PRESENTATION

"Innovative Product Development in the
 Medical Device Sector"

Speaker: Randal Chinnock

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3 Innovation Topics:

- The Creative Environment

- Leveraging Co-Creation

- Patent Obstacles

# **The Creative Environment**

References:

1. *Where Good Ideas Come From: The Natural History of Innovation,* by Steven Johnson

2. *What Technology Wants,* by Kevin Kelly

The Creative Environment

- Does innovation arise from the profit motive?

- Is "necessity the mother of invention"?

- Or "Are Inventions Inevitable?" *

- "Ideas are networks" – what are the best

   networks today?

- What is "scenius"?
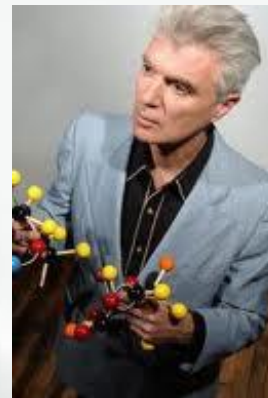
The Biological Model for Innovation

- The "adjacent possible"

- The "agency" of technology evolution

- The role of repeated failure [mutations]

Co-Creation

Applying the power of all of the stakeholders in an enterprise to optimize its development

Ref: *Building the Co-Creative Enterprise*
by Venkat Ramaswamy and Francis Gouillart,

www.prtm.com/cocreation

	TRADITIONAL	CO-CREATIVE
VALUE	Deliver a defined customer experience to a targeted customer set	Enhance experience of all stakeholders
GOALS	Established at outset, don't change	Initially set by management, strategy allowed to emerge over time
KEY FOCUS	Interests of firm paramount. Interests of employees & others secondary or not considered	Basic tenet is that considering the interests of all stakeholders maximizes the size of pie, overall profits, and stability
ADVANTAGES	Economies of scale, big bold moves, speed	Knowledge & expertise of all stakeholders is leveraged

Imagining a Patent-Free World

- Patents are meant to stimulate innovation, but do they?

- If patents ended, how would companies large and small change?

- Does the growth rate of technology and manufacturing in

  China illustrate what a patent-free world might be like?

- What would the short-term look like vs long-term? Would the system

  be stable & sustainable?

Example – Esterline Infection Control Keyboard

- 400 person medical division of $1.5B aero company
- Canon Medical Design Excellence Award winner
- Beat out 3 other companies in customer's competition
- Success factors:
    - Highly decentralized corporate management
    - Small business unit teams within division – no silos
    - High level device goals set by customer (large hospital)
    - Internal cross-functional team co-created with customer
    - Won competition due to innovative reminder system
    - Project within their core competencies (OEM user interfaces)
    - They did file patent, but didn't really matter