BrainSpace®

Eureka Project 2009-2011

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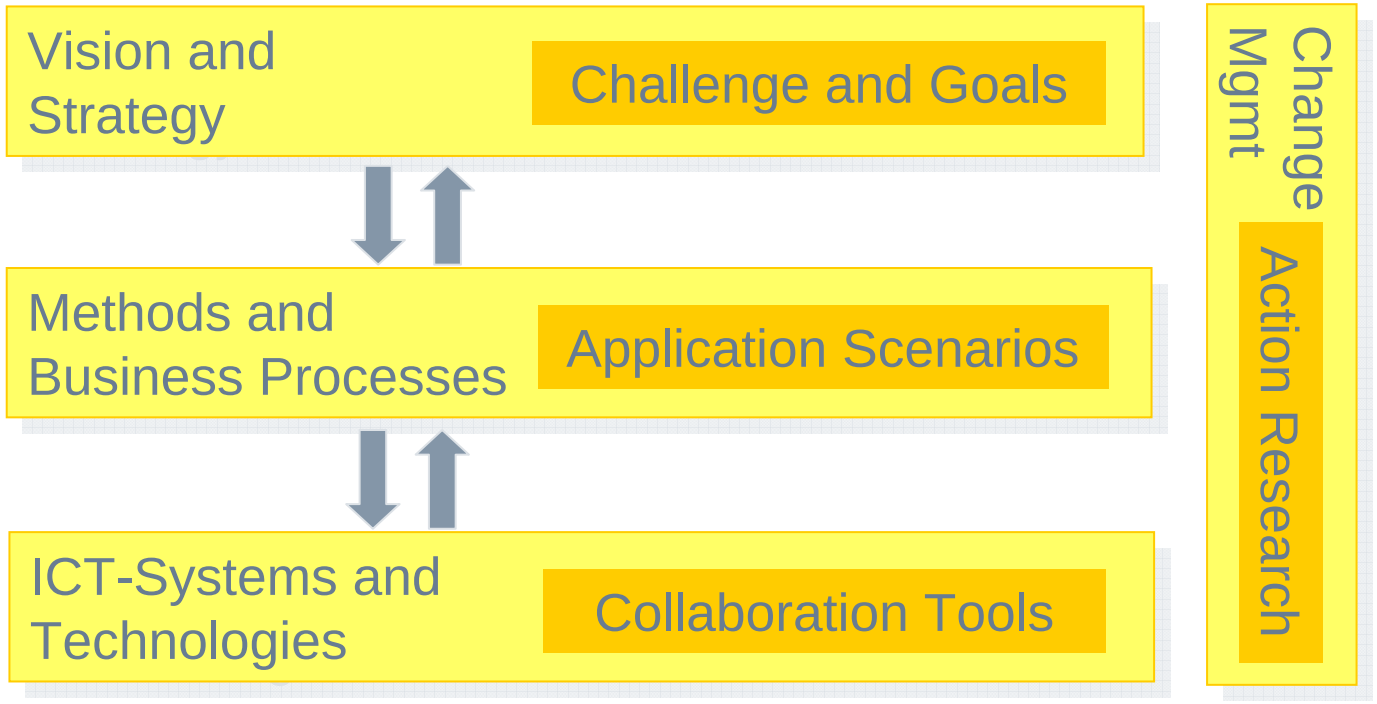
Business Engineering Model



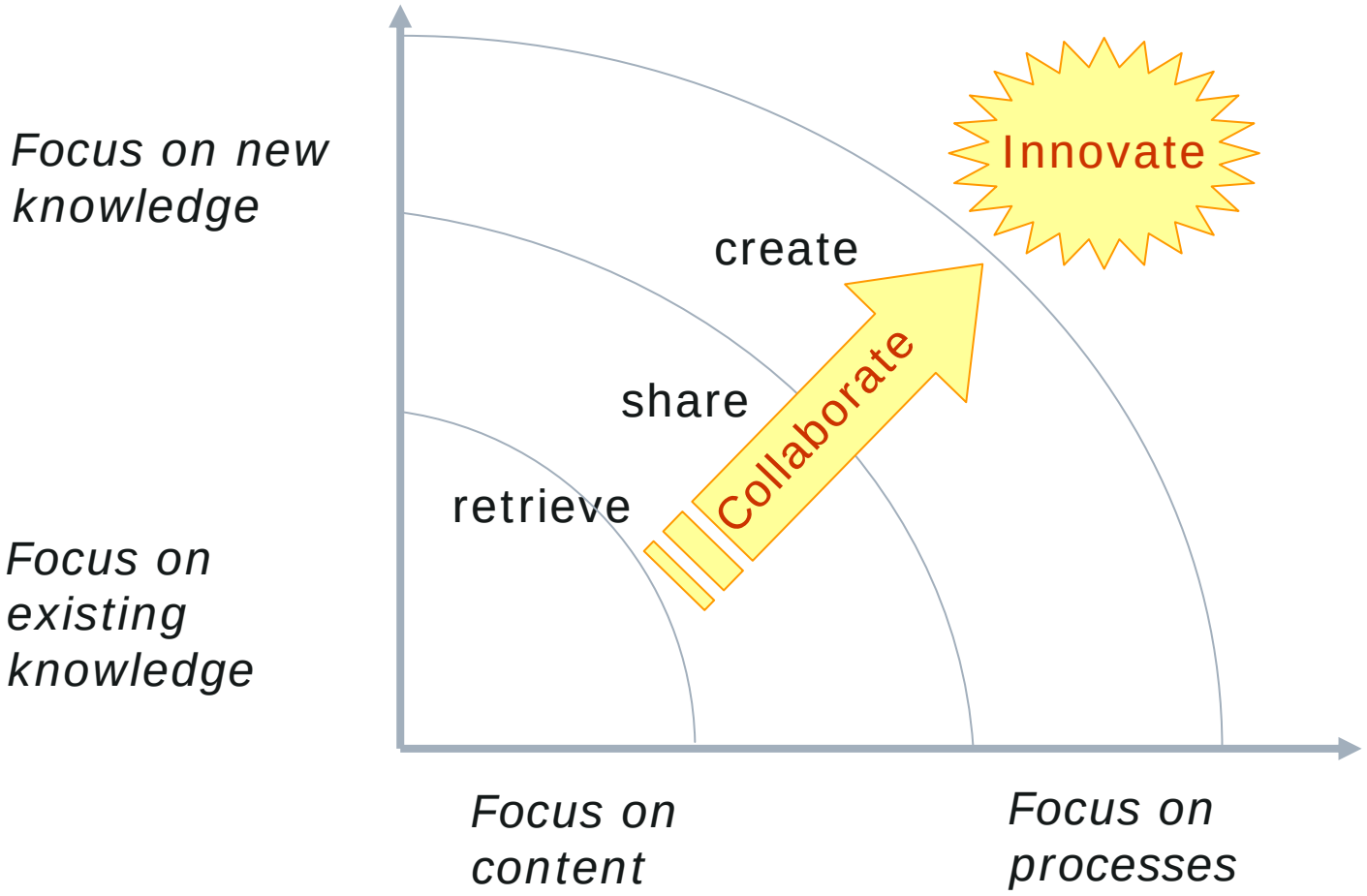
adapted from Blessing/Österle, 1999

The Networking Vision

Some features of the Silicon Valley habitat are

- Knowledge intensity (entrepreneurs, faculty, students, consultants, venture capitalists, ...)
- High-quality and mobile work force
- Open business environment
- Networking and knowledge sharing
- Collaboration between university and industry

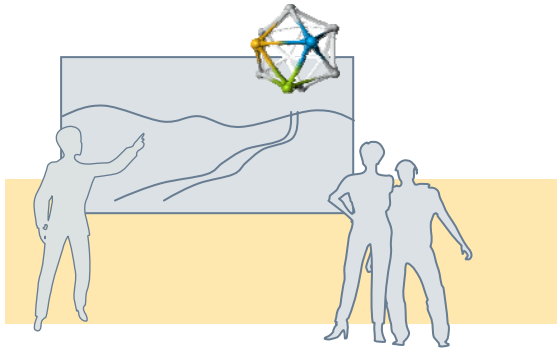
The Innovation Vision



The Collaboration Vision

The next generation of knowledge management will be

- less about data and more about the social nature of knowledge
- less about capture and retrieval and more about innovating and sharing
- less about knowing and more about active knowledge construction and collaborative learning

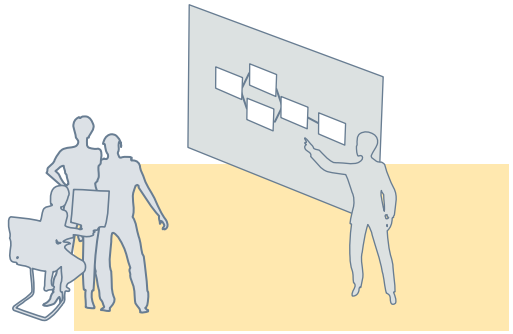


Key Challenges

- **Methodical**: provide methods that not only enable, but truly drive the creation of new knowledge
- **Technical**: provide information and collaboration systems that not only make information available but support community members thinking together
- **Personal**: create a spirit of collaboration, where members bring in their personal experience, but are still open to the ideas of others
- **Social**: configure learning networks where the members come close enough to understand each other but remain diverse enough for perturbing the problem solving process

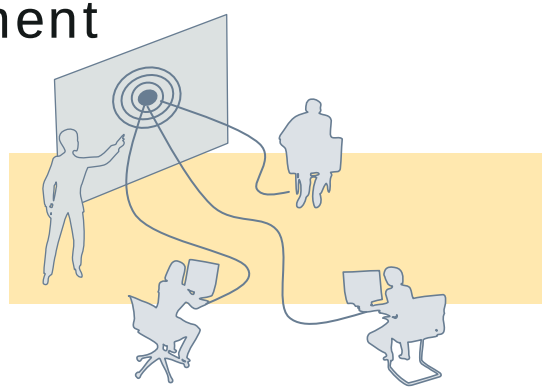
Methodical Objectives

- Design and implement artifacts for supporting communication and collaboration in a virtual shared space
- Set up varying application scenarios and make usability tests within the private and the public field
- Refine the BrainSpace method in a way that it applies not only to small groups (~12-15) but also to a large number of persons (~80-100)



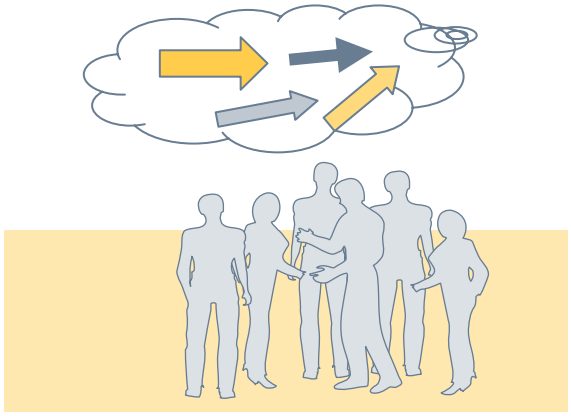
Technical Objectives

- Support the BrainSpace process with web-based technology in a way that it is transparent to the users
- Present outcomes of the process in a user friendly way
- Design and implement an algorithm for the assignment of persons to groups
- Customize and integrate existing collaboration tools into a smooth, process-oriented environment
- Test the usability of platforms and tools



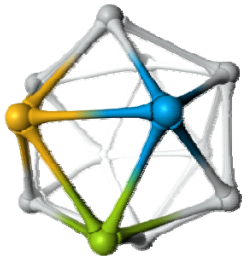
Personal and Social Objectives

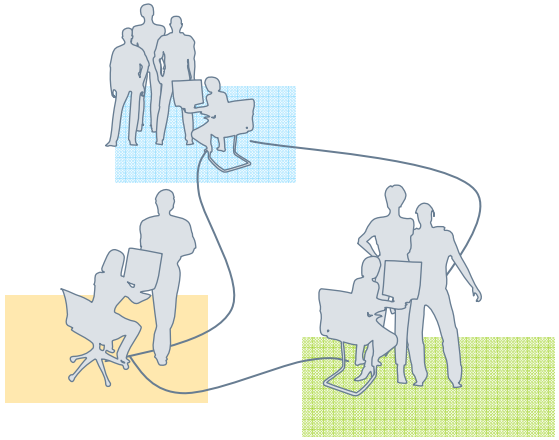
- Design and implement methods for kick-off and trust building in virtual environments
- Design and implement methods to coach and facilitate the BrainSpace process
- Design and implement methods for the support and documentation of the learning progress



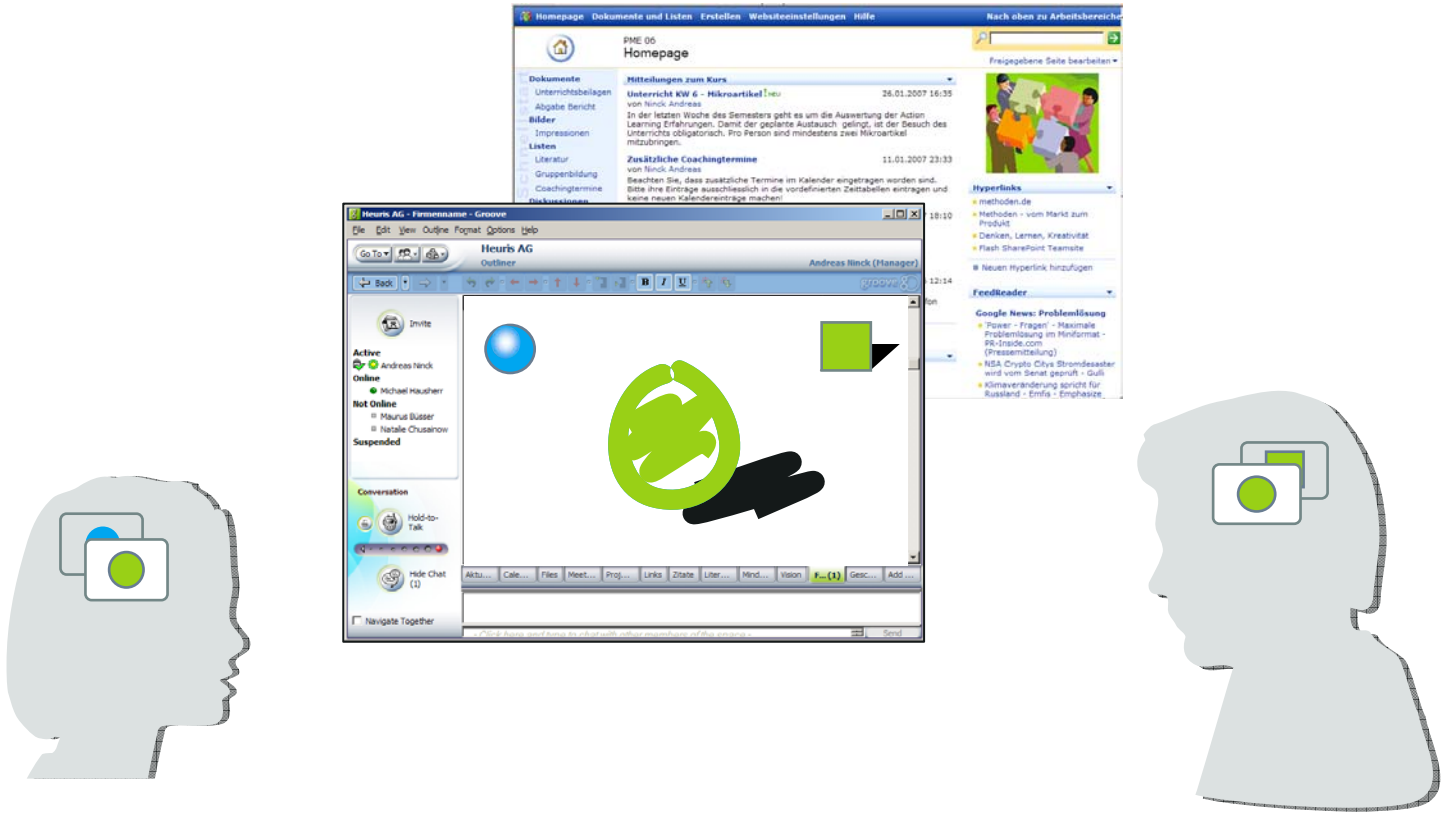
Application Scenarios

- Knowledge Management
  - Transfer knowledge
  - Cooperate within communities of practice
- Innovation
  - Solve complex problems
  - Create breakthrough for new ideas
- Project Management
  - Organize project start or completion (lessons learnt)
  - Project integration and coordination
- Change Process
  - Find consensus and commitment
  - Solve conflicts
- Integration
  - Integrate parts of the organization
  - Integrate stakeholders outside the organization





Collaboration Tools



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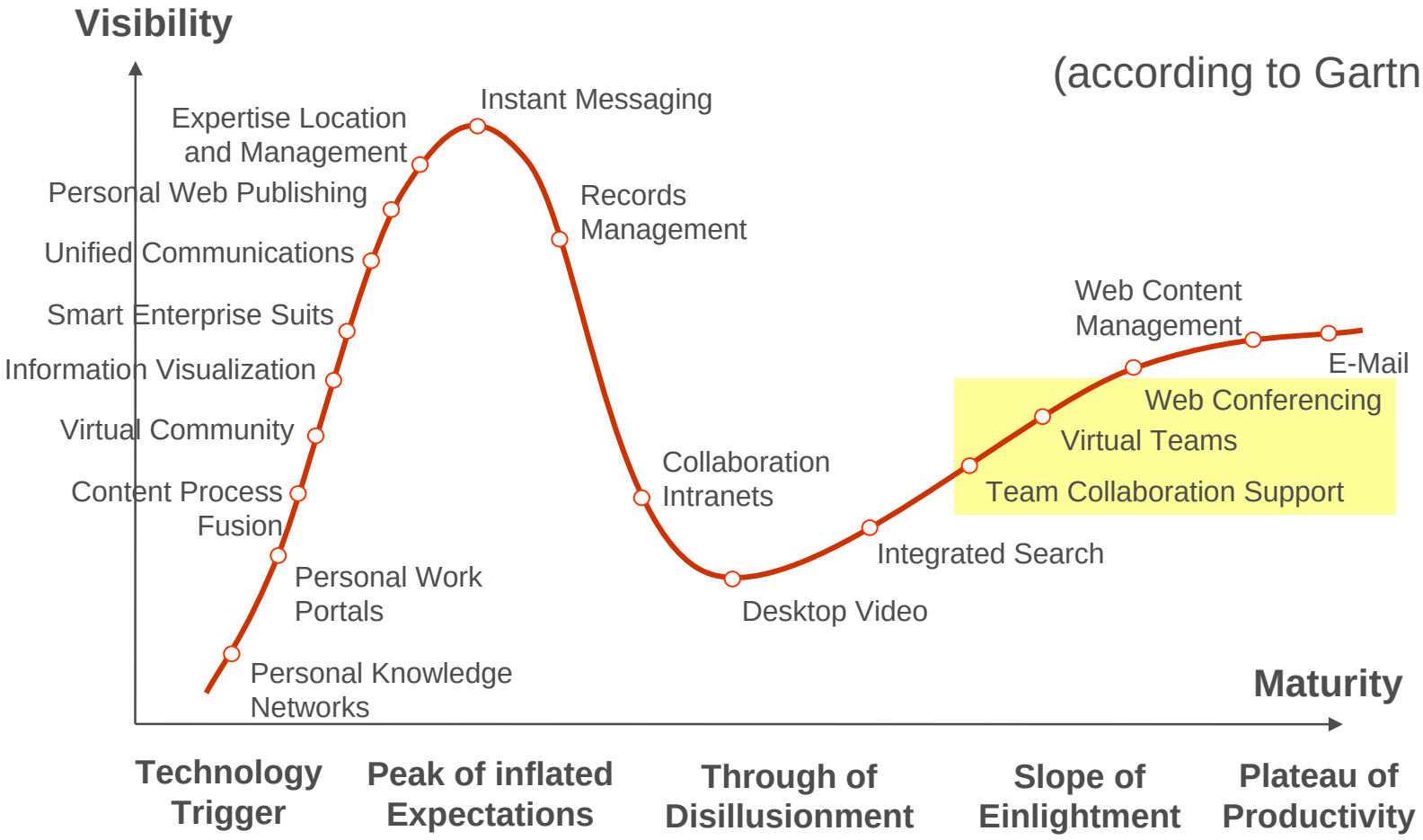
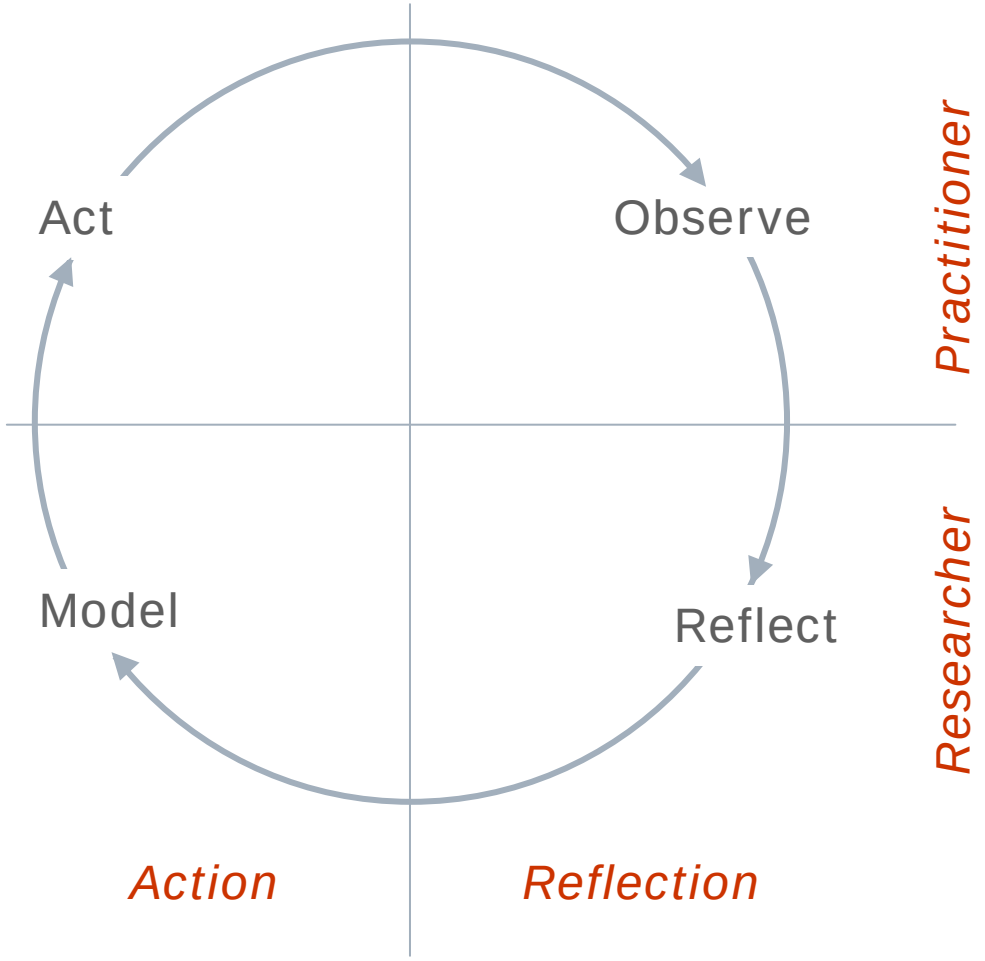


Action Research is ...

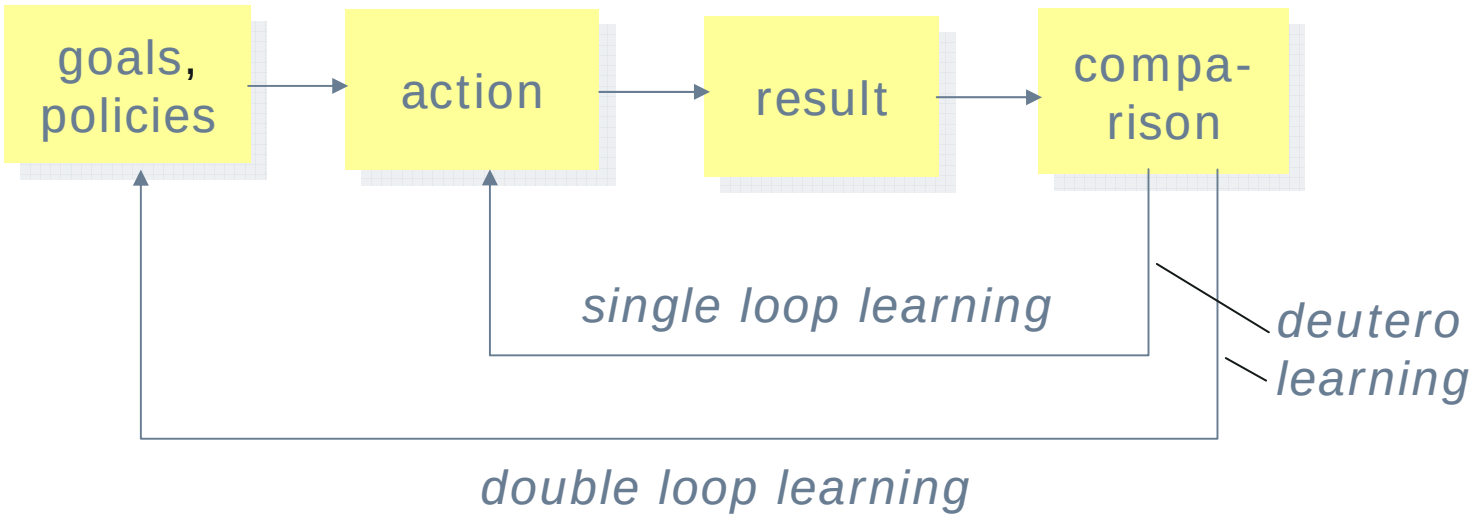
- an iterative inquiry process
- that balances problem solving actions
- implemented in a collaborative context
- with data-driven collaborative analysis
- to understand underlying causes
- enabling future predictions about personal and organizational change

Reason & Bradbury, 2001

Action Research Learning Cycle



Organizational Learning Cycle



adapted from Argyris/Schön, 1996

Hypotheses concerning BrainSpace

- there is a time saving, purposeful collaboration within a distributed setting
- the heterogeneous groups integrate individual strengths and different points of view, producing an environment rich in perturbations
- the available information is efficiently distributed and documented
- the process breaks former behavior patterns and hierarchical decision making
- the different roles provide self-reflection and social skills
- the individual's active participation fosters personal commitment, group cohesion, and a sense of responsibility

Project Life Cycle

Conceptual	Development	Execution	Termination
▸ form project team ▸ study literature ▸ study technology ▸ identify partner need ▸ analyze requirements ▸ establish goals ▸ develop schedule	▸ conduct studies and analysis ▸ design methods and tools ▸ build and test prototypes ▸ produce system ▸ develop support requirements	▸ run different application scenarios ▸ evaluate results ▸ reflect and redesign methods and tools ▸ conduct further iteration step	▸ implement last version of methods and tools ▸ write instructions ▸ deliver final version to partners ▸ write down findings in scientific papers