PART I - What did I learn in Memphis about STS in the new world of work?

I deepened my knowledge about the future of work design. From Bert Painter’s presentation, it became clear that the new organization form, a global complex, network system, is truly becoming pervasive; seventy percent of work today is ‘tacit’ work that takes the form of information processing in order to create knowledge and innovate. I experienced a networking exercise that left me feeling both energized by all the new contacts, while at the same time dissatisfied with the confusion, speed and briefness of contact. This left me with an image of what people experience – good and bad - in today’s organizations. While before it was the ‘assembly lines’ that disconnected a person from work, today it is the speed of change and the network forms that can produce the same alienation – instead of churning out parts, people now churn through relationships to get the work done. While as Bert says this new work form has the potential to provide greater freedom, flexibility and creativity, it can also, if not designed right, have opposite effects where roles are confused by the merging of strategic and operational work and by continuous project-like multi-disciplinary work. Also, employees can feel abandoned as they are put into temporary roles or sent to work in other companies and begin to question their commitment to their organizations. It may then feel like there are no ‘organizing’ rules, so to deal with the chaos people make up their own rules. This kind of innovation for adaptability can produce good results, but only if it is aligned with the larger system’s mission, vision and goals. So what are the ‘designs’ for this kind of organization? What does this mean for the STS designing process and designer role?

STS is very relevant for this new organizational form because effective collaboration that is the foundation of this new form cannot be achieved simply by improving relationships/culture (OD premise) or by IT and communication tools (technology premise). The efficiency and effectiveness of the collaboration platform depends on the socio-technical optimization of that platform. This collaboration platform needs to be built on a clear and careful design of the complex interactions required and the roles and relationships involved as well as the right collaboration tools matched to the values of the enterprise. Stu Winby’s presentation confirmed my belief that STS deliberation design may be a primary design tool for the new organization form. However, even though I have often used deliberation design methodology, I realized what Stu showed is not the simple deliberation design process of the past. This design of the future, of the ‘collaboration space/platform’ is done with respect to many factors – Spiritual/Physical/Intellectual/Communal experience/Emotional (S.P.I.C.E. which I learned from Helen Maupin – reference?). Participants then self-design specific processes and activities.
to achieve the goals of the organization over a multi-year timeframe. Design is no longer episodic, but continuous. Design becomes the act of organizing on a continuous basis.

To me, this represents a transformation in the meaning of organizing, which Stu has rightly described as the traditional organizers (management) going into the background with a new role of designing the **foreground parameters** (the minimal critical specifications of the network) in which self-organizing individuals, teams, and interdisciplinary cross-global groups innovate how to do the work they are held accountable for. I see it as a tight/loose design conundrum – the foreground, i.e. operations, that was formerly tightly controlled by management, now has built into it some slack to allow for many players from different organizations to collaboratively innovate, albeit with excellent process design that now acts as the control mechanism necessary for high performance (reinforced by process tools such as demonstrated by Eli). And what formerly management held as loose or tacit, i.e. mission, vision, values, must now be firm, very clear and shared by all players in the value network because this is now what provides meaning, power and norms for the collaborative platform or space in which all engage to do work together. The new design process is now ‘**meta design**’ (or as the stewards call it “holding the space”) that then gives employees the aligned frames of reference and collaboration tools to collaboratively design their own processes to get work done. I think the term ‘meta’ works here because it implies several meanings – background, all encompassing, transformation, and more developed level of design. Stu’s presentation was a good example of this new type of design. He showed us some of the possible tools used in this ‘meta design’ such as deliberations enhanced by elements of speed (DA), innovation (prototyping), three horizons (anticipatory planning) and the social psychology of soft control that can help organizations achieve greater health and productivity in these new network forms of work.

**Continuous designing**, the next level beyond continuous improvement (e.g. Lean Six Sigma), becomes a capability for both management and employees, but at different levels of the system – double-loop learning/design for management and single-loop learning/design for employees (the latter being what Jean Fuller’s case was all about). Triple-loop learning, which is the transformation of roles, the crux of STS, is the most difficult design work because roles are no longer static, but reconfigurable in the network complex system.

However, I think STS can bring the most value in this area. And we can start by assessing our own role as STS practitioners. Bernard Mohr helped me see this as change from facilitating organizational design to guiding ‘sponsors’ of collaborative platforms in sense-making of their organizations’ learning journeys and helping them to design “design” tools for this journey, i.e. tools to design the ‘map’ when there is so much uncertainty about the destination.

In order to impact the world with STS’s value for enabling efficient and effective collaboration systems that are the heart of the network organization, the STSRT also has to transform. As I
reflected on what this means, I came upon a model that is close to the Inspiration, Internalization and Integration model we have been using for learning, but which I think can be more useful for structuring our new continuous learning community identity. The **Single-Double-Triple Loop Learning Model** was coined by Chris Argyris (Overcoming Organizational Defenses. Allyn & Bacon, 1990).

*Single-loop learning* is about **changing your doing** to get a different set of desired results. It leads one to think about what new actions to try out the next time. It is about making incremental change WITHIN the current model of doing things. This is similar to *Inspiration*, which gives us energy/motivation to change our way of doing as we are inspired by others’ actions that get better results.

*Double-loop learning* is about **changing your thinking** by examining the overall set of assumptions you were operating under while doing ‘single-loop learning’. It helps to you learn about your learning by examining the mental framework you were operating under so you can change the framework or set of assumptions. This fits well with *Internalization* – before you can internalize the action strategies of others, you have to examine your own action strategies and ask yourself why you chose them and what thinking these actions were based on. Only then will you give up your assumptions for new assumptions you learned from others who demonstrated that these are winning strategies that get the desired results.

*Triple-loop learning* is about **changing your being** by engaging in deep self-assessment in order to replace obsolete understandings of your self-concept and action repertoire. The key question to ask is what impact is your self-concept and action repertoire having on your ability to achieve your desired results? This fits well with *Integration*. This final stage of learning requires you to integrate new assumptions and actions into how you see your role in the organization and yourself in relationship to the world. You transform your identity (and collectively the organization’s identity) as a result of this deep self-assessment.

STS through its scan, technical and social analyses has been about helping people model the AS-IS and TO-BE to carry out change. But today’s leaders of complex networks need to design, and enable their organizations to use, a higher level of conceptual tools because of the pace and variety of challenges coming at them. **Leaders do not know the right questions to ask (deliberations to have) in the face of uncertainty**: they only know their programmed knowledge (business school education/training) and/or experience can no longer help. As practitioners, we can help these leaders make sense of the challenges they face and help them create models of the deliberations (including parties, forums, decisions rights, technology, etc.) to engage their organizations in. These conceptual tools/models are the new design tools to represent great complexity in a simple form.
The pace of change demands constant learning, which ultimately is thinking about thinking. Thinking is the tool to change not only the outer world through plans and actions, but also the inner world of meaning and values. So I believe we need to practice what we preach - the STSRT needs to *model* its new identity of action research. I have chosen the *single-double-triple loop learning model* to help us capture the complexity of the learning our community is trying to achieve. Below I describe the generic model as defined by Brian Hinken in *The Learner's Path – Practices for Recovering Knowers*, Pegasus Communications, Inc. Waltham, Mass. 2007. Following that I describe the work of the STSRT using this model.

Three Types of Learning Model

1. **ASSESS**
   - Possible Corrections
   - Single-Loop Learning
   - Change our doing
   - Replace obsolete assumptions

2. **DESIGN**
   - Action Strategy
   - Change our thinking

3. **IMPLEMENT**
   - Action Strategy

4. **OBSERVE**
   - Actual Results
   - Evaluate impact of self-concept and action repertoire on results

5. **QUESTION**
   - Assumptions behind desired results and action strategy

6. **REPLACE**
   - Obsolete Assumptions

7. **EVALUATE**
   - Impact of self-concept and action repertoire on results

8. **REPLACE**
   - Obsolete understanding of self-concept and action repertoire
Part II - What did I learn in Memphis about STS through reflection on the STSRT?

The STSRT has been on its own learning journey for a number of years now. I used the above learning model to reflect on that journey so as to understand what progress we made in Memphis. The following chart reflects the three types of learning applied to an S or growth curve. As 22 people in Memphis, we know we are on the downward slope as an organization to death. I think Memphis showed us what the new curve could be and how we could act on it. Instead of only doing double-loop learning about STS as we did in 2004-5, we were now doing triple-loop learning about **who we are in order to change how we practice STS**.

![Three Types of Learning on a Growth Curve](image)

**STSRT members left Memphis with a new identity (on a new growth curve) as an action research organization that shares information and expands knowledge about Sociotechnical Systems Theory and its application around the globe.** I reflected on our transformational journey over the past years, which culminated in Memphis with renewed mutual commitment for the STSRT mission, now delivered in new ways through a **continuously active action research network of learners**.

In Memphis, we recognized a nostalgia for the good old days of learning when the STSRT first formed and everyone was learning from each other – trying this and that – looking for a repeatable pattern of success for STS intervention (the forming phase – 1980s). The group was at its height in membership and energy when it was no longer looking for a pattern of success,
but optimizing the patterns already discovered working well, e.g. design principles, the designing process, etc. (the norming phase - 1990s). I remember my first meeting in the late 1990s in Ottawa as very stimulating and satisfying. The STSRT norming phase was extended for a number of years by the deep relationships that were built among members and by the continuous enrichment these relationships brought to STS practice; it was also constrained by the once a year meeting that prevented any further growth (requirement of greater engagement) of the organization. And when the external context shifted and brought into question the patterns of success for STS intervention (e.g. variance analysis and the ‘method of design’), the stewards recognized that the ‘club’ organization model of meeting once a year was insufficient to address this new context, and they have been struggling to get the membership to respond to this.

In 2004 in Phoenix, the STSRT members decided to try again to transform, although not all acknowledged the need, with some members referring (and continuing to refer) to this as navel-gazing, which expresses just how daunting the transformation task is and why some members want to avoid it. However, when membership dwindled to about 20 and the organization was on its ‘deathbed’, the STSRT started to reflect on its thinking (double loop learning) by examining what it believed in and what needed to change (the values and assumptions necessary to make STS relevant to the new context) and what was now needed to succeed – STS innovation (Stu Winby’s and Jim Taylor’s presentation in 2005 in Chicago). This innovation work was taken up by the Discovery Team, a new group formed in 2005 as an outcome of the October meeting in Montreal.

However, what was really required for the RT to succeed was triple-loop learning, which meant having members examine their self-concept as members of a “club” with a certain repertoire of actions (e.g. engaging with the community at their own discretion and participating in annual meetings when it fit their schedules). Like the organizations we all try to help with change, we ourselves as a RT are challenged by it. Our members would rather explain the challenge the RT faces as external - the changing economy or personal circumstance (e.g. retirement or busy with work), than deal with changing our role as members (which means, for many, extra work I am not ready to commit to). However, in Memphis, the stewards engaged us in applying our knowledge of network organizations to ourselves and we came out of Memphis with a Forward Action Plan that is our first attempt at transforming our self-concept of being a club, to creating a new definition of ourselves as a network organization with a new action repertoire called continuous action research (including both knowledge-building and skill-building in how STS ‘designs’ the new organization forms of networks as well as learning from how we build and sustain our own network community).
I am sure we left Memphis with very different understandings of what happened there so this is my attempt to put a model around our new STSRT. I see our organization model for 2009 for the STSRT as a network organization with three nodes – the Stewards, the Discovery Team and the Healthcare Working Group – who share governance of the action research ‘work’ process as described in the following diagram. The Stewards govern the whole (STSRT organization) for the benefit of all members.

Each node has a specific ‘learning’ responsibility as follows:

- **Steward Team (ST)** – Carries out *triple-loop learning*, which is the work of Community Building & Sustaining. This means helping to change the ‘being’ of STSRT network organization so that it continuously learns and adapts to achieve our mission. Stewards engage members in building the collaborative platform or space for working groups to do the learning about STS and how to innovate it (e.g. Discovery Team and Healthcare Working Group). They educate potential members in STS (e.g. short course) and the value proposition of being a member; they build alliances with groups who have complementary capabilities; and they ensure the financial health of the organization to support these activities with appropriate resources.

- **The Discovery Team (DT)** - Carries out *double-loop learning*, which is the work of STS Innovation & Knowledge Building. This means helping to change the ‘thinking’ of STSRT members regarding how to innovate STS designs, the designing process and the role of designer. In order to do this work, they collaborate closely with the Healthcare Working Group to create new knowledge and feed it back into the action research process. Using the latest STS knowledge about design, the DT will collaborate with HWG to design the action research deliberations specific to the healthcare industry that will also grow the relevance of STS and thus promote the growth of the STSRT. They also work closely with the Stewards to ensure the design of the STSRT itself is taking advantage of innovations for its own growth as a network complex system.

- **2009 Healthcare Working Group (HWG)** - Carries out *single-loop learning*, which is the work of STS Action-Research with a specific sector of society, which in 2009 the STSRT chose to be Healthcare. In future years it may be education, government, industry, etc. but each year as we learn in one sector, we will transfer the learning about STS-designed network complex systems to other sectors. This means helping to change the ‘doing’ of healthcare systems through STS design to improve the efficiency and effectiveness of healthcare delivery.