
within a diverse, distributed learning community. On the one hand, if a
centralized agent, like the SoL organization, tries to initiate collaborative
projects, we have found that the response is lukewarm. All too often, the
project focus reflects what a handful of people are committed to rather than
where there is a genuine critical mass of commitment in the larger community.
But, "self organizing" cannot always be left to itself. Often, even though there
is a common issue of broad and deep concern, little happens without help. In
particular, if the issue area represents a long-term, systemic set of challenges, it
may be the very type of issue which organizations find themselves unable to
confront effectively, given the relentless pressures for day-to-day
performance. Discovering and nurturing change initiatives where there is
broad but latent commitment may prove to be one of the core competencies for
effective community action research.

The newly formed SoL Sustainability Consortium may hold some keys to what
is required for creating effective collaborative projects. Starting in 1995, several
efforts initiated by a small group of consultant and research members to form
such a consortium failed. In each case, there were individuals from member
companies who participated and expressed interest. In each case, the meetings
failed to generate momentum to carry the group forward. Finally, after a
particularly disappointing meeting involving exclusively top managers,
including several CEOs, from eight different companies, the organizing group
was forced to rethink their efforts. Several conclusions were reached. First,
while top managers were good at representing their organization, they were
not necessarily very good at getting things done, at least not by themselves.
The key was getting the right people together, not the right positions. Second,
we were fragmented in our focus because several of the participating
companies in each meeting were there to "check out this sustainability stuff."
They were not deeply engaged already. This deleted energy from those who

were already convicted and wasted time that might be spent on more concrete and action-oriented conversations. Third, we were talking too much at an abstract level and not connecting enough to concrete problems with which people were already engaged.

What gradually emerged from these assessments was a distinct strategy. First, it was essential that the collaboration be initiated by practitioners, not consultants or researchers. Second, we needed the initiative to come from companies which already saw environmental sustainability as a cornerstone of its strategy. Third, we needed to make sure that those who came to the meetings were not only deeply interested in sustainability but had first-hand experience in achieving transformative breakthroughs as line managers. Only this would guarantee a sense of confidence that real change was possible.

We started by recruiting Interface to become a SoL member, a firm widely known in the US for its commitment to recycling (Anderson 2000). We then asked BP-Amoco, a founding member of SoL UK to join as a co-convenor with Interface of the consortium. Jointly we developed an invitation that said that the purpose of this collaborative was to bring together companies for whom environmental sustainability was already a cornerstone of their strategy, or who were seriously moving in that direction. We didn't want to have any more "tire kickers." We focused the meetings on real accomplishments and real struggles of the member companies and had the companies host the meetings. For example, the September 1999 meeting was hosted by Xerox, a world leader in design for re-manufacturing, and much of the meeting involved dialogue with team leaders of the "Lakes project," a recently introduced, fully digitized copier that is 96% re-manufacturable. Lastly, we hand picked attendees at the meetings to include some of the most experienced line managers with organizational learning tools and principles.   After this new group had held two meetings, a host of collaborative projects began to develop spontaneously.

Obviously, there are strong parallels between the insights of this story and cornerstones of action research -- like focusing on the issues which are most salient to practitioners, and keeping working sessions aimed at concrete problems. But,

the aim of also seeking to foster collaboration among practitioners from multiple firms greatly increases the complexity of the task. For example, striking a healthy balance between the concrete and the abstract is extremely challenging. In a collaborative setting, this balance must be achieved through identifying common learning imperatives across diverse organizational contexts. This requires that the practitioners operate more like researchers, stepping back from the idiosyncrasies of their organizational setting and pondering more generic issues. Lastly, collaboration, especially around helping one another through difficult change processes, is always about relationships. Probably the most significant accomplishment is to create a climate in face-to-face meetings where people begin to disclose their personal and organizational struggles, and feel comfortable sharing their genuine aspirations. For the SoL Sustainability Consortium, this began to happen at Xerox, through people talking in candid terms about their personal journeys, as well as their organizational challenges. When this started to happen, the meeting was no longer a typical business meeting, and a distinct level of trust started to form. Eagerness to work together arises as a natural byproduct of perceived mutuality and trust. Without these, expressions of interest in learning together remain superficial, and little deep change is likely to actually happen.

Frontiers

As the SoL community begins to become established, several common themes are emerging that may constitute the beginnings of new theory, method and know-how.

1. Two Sources of Learning: Reflecting the Past or Presencing Emerging Futures

One insight from our more recent work is that there are two modes of both individual and organizational learning: reflecting on past experiences and "presencing" emerging futures.These two modes of learning require different types of processes, learning infrastructures, and cognition. no, this is not a problem. I suggest to leave it as it is. cos

The temporal source of reflective learning is the past—learning revolves around reflecting on experiences of the past. All Kolb (1984) type learning cycles are

variations of this type of learning. Their basic sequence is 1. action, 2. concrete experience, 3. reflective observation, 4. abstract conceptualization, and new action.

The temporal source of emergent learning is <u>the future,</u> or, to be more precise, the <u>coming into presence</u> of the future. In emergent learning situations, learning is based on a fundamentally different mode of cognition, which revolves around sensing emerging futures rather than reflecting on present realities (Bortoft 1996). The basic sequence of the emergent learning cycle is 1. Observe, observe, observe; 2. becomestill: recognize the emptiness of ideas about past or future; 3. allow inner knowing to emerge (presencing), 4. act in an instant, and observe again (Jaworski and Scharmer 2000).

While Organizational Development and organizational learning have been mainly concerned with how to build, nurture, and sustain reflective learning processes, our recent experiences suggest that companies are now facing a new set of challenges that require a new source of learning. These challenges are concerned with how to compete under the conditions of the new economy; namely, how to learn from a reality that is not yet embodied in manifest experience. The question now is how to learn from experience when the experience that matters most is a subtle, incipient, not-yet-enacted experience of the future (Scharmer 1999).

The key difference between learning from the past and learning from emerging futures lies in the second and third steps — becoming still, and allowing inner knowing to emerge (presencing). These do not exist in the traditional learning cycles. Whereas reflective learning builds on inquiry based dialogue and reflective cognition, learning through presencing is based on a different kind of awareness —one that Cszikzentmihaly (1990) describes as "flow," that Bortoft (1996) describes as "presencing the Whole," that Rosch (1999) characterizes as "timeless, direct presentation (rather than stored re-presentation)," or that many people encounter in generative dialogue experiences (Isaacs 1999).

Today, we find ourselves operating with both learning cycles. However, our main focus of work has shifted towards helping companies operate with possible leadership principles of emergent learning, like authenticity, vulnerability, and "setting fields" for heightened awareness.(Jaworski et. al.. 1997, Jaworski and

Scharmer, 2000) These ideas are beginning to establish a foundation for a new approach to strategy as an emergent process, based on the capacity to "presence" as well as to reflect .

2.   From Exterior Action Turn(Explicit) To Interior Action Turn (Tacit)

As the source of learning expands from reflecting on experiences of the past to looking at emerging futures, the attention of managerial and research action must likewise expand, from focusing solely on exterior action to examining interior action. "The success of an intervention depends on the interior condition of the intervenor" says Bill O'Brien (November 10, 1998, private conversation), formerly CEO of Hanover Insurance. The question is: how can action research adequately study the interior dimension of managerial action? Or, how can we integrate "first person research" (Bradbury and Reason, Finale; Torbert Chapter 23) into the everyday routines of research and practice?

        One example that highlights the interior action turn was recently given by a senior consultant considered to be one of the most outstanding interviewers in the SoL community. The deep listening interview process developed by this consultant, which usually takes three to four hours for each interview, have turned out to be life changing event, in the assessment of many interviewees. Asked about the personal practices that allow such a unique conversational atmosphere, the consultant responded, "The most important hour in this deep listening interview is the hour prior to the interview," when the consultant opens his mind for the conversation. For this particular individual, this hour is always reserved for quiet preparation, which involves a combination of reviewing prior thoughts and meditation.

3. Three Types of Complexity

The OLC's research agenda focused on helping leaders to cope with problems that are high on both dynamic complexity (Ackoff's "messes") and behavioral complexity (Mitroff's and others' "wicked problems"). We referred to this class of

problems as "wicked messes" (Roth and Senge 1995).   Today we believe a third dimension needs to be added: generative complexity.

Dynamic complexity characterizes the extent to which cause and effect are distant in space and time. In situations of high dynamic complexity, the causes of problems can not be readily determined by first-hand experience. Few, if any, of the actors in a system are pursuing high leverage strategies, and most managerial actions are, at best, ameliorating problem symptoms in the short run, often leaving underlying problems worse than if nothing at all was done.

Behavioral complexity describes the diversity of mental models, values, aims and political interests of the players in a given situation. Situations of high behavioral complexity are characterized by deep conflicts in assumptions, beliefs, world views, political interests, and objectives.

These two types of complexity guided our research activities throughout the first half of the 1990s. However, during the course of the second half of the decade, many of SoL member companies found themselves moving into the business context of a new internet-based economy, and management and leadership teams faced need to continually reinvent and reposition their business and themselves. In the new economy, **generative complexity** arises from the tension between "current reality" and "emerging futures." In situations of low generative complexity we are dealing with problems and alternatives that are largely familiar and known — wage negotiations between employers and unions are an example of high dynamic and behavioral complexity but low generative complexity (non-obvious causality, different interests, given alternatives). In situations of high generative complexity we are dealing with possible futures which are still emerging, largely unknown, non-determined, and not yet enacted (non-obvious causality, different views, not-yet-defined alternatives).

In retrospect, throughout the 1990s, our research focus has steadily shifted from traditional "wicked messes" of medium or low generative complexity to wicked mess that are also high in generative complexity. As also illustrated in Gustavsen's (Chapter 1) case of learning region dialogues, the challenge in this kind of environment is how leaders can cope with problems that a) have causes difficult to determine, b) involve numerous players with different world views, and c) are related to bringing forth emerging futures?

4. The Shadow Side of the New Economy

Last, but not least is the issue of the shadow side of the new global economy. We are increasingly aware that organizing around knowledge communities in the world of business is a double edged sword. On the one hand, these patterns of relationships can become genuine communities as described above. On the other hand, many of these communities are part of a global economic structure that, at the same time, undermines the social and ecological foundations on which not only the economy but all social living operates (Schumpeter 1962). We do not view knowledge generating communities in the world of institutions as a substitute for more traditional communities that appear to be under great stress around the world (Castells, 1997). The question that follows from this is: How can we successfully participate in the current reality of business such that what we do does not undermine, but nurture the social, ecological and spiritual foundations of the world in that we life? This is emerging as a core question being addressed within SoL worldwide, as evident in new developments like the SoL sustainability consortium.

Conclusion

It is widely recognized today that knowledge creation and learning have become keys to organizational competitiveness and vitality (de Geus 1997, Brown and Duguid, 1998). Yet, knowledge creation is a very fragile process. Knowledge is an encompassing notion, embracing concept and capability, tools and tacit knowing. Knowledge is not a thing and is not reducible to things. It is neither data nor information, and cannot be "managed" as if it were. Unlike traditional sources of competitive advantage like patents, proprietary information, and unique processes, it can be neither hoarded nor owned (von Krogh, 1998). Moreover, knowledge creation is an intensely human, messy process of imagination, invention, and learning from mistakes, embedded in a web of human relationships.   The more firms try to protect their knowledge, the more they risk destroying the conditions that lead to its generation. Thus, organizing for knowledge creation may be very different than organizing for traditional competitive advantage. Few managers and leaders have come to grips with these

distinctions and the need for radical departures in organizing for knowledge creation. Community action research represents one approach to this challenge.

At its heart, community action research rests on a basic pattern of interdependency, the continuing cycle linking research, capacity building and practice: the ongoing creation of new theory, tools, and practical know-how. We believe this pattern is archetypal, and characterizes deep learning at all levels, for individuals, teams, organizations, and society. This is why we use the term "fractals" to characterize different embodiments of the SoL concept, each enacting this common pattern in unique ways. The unifying feature of all is a commitment to integrating the knowledge-creating process to sustain fundamental social and institutional change, be the focus local schools or multinational corporations.

Is community action research an idea whose time has come? It is too early to say. But one thing seems clear: industrial age institutions face unprecedented challenges to adapt and evolve, and we seriously question the adequacy of present approaches to the task. The well-being of our societies and many other of the living systems on the planet depend upon this.

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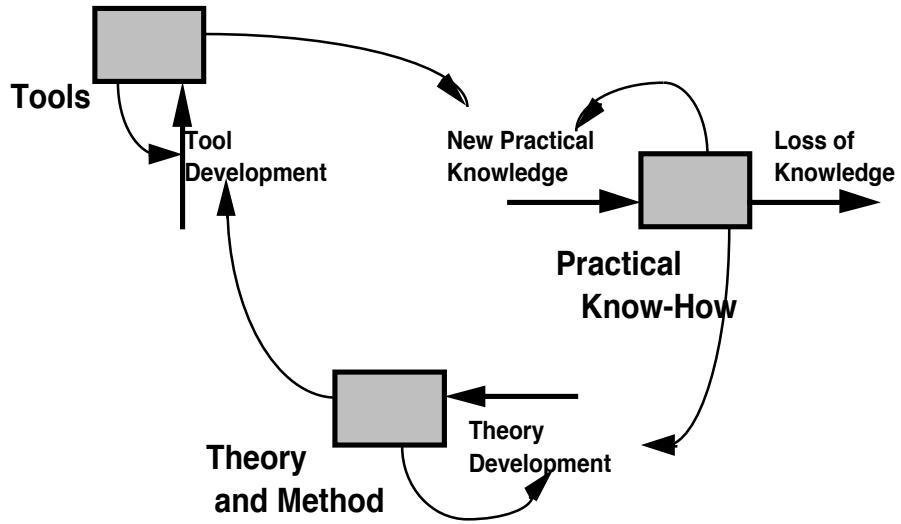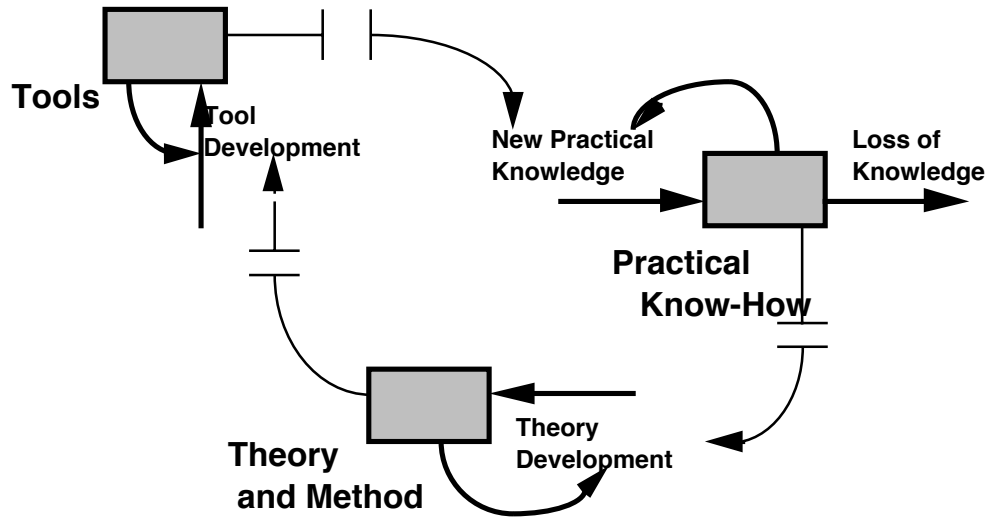Figure 1: <u>A Stock-Flow diagram of the knowledge creating system</u>

Figure 2: Breakdowns in Major linkages; minor connections Dominate

[i] Founding corporate members of the MIT OLC included EDS, Federal Express, Ford, Harley Davidson, Hewlett-Packard, and Intel. Today, SoL USA members also include AT&T, Detroit Edison, Interface, Lucent Technologies, The Quality Management Network/Institute for Healthcare Improvement; Rotal-Dutch Shell, US West, the World Bank, the National Urban League, and Xerox Corporation.

[ii] Another, more contemporary, example is systems thinking, which is often cited as the most difficult of the five disciplines of organizational learning. This is easy to understand given that the basic concepts, though quite old, have never penetrated secondary and university education. The theoretical roots go back to basic ideas of feedback dynamics from the 17th century (eg., James' Watt's flyball governor), which had become well established methods for engineering analysis by the mid- 20th century, by which time they had only begun to be explicitly recognized within the social sciences (see Richardson 1991). Moreover, nonlinear feedback dynamics only became a significant subject of study in the past 30-40 years (Forrester 1961, Waldrop 1992. The net effect of these different historical currents is that we are only now at the onset of the development of practical tools for non-experts and large scale capacity building.

[iii] At present, over twenty SoL fractals exist or are organizing in Europe, North and Latin America, Africa, Asia, and Australia. For information on the growing SoL network worldwide see the webpage: SoL-ne.org.