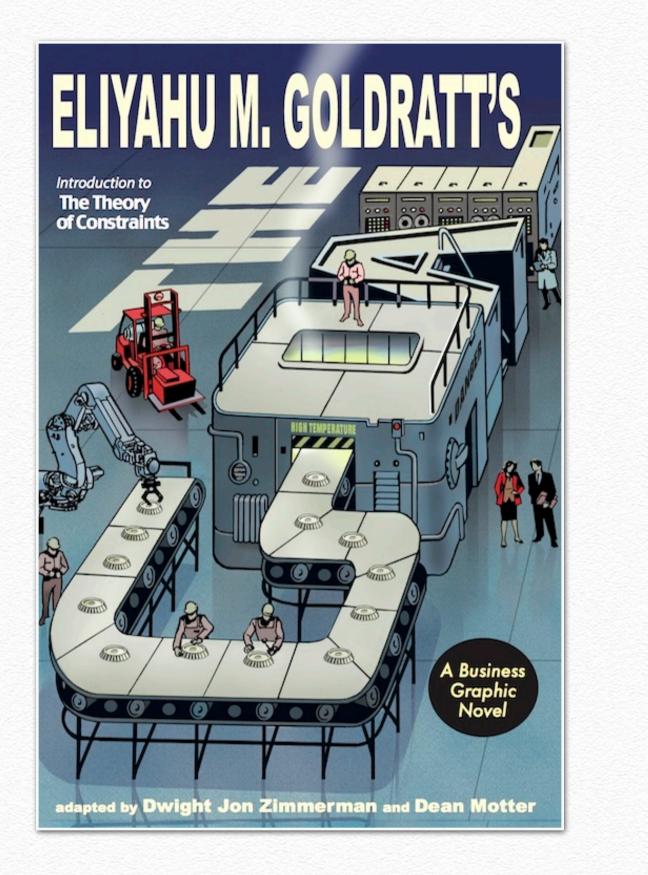
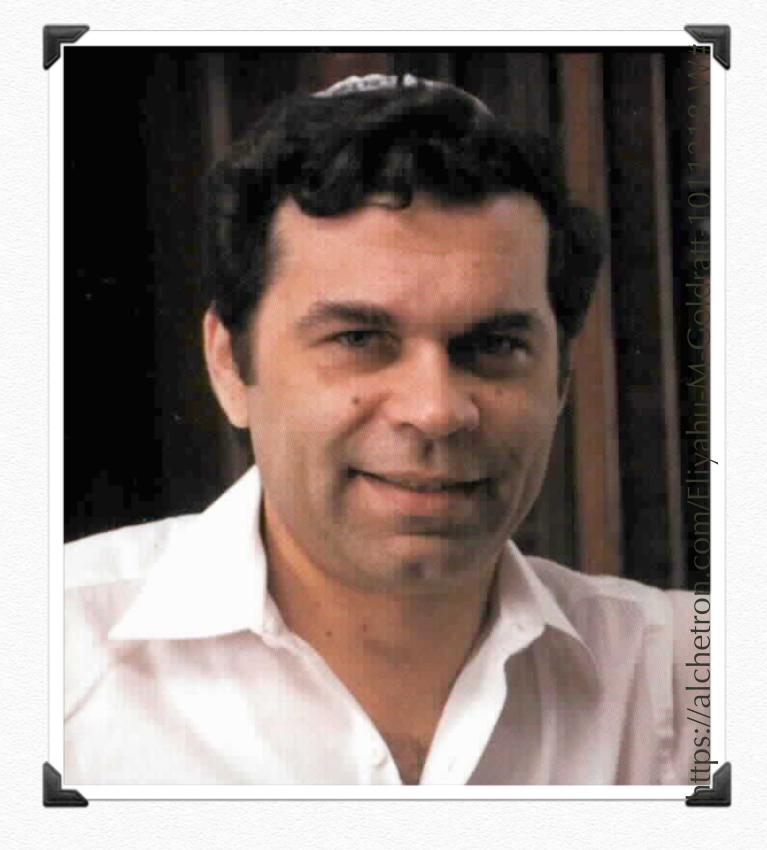
# How/to break the rules

Dan North @tastapod



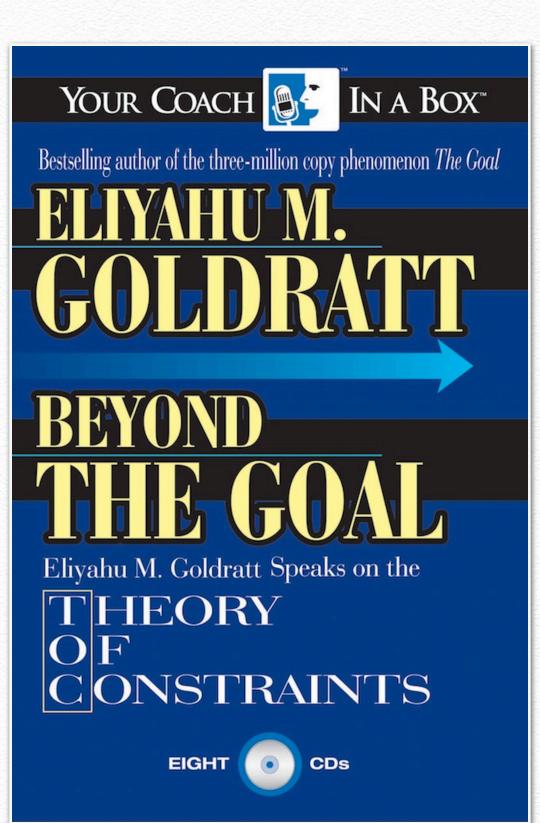
## Eliyahu Goldratt





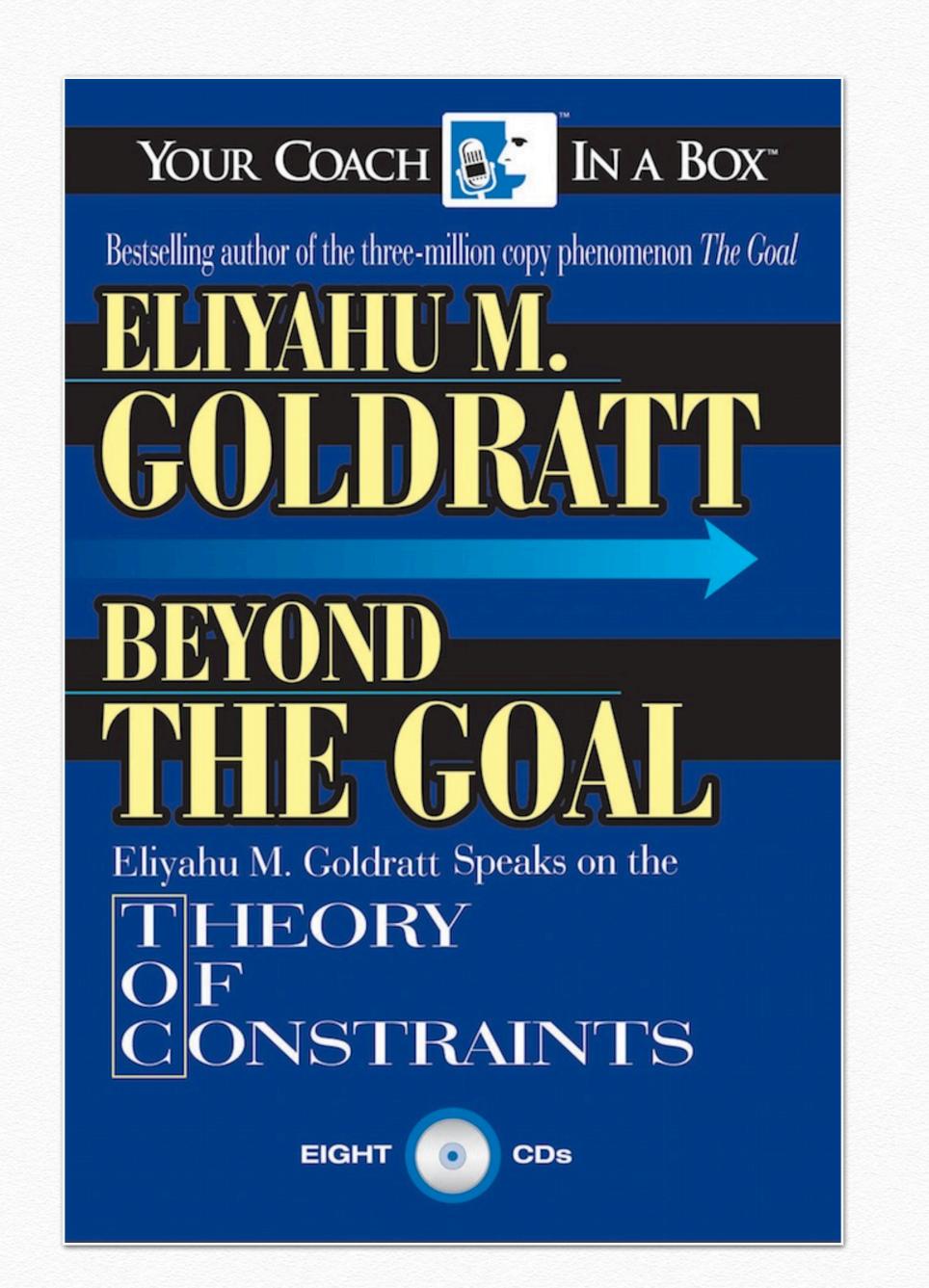
1984

1947-2011



2005





### "Technology can bring benefits if, and only if, it diminishes a limitation."

—Eli Goldratt



## Technology (n):

### dictionary.com:

1. the branch of knowledge that deals with the creation and use of technical means and their interrelation with life, society, and the environment, drawing upon such subjects as industrial arts, engineering, applied science, and pure science Merriam-Webster:

- a: the practical application of knowledge especially in a particular area b: a capability given by the practical application of knowledge
- 2. a manner of accomplishing a task especially using technical processes, methods, or knowledge



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# We are really, really bad at adopting new technology



# We are really, really bad at benefiting from new technology



- 1. What is the power of the technology?
- 2. What limitation does the technology diminish?
- 3. Which rules enabled us to manage this limitation?
- 4. Which new rules will we need?

### Goldratt's four questions



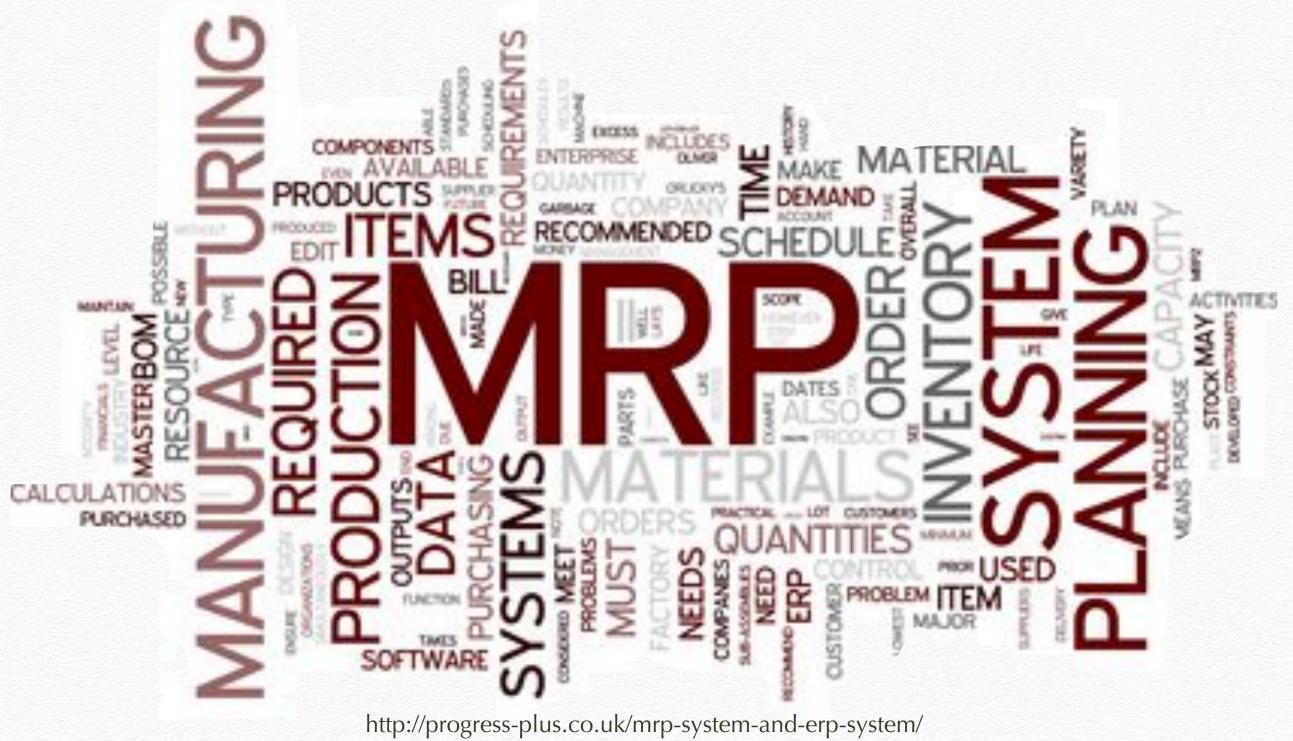
### Which rules enabled us



### Which rules enabled us

# Rules designed to enable us inevitably constrain us





### Applying the questions to MRP



- 1. We can carry out complex MRP calculations overnight!
- 2. Diminishes the entire week it takes to calculate MRP.
- 3. We only plan monthly otherwise it is too expensive.
- 4. We need to reengage with our suppliers and customers.

### Applying the questions to MRP



### Rules become policy

1. We can carry out complex MRP calculations overnight! 2. Diminishes the entire week it takes to calculate MRP.

3. We only plan monthly otherwise it is too expensive.

4. We need to reengage with our suppliers and customers.



# Applying the questions to ERP



http://www.ultraconsultants.com/mrp-vs-mrp-ii-vs-erp/



## Applying the questions to ERP

1. We can collect and analyse information across the org.

- 2. Diminishes ignorance of what other divisions are doing.
- 3. Use cost accounting to make local decisions.
- 4. Use throughput accounting to measure flow of value.



### Rules become law

### 1. We can collect and analyse information across the org.

# 2. Diminishes ignorance of what other divisions are doing. 3. Use cost accounting to make local decisions.

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### Applying the four questions to Cloud





# Applying the four questions to Cloud

- 1. We can have on-demand computing power.
- 2. Diminishes the cost and risk of running your own data centre.
- 3. Procurement, operations and maintenance are expensive. Computer hardware requires lots of people to look after it.
- 4. You can explore technology ideas quickly and inexpensively.You can reduce computing power as easily as increasing it.



### Rules for coping become structure

1. We can have on-demand computing power.

- 2. Diminishes the cost and risk of running your own data centre.
- 3. Procurement, operations and maintenance are expensive. Computer hardware requires lots of people to look after it.
- 4. You can explore technology ideas quickly and inexpensively. You can reduce computing power as easily as increasing it.



### Applying the questions to CD

### AppDynamics Build Continuous Integration Artifactory Build Pipeline Archive User Acceptance Test Subversion Selenium Blue-Green Deployment FindBugs Toggle Checkstyle Continuous Deployment Zero

http://www.kitenco.de/bilder/cd-cloud.png



# Applying the questions to CD

- 1. We can simplify and automate releasing software.
- 2. Diminishes high risk and transaction cost of releasing.
- 3. Fixing mistakes will be expensive and time-consuming. Managing the risk requires specialists to check things manually.
- 4. Self-serve tools and processes will enable us to release often.



### Rules become culture

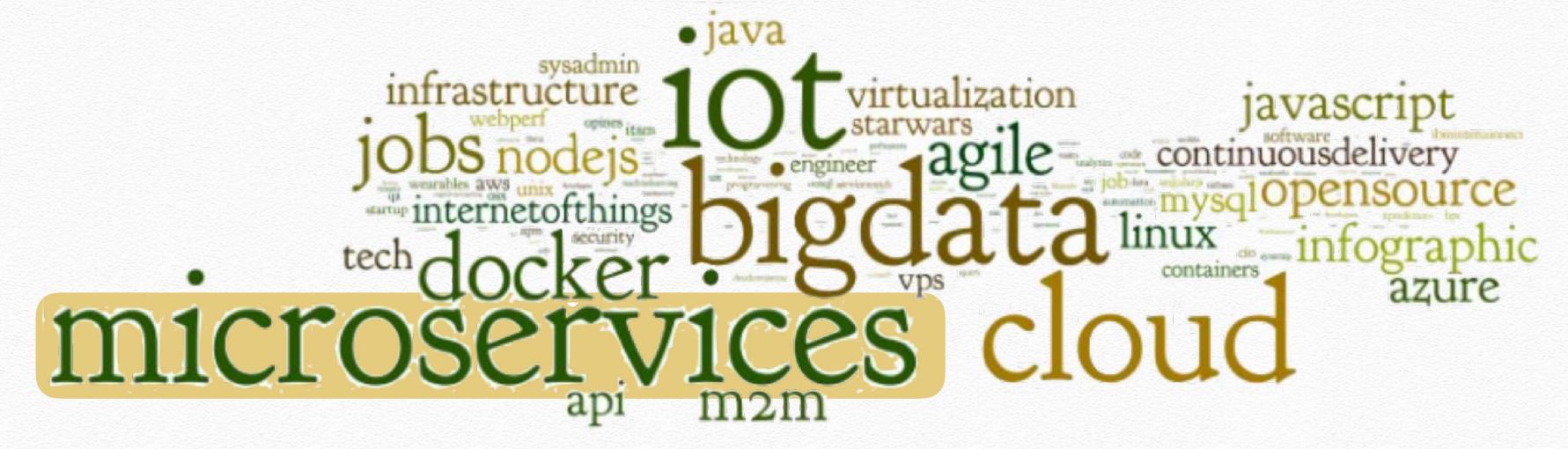
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### Applying the questions to hype-o-services



https://www.linkedin.com/pulse/when-devops-leads-you-star-wars-spoilers-ray-carrasco



### Applying the questions to microservices



https://www.linkedin.com/pulse/when-devops-leads-you-star-wars-spoilers-ray-carrasco



### Applying the questions to microservices

- 2. Diminishes risk of making changes in large apps.
- 4. Components must be discoverable and monitorable. Small teams should form around business capabilities.

1. We can deploy and manage discrete components independently.

3. Even small changes require enormous scrutiny and oversight. Feature branches are a good thing. Leading to Big Integration.



### Rules become paradigm

We can deploy and manage discrete components independently.
Diminishes risk of making changes in large apps.
Even small changes require enormous scrutiny and oversight.
Feature branches are a good thing. Leading to Big Integration.

4. Components must be discoverable and monitorable. Small teams should form around business capabilities.



Policy

### The rules are holding us back!

Culture



Paradigm

### Structure



### How to break the rules

1. Understand the power of the new technology What does it do? How does it work? How can we exploit this technology?

2. Recognise the limitation the technology will diminish How would you know it was diminishing?

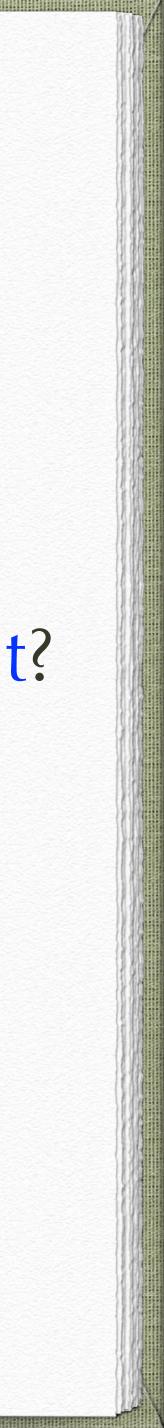
# How could you prove the limitation was holding you back?



### How to break the rules

4. Identify and implement the new rules How can we safely exploit this new technology? How do we introduce and institutionalise these new rules?

- 3. Identify the existing rules we use to manage the limitation
  - How will they get in the way? What assumptions do they make?
  - How can we make it safe to change? How to create a graceful exit?



"Technology can bring benefits if, and only if, it diminishes a limitation."



## Now, go break some rules!

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