Minimalist Design in Complex Adaptive Systems

Doing Less to Do More

Expedition facilitated by Dave Roitman at the September 2016 STS Roundtable

All things by immortal power,
Near or far,
Hiddenly
To each other linked are,
That thou canst not stir a flower
Without troubling of a star

Sir Arthur Quiller-Couch (1863-1944)

Complex Adaptive Systems

General Systems Theory	Complex Adaptive Systems
Linear Change..	Non-Linear Change
Planned "Staged" Change..................	Iterative "Agile" Change
Change "Targets"................................	Self-Organizing
Primacy of Design................................	Primacy of Relationships
Primacy of Environment.....................	Co-Evolution
Bureaucratic Rules.............................	Simple Rules
Dynamic Equilibrium............................	Edge of Chaos

A few questions

Who has:

1. Read one or more articles or books about CAS?
2. Studied the evolution of CAS e.g. through General Systems Theory and Complexity Science?
3. Thought about the relationship of CAS with newer organizational designs like Holacracy or Agile?
4. Intentionally integrated CAS ideas into your work with organizations and/or your studies of organizations?
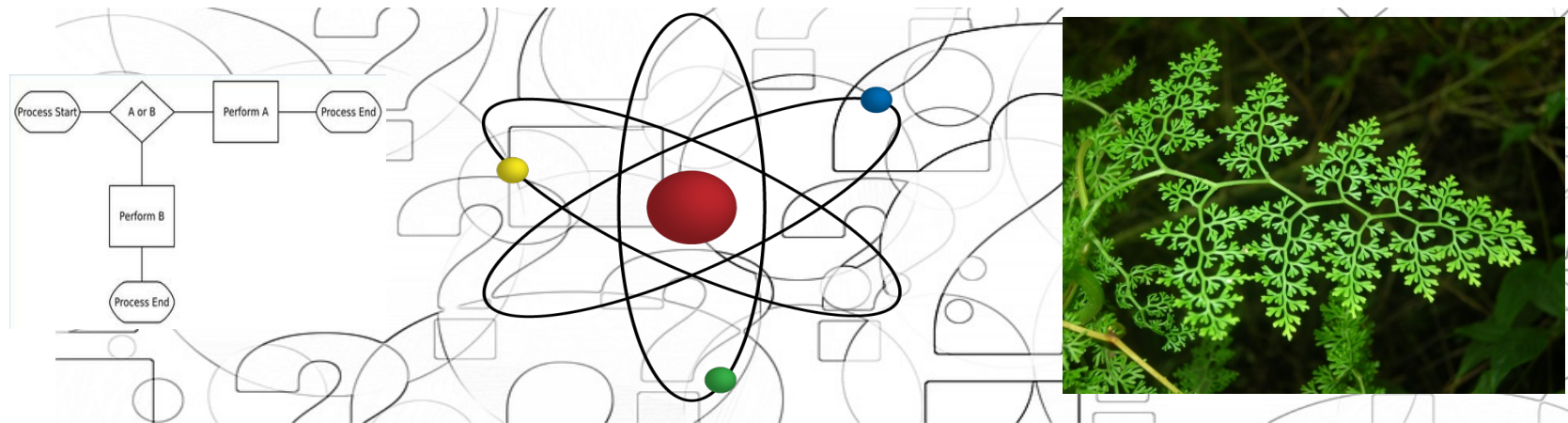
A fortunate coincidence

...receiving the call for 2016 STS Roundtable papers just while realizing that what was happening in my life at that time was a Clear Case of C.A.S.

((Minimalist Design))

Taking few actions, each utilizing little apparent energy, applied to points in the system where significant leverage can be expected, and resulting in small changes that have large effects – hopefully positive.

What was happening

- Client = large consumer co-op
- Omnichannel software
    - enable members/customers to purchase products and services rapidly and easily regardless of the device(s) they used.
- Process improvement: "One Team"
- Five other major projects + other changes
- Omnichannel project using Agile design
- *My job: "Focus on software implementation"*

A bit about the work

Web publishing:

o Combines creative and routine sub-processes

o Photographers & graphic designers work with marketing specialists to develop compelling images

o Authors develop captivating content

o Operations specialists perform dozens of tasks to organize images and content so they can be quickly and easily made visible...

o So that the products they portray can be quickly and easily purchased

What I did

- o Interviewed 20 managers and employees, from marketing, operations, and IT
- o 15 questions about leadership alignment, organization and work design, business readiness, communications, and project team issues
- o Found out what they liked or didn't like about the project, and what encouraged or concerned them.
- o Made 2 recommendations based on the interviews

What I Learned

Interviewees	What they said
4 Marketing, Creative, & Operations Directors	"The IT Department is in charge of the system design"
IT Director	"I want to collaborate with them"
People working in the Web Publishing process, and Executives	"The business knows where they want the process to go, IT knows what the software will do… get it together!"
People working in the Web Publishing process, and Executives	"What the heck is going on? We hear about delays and features going in and out of scope, but we don't hear why"

- History: Previous IT and Operations Directors didn't get along, weren't good managers
- Project meetings: stilted, awkward, time-wasting
- Process design: looking for ways to collaborate across functions on "Campaign Teams"…the One Team initiative

Recommendations

o Four Marketing and Operations Directors join with IT Director forming "Omnichannel Leaders Working Group."

o Collective responsibility for project direction and results

o <u>Same people</u> to be responsible for One Team process design

o Communicate updates on Agile development / on-going scope decisions...informally as well as on website newsletter

What happened

- Seamless transition to new leadership group
- Logjam of project decisions broken
- Web publishing workers - enthusiastic about software project *and* One Team process design
- Omnichannel software *and* Campaign Teams implemented

So what?

What happened:	Your questions:	Questions for you:
Non-Linear Change: small action, big impact		1. How have you used CAS principles in your work?
"Agile" Change: One Team evolved		
Self-Organizing: Working Group formation		2. What is your experience of the "IT-Business Chasm?" Do you think it still exists? If yes, how are CAS principles helpful in dealing with it?
Primacy-Relationships: IT & other Directors		
Co-Evolution: All points above		
Simple Rules: Process design in the case		
Edge of Chaos: All this during 5 other big projects, opening 3 stores, other process improvement, busy shopping season coming…		3. Can we and should we do more to encourage use of the CAS systems framework?