Learning Outcomes

After attending, you should be able to:

1. Define the concept of Digital Transformation and recognize the actions of an engineering organization to perform an enterprise Digital Transformation

2. Compare the differences between typical commercial practices and culture to the legacy structure with the U.S. Navy regarding enterprise change management

3. Identify the roadblocks to enterprise change management pertaining to Digital Transformation within the U.S. Navy

Definition of Digital Transformation

★ **Digital Transformation** – a process that aims to capture the value of data and technology in order to trigger significant changes in value creation, such as: user experience, functionality, and operations

Moving From:

- Stove-piped IT Portfolios
- Monolithic Architectures
- Overlapping Capabilities
- Manual Operations

Via

- *Data Science and Engineering*
- *Technology Investment*
- *Process Development*

Towards:

- Shared Services
- Standards-based, Open Architectures
- Interoperability
- Automated Processes

This talk today intends to focus on Process Development as a vehicle for Digital Transformation

Enterprise Digital Evolution

New Technology Adoption

- Data Capture - *Workflow Tools, Measured Sensors, Computer Aided Design*

- Analytical Capability – *Data Analytics and Visualization*

- Shared Ecosystems - *Cloud Migration, Open Standards Implementation*

Observed Disruption

- Increased Availability – *Data Sharing, Decentralized Performance Centers*

- Analytical Insights – *Trend Mapping, Modeling and Simulation*

- Observed Behaviors – *Performance Measures*

Strategic Response

- Diagnostic Finding – *Subject Matter Expert Assessment, Root Cause Analysis*

- Structure Changes - *Enterprise Investment Decision, Process and Product Improvement*

Goals

1. Operational Efficiency
2. Increase Organizational Performance
3. Product Improvements

Military and Market Comparison

U.S. Military

★ Cost of Operations - $778 Billion

★ Revenue – N/A

★ Operating Margin – N/A

Walmart

★ Cost of Operations - $537 Billion

★ Revenue – $559 Billion

★ Operating Margin – 4%

Apple

★ Cost of Operations - $170 Billion

★ Revenue – $275 Billion

★ Operating Margin – 38%

SEC (2021), SIPRI
U.S. Dollars

- The DoD is the nation's largest employer
- 4,800 work locations are across 160 countries
- Comprehensive vertical market

- Strategic, logistics and operational efforts
- Variety of qualifications and skill sets
- Employees are also the stakeholders of DoD as U.S. citizens

The Navy will need a different solution for Digital Transformation than private industry
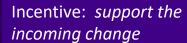
Naval Digital Culture Transformation

*Almost half the respondents in Gartner's 2018 CIO Survey listed **culture** as the number one challenge for scaling digital business.*

As the biggest employer, with a diverse labor force and market space, the U.S. Navy has a large challenge to impact historical, institutional culture

Understanding: *why the change is happening*

- Scope of change
- Drivers for change
- Risk of change resistance

Communication to all levels of the enterprise experiencing change

Incentive: *support the incoming change*

- Individual motivation
- Appeal for active engagement

Decision to support at all levels impacted by change

Skills: *knowledge and ability to implement change*

- How the change is impacting work
- Training for new process
- Demonstrated performance achievement

Reward: *reinforcement for sustainment of change*

- Incentive for continued implementation
- Recognition of supporters

Drive to continue the implementation of the change

There must be a commitment to implementation and change management to be successful

If there is unsuccessful adoption of digital investments, then there won't be a full measure of enterprise impact

Implementation of a New Digital Age

Understanding

Should include:
- Reason for change
- Impact of change
- Outline of change implementation
- How to prepare for change

All should be able to know what the change means for the and why the enterprise is changing

Incentive

Should include:
- 'What's in it for me?'
- Outline of success and impact
- Resistance management response

All should be able to know their role for change success and have a level of enthusiasm for change

Skills

Should include:
- Training of the new process and functions
- Demonstrated and tested implementation
- Correlation of new process to achieve desired performance

All should be able to know how and why they new process steps are implemented

Reward

Should include:
- Quality check for change implementation
- Recognition of adoption to change
- Incentives to adopt change aligned to goals

All should be rewarded for the adoption of the change

Specific, targeted communications for:
- Employees
- Managers
- Executives

Technical, digital investment decision should account for **User Experience**:

- Decrease manual process steps
- Depth of training needed for labor force

- Decrease process complexity
- Increase data reuse

- Simplified User Interface
- Accessibility

Summary & Action Items

★ Digital Transformation is a process to use data and technology to generate value

★ The Naval path forward for Digital Transformation will be different than private industry because the enterprise characteristics are radically different

★ The U.S. Navy should look beyond technology adoption as the only solution towards Digital Transformation and should invest in the corresponding cultural enablers

It is recommended that...
1. *Assess where your organization is within the four steps for implementation*
2. *Address the potential enabling solution for that step*
3. *Iterate and be patient, change and success do not come instantly*

Abstract

★ There is a unique dichotomy in the technological advancement of this historic institution. On one hand, there are agencies building out what was once considered science-fiction - creating innovations that have changed the world. However, on the other hand, there is a centuries old infrastructure - saturated in history and legacy. With the evolution of modern threats, the need for agile information and data is eminently critical for the U.S. Navy. In a new strategic push for a Digital Transformation there is a need to address this historic side of the Navy: to engage leadership in new ideas, motivate the existing employee base to learn new skills, and recruit more innovative thinkers to join the movement. This talk will focus on the human element of the full implementation of modernization and Digital Transformation.

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