

Adrian Cockcroft - @adrianco

Systems Thinking at Netflix and Beyond

Reed Hastings CEO

Neil Hunt Chief Product Officer

*All product management, product
engineering and operations
reports to Neil - “BusDevOps”*

*Netflix management has
adopted many systems
thinking principles as norms
without explicit reference to
“Systems Thinking”*

*Netflix is optimized for
agility and the ability to
evolve rapidly*

*Pioneers, comfortable with
ambiguity*



“An organization's success is the product of the interactions among the five basic processes of throughput, decision making, learning and control, membership, and conflict management.”

*Jamshid Gharajedaghi
Systems Thinking: Managing Chaos and Complexity: A
Platform for Designing Business Architecture - 2011*

*Netflix systematically drives
higher talent density via
company culture optimized
for “fully formed adults”*

*No interns, new graduates,
contractors*

Attract best in the industry

Retain top talent

Reduce exit friction

Freedom and Responsibility Culture

*Reed Hastings - CEO Netflix
Netflix Culture Deck - 2009*

*“It may well be the most important
document ever to come out of the Valley.”*

Sheryl Sandberg - COO Facebook - 2013

*If you want to build a ship,
don't drum up the people
to gather wood, divide the
work, and give orders.
Instead, teach them to yearn
for the vast and endless sea.*

-Antoine De Saint-Exupery,
Author of The Little Prince

Seven Aspects of our Culture

- Values are what we Value
- High Performance
- Freedom & Responsibility
- Context, not Control
- Highly Aligned, Loosely Coupled
- Pay Top of Market
- Promotions & Development

With the Right People,
Instead of a
Culture of Process Adherence,

We have a Culture of
Creativity and Self-Discipline,
Freedom and Responsibility

“We can’t copy Netflix because it has all those superstar engineers, we don’t have the people”

Fortune 100 CTO after a Netflix presentation - 2013

“We hired them from you, and got out of their way...”

Adrian Cockcroft - in response

Summary of Freedom & Responsibility:

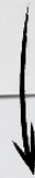
As We Grow, Minimize Rules

Inhibit Chaos with Ever More
High Performance People

Flexibility is More Important
than Efficiency in the Long Term

We have one rule:

Use *good judgement*
in all situations.



We still believe this wholeheartedly, which is why all employees get [this](#) as our employee handbook!

Nordstrom Technology NorDNA Culture Deck



*Systems for driving higher
talent density via “unusual”
compensation model*

No Vesting or Deferred Comp

- We don't want managers to "own" their people with vesting – all comp is fully vested
- We want managers to be responsible for creating a great place to work, and paying at the top of market
- Employees are free to leave us anytime, without penalty, but nearly everyone stays
- Employees stay because they are passionate about their work, and well paid, not because of a deferred compensation system

No bonus payments

*Everyone gets fully vested ten
year stock options every month*

No incentives to delay leaving

No-one is coasting or unwanted



“Purposeful systems, representing the systems view of development, assumes plurality in all three dimensions: function, structure, and process.”

Jamshid Gharajedaghi - 2011

Systems Thinking: Managing Chaos and Complexity: A Platform for Designing Business Architecture

“The basic thesis of this article is that organizations which design systems (in the broad sense used here) are constrained to produce designs which are copies of the communication structures of these organizations.”

*Melvin E. Conway - Conway's Law
How Do Committees Invent? - 1968*

“You built it, you run it.”

*Werner Vogels - Amazon CTO
ACM Queue Volume 4, Issue 4 - 2006*

*Goal is decentralized high
velocity development*

*100's of small product updates
per day without breakages*

*Optimize for high availability
without needing coordination*

Microservices

*Small teams product manage,
develop and operate a feature
as an independently
deployable service*

*When developers are put on
call for outages, they are
properly incented to create
robust and reliable services*



“We see the world as increasingly more complex and chaotic because we use inadequate concepts to explain it. When we understand something, we no longer see it as chaotic or complex.”

*Jamshid Gharajedaghi - 2011
Systems Thinking: Managing Chaos and Complexity: A
Platform for Designing Business Architecture*

Architectural Principles

Symmetry
Invariants
Assertions
Systems

“...a goal is a specific objective that you either achieve or don’t sometime in the future.

A system is something you do on a regular basis that increases your odds of happiness in the long run.”

*Scott Adams - Creator of Dilbert
How to Fail at Almost Everything and Still Win Big:
Kind of the Story of My Life - 2013*

Adrian Cockcroft - @adrianco - Battery Ventures

Questions?