Digitalization Requires Fresh Approaches to Driving Out Unknown Requirements

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By 2021

IT PMOs that fail to shift focus toward speed of delivery will be relegated to legacy maintenance oversight or disbanded.
What Is Digital Business Transformation and Why Is It Important?
Digital Business Transformation is

the process of exploiting emerging technologies and practices to create new business models that respond to or cause market disruption.
Digital Is Urgent: Digital Business Matters to CEOs

Several questions Base varies

62%

Have a management initiative or transformation program to make the business more digital

% of respondents who used the word "digital" in their top 5 business priorities (unprompted)

<table>
<thead>
<tr>
<th>Year</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value %</td>
<td>2.1%</td>
<td>4.1%</td>
<td>1.5%</td>
<td>5.5%</td>
<td>8.3%</td>
<td>10.3%</td>
<td>13.4%</td>
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Source: Gartner 2018 CEO Survey
New Approaches Are Required
Proven Approaches to Drive Out Unknown Requirements

1. **Remove Uncertainty** From Your Projects
2. **Define** Projects w/ New Digital Requirements
3. **Eliminate Risks** From Obsolete Technology
4. **Ideate** With Business to Understand New Requirements
5. **Develop** Business Scenario Instead of Requirements Gathering
PPM Leaders Must Drive Out Uncertainty From New Technologies

<table>
<thead>
<tr>
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<th>Unknowns</th>
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<td>Things we understand but don’t have a plan to address</td>
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**Knowns**
- Things we understand and have a plan to address
- Things we understand but don’t have a plan to address

**Unknowns**
- Things we are not aware of but understand surrounding factors
- Things we don’t know exists and don’t have a plan
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- Current Approaches Work Well
- Lowest Risk to Projects
- Vendor and Market Due Diligence on Known Problems
# PPM Leaders Must Drive Out Uncertainty From New Technologies

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- **New Approaches Methods Needed Here**
- **Highest Risk to Projects**
- **Requires Ideation and Brainstorming**
- **Market Analysis Will Be Needed**
Proven Approaches to Drive Out Unknown Requirements

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The world has changed. Just ask yourself: If you were a brand-new digital company, would you have the operating model of an IT department, or the model of a software engineering firm?

Karl Gouverneur, VP, Head of Innovation, Workplace and Corporate Solutions at Northwestern Mutual

Digital Business Significantly Changes Our Approaches to Projects
Does Your Project Optimize or Transform?

Digital Business Strategy

Digital Optimization

1. Improved Productivity and Products
2. Better Customer Experience

Digital Business Transformation

3. New Products and Services
4. New Business Models

Source: "Digital Business Ambition: Transform or Optimize?" (G00333254)
Balance Benefits and Costs With a Business Case

Benefits

- Distributed ledger vs. central authority
- Access to new markets
- Virtual asset creation/distribution
- Efficiency gains
- Traceability of records
- Immutability of records

Costs

- Project failure/missed expectations
- System duplication
- Change management
- Security and privacy
- Operational risk
- Technology
- Implementation
- Integration
- Partnership and ecosystem management/governance
- No central point of failure

Pareto Principle: 80/20 principle, often used in business to identify the critical few from the trivial many.
Recommendations for PPM Leaders
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Engage with EA and Technology Innovation Leaders

Identifying Candidate Technologies
- **Engage** Tech Scouts to add analysis and evaluations of vendors
- **Contribute** business, societal, behavioral, and other non-technical trends

Be Informed by Technology Radars
- **Stay ahead** of project reviews and technical governance

Understand What’s on the Watch List
- **Leverage** analysis in RFP / RFIs
- **Future Proof** project by allocating time for architects to get this analysis
Work Smarter by Leveraging the Emerging Technologies

Hype Cycle

- Virtual Assistants
- IoT Platform
- Smart Robots
- Edge Computing
- Augmented Data Discovery
- Smart Workspace
- Brain-Computer Interface
- Quantum Computing
- Conversational User Interfaces
- Volumetric Displays
- Machine Learning
- Autonomous Vehicles
- Nanotube Electronics
- Cognitive Computing
- Blockchain
- Commercial UAVs (Drones)
- Cognitive Expert Advisors
- Connected Home
- Deep Learning
- Neural Tissue Engineering
- Deep Augmentation
- Serverless Paas
- 5G
- Human Augmentation
- Digital Twin
- Software-Defined Security
- Augmented Reality
- Enterprise Taxonomy and Ontology Management
- Software-Defined Artificial General Intelligence
- 4D Printing
- Smart Dust

Plateau will be reached in:
- less than 2 years
- 2 to 5 years
- 5 to 10 years
- more than 10 years

As of July 2017
Accelerate Your Analysis with Our Technology Database

- Database of all the technologies from over 90 Hype Cycles
- Search, sort and filter
- Create custom Hype Cycle
PPM Leaders Must Use These Tools to Understand the Opportunities and Risks

Qualify the strategic value and feasibility of a set of disruptive opportunities. With the goal of identifying strategically aligned opportunities, business impacts analyzed, and identified digital transformation.

- **Business Criticality to Realization Matrix**: Understand the criticality of how enabling capabilities of an opportunity will fulfill desired business outcomes along with how significant the gap between where the organization is today and the future state potential.

- **Business Outcomes Journey Map**: Used to help EA practitioners having a macro framework to tie experience and focus on the capabilities that the organization needs to deliver to achieve its strategy.

- **Risk Assessment**: Assessing how an opportunity will impact an organization is a critical component to ensuring that the opportunity is a value-add viable opportunity that doesn’t put the organization at unneeded risk.

- **Opportunity Risk Profile**: Provides business leaders with the risk adjusted value of a proposed opportunity based on specific risks such as reputational, business, monetary, etc.

- **Business Capability Profiling**: A tool that allows EA practitioners classify business capabilities with risk and benefit measures.
Five Reasons PPM Leaders Must Engage in Trendspotting

1. Serves as an early warning system for the identification of high-impact, emerging technologies, trends, and overall disruptions.

2. Trendspotting is not prescriptive.

3. Flexible, dynamic, and fit-for-purpose to foster communication, new insights and decision making among business and technology leaders.

4. PPM Leaders often are informed by technology scouts as part of a defined trendspotting activity or consulted in early stages of projects.

5. Emerging Technology Radars should be used as a risk management tool for PPM Leaders that provides an early warning system for technical longevity, costs, and overall success.
Proven Approaches to Drive Out Unknown Requirements

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- **Ideate** With Business to Understand New Requirements
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Ideation Is Iterative

- Ideate
- Propose
- Scan
- Refine

Fit-for-Purpose
Prototyping
Filter Relevant Ideas
Tailor Ideation to Your Needs Before You Start Applying These Dynamic Levers

Degree of Business Impact
- Optimize/React
- Transformative

Understanding of the Problem
- Uncertain
- Precise

Appetite for Change
- Low
- High

Breadth of Focus
- Business Function
- Company

Degree of Innovative Culture
- Unknown
- Innovative

Tailored Approaches
- Tailored Engagement
- Tailored Deliverables
- Tailored Outcomes
## Idea Potential Worksheet Template

<table>
<thead>
<tr>
<th>Idea</th>
<th>&lt;Enter Idea Name&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>&lt;Insert a brief description of why this is a great idea&gt;</td>
</tr>
</tbody>
</table>

### Strengths and Opportunities
- ...
- ...
- ...

### Weaknesses and Risks
- ...
- ...
- ...

### Feasibility
- easy
- medium
- difficult

### Market Potential
- high
- medium
- low

### Investment Required
- low
- medium
- high

### Overall Evaluation
- Very good idea
- Good idea
- OK idea

### Recommended Next Steps
- ...
- ...

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## Develop Opportunities

### Business Scenarios

#### Digitalized Shopping Experience: Purchases

**Scenario Description**

Create enhanced customer experience to drive increased customer loyalty in target markets and age groups 16 to 25, and, thus, increased sales by 20% with seamless cross-internet, mobile and physical experiences.

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engaged experience</td>
<td>Digital interaction</td>
<td>Simple purchasing</td>
<td>Pay now, deliver later</td>
</tr>
</tbody>
</table>

**Step 5**

Always notified

- Notification that package was delivered.
- Interaction with shelves lighting up, extended information on phone and related products.
- Mobile device adds product to the digital shopping cart.
- Customer wants to continue shopping at other establishments in the area. Customer uses mobile application to trigger same-day delivery of the purchases.

**Required Inputs**

- Existing mobile apps will need to support in-store experiences.
- Shelf sensors, RFID tags, beacons and other enabling Wi-Fi technology.

**Business Outcomes**

- Create a new business model to increase competitive position.
- Increase sales by 20%.
- Enable seamless cross-internet, mobile and physical experiences.

**Change Required**

- Business process streamlining of end-to-end distribution.
- Changes in the following systems: point-of-sale systems, payment systems and inventorying systems.

**Overview**

Business scenarios used by EA practitioners provide an illustrative perspective of a series of activities, resulting in measurable value of a probable situation, a future vision and the potential outcomes that could be derived. EA practitioners use business scenarios to understand how disruptions will impact their organizations, and to provide business and IT leaders with a finite set of plausible "scenario" narratives of an ideal future business outcome.

**Guidance**

Creating business scenarios is a creative and fluid process that requires a flexible, less rigid process. EA practitioners should embrace this fluidity when creating business scenarios, since they represent possible future-state scenarios. Make sure to brainstorm a list of highly impactful future business scenarios; prioritize based on business impact; and iteratively validate and revise business scenarios.

**Related Research**

"Toolkit: How to Create Business Scenarios That Drive Digital Disruption Innovation"
Many Other Deliverables to Help Drive Out Unknown Requirements

Value Traceability Model
To highlight opportunities for the organization, construct links to the business capabilities that will be enhanced, diminished or created.
See "Toolkit: What Enterprise Architects Need to Know About Smart Machines."

Business Impact Analysis
Tool to understand direct and indirect impacts of technologies.
See "Toolkit: What Enterprise Architects Need to Know About Smart Machines."

Opportunity Business Synergy Matrix
Contrasts a proposed opportunity with distilled high-value business strategy areas.
See "Toolkit: What Enterprise Architects Need to Know About IoT Technologies."

Affinity Analysis
Grounding technology innovation in the context of business issues or gaps. Using this technique surfaces the views, ideas and responses to issues, including the emotional and behavioral aspects.
See "Toolkit: What Enterprise Architects Need to Know About Smart Machines."

Business Capability Analysis
Business capability maps are used to understand the current and future capabilities of the company’s business units.

Social and Ethical Roadmap
Defines "what if" scenarios with new and disruptive technologies that have more than just technology impacts, but also span social and ethical boundaries.

Business Outcomes Journey Map
Understanding business outcomes in terms of experiences to be enabled by the capabilities that are delivered is a key way to ensure that business outcomes are maximized.

Business Scenario Analysis
Filtering down to a critical set of business scenarios is important to ensure that the valuable time of business and IT leaders is used effectively.
See "Toolkit: How to Create Business Scenarios That Drive Digital Disruption Innovation."

Persona
Aids in driving decisions and providing recommendations, thereby increasing understanding about many people by abstracting them into an archetype.