Open Standards for Digital: A Body of Knowledge for Digital Practitioners

Charles Betz, Adjunct Faculty, University of St. Thomas; Chair, Digital Practitioner Work Group
David Lounsbury, CTO The Open Group

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The Open Group Mission

The mission of The Open Group is to drive the creation of Boundaryless Information Flow™ achieved by:

- Working with customers to capture, understand and address current and emerging requirements, establish policies, and share best practices
- Working with suppliers, consortia and standards bodies to develop consensus and facilitate interoperability, to evolve and integrate specifications and open source technologies
- Developing and operating the industry's premier certification service and encouraging procurement of certified products

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Forums of The Open Group

Working Groups for Digital Practitioner, Service-Oriented Architecture

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The Open Group Industry Verticals & Consortia

Healthcare Forum

Exploration Mining Metals and Minerals Forum

FACE Consortium

Sensor Open Systems Architecture (SOSA™) Consortium

Industry Verticals

Consortia

(Gated US-Only due to Export Controls pertaining to US DoD and their supplier base)

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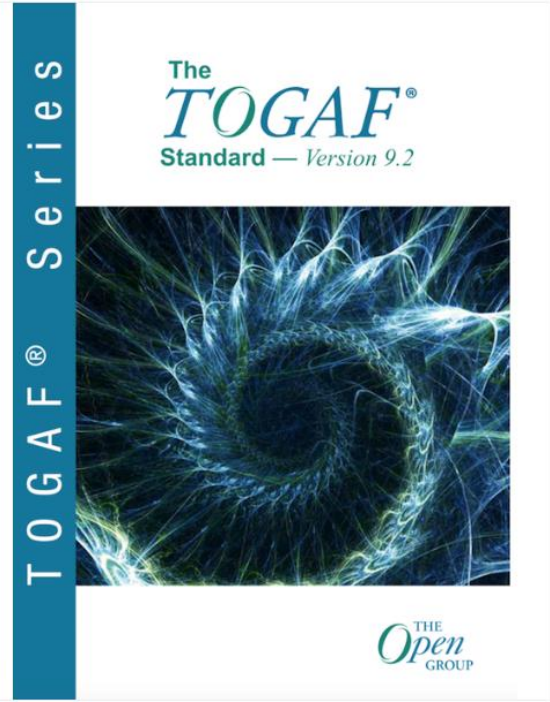
You may know us for…



- A proven Enterprise Architecture methodology and framework used by the world's leading organizations to improve business efficiency
- Over 92K certified Enterprise Architects

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We were driven to this research by our fascination with enterprise architecture—how companies are designed to execute their strategies. …. We expected that the dawn of digital businesses would lead to widespread embrace of enterprise architecture as a critical senior management tool. We set out to study that phenomenon. To be honest, that's not what has happened.

Designed for Digital
Ross, Beath, Mocker

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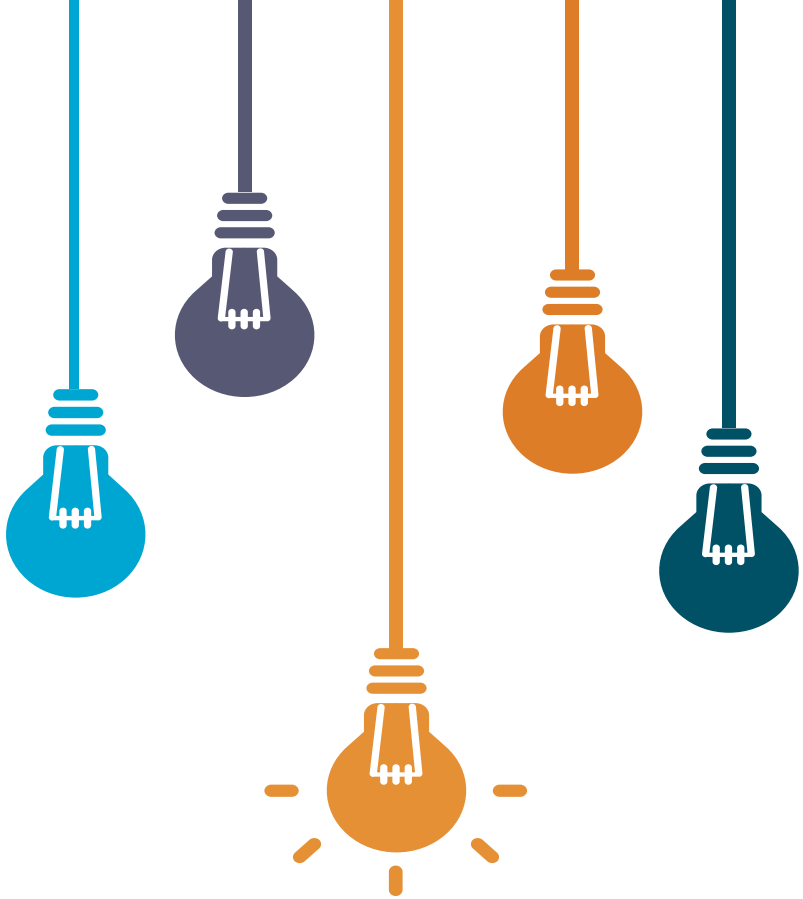

Meeting the digital challenge with open standards

- The Digital Practitioner Body of Knowledge™ Standard - skills for a digital workforce
- The Agile Architecture Framework (Draft Standard) - Digital Transformation of the enterprise and its Agile Transformation
- IT4IT Reference Architecture v3 (Under development) - Digital Product portfolio management

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DPBoK™ Background and Context

How we got here...

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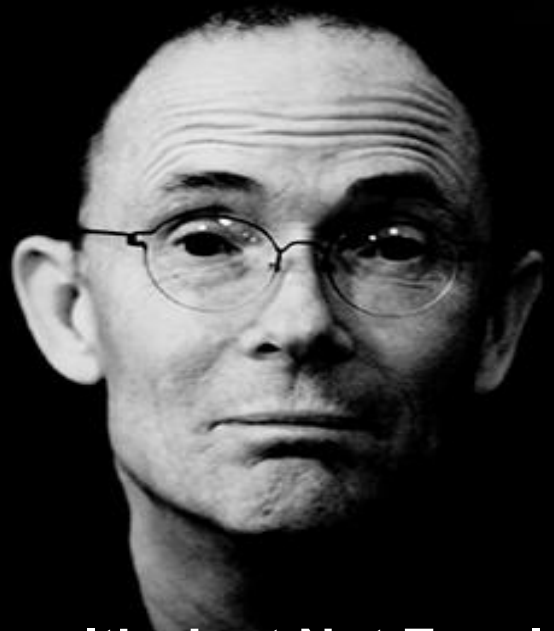

The Future Has Arrived — It’s Just Not Evenly Distributed Yet

William Gibson

BOKs are inevitable

Stretched our youth as we must,
until we are ashes to dust
Until time makes history of us.

ST. THOMAS

A BOK is a PRODUCT

Dr. George Westerman

Dr. Jeanne Ross

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Who is the customer?

- College-level students and computing and digital business majors, and
- Entry-level computing and digital business professionals
- Mid-career IT professionals needing to stay relevant
- Senior digital business professionals, up to and including C-level, needing increased knowledge of digital practices
- Educators of the above
- Hiring managers and workforce strategists

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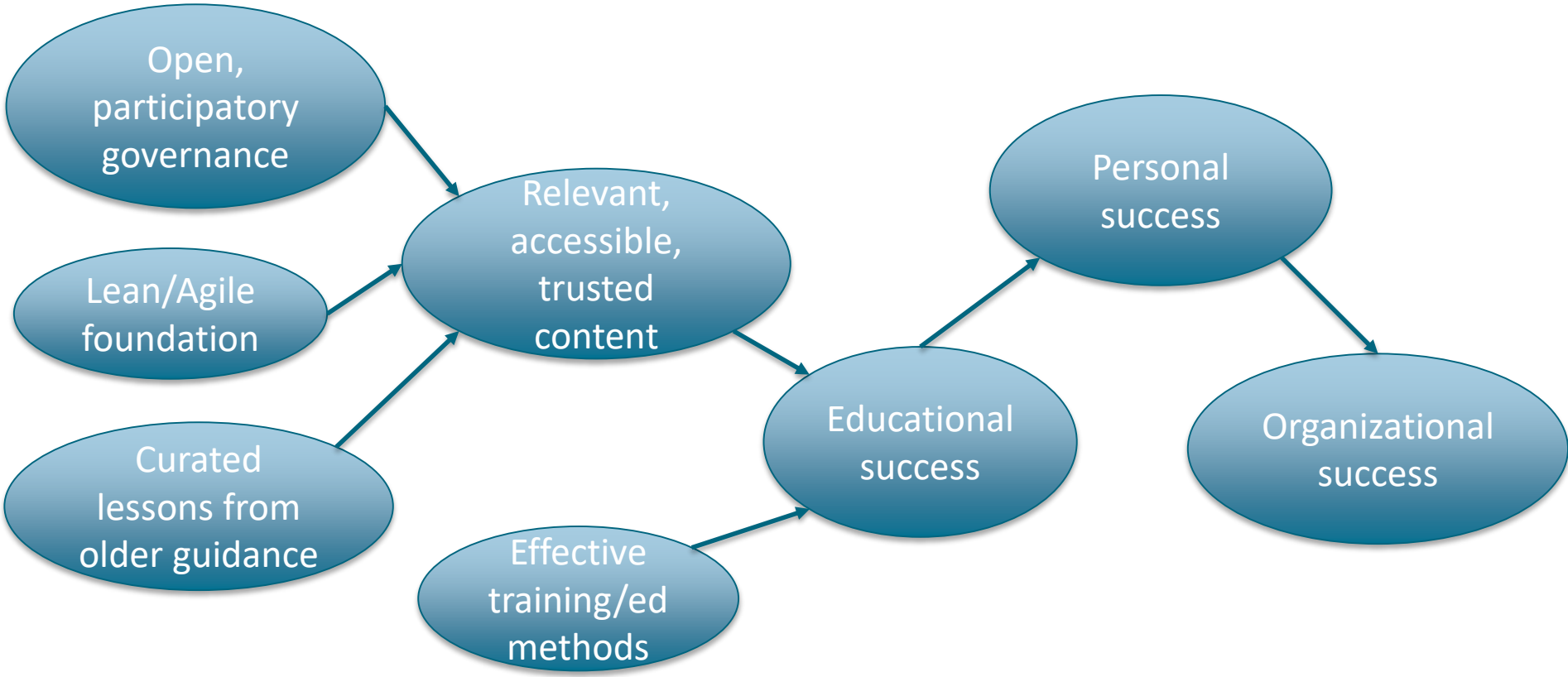
What is the “job to be done”?

Impact map



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What are the alternatives?

ITIL4

PMBOK

COBIT

CMMI

VERISM

SWEBoK

DMBoK

EITBoK

SAFe

DPBoK

DAD etc..

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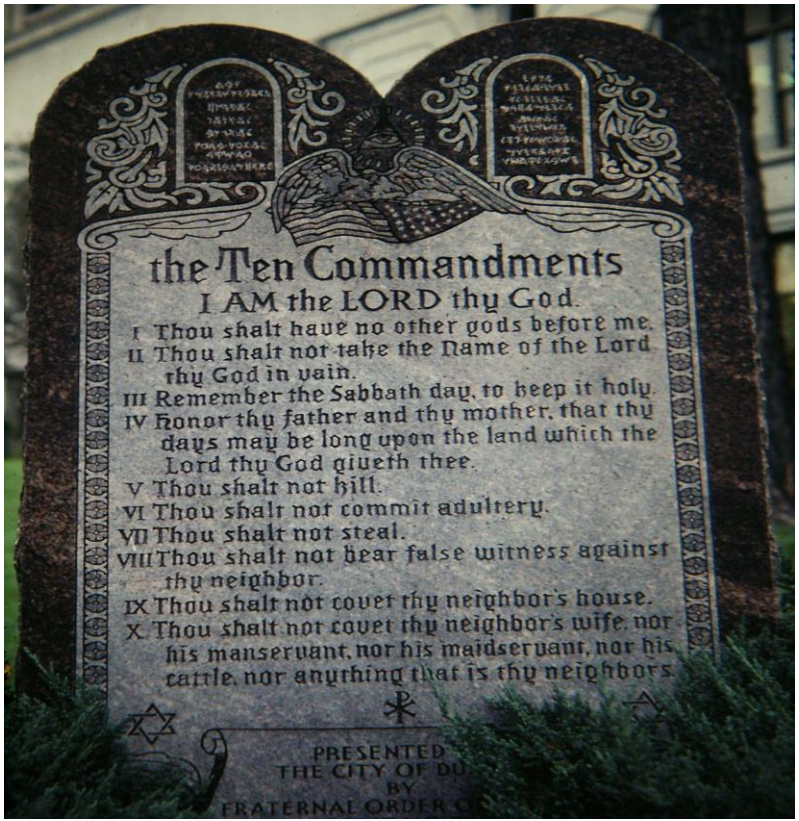
What are the perceived issues w/current offerings?

- Blockers of Agile and DevOps
- Too prescriptive
- Fragmented
- Lifecycle model
- Commercial/costly
- Promote queues and WIP
- No community involvement
- Too “religious”



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Still a gap!!

	Non-commercial & open governance	No cost internal/eval usage	Comprehensive	Lean/Agile/DevOps alignment
ITIL4			X	Partial
PMBOK/DA	?	?	?	X
COBIT	X	X (partial)	X	
CMMI	X	X		
VERISM			X	X
SWEBoK	X	X		Partial
DMBoK	X			
EITBoK	X	X	X	
SAFe		X		X
~~Disciplined Agile~~				~~X~~
DPBoK	X	X	X	X

There have been various attempts at “open” IT management guidance/communities...

- SMBoK
- OpenITIL
- Taking Service Forward
- Open Service Management
- Ops4Less

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Lessons learned from these attempts

1. Need for business model
2. Need for governance and standards - the bad can drive out the good
3. Need for minimum viable product
4. Need for “skin in the game”

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Creation of the *Digital Practitioner Work Group*

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Digital Practitioner Work Group Vision

The *Digital Practitioner Work Group* exists to develop and promote an understanding of what it means to be digital, and to establish best practices for organizations providing a digital customer experience.

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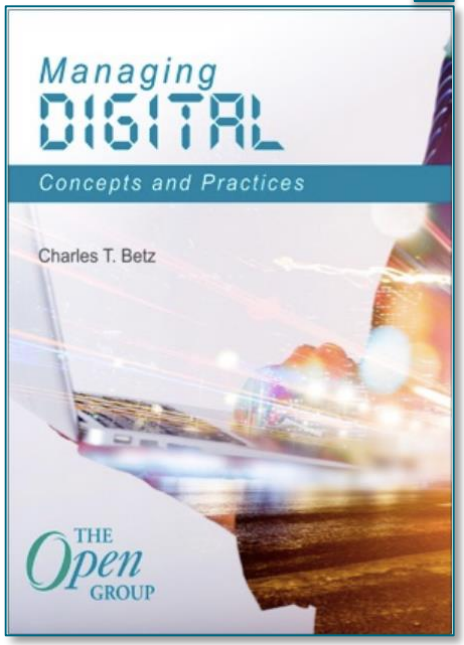
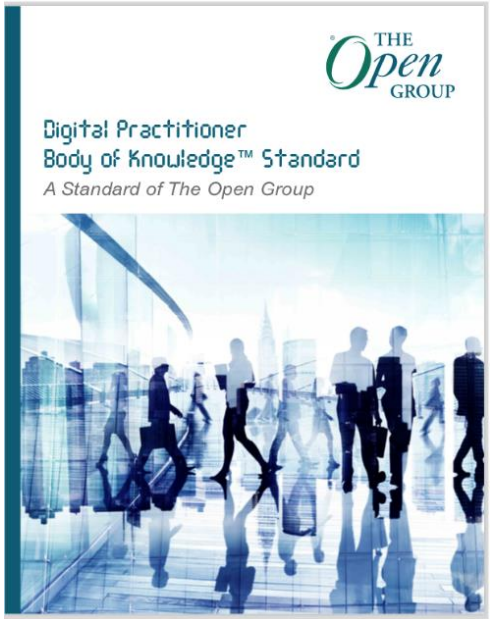
Converting *Managing Digital* into a standard





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Diving into the DPBoK™ Standard itself...

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Principles

Comprehensiveness	Currency	Capability-based	Verifiability
Fine-grained and Clinical Terminology	Compatibility with Other Frameworks	Compatibility with Agile Principles	Compatibility with Enterprise Architecture
A Learning Artifact	Developed as a Digital Product	Competency-based Content	Scaling Model as Learning Progression

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One coherent narrative

No “mappings”

No duct tape

No bolt ons

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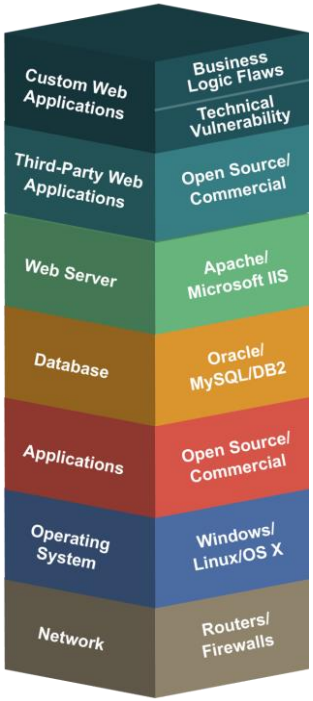
The Stack...



The Stack

Examples:

OSI

TCP/IP

Zachman layers

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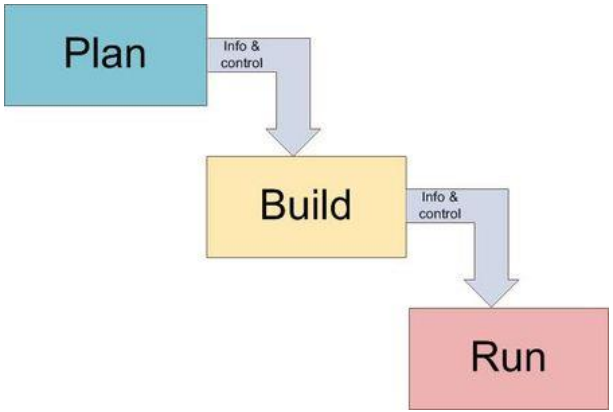
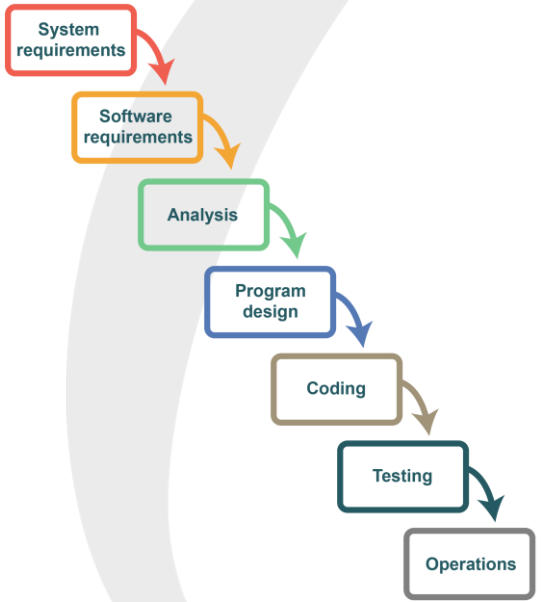
The lifecycle / stage gate problem





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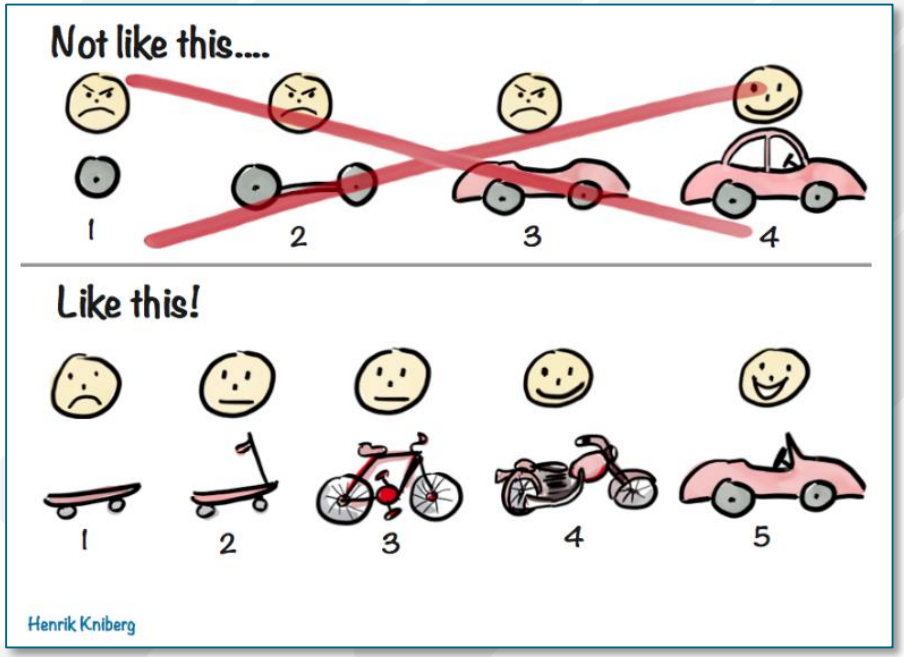
Systems evolve and scale iteratively!



"A complex system *that works* is invariably found to have evolved from a simple system that worked" –John Gall

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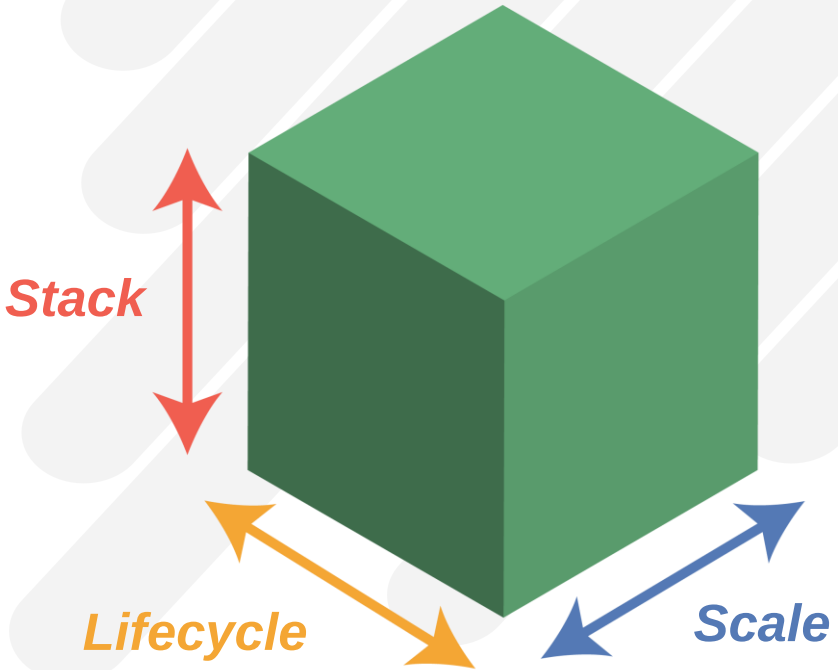
Choices on how to structure the learning material...



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The Emergence Model

In contrast to lifecycle approaches, the Digital Practitioner Body of Knowledge (DPBoK) pioneers a new "scaling" structure, "from startup to enterprise."

- Starting with the **individual / founder** facing practical questions of value proposition, infrastructure and development pipeline,
  - through the **team** experience
    - the challenging transition to "**team of teams**"
      - and finally the **enduring enterprise** with its concerns of governance and long time horizons

The DPBoK™ represents a revolutionary new approach for educating and training the digital workforce!

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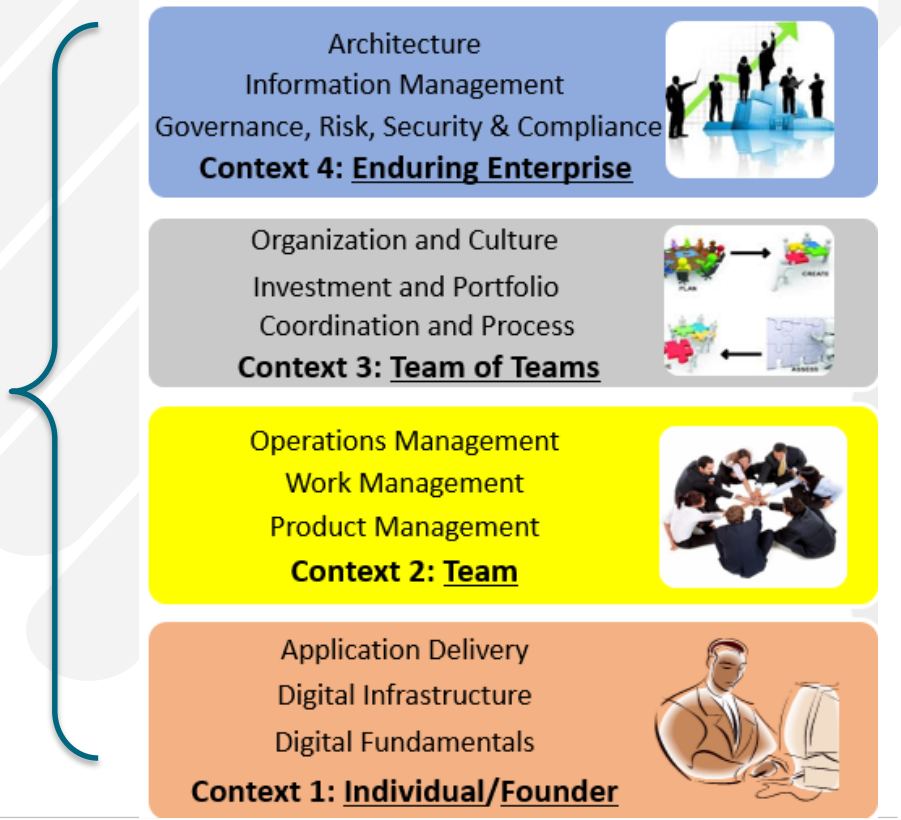
Emergence: 4 Contexts and 12 Competency Areas

There are **4 Contexts** in the DPBoK...

And each of the **12 Competency Areas** (CAs) are in the Context where *formalization* of practices for that CA tends to occur.



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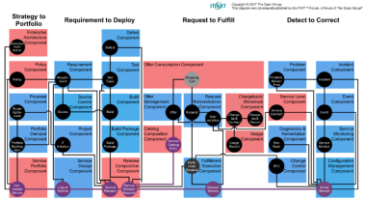
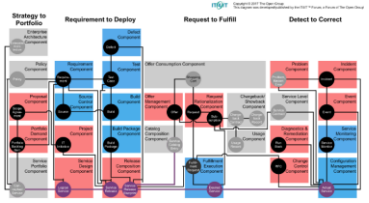
Four Contexts - architectural views....

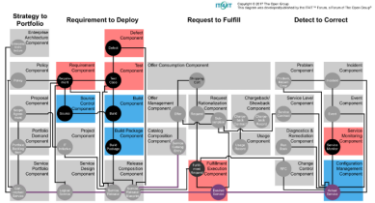
Architecture
Information Management
Governance, Risk, Security & Compliance
Context 4: Enduring Enterprise



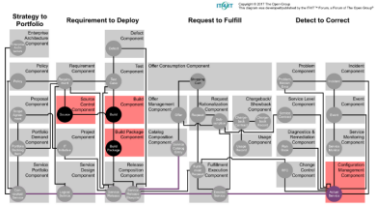
Organization and Culture
Investment and Portfolio
Coordination and Process
Context 3: Team of Teams



Operations Management
Work Management
Product Management
Context 2: Team



Application Delivery
Digital Infrastructure
Digital Fundamentals
Context 1: Individual/Founder



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Creating a DPBoK ecosystem for certification and training

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Announcing the DPBoK™ Foundation Certification

The purpose of certification for DPBoK Foundation is to provide validation that the individual has gained knowledge of the foundational set of concepts for a Digital Practitioner.

Foundation training and certification will help:

- Those who require an introduction and basic understanding of the DPBoK Standard
- Individuals who create and manage product offerings with an increasing digital component, or lead their organization to become Digital First
- IT professionals working within any size organization, from a startup through to a large enterprise, that has adopted digital approaches

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Certified individuals will have demonstrated their understanding of:

- The key concepts of Digital First, and the structure of the DPBoK Standard
- The basic concepts ("the Digital Fundamentals") employed by the Digital Practitioner
- The capabilities of digital infrastructure
- The fundamental objectives and activities of application development
- Why there is need for formalized product management as a company or team grows
- The key concerns and practices of work management as a team increases in size
- The basic concepts and practices of operations management in a digital/IT context
- How to coordinate as an organization grows into multiple teams and multiple organizations
- IT investment and portfolio management, including finance, sourcing, portfolio management, service catalogs, and project management
- Organizational structure, human resources, and cultural factors, as an organization goes through the "team of teams" transition
- Governance, risk, security, and compliance, as an organization operates at enterprise scale
- Information and data management on a large scale, including the establishment of formal governance, control, and management techniques for information
- Practices and methods for managing complexity using Enterprise Architecture

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Our training ecosystem is now “open for business”!

For more information on this certification program, see https://www.opengroup.org/certifications/dpbok

If you are interested in becoming a trainer, contact Brent Muth <b.muth@opengroup.org>

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Is EA still relevant in a digital world?

☑ **Yes!**

- EA is needed more than ever in a digital/agile/Devops world
- Architecting and architecture thinking are critical to getting the most out of digital business

☑ **But**…

New models and new skills are needed

Please join us at The Open Group to help create leading practices for digital organizations

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Real world experience and guidance

The Open Group

Agile Architecture Framework™ O-AAF

A dual transformation approach

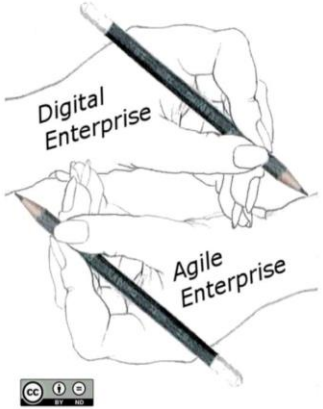

Figure 1. Architecting the Dual Digital/Agile Transformation

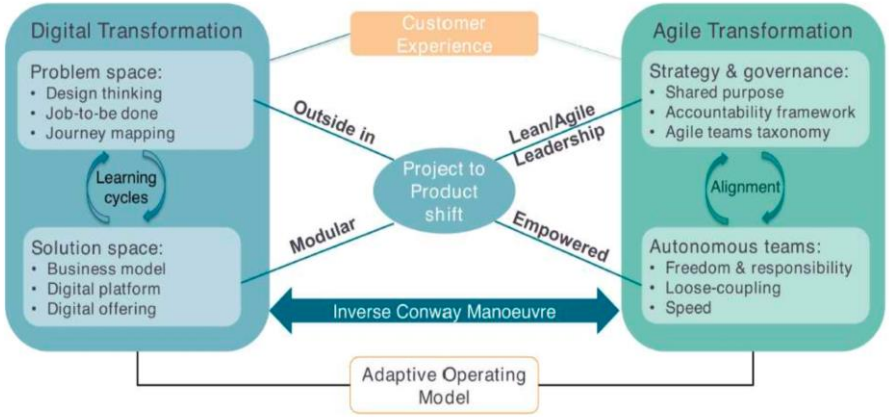

Figure 2. The O-AAF Big Picture

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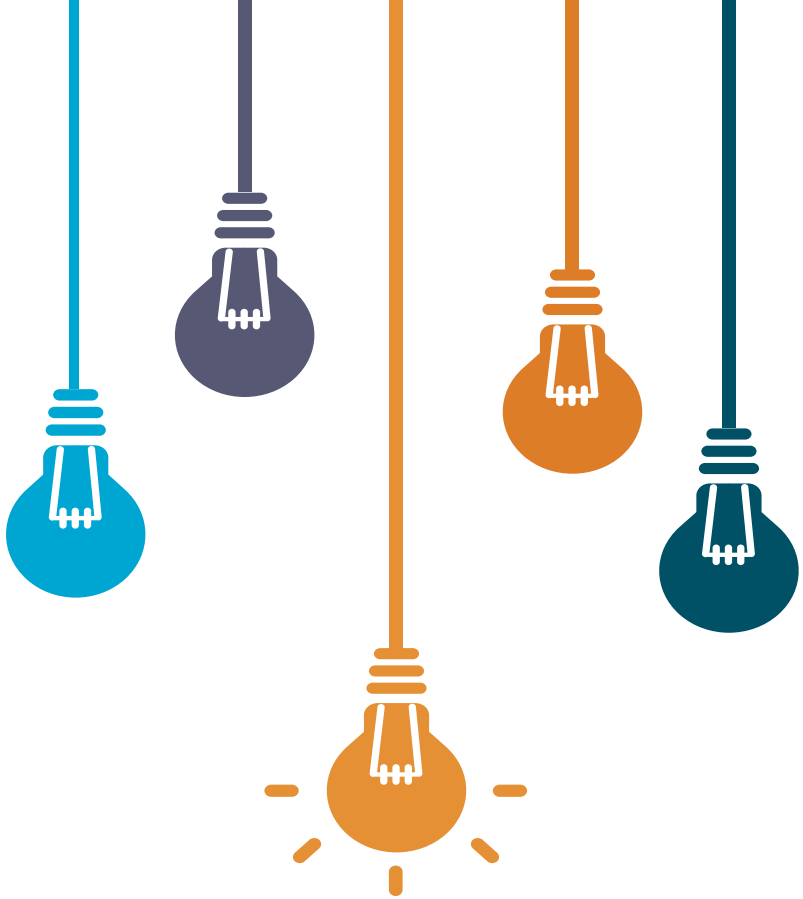

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Thank you for your attention

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“Old school” standards bodies deserve a chance

Trust and continuity

A lot of people are in large, long-lived orgs

Non-trivial legal infrastructure

Marketing and sales are still a thing for any business model

A pivot is clearly happening (Gitlab/Asciidoc)

“rough consensus and running code?” How to do this…

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DPBoK drinks its own champagne...

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The 4 Contexts and their architectural views....

Application Delivery

Digital Infrastructure

Digital Fundamentals

Context 1: <u>Individual</u>/<u>Founder</u>

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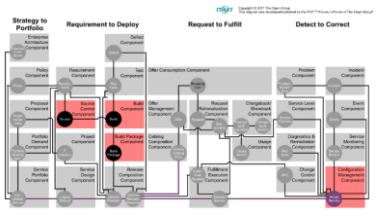

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Context 2: Team

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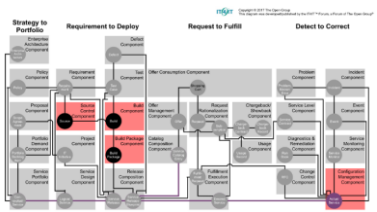

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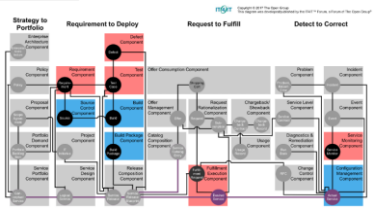

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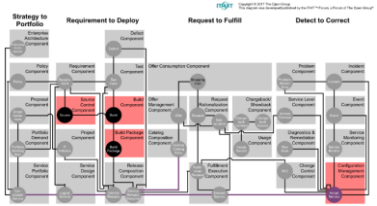

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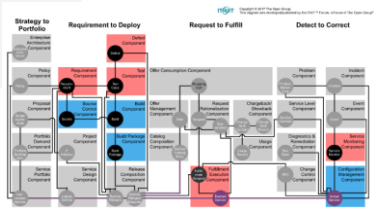

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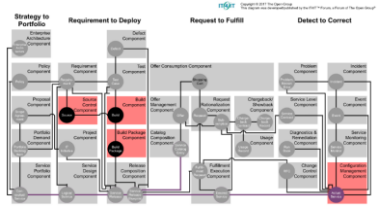

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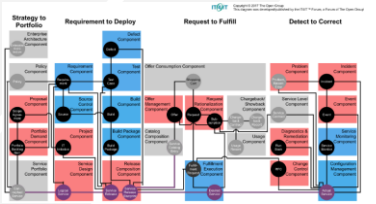

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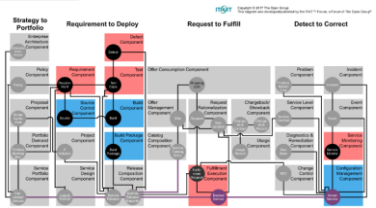

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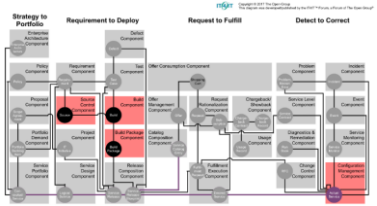

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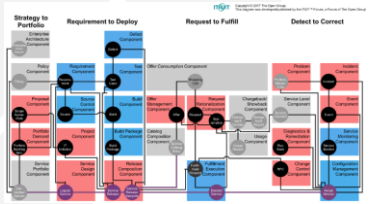

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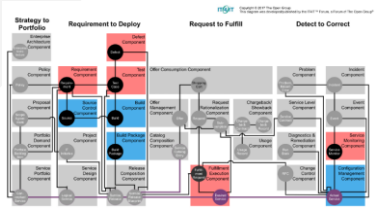

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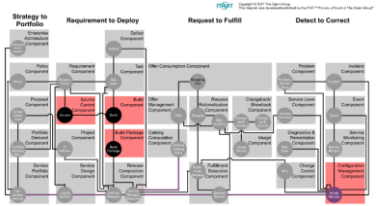

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Recognizing problems and need for a solution

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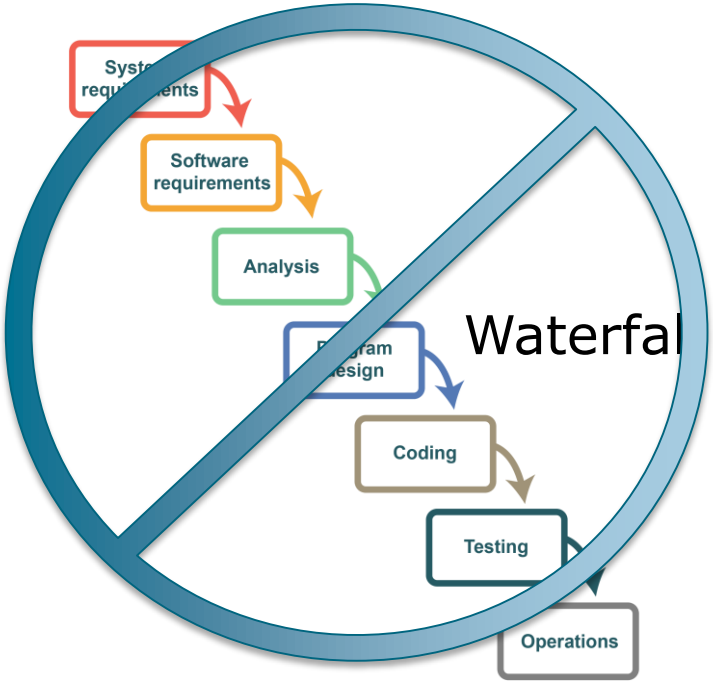
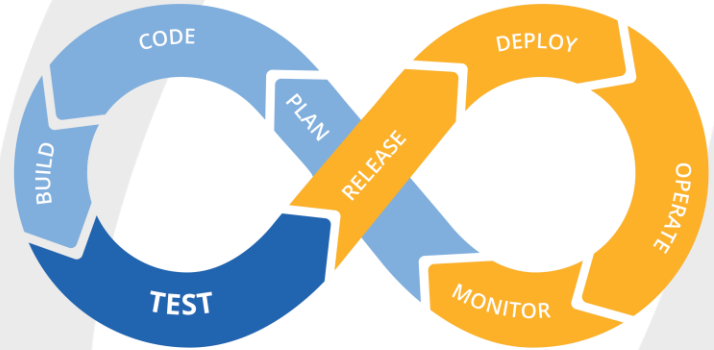
Background: DevOps & Agile rock Dev & Ops worlds





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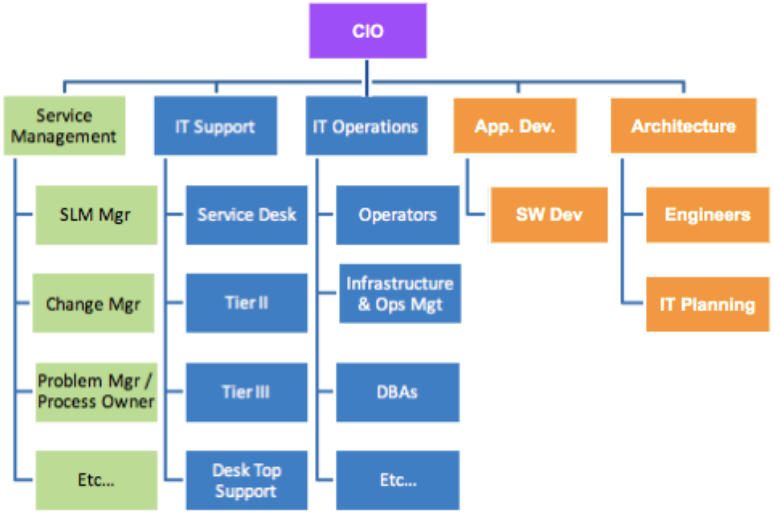
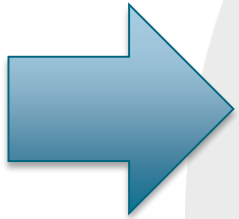
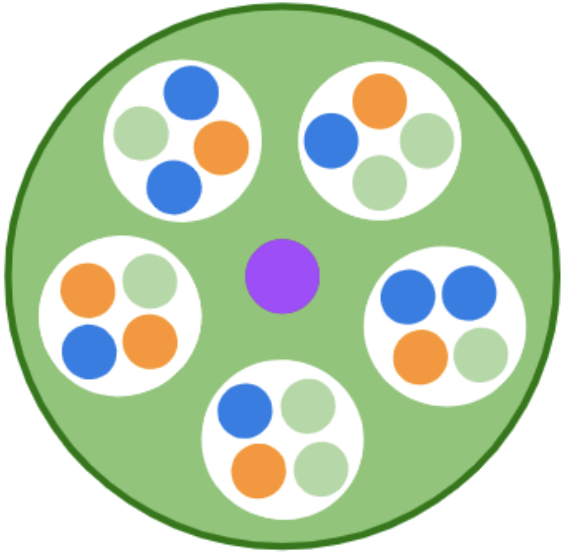
Agile and DevOps Infection spreads across the Org!







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How DevOps & Agile came to rock the world!

You know an idea's time has come when it starts to infect and influence everything around it!

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Many industries and companies didn’t agree...