The System Behind the Software

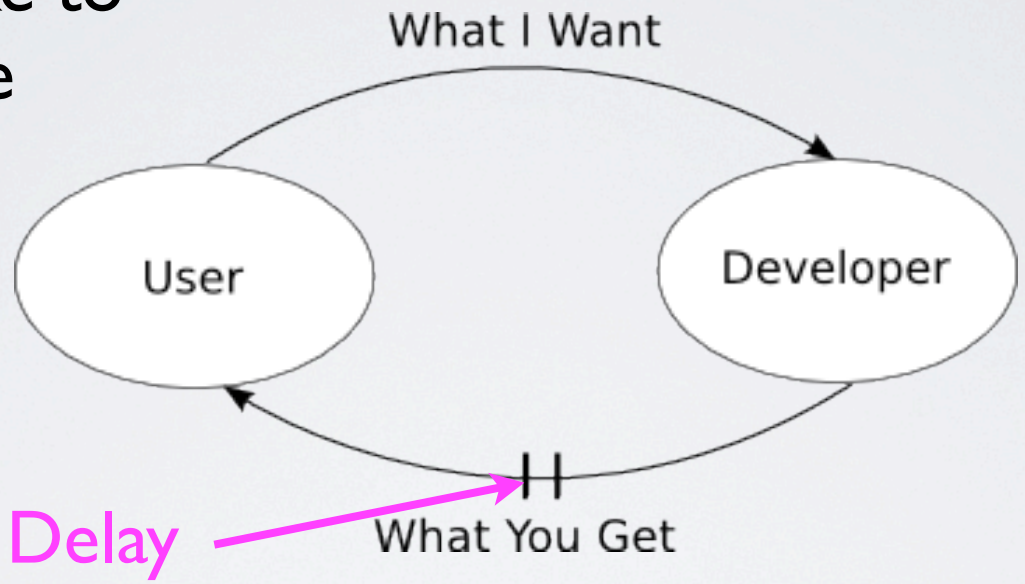

Conversation
Participation

A bad system will defeat a good person every time.

W. Edward Deming

What's So Hard?

Find out what the user would like to experience

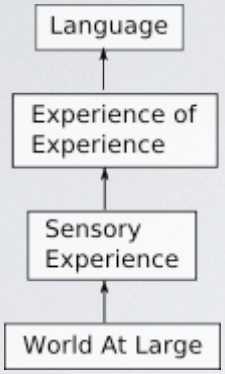


Build it

Say What?

Satir Interaction Model

Modeling Levels



Altogether now!

"A **map** is **not** the **territory** it represents, but, if correct, it has a similar structure to the **territory**, which accounts for its usefulness." Alfred Korzybski

Essential / Accidental Difficulties

- How we abstract information from the environment
- Our preference about the type of information we abstract
- How we operate on our model of the world
- Time lags - co-workers in different time zones
- Language / translation difficulties
- Cultural differences


Joan M.Mas 2/2007

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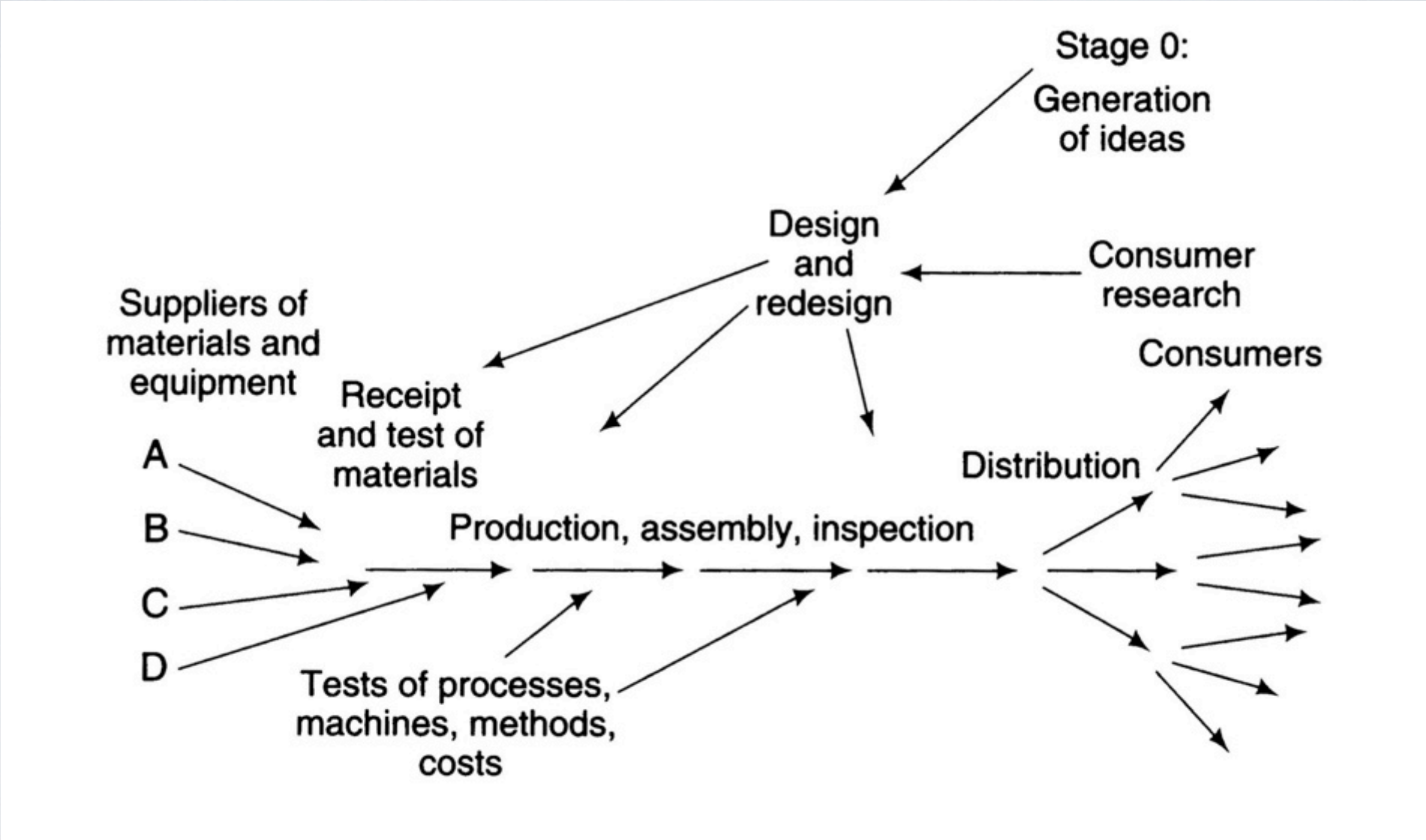
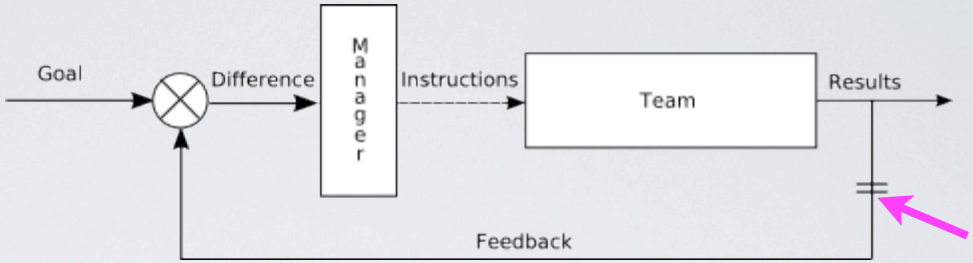


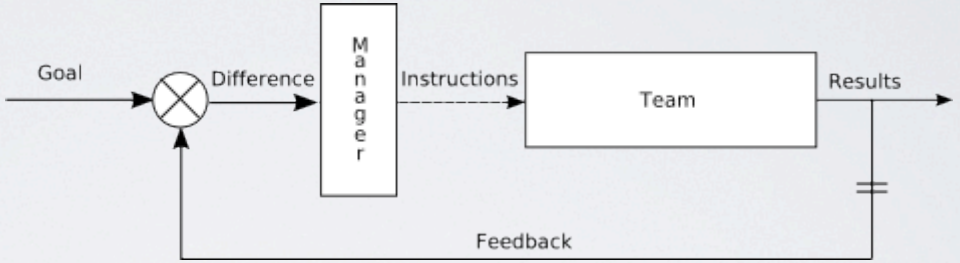
Systems of Systems

Development

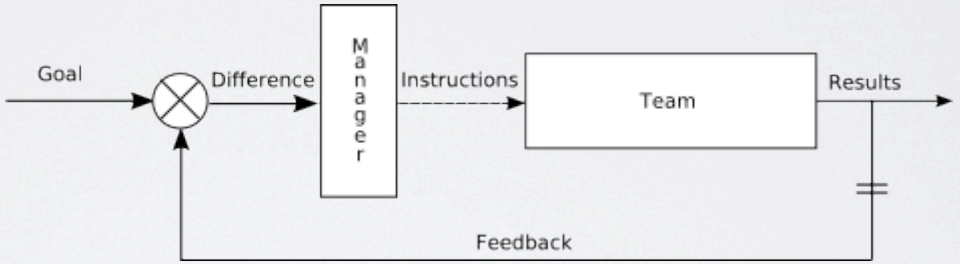


Delay

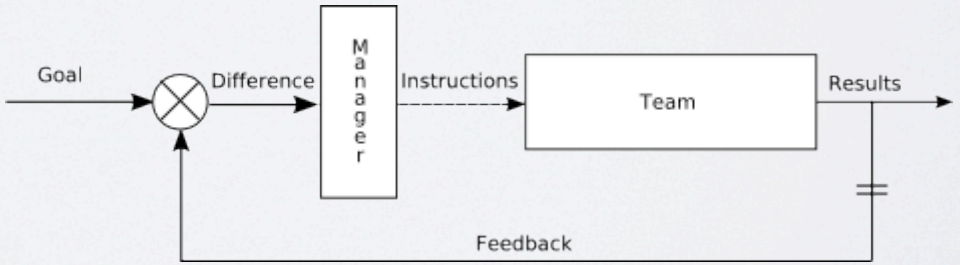
External Dependencies



QAT



IT

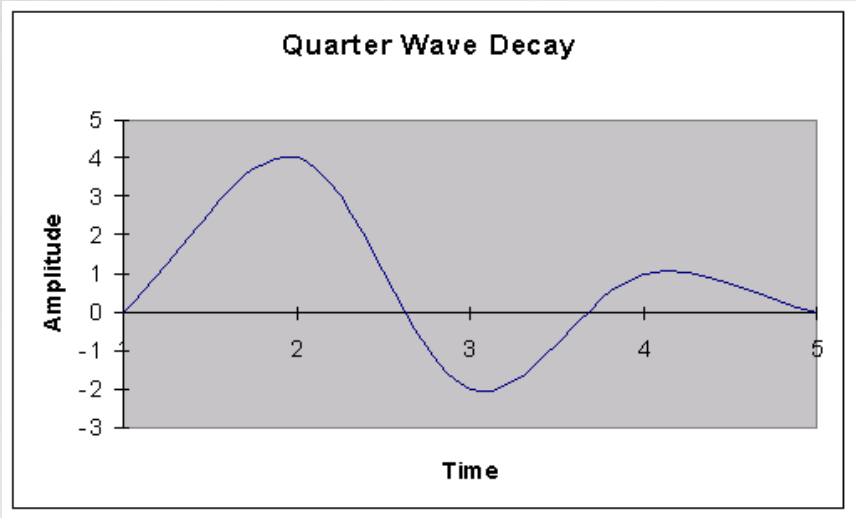


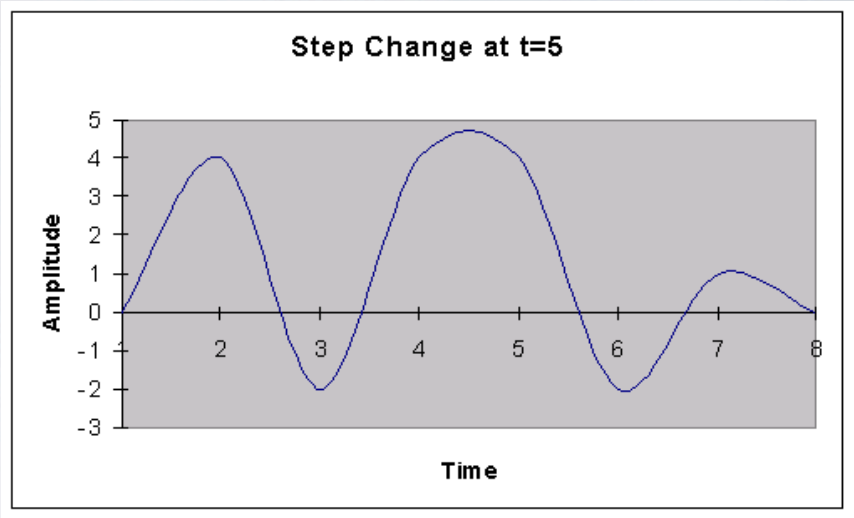
Systems of Systems

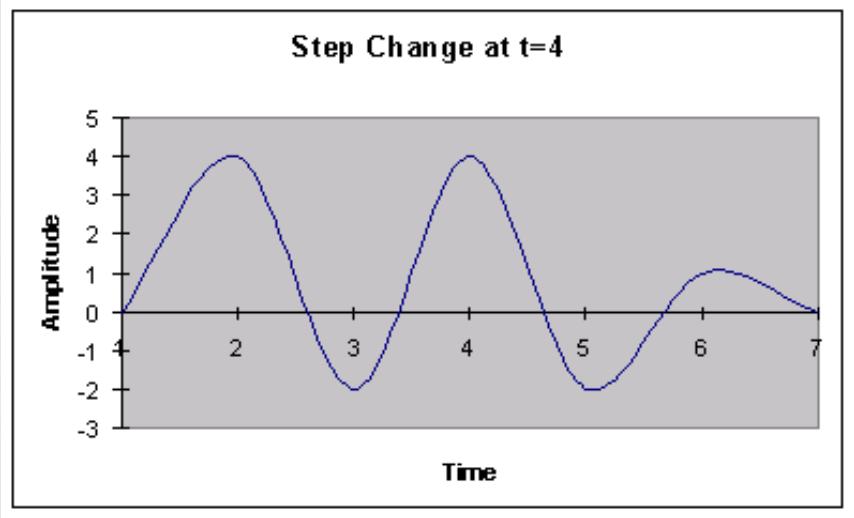
If you give a manager a numerical target, he'll make it even if he has to destroy the company in the process.

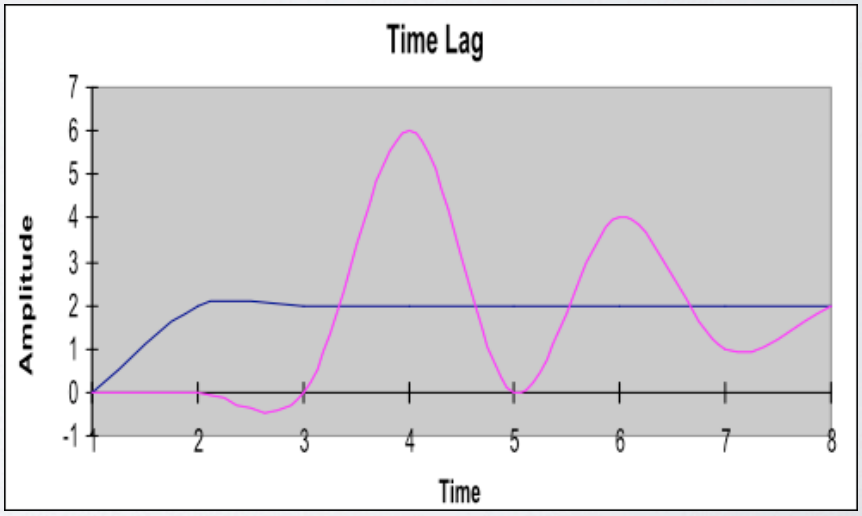
W. Edward

Time Response in Bounded Linear Systems

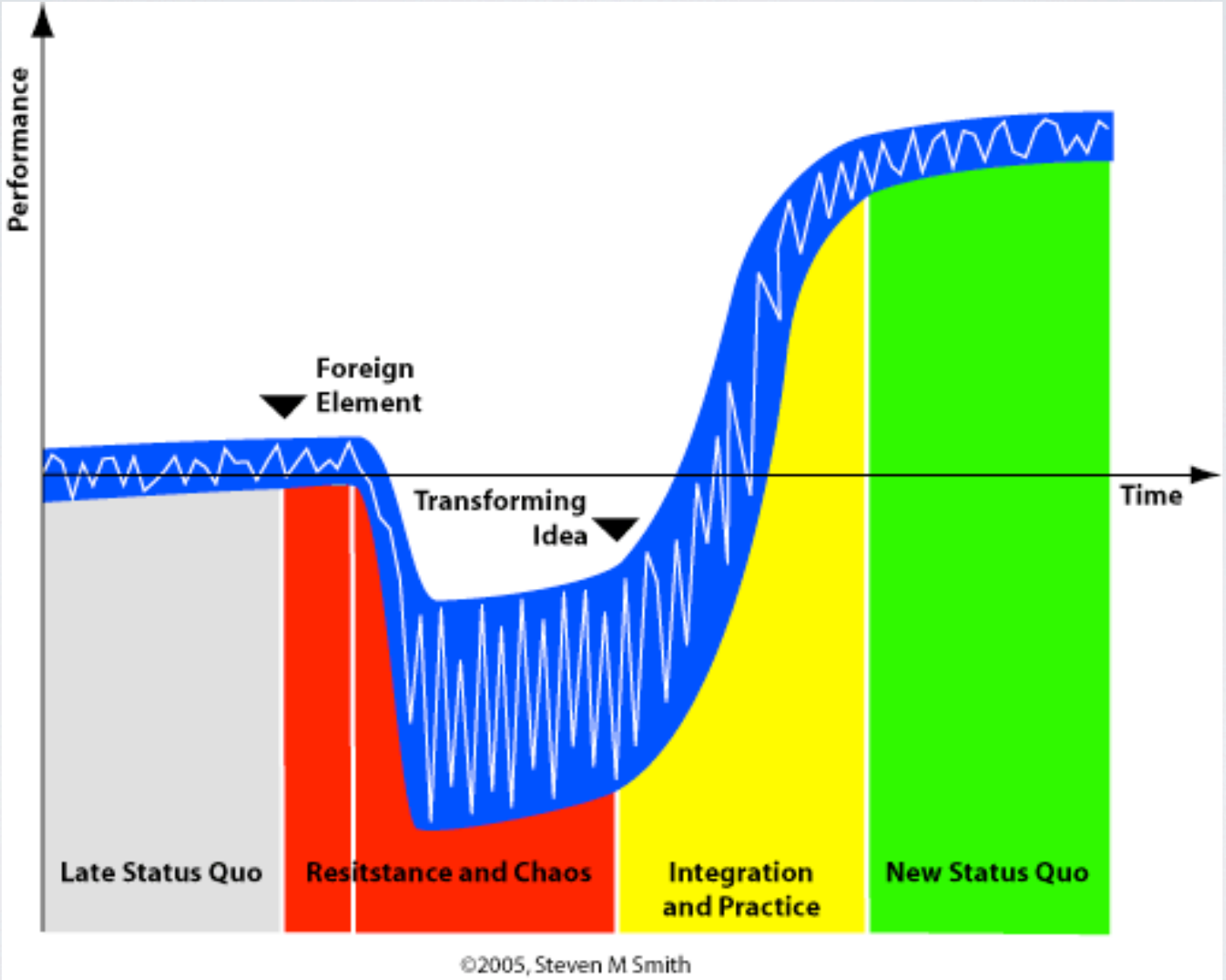






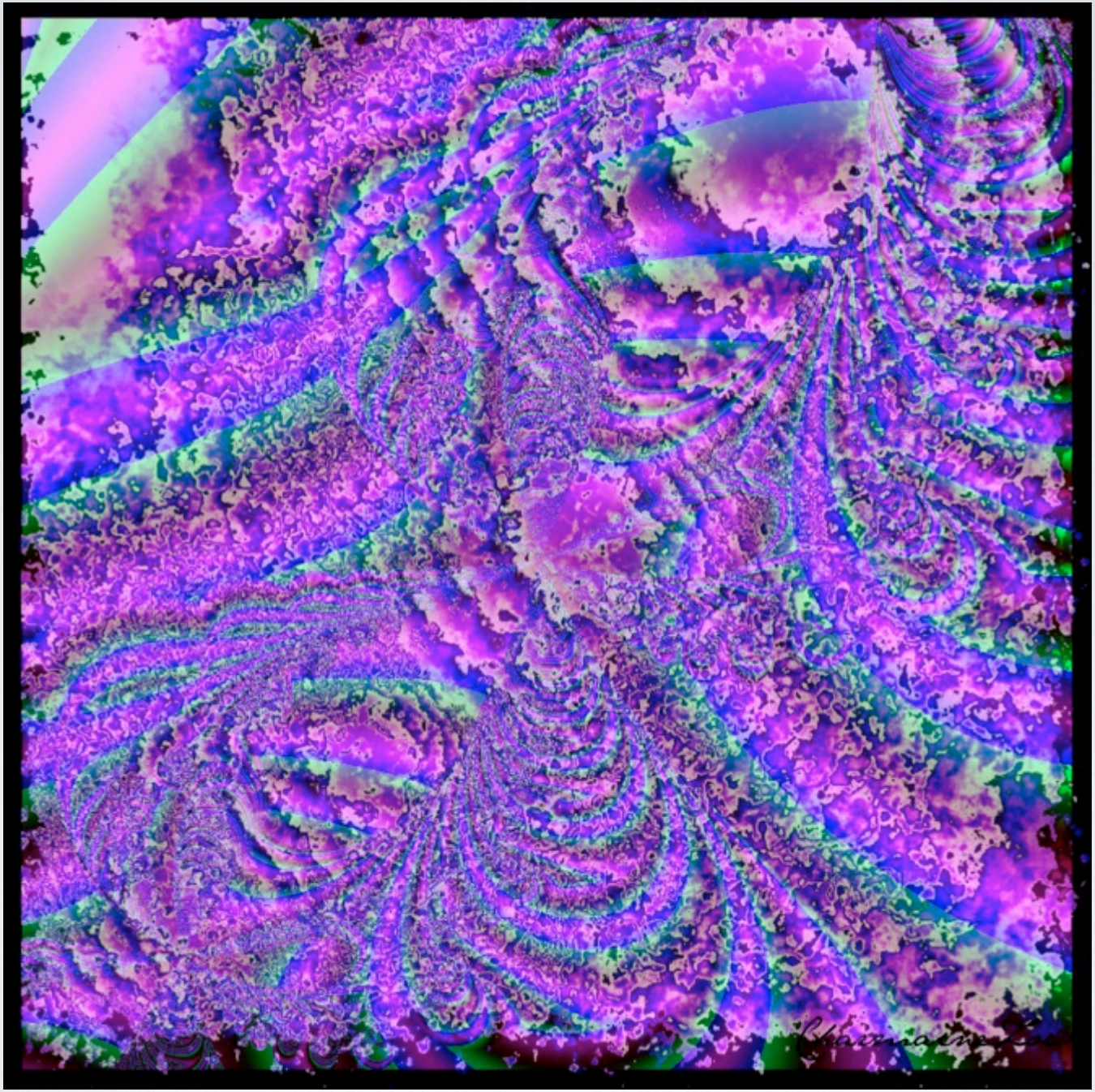


And when you add people



Essential / Accidental Difficulties

- Complexity (internal)
- Conformity (external)
- Changeability (thought stuff, infinitely malleable)
- Invisibility (no representation in space)
- (Programming) Languages
- Time-Sharing
- Unified Programming Environments (IDEs)



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12 Agile Principles

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.

2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.

3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter time scale.

4. Business people and developers must work together daily throughout the project.

12 Agile Principles

5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.

7. Working software is the primary measure of progress.

8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.

12 Agile Principles

9. Continuous attention to technical excellence and good design enhances agility.

10. Simplicity - the art of maximizing the amount of work not done - is essential.

11. The best architectures, requirements and designs emerge from self-organizing teams.

12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

For More Information

- Talking So People Can Hear - Agile CoachCampNC - 2010 http://wiki.agilecoachcamp.org/tiki-index.php?page=TalkingSoPeopleCanHear&bl
- Communications Disconnects: http://www.donaldegray.com/communications-disconnects/
- A Multi-Use Model: http://www.donaldegray.com/a-multi-use-model/
- Top Down Change: http://www.estherderby.com/2010/10/successful-top-down-change-starts-with-change-at-the-top.html
- Measuring and Managing Performance in Organizations ©1996 Robert D. Austin, ISBN 0-932633-36-6
- Systems thinking, teams, communication, and models:
  - Articles: http://www.donaldegray.com/category/article/
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2. Communication http://www.flickr.com/photos/dailypic/1459055735/sizes/z/in/photostream/
3. Tacoma Narrows Bridge (aka "Galloping Gertie") http://www.flickr.com/photos/uw_digital_images/4861196144/in/pool-972605@N21/
4. Production viewed as a system: The New Economics - W. Edward Deming page 58
5. Software Essential and Accidental Difficulties from No Silver Bullet by Frederick P. Books, Jr
6. Fractal system picture http://www.flickr.com/photos/charmainezoe/3635914107/sizes/o/