From PMO to APO: The Transformation of a Project Management Team [1, 2]

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Abstract

Change can be difficult and unnerving, especially when it involves a major transformation in the workplace during a pandemic. In such a circumstance, strategy and compassion must be of the utmost importance when executing a major workplace transformation. That was the approach our leadership team took over a year and a half ago to transform our team from a Project Management Office (PMO) to an Agile Product Office (APO). The start was rocky due to budget and job cuts. Still, the leadership allowed the team to navigate through the turbulence and develop a strategy that would benefit the immediate team and the entire organization.

The transformation entailed the team formerly known as the PMO to assess the processes and tools used in their current workplace and streamline it to be more agile and valuable to the customer. The agile manifesto helped the team set their initial steps. The steps included showing empathy for the customer by eliminating unnecessary approvals. Other actions followed, including a roadmap, training curriculum, and continuous improvement based on solicited feedback. Take a ride with us as we demonstrate the path taken to transform a PMO into an APO while maintaining project management best practices and state-mandated processes and procedures.

***Keywords*:** agile, project management, workplace transformation, training

[1] *Editor's note: Second Editions are previously published papers that have continued relevance in today's project management world, or which were originally published in conference proceedings or in a language other than English. Original publication acknowledged; authors retain copyright. This paper was originally presented at the 14th UT Dallas PM Symposium in May 2022. It is republished here with the permission of the author and conference organizers.*

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From PMO to APO: The Transformation of a Project Management Team

Change is inevitable and necessary to stay competitive in our advanced society. Leaders evaluate their organizations to identify ways to be more effective and efficient. ITSS leadership team tapped the Project Management Office (PMO) to implement new processes and procedures to eliminate roadblocks, add value, promote agility and customer service, and increase efficiencies. The PMO focused on incorporating more agile practices, which initiated the transformation from a PMO to an Agile Products Office (APO). Within months, the team went from less than a handful of agile projects a year to complete agile immersion as it transformed into an APO.

Capturing the essence of the transformation the PMO underwent requires understanding the ITSS organization, background information on the transformation process, and a concise narrative of the before and after picture of the organization. Training the organization was pivotal to the transformation, so a curriculum was developed to educate employees across all divisions to continue the momentum and ensure cohesion. A roadmap helped maintain the momentum. Through the journey, lessons were learned, and tools and techniques were identified to help tell the story of how ITSS transformed from a PMO to an APO.

About ITSS at UNT System

University of North Texas Information Technology Shared Services (ITSS) is committed to helping the UNT System campuses accomplish their mission and strategic goals by working in a partnership with customers, understanding their needs, and striving for excellence in the technology solutions we offer.

Enterprise Applications provides application development, administration, security, and support for the UNT System's enterprise deployments of PeopleSoft Campus Solutions: HR/Payroll, Financials, Constituent Relationship Management, and Application Portal. Business analysis services are also an integral part of this PeopleSoft offering, known across the System's campuses as EIS (Enterprise Information System).

In addition, EA also provides deployment support for Perceptive Content, the document imaging system used across the system, and data integration and technical support for key systems, including the Blackboard learning management system; Blackboard Analytics, an academic reporting and data analysis system; uAcheive, an advising and degree audit system; Ad Astra classroom, exam, and event scheduling; among many others.

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About UNT

UNT is the leading university in the DFW region located in Denton. UNT currently serves over 40,806 students offering 112 bachelor's, 94 master's, and 39 Ph.D. programs.

About UNT – Dallas & UNT Dallas College of Law

The University of North Texas at Dallas is the only public, accredited 4-year university in the City of Dallas. UNT Dallas extends our educational services to those in Dallas and Ellis counties. UNT Dallas College of Law offers a uniquely innovative legal education at a tuition that gives you the right value in a dynamic Dallas location downtown.

About UNT- Health Science Center

The UNT-Health Science Center is located in Fort Worth. HSC is one of the nation's premier academic medical centers, with more than 2,000 students and five schools. UNT-Health Science Center includes the Texas College of Osteopathic Medicine, College of Pharmacy, Graduate School of Biomedical Sciences, School of Public Health, and School of Health Professions, specializing in patient-centered education, research, and health care.

Background Information – Transformation Process

The transformation process started at the top. ITSS is a large organization, so taking a bottom-up approach was unsuitable for our agile transformation. Plus, the PMO had tried in previous years with little traction. The PMO's early agile practices were incorporated in smaller and vendor projects but not across the board. The most notable agile practice implementation was with our in-house start-up group responsible for creating innovative products and services for our students, such as the event card swipe program.

Leadership Buy-in

Agile practitioners stress the importance of leadership buy-in, and the PMO received it. As a matter of fact, the executive leadership led the transformation, but they asked the PMO to develop the new process and recommended training for all employees of ITSS. Each member of the PMO had previous agile experience at other organizations, which was beneficial to the success of the transformation. The PMO reviewed the current project in-take and execution processes and accessed the best way to incorporate agile practices. They streamlined the process by eliminating the customers' pain points. They started integrating the scrum process on as many projects as possible. Some projects remained waterfall due to the nature of the projects and the timing of initiating the new process.

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The process did require continuous improvement as the organization has many state-mandated regulations. Months into the new process, the PMO revamped the process to ensure all state regulations were followed. It was painstakingly difficult, but the leadership participated in the process, maintaining their executive buy-in to making the transformation a success.

Right Time for Change

The transformation took place at the start of the COVID-19 pandemic. The organization was going through changes in the overall structure with a new CIO, and many employees were retiring. Change was the organization's current culture, so implementing a new process in how we implemented projects came at a perfect time. People were open to change, and with all the required training, the opportunities to meet on MS Teams was inviting because all employees were working remotely.

Maintaining the Momentum

Maintaining the momentum of a transformation requires excitement about the process, celebrating success, and keeping employees trained. The APO acts as coaches and cheerleaders rallying the organization to maintain its momentum. Our before and after snapshot helps us celebrate how far we have come over the months. Finally, training is an important aspect to help maintain momentum. New employees and current employees participate in our training curriculum to ensure we keep an agile mindset and do not revert to the old process.

Before and After

Our previous process took too long and had too many documents and signoffs that did not add value to the project stakeholders. Also, the waterfall process followed was too rigid. We want to be more nimble in our Agile project management so that we can adjust to customer needs faster and help drive strategic goals through collaborative roadmaps and be a better business partner.

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IT Waterfall Deliverables (Previous State)

IT Agile Deliverables (Current State)

Roadmap

The need to create an Agile Product Office meant leading our department through many changes, and we knew that it had to be done efficiently and in a way that didn't distract from the work already in development. So, we decided to create a flexible roadmap that would take the teams through the processes and encompass the projects they were currently working on into the process itself. The decision came with an understanding that

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change can be challenging for many people, and we would need to give our team members time to digest the material over time. Our focus was to have everyone using agile methodologies to deliver their work within a year.

The Roadmap to APO

The roadmap began in the summer of 2020, knowing there would be limitations and challenges in establishing this new working method. Understanding how the APO would handle projects differently than the PMO had for many years in our department, with leadership guiding the way and supporting the change, and the business analysts and project managers leading the change, we knew we could overcome the challenges. Other conditions such as the pandemic, team members moving into remote work, and some changes in departmental roles also directed the change of the APO. The Agile Product Office became comprised of our Business Analysts and Agile Analysts. These teams led the charge to have our department educated and working using agile fundamentals throughout all our project work.

From PMO to APO

As the team was forming, leadership worked with us to create a balance for training that would allow team members to learn independently through on-demand videos and webinars by bringing them together for lunch-and-learn opportunities, and finally practicing agile methodologies through mock projects.

Curriculum Development

Recognizing when change is needed is a challenge. As we saw our PMO begin to deconstruct, we knew there were options to keep our project teams going.
The idea to create an agile team began with an individual team that had big ideas for creating a better student experience. We knew that our focus should be on the products our students use to do so. Unfortunately, this jump into working in an agile fashion was isolated from the rest of our department. But as changes were occurring in the leadership and the structure of the PMO, our leadership reached out to the student experience team to help create a more efficient way of managing projects. This was the beginning of the Agile Product Office.

Developing the APO

The need for an Agile Product Office was apparent, but how do we get the rest of the department on board with this idea? It was clear that we needed to first create an understanding of what Agile is and what it means to the development and organization of

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our work. So as our APO came together, we created a curriculum scheduled out approximately nine months to get our department team members educated on how we would use the foundation of Agile to work through the products we create and support.

Defining Agile

The ITSS department team members had different experiences and decisively different ideas about agile. The very word agile, to some, had a bad connotation. Some had no experience or understanding of what it meant, and many others were open to the idea of working in an agile environment. So, the newly formed APO curriculum began with an introduction to Agile for the entire department through multiple sessions provided by LinkedIn Learning. The foundational learnings were required by all user roles, and more specified training was identified for user roles with a focus on product and project management, as well as for those user roles focused on development.

ITSS Agile Foundational Learning

Business Non-Developers	**August** 1. Agile Foundations *(1hr 35m)* ***September*** 1. Scrum: The Basics *(1hr)* ***October*** 1. Transitioning from Waterfall to Agile Project Management (optional) *(40 m)*
Agile Analysts/ Resource Managers	**August** 1. Agile Foundations *(1hr 35m)* 2. Transitioning from Waterfall to Agile Project Management *(40 m)* 3. Agile at Work: Building Your Agile Team *(55 m)* ***September*** 1. Agile at Work: Planning with User Stories *(51 m)* 2. Agile at Work: Driving Productive Agile Meetings *(59 m)* ***October*** 1. Agile at Work: Getting Better with Agile Retrospectives *(1h 3m)* 2. Agile at Work: Reporting with Agile Charts and Boards *(44m)*

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Business Analysts (Product Owners)	**August** 1. Agile Foundations *(1hr 35m)* 2. Transitioning from Waterfall to Agile Project Management *(40m)* 3. Agile at Work: Planning with User Stories *(51 m)* ***September*** 1. Agile Product Owner Role: Foundations *(1h 9m)* 2. Agile Product Owner Role: Techniques *(1h 24m)* ***October*** **1.** Agile Requirements Foundations *(1h 43m)*
Developers (IT/Business)	**August** 1. Agile Foundations *(1hr 35m)* **2.** Transitioning from Waterfall to Agile Project Management *(40m)* ***September*** 1. Agile Software Development *(1hr 53m)* **2.** Agile Development Practices *(26m)* ***October*** **1.** Agile Software Development Code Quality *(1hr 40m)*

Using Agile Methodologies

Once our teams understood the foundations of agile, we wanted to give our users the resources they needed to use agile through different methodologies. So, we continued with bi-weekly lunch-and-learn sessions, which included training on user stories, story mapping, Scrum, and Kanban.

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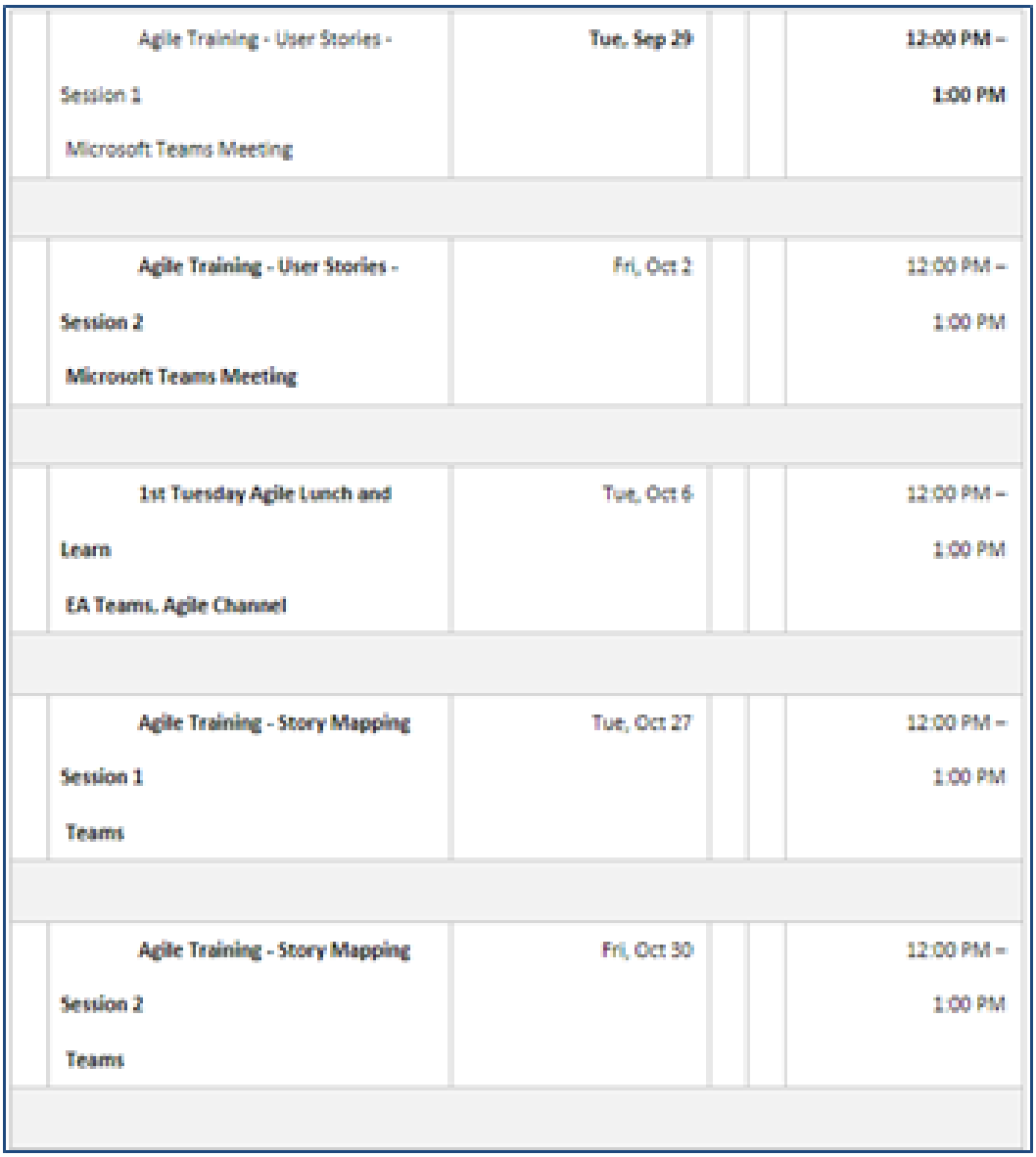
Agile Training Sessions Calendar



Agile Training - User Stories - Session 1 Microsoft Teams Meeting	Tue, Sep 29		12:00 PM – 1:00 PM
Agile Training - User Stories - Session 2 Microsoft Teams Meeting	Fri, Oct 2		12:00 PM – 1:00 PM
1st Tuesday Agile Lunch and Learn EA Teams, Agile Channel	Tue, Oct 6		12:00 PM – 1:00 PM
Agile Training - Story Mapping Session 1 Teams	Tue, Oct 27		12:00 PM – 1:00 PM
Agile Training - Story Mapping Session 2 Teams	Fri, Oct 30		12:00 PM – 1:00 PM

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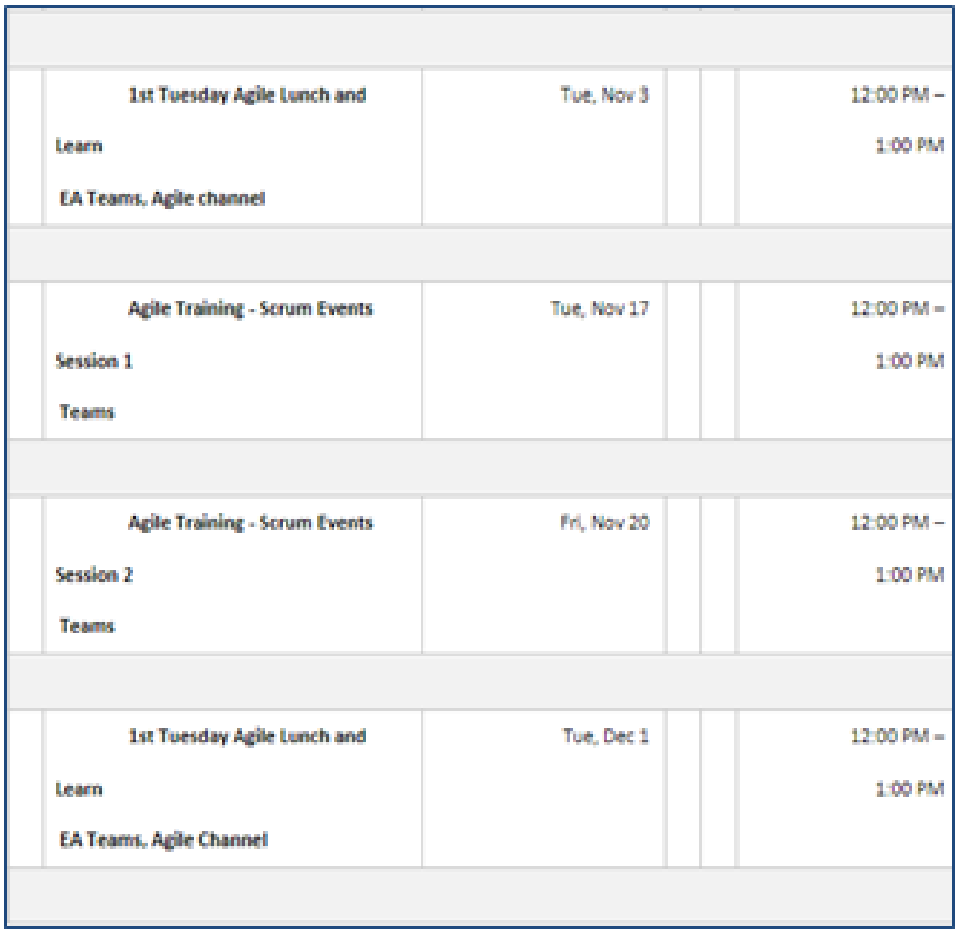

1st Tuesday Agile Lunch and Learn EA Teams, Agile channel	Tue, Nov 3	12:00 PM – 1:00 PM
Agile Training - Scrum Events Session 1 Teams	Tue, Nov 17	12:00 PM – 1:00 PM
Agile Training - Scrum Events Session 2 Teams	Fri, Nov 20	12:00 PM – 1:00 PM
1st Tuesday Agile Lunch and Learn EA Teams, Agile Channel	Tue, Dec 1	12:00 PM – 1:00 PM

Training continued into the following months to include additional topics, such as building and prioritizing backlogs, estimating stories with story points, a more detailed outline of Scrum artifacts, having efficient scrum sessions, and understanding the definition of "done".

Finally, we created small teams of 4-7 participants that came together to work on a mock project and had the team perform (a condensed) two-week sprint. In a two-week time frame, a single team would come together to review an objective, plan the work to be done, write user stories, prioritize the backlog, review, demo the product, and complete a retrospective. This process was repeated for each team for about ten weeks. The products that the teams worked on were familiar to many of the participants as projects that had been worked on by them previously. Having a familiar product took the stress out of trying to create an imaginary product which could cause more distraction from learning the process.

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Lessons Learned

With the UNT ITSS transformation from a traditional PMO to that of an Agile mindset, we witnessed and observed many of the more beneficial by-products of this shift in both the way we think and approach project workflow. Like projects we manage today, there are "Lessons Learned" as a result of this major transition from a projects, teams, and functional perspectives that needed attention. The agile transformation itself systematically streamlined project workflow, increased productivity, and ultimately decreased the amount of time traditional PMO procedures require because of the added overhead of older processes. At the same time, we moved into an agile direction, we quickly recognized, focused on, and corrected those areas that needed to be tweaked and improved to maintain a successful course of transition.

Ways We Improved

During our transformation process, we look at not only what we were doing along the way to build and foster an agile mindset but also constant and continual examination of each step to ensure that we addressed those areas that could be performed more efficiently. We learned and course corrected by continuous improvement. The UNT ITSS Agile Team took a focused approach on several areas including:

- Drive the importance of agile mindset commitment to all teams
- Conducting training classes to increase awareness and education
- Strong communication/collaboration with all team members and business units throughout each project
- Ensure executive sponsorship to maintain consistent involvement and feedback to keep moving ahead through each project iteration
- Use of a shared repository, such as Microsoft Teams used at UNT, to track meetings, user stories/sprints, defects, test cases, releases, etc.
- Test and demo core project requirements at the end of every sprint to ensure work performed during that period is correct and valid
- Foster and empower functional teams to work together and drive communications and innovation
- Continually involve all team member resources to ensure the same objectives are met throughout the planning of sprints, daily stand-ups, necessary reviews, and retrospectives

Moving Forward

As we continue to further UNT's commitment to an Agile focused direction and the benefits it inherently brings, we must always strive to learn from our ways, good, bad, or indifferent,

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in building and maintaining an environment that fosters continuous streamlining of process improvements through efficient planning and innovations. Working closely together to become more collaborative, embracing new process methods that result in more lean and iterative flow, and aligning common basic principles have together strengthened our practice to provide a much higher degree of a successful outcome in all our projects and, therefore, the overall success of the business units we work with. Total and absolute commitment in all areas of transformation was key to fully attaining the desired expected outcome.

Tools and Techniques

Tools and techniques varied through training our teams and while implementing the Agile Product Office. While training, we used our resources as project and product managers, such as the Project Management Institute (PMI) PMBOK Guide and website, Scrum.org, and Agile Alliance, to gather information and visual tools we could use to teach our team members. Over time, our training became more explicit as we implemented agile methodologies into our projects. We are also a state institution, so there are specific guidelines that we must implement to be compliant, but we also manage them around the agile methodologies.

Basic Tools for Agile Training

To begin our training, we had to provide an understanding of what agile is and what it's not. We started with the Agile Manifesto and the 12 Principles. This helped guide the team to a simple understanding of why we felt it was so important to take this direction. We also suggested that not only can this be applied to create "working software" but it can be used in any product we may be working on.

In teaching a simple agile method, we trained our users with the Scrum Framework. From this framework, team members were able to see the cyclical pattern of a Plan/Do/Act/Check (PDCA) model, which was more familiar to many and easy to understand. With the Scrum Framework, we were also able to show these cyclical patterns can be completed in shorter increments of time rather than in a waterfall approach. This was very appealing to our teams which have long been known as the "team on the other side of the wall". Many business partners had adapted to the idea that when they needed something new or updated from ITSS, they could throw the idea over the wall and wait until a final product was sent back. Now, we could show our business partners that we could provide quality work in shorter periods.

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The Agile Manifesto and The 12 Principles of Agile[3]

Agile Manifesto

We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

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

While there is value in the items on the right, **we value the items on the left more.**

The 12 Principles of Agile

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.

Advancing the principles of Agile — Agile Alliance® — Learn more at AgileAlliance.org

THE MANIFESTO AUTHORS

Kent Beck, Mike Beedle, Arie van Bennekum, Alistair Cockburn, Ward Cunningham, Martin Fowler, Robert C. Martin, Steve Mellor, Dave Thomas, James Grenning, Jim Highsmith, Andrew Hunt, Ron Jeffries, Jon Kern, Brian Marick, Ken Schwaber, Jeff Sutherland

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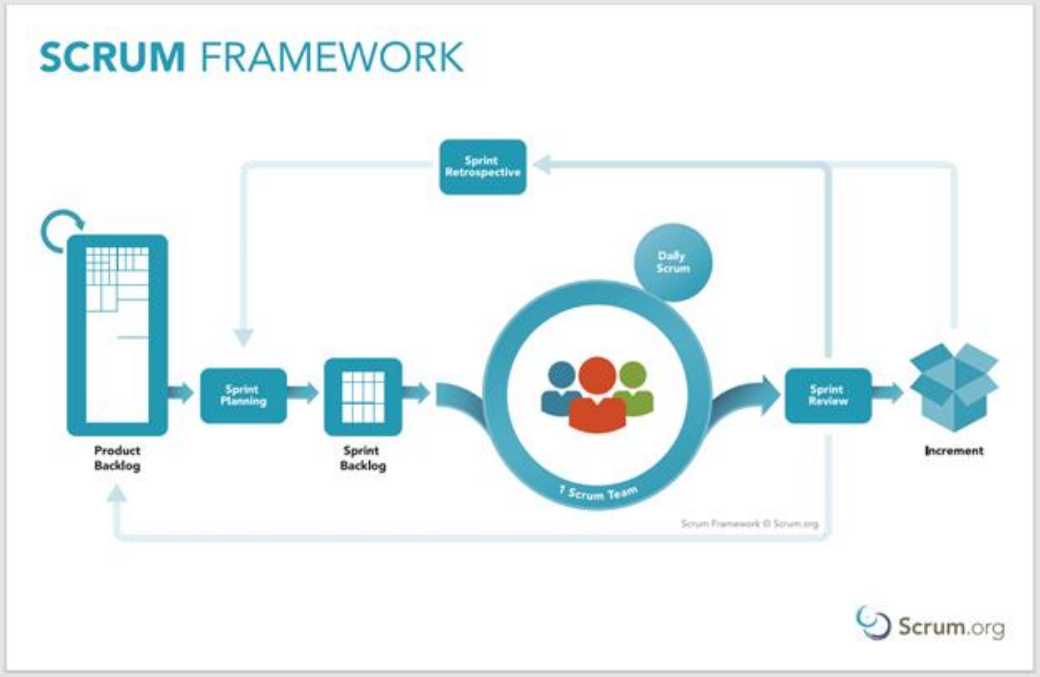
[3] www.agilealliance.org

The Scrum Framework[4]



Hands-On Training

Our Agile training continues to this day, and one of our objectives as the APO is to provide continuous training into the future. We began with mock agile projects for our team members based on projects and products that they had worked on previously. Since they understood the product and its known outcome, the idea was to take them through the process in an agile way.

Once we had our team's buy-in on practicing agile, we set out to work on any new projects in an agile fashion. We didn't expect every project to fall into a specific methodology, but we did want to be able to support our business partners by delivering products that added value to their work, and we wanted to do it quickly and efficiently. Then we had to give our teams the means and methods to not only be agile but to also be compliant with our state program. Since our teams have been using Microsoft Teams for a while now, we decided that obtaining our requirements and presenting our artifacts could be done easily in Teams. Our Agile Analyst team created a project template that contained all the required tools and could be consumed in an agile way. Now, our APO body was able to support this endeavor of doing work in an agile way.

[4] www.scrum.org

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Conclusion

Change can be difficult, but the results are incredible when an organization fully embraces it. Leadership buy-in and autonomy of the PMO helped transform the PMO into an APO. The PMO followed the essence of the agile manifesto and their previous experience with agile to develop a new project in-take and implementation process. Through the new process, customer pain points were eliminated, and the customer became an integral part of the project implementation. The PMO built a roadmap and started a training curriculum to keep the momentum. Through the journey, lessons were learned, and tools and techniques were utilized to transform ITSS's PMO into an APO.

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About the Authors

Celina Saavedra

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Celina Saavedra, PMP, CSM, PMI-ACP leads the Agile Products Office (APO) project management team at UNT System. She has a bachelor's degree from the University of Texas at Austin and many certifications, including project management professional, certified scrum master, and PMI agile professional. She has over twenty years leading change, managing teams, and influencing continued growth. She has experience implementing workforce management programs, business financial systems, grant management systems, and other information technologies. Celina can be contacted at Celina.Saavedra@untsystem.edu

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Schenita Floyd, PhD

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Schenita Floyd, PhD, PMP, CSM is a Clinical Assistant Professor at the University of North Texas with over twenty years of program and project management experience in the information technology industry. She has a PhD in information science from the University of North Texas, an MBA from Southeastern University, a Master's certificate in project management from George Washington University, and a BS in electrical engineering from Texas A&M. She has published journal articles on project management and various technologies. Additionally, she has received several awards and was featured in the Dallas Business Journal. Before becoming a full-time professor, she worked as a senior project manager at UNT System, managing large system-wide projects and helping the team to build the Agile Products Office (APO). She worked with other team members of the APO to evangelize agile principles and train employees on agile practices throughout the IT organization. When she is not teaching or researching, she is active in several non-profit organizations, including Dallas CASA, where she advocates for foster care children in the Dallas area.

Mohammad Mobashirin

Denton, Texas, USA

Mohammad Mobashirin, PMP has over twenty years of experience in information technology as a project manager, business analyst, system analyst, and software developer. He has a bachelor's degree from the University of North Texas and an MBA from the University of Texas at Dallas. He leads many state-mandated and system-wide

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large projects for all the University of North Texas System campuses. He has a remarkable ability to build teams that embrace agility, creativity, and profitability.

Rodney Ivester

Denton, Texas, USA

Rodney Ivester, PMP is currently with the University of North Texas and has been a member of the APO team since 2019. His professional career includes over 37 years with established Information Technology experience in project management, process management, sales, and a variety of areas of technical knowledge. He has managed small to large scale rapid deployment projects across a variety of technical and business organizations working directly with business executives and C-level personnel, balancing in-depth technical knowledge as well as strong business continuity. His expertise includes in-depth work within multiple levels of Service Management (ITIL certified), Project Management (following PMP standards) within a multitude of industries, while also maintaining a Federal Government 6C "Top Secret" clearance. He is also a network and systems engineer that has performed a variety of functions and working with technologies including Datacenter relocations/buildouts, Cyber Security, Network design, Call Centers, Business and Technology consulting, Sales support, Datacenter Operations, Cisco, Nortel, Network General, Citrix, BigIP, Microsoft Server, Novell Netware, IBM OS/2, UNIX, Mainframe, Token Ring, Ethernet, Fiber, Dell/IBM/Compaq servers, and IVR voice response telephony systems utilizing advanced call processing technologies and network interconnectivity. He has worked within U.S. federal government, city government, healthcare, financial, travel, transportation, telecommunications, energy, commercial, and private industry environments. His portfolio also includes working with corporations to attain ISO 9000/9001 certifications.

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