



# Self-organizing Agile Teams

*beyond the buzzword*



Rashina Hoda and Esther Derby

## Presenters

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PhD on Self-organizing  
Agile teams

research insight

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Associates Inc.  
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Management Consultant  
& Author of 2 Best-sellers

practical know-how

## Tutorial Overview

Setting the Stage

Self-organizing teams: *beyond Agile*

Self-organizing teams: *beyond the Buzzword*

Self-organizing teams: *beyond the Challenges*

Question/Answer and Resources

Defining  
Self-organizing Teams

## Setting the Stage...

What's self-organizing

What's NOT self-organizing

## Setting the Stage...

What is a Team?

A goal-oriented social unit

- Shared compelling work goal
- Members are mutually accountable for achieving that goal
- Work is inter-dependent, requires all their skills
- Shared approach, not a rigid process
- Fewer than 10 people
- Shared history and identity

## Setting the Stage...



Beyond Agile...

## A new concept? Not really!

### Different Perspectives:

- Socio-Technical Systems
- Organizational Theory
- Complex Adaptive Systems
- Knowledge Management

## Socio-Technical Systems

### Autonomous groups\*

- Tavistock group's study of English coal miners
- Learning systems that expand their decision space in response to everyday learning

### Self-Managing teams\*\*

- Self-managing teams exemplar of concertive control
- 10-15 people
- take on responsibilities of former supervisors
- activities guided by vision of senior management
- cross-trained individuals
- motivated by peer-pressure not legal rules

\* Tryst, E *The evolution of socio-technical systems*, 1981

\*\*Baker, J *Tightening the iron cage: concertive control in self-managing teams* 1993

## Organizational Theory

### Four general conditions of self-organization\*:

- Minimum critical specification
- Requisite variety
- Redundancy of functions
- Learning to learn

\* Images of Organization, Morgan (1986)

## Complex Adaptive Systems

### Characteristics of Self-organizing teams\*:

- Informal
- Implicit
- Transient
- Spontaneous

\*Of Ants and Men, Anderson et al. (1976)

# Knowledge Management

**Three Specific Conditions of Self-organization\*:**

- Autonomy
- Cross-functionality
- Self-transcendence

\* A New New Product Development Game, Takeuchi and Nonaka, 1986



**How can a software development team  
...become Self-organizing?**

**How can a manager create the conditions  
...for a team to Self-organize?**



Not a problem to be solved,  
but **polarities** to be balanced....

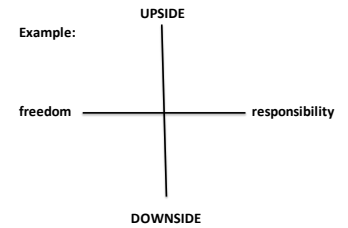
...**balancing polarities** enables self-organization



## Balancing Acts

Balancing Freedom and Responsibility  
Balancing Cross-functionality and Specialization  
Balancing Continuous Learning and Iteration Pressure

### Polarities Exercise



## Balancing Freedom & Responsibility

### Collective Decision Making

Collective estimation and planning  
Collectively deciding team norms and principles  
Self-committing to team goals

### Self-Assignment

Using story board/wall  
Taking task ownership

### Self-Monitoring

Daily standup meetings  
Information Radiators



## Balancing Cross-Functionality & Specialization

### Need for Specialization

Multiple perspectives

### Encouraging Cross-Functionality

Group programming  
Rotation



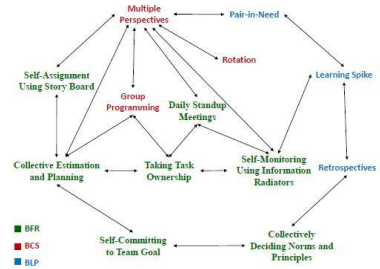
Balancing Continuous Learning & Iteration Pressure

**Self-Evaluation**  
Retrospectives

**Self-Improvement**  
Pair-in-Need  
Learning Spike



A set of Integrated Practices



Balancing Freedom and Responsibility (BFR); Balancing Cross-functionality and Specialization (BCS); Balancing Continuous Learning and Iteration Pressure (BLP)



Leverage Points

Containers  
Differences  
Exchanges

Simulation



Balancing Acts & Self-Organization

PRINCIPLES (Morgan, 1986)	CONDITIONS (Takeuchi and Nonaka, 1986)	PRACTICES (Hoda et al., 2010)
Minimum Critical Specification	Autonomy	Balancing Freedom & Responsibility
Requisite Variety	Cross-Fertilization	Balancing Cross-Functionality & Specialization
Redundancy of Functions	Self-Transcendence	Balancing Continuous Learning & Iteration Pressure
Learning to Learn		

Theoretically linked to Self-Organizing Agile Teams (Nesur et al., 2007)      Autonomy explored in Self-Organizing Agile Teams (Moe et al., 2009, 2010)      Self-Organizing Agile Team Practices enable Principles and Conditions (Hoda et al., 2010)

General Principles of Self-organization (Morgan, 1986)  
Specific Conditions of Self-organization (Takeuchi and Nonaka, 1986)  
Balancing Acts define Concrete Practices of Self-organizing Agile teams (Hoda et al., 2010)



Organizational Challenges



Middle Management Challenges



Customer Challenges



## Team Challenges



## Question/Answers & Wrap-Up



## Beyond this Tutorial...

### More at XP2011:

Rashina's research presentation: Thursday, 12<sup>th</sup> May, 3:35pm  
*Supporting self-organizing Agile teams:  
what's senior management got to do with it?*

Esther's keynote presentation: Wednesday, 11<sup>th</sup> May, 9am  
*Still no silver bullets*

### Self-Organizing Goodies:

Rashina's publications:  
<http://www.ecs.victoria.ac.nz/Main/RashinaHoda>

Esther's articles:  
<http://www.estherderby.com/site-map>

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