"Well, in our country," said Alice, still panting a little, "you'd generally get to somewhere else—if you run very fast for a long time, as we've been doing."

"A slow sort of country!" said the Queen. "Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!"
GOVERNANCE

Directing, Controlling:

How to achieve objectives while balancing concerns and risks
TRADITIONAL GOVERNANCE:

Rigid, constraining, INHIBITS SPEED
MODERN GOVERNANCE:

ENABLES SPEED
MODERN GOVERNANCE

Steering, Directing, Controlling:

How to achieve objectives while balancing concerns and risks
How to achieve objectives while balancing concerns and risks
How are technical decisions made in your organization?
How are technical decisions made in your organization?

Who?
How?
How long?
Criteria?
How are technical decisions made in your organization?

Who?
How?
How long?
Criteria?
Frederick Winslow Taylor (1856-1915)

- Leader of Efficiency Movement
- Author of *The Principles of Scientific Management* (1911)
EFFICIENCY
TAYLOR’S APPROACH

▪ USE METRICS: TIME, COST
▪ OPTIMIZE FOR EFFICIENCY
▪ MANAGEMENT HIERARCHY
▪ COMMAND AND CONTROL
▪ PLAN AHEAD
▪ TRAIN WORKERS
Hey kid, have you ever seen one of these before?

Wow, cool! You made a 3D model of the save icon!
Yahoo! - Get Local, prodigy internet, Weekly Picks

Get Local - People Search - City Maps -- Stock Quotes - Sports Scores

Yellow Pages - People Search - City Maps -- Stock Quotes - Sports Scores

• Arts and Humanities - Architecture, Photography, Literature...

• Business and Economy [Xtra!] - Companies, Investments, Classifieds...

• Computers and Internet [Xtra!] - Internet, WWW, Software, Multimedia...

• Education - Universities, K-12, College Entrance
EFFICIENCY

- HARD TO HANDLE AMBIGUITY
- LIMITED SPEED
“In the new world, it is not the big fish which eats the small fish, it's the fast fish which eats the slow fish.”

-- Klaus Schwab
SPEED
# BUSINESS AGILITY

<table>
<thead>
<tr>
<th>SPEED</th>
<th>QUALITY</th>
<th>PRODUCTIVITY</th>
<th>CULTURE</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Icon" /></td>
<td><img src="image2.png" alt="Icon" /></td>
<td><img src="image3.png" alt="Icon" /></td>
<td><img src="image4.png" alt="Icon" /></td>
</tr>
</tbody>
</table>

- **SPEED**
  - Iterate to learn
- **QUALITY**
  - Value prioritized
- **PRODUCTIVITY**
  - Customer oriented
- **CULTURE**
  - Decentralized execution

- **DECOUPLED ARCHITECTURE**
- **AUTOMATED PIPELINE**
- **QUALITY BUILT IN**
- **BLENDED TEAMS**
CONSTRAINT: COUPLING
4-7 people
DECENTRALIZATION
EFFICIENCY vs SPEED

over SPEED

through HIERARCHY

over EFFICIENCY

through DECENTRALIZATION
DECENTRALIZATION

ALIGNED
GOVERNED

UNALIGNED
UNGOVERNED
TECHNICAL GOVERNANCE FOR MODERN ENTERPRISE
MODERN TECHNICA GOVERNANCE

Steering:

How to achieve technical objectives while balancing concerns and risks
CONCERNS / RISKS

- SPEED
- ALIGNMENT
- EFFICIENCY
- RISK MANAGEMENT
- PREVENT STAGNATION, TECH DEBT
- EMBRACE LEARNING
Most decisions made here

- Made every second
- Summarily, move the company
- Guided by Technical Governance
TECHNICAL GOVERNANCE

VALUES

STANDARDS

FREEDOMS
VALUES

Explicit heuristics that guide decision making
VALUES

Explicit heuristics that guide decision making

- Align company on fundamental values for consistency of decision making
- Can exist for multiple domains: company, coding, etc.
- No more than 3-5 per domain
- Can change slowly over time

Examples:
- We value quality over rushing to deliver fast
- We value code that works and is maintainable
STANDARDS

Explicit mandates
Explicit mandates

- Must reflect values
- Apply to 90+% of situations
- Explained
- Clear exception policy
- Can be a decision tree

Examples:
- All code must be code reviewed. No exceptions.
- Standard selection of technology is X, Y, Z. For special cases, talk to the architecture council.
FREEDOMS

Unconstrained
FREEDOMS

Unconstrained

- Guided by values, standards
- Sometimes, explicitly declared
- With responsibilities
- Optional best practices

Examples:
- Teams are free to use programming language of their choice, provided they meet security standards
GOVERNANCE STRUCTURE

• Senior Leaders
• Strategic governance
• Sponsors Domain COEs

GOVERNANCE COUNCIL

• SMEs
• Domain-specific governance
• Grow discipline
EXAMPLE - QUALITY ENGINEERING

VALUES

BEST PRACTICES

STANDARDS

FREEDOMS

• Coding values
• Architecture values
• Expectation of excellence

• Coding Standards
• Code Reviews
• Style Guides

• Coding
• Code Reviews
• Unit Testing
• Testing
• TDD
• BDD
EXAMPLE - VALUES

Company Values
• We believe in delighting our customers and winning their hearts by producing high quality product. We will not compromise quality under any circumstances.
• We believe that moving fast is important. That is how we are going to win. We value speed over perfection.
• We believe in learning. We are not afraid to fail - that is how we learn and get better.
• We believe in "Doing The Right Thing". We will not compromise our integrity.

System Values
• We believe in speed of execution and software delivery. That is how we are going to win.
• We value independent services.
• We believe in focusing our precious creative energy on differentiators, not commodity.

Coding Values
• We believe in high quality, maintainable code. We will not compromise code quality under any circumstances.
EXAMPLE - STANDARDS

Unless otherwise noted, we have a "no exception" policy for standards. If you believe you have a special case please contact the architecture council.

- Services must communicate with each other via HTTPS
  - HTTP method semantics must be respected
- Standard serialization for inter-services communications is JSON
- Service URIs must follow standard scheme outlined in Document X
- Services must operate independently of other services, must not impose orchestration on other services
- Services are responsible for their SLA, regardless of external circumstances (including but not limited to: the status of their dependencies, the status of individual data centers)
- All human produced files (code, scripts, configs, documentation, etc) must be code reviewed
- Central version control system must be used
- Central build and deployment infrastructure must be used
- Central identity/login platform must be used
- ...
EXAMPLE - FREEDOMS

• Teams can select programming language and stack of their choice for service/product implementation
  ◦ For recommended list of technologies see Document X.
  ◦ For best practices for each language refer to Document X.
• Teams can select developer tools that suit their needs. For the list of centrally supported tools refer to Document X.
TECHNICAL GOVERNANCE

Explicit Heuristics that guide every day decision making

Explicit Mandates

FREEDOMS

BEST PRACTICES

STANDARDS

VALUES

Optional Best Practices

Unconstrained Freedoms guided by values and standards, with responsibilities
GET STARTED

- SETUP GOVERNANCE COUNCIL
- SETUP COEs for DOMAINS
  - Domain-specific values, standards
- START WITH VALUES
- ENABLE PEOPLE – UP/RESKILL
- CULTURAL CHANGE MANAGEMENT
CONSIDERATIONS

- SHARED LANGUAGE
- TRANSPARENCY IN DECISION MAKING AND REASONING
- CLARITY AROUND ROLES AND RESPONSIBILITIES
- CLARITY AROUND ACCOUNTABILITY
- TECHNICAL DEBT
- ENABLEMENT OF TEAMS THROUGH TRANSPARENCY, X-POLLINATION
- EVOLUTION OF VALUES, STANDARDS
COMMON THEMES

- SHARED PLATFORMS
- END OF LIFE PROTOCOLS
- TEAM/SERVICE INDEPENDENCE
- QUALITY ENGINEERING
- METRICS
Continuous Disruption

Drives the need for speed

Decentralization is a Key Enabler

Technical Governance that Enables Speed