

# Human Interaction and Collaborative Innovation

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**Abstract.** Collaborative innovation is on the rise. The tools, techniques and technologies to foster human interaction in the service of collaborative innovation are increasing every year. Interactions that lead to win-win outcomes are also on the rise. Examples in this paper include the IBM advisory council program and process, the design of a global cross-company and cross-culture derivative in Content Evolution Labs, and the emergence of EduPresence to drive a global education network using telepresence and other technology-enabled forms of interactive learning. Samples of collaborative innovation techniques are explored, including the team use of Post-Its™, journey mapping, and voting and group-commitment.

**Keywords:** Advisory, board, collaboration, collaborative, commitment, connection, continuous, coping, council, diversity, education, human, innovation, interaction, interactor, members, membership, outsourcing, progress, team, technology, telepresence.

## 1 Introduction

Human interaction is gravitating to collaboration – and technology-enabled collaboration is speeding things up. Collaborative behaviors unheard of just a few years ago, or just months or weeks ago are becoming commonplace. The speed of interaction and connection increases each day – as is the ability to create and participate in non-zero-sum activities, where multi-party winning is maximized and losing is minimized.

Creating the basis for trust amongst “interactors” is required for breakthrough collaborations. *Interactor* is a term borrowed from biology, referring to the individual evolutionary paths of organisms. In this case, the interactors are the participants that interact with each other in a collaborative innovation process. This paper focuses on both how interactors and their worldviews evolve, along with the groups they choose to join. More background about the originals of the term interactor here:

- “**Interactor** is a term used to describe a part of an organism with evolution selection acts upon.[1] Interactors are the individual evolutionary paths which are subject to real-life interactions, such as phenotype and the outward traits most affected by natural selection. In this way the interactor interacts with the environment in a way which creates differential reproduction.” - <http://en.wikipedia.org/wiki/Interactor>
- “Mememes are also Interactors” by H.C.A.M. Speel, Delft University of Technology - <http://www.hanscees.com/memesym.htm>

## 2 IBM Advisory Councils

One of the ways the IBM management team stays abreast of customer wants and needs is the use of global advisory councils. Major programs both started and ended in many of these gatherings. It is a powerful way to make forecasting research, technology roadmaps, and business plans come alive in the minds and hearts of the leadership team.

IBM ThinkPad advisory councils sponsored by the Personal Systems Group (pre-Lenovo transaction) represent a good example of human interaction and collaborative innovation. During a particularly frothy era of inventiveness in the personal computer business over a ten year period of time, these councils harness collective intelligence and professional diversity to drive collaborative success. They were formed around the world to advise the management team about crucial decisions – and at the high-water-mark there were 17 of these membership councils in operation around the world by the year 2000:

- Industry Advisory Councils (6) – composed of industry analysts, magazine editors, and selected industry consultants:
  - Asia-Pacific Industry Advisory Council
  - China Industry Advisory Council
  - European Industry Advisory Council
  - Japan Industry Advisory Council
  - Latin American Industry Advisory Council
  - North American Industry Advisory Council
- Customer Advisory Councils (7) – composed of information technology (IT) executives from some of IBM’s most largest companies:
  - Asia-Pacific Customer Advisory Council
  - China Customer Advisory Council
  - Japan Customer Advisory Council
  - Latin American Customer Advisory Council
  - North American Customer Advisory Council
  - Northern European Customer Advisory Council
  - Southern European Customer Advisory Council
- Road Warrior Advisory Council – entrepreneurs and small business owners that run their businesses on the road using notebook computers and mobile technology.
- Marketing Advisory Board
- Scientific Advisory Board
- Human-Centered Innovation Advisory Board

These councils and boards are composed of culturally cohesive, and language-common groups, with 20-25 interactors each, and an expectation of 15 to 18 of them showing up for any given gathering. They form “human salt marshes” – where the diversity of the expertise in the room helps create broader worldviews and wider avenues of potential action.

In a physical salt marsh there is a great deal of biological diversity. The place where the ocean touches the land is a point of rich interaction with brackish water and

lots of material moving back and forth between ocean, fresh water, and ground materials and life forms.

The same diversity is required for the selection of participant interactors - it is pivotal to the success of the groups over time. They must possess:

- Exceptional industry knowledge and insights
- An open, collaborative spirit when behind closed doors
- Trustworthiness in keeping the secrets of and maintaining the intellectual property rights of other interactors.

These are physical meetings – in-person gatherings that helped people bond to each other and create the basis for trust. We structure rooms so all participants can see each other and have the same relative status to each other – either in a circle or in a U-shape pattern.

A major innovation spawned in these gatherings is “Conjoint Live” – a method pioneered by several members of the management team, yet none more vibrant than those sessions hosted by IBM PC company executive Leo Suarez.

Similar to the work done to segment the global customer marketplace, this is a live feature/function tradeoff exercise based on real product roadmaps with industry experts and some of IBM’s most valuable customers. “Would you rather have *this* or *this*? – a standard part of the dialogue in these sessions. Later, after getting to a smaller set of features and functions, the third dimension of price was added – “Do you still want this if it adds US\$XX.xx to the price of the ThinkPad?”

The tradeoffs were documented visually in the room on easel charts or whiteboards to make the results known and easily accessible during discussions.

What make these sessions work is an underlying sense of trust amongst the participants. They had been working with each other for years in this setting. Outside the context of these advisory groups, especially for the industry advisors (consultants, industry analysts, magazine editors), these professionals were natural competitors. IBM’s regular schedule and format for these meetings made collaboration both intense and candid.

As a result of these in-person meetings, interactors as trusted cohorts can also be called upon between meetings to be briefed by teleconference and offer advice, or answer brief questions by e-mail. The willingness to participate and the candor is similar to the physical meetings due to imprinting and bonding that takes place over time in-person.

### 3 Content Evolution Labs

As described in the IBM advisory council case, trusted cohorts can have powerful influences over time and distance. To bring these methods into a new and contemporary multi-organization context, **Content Evolution Labs** (or **[c]e Labs**) is a designed membership organization that will draw on these experiences and is dedicated to cross-organization *collaborative innovation*.

**[c]e Labs** is designed to co-create a continuous global innovation conversation in the fields of human engagement and interaction. **[c]e Labs** provides a surrogate research and development (R&D) function for professions lacking internal capacity for this research in the past. Discoveries will have implications for a wide range of

leadership and management applications, including general management, marketing, human resources, human-centered design, and supply-chain and stakeholder communications.

**Content Evolution Labs** is designed to be cross-cultural, cross-discipline, and cross-industry. It has an approach centered on creating mutual trust inside the membership network.

**[c]e Labs** functions in a way similar to 24/7 global open-source programming for software development, where code is constantly improving each hour through the contributions of many programmers. In the case of Content Evolution Labs, the focus is not on software – it is on co-creating continuous innovation by invited members. Ideas are held private for a brief period of time for relevant pre-market differentiation and action by members, before all co-created concepts are published on an annual basis. Content Evolution Labs functions for the mutual benefit of its members and for the greater advancement of represented member disciplines.

**[c]e Labs** exists to benefit its members with a process that drives a global and continuous innovation conversation. It provides the basis for innovation across multi-organization boundaries. The rapid embrace and progress of nanotechnology is a good example of this cross-discipline and cross-organization catalyst common denominator. Breakthrough innovation requires exposure to thinking that is not captive to any single organization, profession, or culture. Competitive advantage is delivered in the differentiated marketplace expressions of what members collaboratively discover together.

Game-changers come from new business models; new alliances; cross-pollination interests that before were considered proprietary and competitive, vs. new collaborative and cooperative pre-competitive idea space.

Content Evolution Labs is both a pre-competitive collaborative conversation and a form of *innovation outsourcing*.

**[c]e Labs** is designed to be a series of intimate interactor groups consisting of approximately 15 - 20 members each – and a planned 14 boards around the world. Membership is limited and by invitation only. These groups are chartered geographically – and are administered by trusted curators to ensure cultural and professional diversity.

The curator function is designed to provide both a “home base” for each interactor cohort, and connectivity back to the global **[c]e Labs** conversation and mission. The curators also provide translation as needed from native language into English – the base linguistic currency of the labs worldwide. As with the IBM advisory councils, careful selection of interactor members and curators for the labs is essential to the success of the global organization.

Curated groups are meant to meet twice yearly – once in a smaller recurring base cultural cohort – and once with all members annually providing an opportunity for broad professional cross-pollination.

Monthly cycle design:

- 15<sup>th</sup> hold two cohort meetings
- 1<sup>st</sup> teleconference summary of last council proceedings for all members; agenda for next council meetings

Yearly cycle design:

- May to November – member board meetings
- December to February – idea consolidation and writing
- March – annual all member Spring Strategy Summit
- April – previous year proceedings report to members
- August – public summary of previous year proceedings

Content Evolution Labs is designed to create its own self-evolving agenda and direction. It is an adaptive and resilient organization designed to draw on the collaborative intelligence of its interactor members.

## 4 Telepresence: The Network Yet to Be Created

One of the great untapped potential interactive technologies of our time is telepresence. It holds so much untapped energy – yet it functions as an inert bundle of technology instead of a vibrant gateway to personal learning over vast distances.

Telepresence was designed and deployed on the metaphor of the executive boardroom, now distributed to connect leaders over time and distance. It functions in the same role as an executive jet – exclusive and generally unobtainable by the masses.

Now imagine if there were a public network of addressable telepresence facilities in hotels and community centers where conferences have never taken place...where no college or university has ever been in local driving distance for those eager to learn. Where experts who have retired to golf resorts can connect to institutions of learning conveniently and offer their expertise to campuses small, large, and virtual.

What if you could have dinner at a conference with an internationally recognized expert in an intimate setting with several other professionals after a stimulating day of interaction – and it was within a two hour drive from your home? What if deep conversations in rooms were connected with other conversations being held in different places and countries? What if it were possible to converse with a rich diversity of thoughts and experiences building insights to change your world?

What if you were on an ocean cruise and decided to learn something each day from an expert on land from a noted university?

This is the potential of telepresence as yet untapped. The elitist beginnings of the telepresence movement need to reach mainstream locations, and drive a rapidly expanding network effect.

Further, telepresence as hardware needs network applications drive greater purpose. The applications we have in mind drive the telepresence medium to greater outcomes. If you ask someone for a reference for “telepresence training” – there is no such education available. You can learn to be a great public speaker, a riveting classroom professor, an on-camera television personality, an on-stage actor – yet nothing is currently available to fully exploit the capabilities of the telepresence medium.

What telepresence as a pure technology lacks in processes, training, and local hosting skills, is now being developed in an initiative called **EduPresence**.

### 4.1 Harnenessing Telepresence for Education

EduPresence is a global conversation that sits at the intersection of continuous learning, delivery diversity, and executive education. Technology advances continue

to enable and enhance the opportunities for learning with diverse forms of delivery, both in-person, distance, and virtual. We see new locations taking on educational roles over time, such as hotels and places where people vacation and work. We see classrooms and conferences taking place where the creative classes are gathering, yet where no classroom has ever been or conference has ever taken place.

EduPresence is committed to delivering replicable wisdom, innovative relevance, and practical solutions to bring about a step-function evolution in the desire for and benefits of lifetime learning at both a personal and societal level. It is a reflection of a new personal learning system available to all in the not too distant future.

New information is being created faster than ever – and being shared at the speed of light. The coping skills required to navigate and make sense of this tidal wave of knowledge can be found in the accumulated wisdom and frameworks of a well-rounded liberal arts education. Refracted through the lens of practical concerns such as business, commerce, governance, and the good society – fostering a new yearning for lifetime learning and other ways of thinking tied to a commitment for useful applications moves from a utopian ideal to a practical necessity.

EduPresence is a catalyst for a new educational conversation.

EduPresence is committed to new forms of continuous learning tied to practical action.

EduPresence is convening this catalytic conversation for collaboration amongst liberal arts colleges, business schools, schools of government, school systems, government systems, and technology innovators, executive leaders, thought leaders, and global enablement and delivery organizations.

We don't have time to wait to create a global movement of leaders and professionals committed to the continuous learning needed to bring about a thriving world. This is personal level change coupled with new and diverse education delivery methods and processes to drive human success and significance.

## **4.2 Interactors in Haiti and the Connective**

After the earthquake in Haiti, many aid organizations dispatched relief teams and supplies to the ravaged city of Port-au-Prince and surrounding region. They acted independently and in many cases at cross-purposes for transportation access, resource distribution, and overall coordination for effectiveness.

Work by David Hodgson online created critically needed connections here in the U.S. so these organizations could know each other. Aid organizations that had never interacted with each other were connected by Hodgson in the U.S. so they could more effectively coordinate operations on the ground in Haiti.

Similar roles have been present at the time of this writing are roiling countries and cultures in Northern Africa and the Middle East. The era of spontaneous collaboration enabled by internet-mediated connections is gaining traction. This has implications for governance at both the country and company level.

Hodgson is taking his work and learning to a new initiative called The Connective that holds the promise of matching and connecting professionals and resources to critical needs in the marketplace for social good. He is taking social networking to a new level of principle and purpose.

### 4.3 Techniques for In-Person Interaction and Collaborative Innovation

**Post-Its.** The humble Post-It™ invented by 3M and now widely available under a variety of brands, is a uniquely useful tool for collaborative work sessions and strategy workshops. While there are a number of electronic versions of group input and collaborative work environments – highly useful when people are collaborating remotely, nothing beats Post-Its for in-person collaboration.

Getting people to express ideas simultaneously to a single question is the power of the Post-It. It eliminates groupthink and gives everyone in the room an equal voice. Ask a question, have the group write down their answers all at once, and then reveal the answers one-by-one. Put them up on a wall or chart paper and group them. You now have a permanent record of what every person said in the room – in their own handwriting.

Take pictures as the session progresses. Once taken, you can rearrange and re-cluster the Post-Its to drive new conversations and insights.



**Fig. 1.** Collaborative ideas collected with Post-Its

**Journey Mapping.** You can also take the ideas created on Post-Its and arrange them into a journey over time. This can be for customers or any constituency you wish to understand and serve better. Name the critical points in time and put key ideas underneath – both ideas that will help make the experience being studied better, and ideas that hold back satisfaction and delight.

Multi-track journey mapping is used to look at touch-points across customer and organization boundaries – and how the different people and points in time affect each other. Multi-track mapping reveals insights and dependencies not found in single-constituency journey depictions.

Let the map stay in a space where new ideas can be added over time – this way it functions as continued stimulus for innovation, not a static artifact from a single work session.

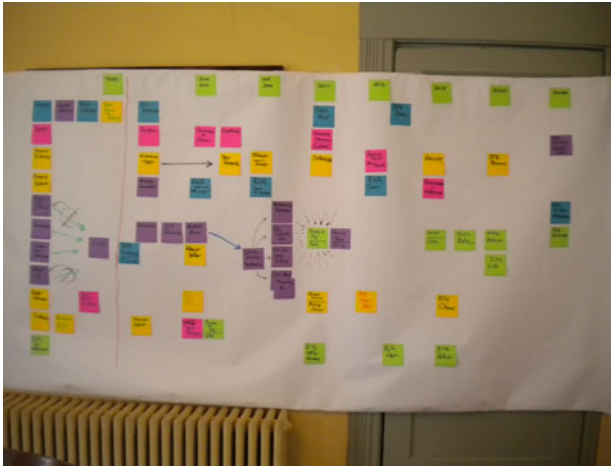


Fig. 2. Journey mapping by idea category over time

**Voting and Group Commitment.** Great planning sessions that have robust interaction and create new innovative concepts will inevitably exceed resources to act on all of them. This is where the group can work to get a handful of ideas “nominated” and then “elected to office.”

This concept has been regularly delivered for the past seven years as a case study about customer and market segmentation at Duke University Fuqua School of Business – and now taught at the University of Colorado at Boulder Leeds School of Business, University of Rochester Simon Graduate School of Business, and Yale University School of Management.

If you want people to act on the results of a collaborative strategy – invite them to participate and interact in its development. Find out what they need to know to act effectively; find out what they would need to embrace the outcomes and discover commitment.

In-person exercises can use simple colored sticky circles to vote for ideas participants find most valuable. These can then be prioritized into a set of actions the group can develop a preliminary plan about and a rough timeline. Assign time to come back with actions and assessments – get names assigned to tasks – leave with a sense of shared commitment and progress.

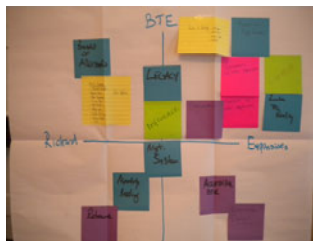


Fig. 3. A sample group commitment prioritization chart



## **5 Conclusion**

The tools, techniques and technologies for interactors to collaborate and create meaning are on the rise. Desirable win-win outcomes for multiple economic actors become increasingly likely every day. IBM advisory council programs, the emergence of Content Evolution Labs, EduPresence, and The Connective all point to global collaboration and technology-enabled forms of interactive learning. A co-created and more meaningful global conversation is underway.