Agile for Public Service Organizations

Description

Agile is a model for software engineering that emerged in the early 2000s. Its foundation is the Agile Manifesto, which is a list of 12 principles written in 2001 by a group of software developers. Agile offers a new organizational paradigm with a multidisciplinary team approach. Public service organizations have adopted aspects of the model when implementing technology projects and in the delivery of digital services and in procurement processes.

Background

Software developers were often frustrated by constantly changing requirements and customer expectations, poor communication among teams and an over emphasis on documentation and process. Agile originated from 17 software developers, consultants, and authors from different companies. They wrote the Agile Manifesto's 12 Principles. The founders are Mike Beedle, Alistair Cockburn, Martin Fowler, et al.

Purpose

At the core of Agile is the ability to create and respond to change. It is a way of dealing with, and ultimately succeeding in, an uncertain and turbulent environment. The authors of the Agile Manifesto chose "Agile" as the label because that word represented the adaptiveness and response to change which was so important to their approach. It's about thinking how you can understand what's going on in your environment, identify what uncertainty you're facing, and figure out how you can adapt as you go along.

How It Works

Agile software development is based upon a community of cross-functional teams. It focuses on the customer, self-organizing teams, and sharing knowledge across organizational boundaries. It stresses the need for alignment with the overall agency structure, approach, and values. Agile emphasizes a major culture shift from traditional management and not just use of tool for change.

Core Values, Principles, and Concepts

The Agile Manifesto: We are uncovering better ways of developing software by doing it and by helping others do it.

Through this work, we have come to value the following:

- **Individuals and interactions** over processes and tools;
- **Working software** over comprehensive documentation;
- **Customer collaboration** over contract negotiation; and
- **Responding to change** over following a plan.

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The 12 Principles of Agile Software Development are as follows:

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity -- the art of maximizing the amount of work not done -- is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

Framework

In using Agile, teams use specific frameworks to organize projects and each framework includes a specific set of practices and values. For example, one of the frameworks is called SCRUM. A scrum is a process whereby a team creates a hypothesis about how something works. They try it out, reflect on the experience, and adjust. The values associated with a SCRUM are commitment, courage, focus, openness, and respect. The principles associated with a SCRUM are transparency, inspection, and adaptation. The practice associated with a SCRUM is called a Sprint. A Sprint is a timebox (specified period of time) of one month or less during which a team must complete a shippable product.

Application

This approach may have applicability to the improvement of case management systems and those IT staff developing these systems.

The following are examples of how the Agile Manifesto may be relevant to the VR system:

- **Individuals and interactions** over processes and tools; case management tool vs. meeting focused on person
- **Working software** over comprehensive documentation
- **Customer collaboration** over contract negotiation can relate to partnerships with Business, CRPs, Workforce agencies, and others.

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- **Responding to change** over following a plan; being open to innovations in service delivery system, agency leadership, meaningful performance metrics, and other system elements.

Vocational Rehabilitation

Applicability for VR agencies in terms of general quality management is limited considering the focus on software design and information technology. It does offer tools and strategies for improving operation through software development and use. To the best of our knowledge, no VR agencies are using this model.

Other Organizations

Agile in the federal government isn't new. Since 2014, federal agencies were required to certify that large IT investments are adequately implementing incremental development, including Agile software development, which has been adopted by many federal agencies.

The U.S. Government Accountability Office (GAO) published a comprehensive Agile Assessment Guide. The Guide presents auditors, agencies, and others, with the best principles and practices to enable Agile management in the Federal government. The guide shows, step by step, how to go about shifting from bureaucracy to agility. It gives examples of agencies where the hurdles have been overcome.

Criticisms or Concerns

The model was initially created as a tool for software designers. Thus, it requires that some substantial modification for optimal application to government service organizations. The public sector faces unique challenges in the need to operate within legislative frameworks. In the public sector, agencies and their internal functions tend to be siloed, especially at the state and local levels, and leaders are incentivized to focus on their own vertically organized and sometimes competing domains. Other challenges include hierarchical cultures, gaps in talent and capabilities, outdated organizational strategies, and complex procurement and partnership processes.

Effectiveness

First used by software and technology companies, Agile is now commonly used across the private sector. Agile emphasizes cross-functional collaboration and an iterative test-and-learn approach to delivering services. Many organizations that have adopted Agile methodologies report up to a 30% increase in delivery of services and products and improvements in organizational productivity. Additionally, the cross-functional and empowered nature of agile teams helps deliver solutions and services that are much more user-centric.

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The potential benefits are considerable, although implementation is a complex and time-consuming process. For the model to be effective, organizations often need to change structures, processes, and cultures that have evolved over decades. Organizations that have adopted Agile have reported higher-quality programs and services with less risk. Employees gain greater autonomy with clear guidance and leadership on purpose and strategy. Advances in technology has transformed the way people seek and receive services. Apps and other online platforms allow them to access services anywhere at any time. These technologies are changing customer expectations, including that of public services. Agile provides a vehicle for quickly responding to these demands through an emphasis on employee autonomy, breaking down silos, and increases transparency and accountability.

Recommendation for Use In VR

As the global pandemic continues to cause substantial disruption and accelerate change, the need for greater institutional agility continues to be paramount. Like other Federal organizations utilizing Agile, a VR agency could utilize the standards to improve its IT and software processes. Agile principles could be combined with other QM processes. The GAO guide could be a useful tool for VR agencies looking to streamline their IT functions. One limitation is that some agencies do not have full authority over their IT services; they share administrative units within a DSA.

Certification

Braintrust Consulting Group offers classes that lead to certifications. Courses cost $700-800.

Resources

Websites

Agile history: https://agilemanifesto.org/history.html

The Agile Alliance website contains complete information regarding training, webcasts, informational videos, and podcast. There is a $49 cost for individual memberships, which gives access to a wide range of videos and webcasts.

Reports

U.S. Government Accountability Office (GAO) Agile Assessment Guide – Best Practices for Agile Adoption and Implementation: https://www.gao.gov/assets/gao-20-590g.pdf.

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