

**Organizational Change and Project Management:
A Review of Existing Project Management Methodologies
and the Organizational Impact
for Teams on an Agile Journey**

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The topic of this paper will focus on historical outcomes of software projects delivered between 2011 and 2015. It will provide an overview of the existing project management methodologies, a recommendation for organizations who are interested in adopting an Agile methodology and an organizational change/project management plan to assist in the transition process.

I. Introduction and Statement of the Problem

The Standish Group summarizes their organizational intent and what they aim to accomplish in stating they are a: “primary research advisory organization that focuses on software development performance. Using our extensive primary research, you can improve your investments in software. We are a group of highly dedicated professionals with years of practical experience helping organizations improve” (The Standish Group International, Inc., 2020). As of 2015, the Standish Groups databases retained research on over 10,000 software projects. They judge the success of a project on three primary factors: “OnTime, OnBudget, with a satisfactory result. This means the project was resolved within a reasonable estimated time, stayed within budget, and delivered customer and user satisfaction regardless of the original scope” (The Standish Group International, Inc., 2015).

Regardless of how the Standish Group’s research is analyzed, it is clear that software projects delivered in an Agile methodology have a higher success rate when compared to the

success rate of software delivered with a Waterfall methodology. Agile principles were introduced decades ago but have been more recently formalized within the past 20 to 30 years. Given that Agile is not a new concept, why are organizations reluctant to adopt Agile methodologies? Bain & Company suggests there are three reasons: “1) Inability or unwillingness to apply the methodology; 2) Lack of Management Support; and 3) Agile principles at odds with the company’s operating model” (Rigby, Berez, Caimi, & Noble, 2016).

II. Purpose of the Study

The primary purpose of this research is to advocate Agile adoption within organizations and teams that deliver software. The research aims to remove the ambiguity surrounding the terminology, methodology and ultimately the intent of organizations that declare they are on an ‘Agile’ journey/transformation. Finally, the research will consider the broader organizational impact of an Agile journey/transformation as it applies to departments and/or individuals who add value to their organizations outside of the Information Technology (IT) department.

III. Significance and Implications of the Study

The significance of this research resides in its potential to debunk myths surrounding Agile Project Management (APM) and Agile Delivery Models. Contemporary project management, often referred to as “Waterfall Project Management” (WPM), has been the dominant form of project management for many years. Attempted transformations from WPM to APM often start with small teams, often found within the IT vertical structure of an organization, with varying levels of support from an organization’s C-Suite. Recent research has found that an organization’s C-Suite, by adoption of Agile principles, is vital to transformational success:

After studying hundreds of companies for our new book, we believe that if a company wants to be fast on its feet, transform customer experiences, and continuously outpace competitors, it needs more than lots of agile teams. To create a truly agile enterprise, the top officers—most, if not all, of the C-suite—must embrace agile principles too. (Rigby & Berez, *The Agile C-Suite*, 2020)

IV. Methodology

The primary methodology for the selected project will be secondary data analysis of research and statistics related to the project. Research, case studies, textbooks and articles will be reviewed and analyzed to support the proposed argument for an APM transition. Information will be selected from courses and textbooks offered by the University of Wisconsin – Platteville, Harvard Business Review, Bain & Company, and industry experts, among other sources. A historical account of Waterfall and APM will be presented for review to provide sufficient background on the topics and aid in the offered change proposal.

V. Research Contributions

This research project will provide a contribution to the field of project management and organizational change, with an emphasis for those organizations looking to adopt APM practices but are not sure how to proceed or have struggled with past change efforts. The project will source its data, references, and research from the industry's thought leaders to ensure speculation and emotion are removed from the evaluation of a method's effectiveness. It aims to provide an accurate, yet concise overview of the origins of Waterfall and APM, when the concepts began to merge, and what the benefits are when supporting an APM framework with an organization.

Finally, the research will present a framework that organizations may leverage in their Agile change adoption journey.

VI. Outcome Anticipated

The anticipated outcome of this project is that a balanced review of existing project management methods and their documented outcomes will assist executives in their review, selection and application of APM strategies as their organizations continue to evolve and encounter new market opportunities/threats. The project aims to debunk the myth that APM and/or Agile software delivery models will not work for certain types of projects (See Appendices A – C). With data offering an avenue to unbiased reviews, executives will be able to make fact-based decisions when selecting the most appropriate methodology of project management and/or the associated software delivery models.

VII. General Plan of Organization

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Abstract

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Contemporary/PMI/Waterfall Project Management Summary

Project Management has existed for hundreds of years, spans nearly every industry, may be recognized in both high-tech and low-tech sectors and is likely to look a little different within each context it is experienced. Putting aside on-the-job training and development that is organization and department specific, I set out to understand what the Project Management industry considered to be their standard. I found that there are two main paths to formal project management education. The first path is through traditional education via an accredited university; The University of Wisconsin – Platteville (UWP) offers a Master of Science in Project Management as well as a Certificate in Project Management. The second path is through authorized training and on-the-job experience as validated by The Project Management Institute (PMI). Both paths are aligned to the same standard framework as noted within UWP's coursework and marketing material.

After earning a Certificate in Project Management from a small university in the Midwest with established Master of Science degree programs in Project Management and Organizational Change Leadership, I wanted to compare the definitions of what a project was as offered by UWP and the PMI. According to UWP's coursework and associated definition via the textbook *Contemporary Project Management*, a project is defined as: "A new, time-bound effort that has a definite beginning and a definite ending with several related and/or interdependent tasks to create a unique product or service" (Kloppenborg, Anantatmula, & Wells, 2019, p. 4). The authors elaborate on this definition in stating: "A project can be defined as a time-bound effort constrained by performance specifications, resources, and budget to create a unique product or service" (Kloppenborg, Anantatmula, & Wells, 2019, p. 4). The PMI's definition of a project is: "It's a temporary endeavor undertaken to create a unique product, service or result" (Project

Management Institute, 2021). The PMI goes on to state that Project Management is: “the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements” (Project Management Institute, 2021). Whether you focus on Kloppenberg’s definition stating projects are time bound or on the PMI’s definition stating projects are temporary, the idea is that something of value needs to be achieved/done/delivered and Project Management aims to provide a process to deliver the desired value.

Most project-based practitioners have likely heard of a text called *A Guide to the Project Management Body of Knowledge; PMBOK Guide*. The PMI produces and publishes the PMBOK and states: “The PMBOK Guide is different from a methodology... This PMBOK guide is a foundation upon which organizations can build methodologies, policies, procedures, rules, tools and techniques, and life cycle phases needed to practice project management” (Project Management Institute, 2017, p. 2). The text continues to elaborate that The Standard for Project Management, as agreed upon via certification through the American National Standards Institute, is detailed within *The Guide to the Project Management Body of Knowledge* and is summarized as: “A foundational reference for PMI’s project management professional development programs and the practice of project management... The standard identifies the processes that are considered good practices on most project, most of the time... The standard does not require that any particular process or practice be performed” (Project Management Institute, 2017). Where as the PMBOK is not a methodology, the inverse is implied for *A Guide to the Project Management Body of Knowledge*.

From the mundane tasks of washing the dishes to the complex stages of war, each temporary endeavor unfolds in stages. You are not able to dry the dishes if you have not first washed them, nor are you able to go to war without congressional approval. The discipline of

Project Management breaks down this process into project stages, or a project life cycle. The Contemporary Project management text closes their first chapter in stating that contemporary project management, “blends traditional, plan-driven, and contemporary agile approaches. It is integrative, iterative, and collaborative” (Kloppenborg, Anantamula, & Wells, 2019, p. 20). What the authors are stating is that regardless of the project management approach and its associated terminology, effectively run projects will cycle through specific project stages. Kloppenbrg’s text (Kloppenborg, Anantamula, & Wells, 2019) detail the following project stages: Selecting and Initiating | Planning | Executing | Closing and Realizing. These stages closely align to the PMI’s as detailed within the PMBOK (Project Management Institute, 2017): Initiating | Planning | Executing | Monitoring and Controlling | Closing.

The Kloppenborg text (Kloppenborg, Anantamula, & Wells, 2019) offers a unique perspective on the terms ‘Waterfall’ and ‘Agile’ as they relate to project management. The authors perspective is that project management falls on a spectrum in regard to how much planning is done before execution begins. The extreme planning approach is considered to be ‘Waterfall’, while the extreme adaption is often referred to as ‘Agile’. While the text does not specify this, they seem to be alluding to the area in between these two extremes as Iterative – with all three terms (Waterfall/Iterative/Agile) still requiring project management philosophies and process frameworks.

The Waterfall extreme is well known across industries. The idea is that when you know what needs to be delivered, you are able to define project requirements at a granular level. If this is possible, the natural inclination is to plan out the work in a linear/sequential/step by step approach. According to (Goodpasture, 2010) the majority of code written in support of projects still falls within the Waterfall variant. Goodpasture calls this a Plan Driven Product Development

Lifecycle (PD-PDLC), which is the extreme Waterfall variant methodology noted within the Kloppenborg text. The author of *Project Management the Agile Way* details why the extreme variant is still around by stating: “Waterfall owes its longevity to its fit to projects of every size and complexity in almost every industry, from the smallest to the largest, and for its natural harmony with most manager’s intuition that complex endeavors must be carefully planned and sequenced. The waterfall forms the basis for the traditional methodology in which most project managers are trained” (Goodpasture, 2010, p. 12).

Agile Project Management Summary

The *Contemporary Project Management* textbook answers the question of when to use Agile in stating: “Traditional plan-driven project management works well in many situations, but if the scope is hard to define early in the project and/or when much change is expected, an Agile approach often works better. For these ill-defined and rapidly changing projects, Agile proponents claim to decrease time, cost, and risk while increasing visibility and innovation” (Kloppenborg, Anantatmula, & Wells, 2019, p. 114). This sentiment is reflected in *Project Management the Agile Way* when the author summarizes that: “The quick-read bottom line on agile methods is that they can work, they do work, they do shorten the schedule, and they do provide a high-quality product. But agile is not a silver bullet. Its methods are not appropriate for every situation and only work if the proper environment and management mindset are committed to the project” (Goodpasture, 2010, p. xiv). Goodpasture text (Goodpasture, 2010) summarizes that an Agile approach attempts to balance the inherent risks and pitfalls introduce within the Waterfall methodology: Big Designs Up Front | Unknown or Unknowable Requirements |

Customers at Arm's Length | Testing and Delivery Falling to the End of the Project Schedule | Documentation Not Being Cost Effective.

A textbook dedicated to Agile, *Agile Project Management (APM)*, provides a framework for that may be more recognizable to traditional project managers. Jim Highsmith, a founding member of the Agile Manifesto, is the author of the text. Similar to the frameworks noted within the Contemporary Project Management text and that of the PMI, Highsmith's framework has five phases: "Envision | Speculate | Explore | Adapt | Close" (Highsmith, 2010, p. 82). This framework attempts to balance the risks that Goodpasture notes, while recognizing that projects are not intended to last indefinitely and must provide value via return on investment. The APM framework mirrors most Agile delivery models in recognizing not everything may be known at the onset of a product, feature based delivery as defined/scrutinized by the customer is the key to success, that a quick cycle of proof of concept to delivered value is equally as important, and at some point, the project effort closes so that the organization may shift their focus to the next project.

Winston Royce was one of the earliest evangelists of a more flexible approach to solving problems and creating/delivering value. His approach (Goodpasture, 2010) was to 1) Analyze the problem and 2) Implement the solution. This approach is low in the standard governance command/control methods that are often associated with the Waterfall approach. Royce also detailed the risks that would need to be mitigated for larger projects, which through my experience highlights why people and organizations are starting to push back on the extreme project management approach. A similar approach may be found within the Scrum framework. While Scrum does not claim to be a project management methodology, one of its founding concepts was from the creator's experience in the Air Force. According to Sutherland's text

(Sutherland & Sutherland, 2014) the Air Force utilizes an Observe | Orient | Decide | Act (OOD) loop to make decisions as split-second decisions may be the difference between life and death for an Air Force Pilot.

The other major influence for Sutherland's Scrum framework stems from *The Toyota Way*, or Lean as we Americans like to call it. The Toyota Way (Liker, 2004) offers a number of principles and insights into how Lean was created, some of the most notable aspects mirror in Scrum are eliminating waste, leveling out workloads, adopting virtual control systems to unearth hidden issues and developing relationship with your people and with your customers. Additionally, Liker notes that Deming's concepts and coaching, like the Plan – Do – Check – Act (PDCA) approach, were of central influence on Toyota's building of their management and production philosophies.

Many organizations launch efforts to become more Agile or to operate with more agility, but few seem to grasp the difference between what Agile is and what it is not. The Agile Manifesto (Beck, et al., 2001) is a statement of philosophies, not a prescriptive methodology. There are also numerous product development methodologies that are based on Agile, but have little if any benefit to offer the project management discipline. Stating this differently, APM is not the same as an Agile delivery method and an organization would likely need to leverage an Agile delivery model within APM to recognize the benefits they are pursuing. In an attempt to bring the customer closer to the creation process, shorten feedback loops, discover what was previously unknown and do so with as little waste as possible, Agile delivery methodologies such as Scrum, EVO, Crystal XP, RAD, Lean Development, and many others, have been introduced as product development methodologies that deliver on the Agile philosophy.

A new terminology entrant, DevOps, has begun to emerge within Agile conversations. However, DevOps is yet another variant of a delivery model that attempts to bring the customer closer to the creation process, shorten feedback loops, discover what was previously unknown, and do so with as little waste as possible. Microsoft's definitions of *What is DevOps?* is closely aligned to the underlying intent of Agile. While I think differentiating between DevOps and Agile is semantical in nature, their summaries do support important conclusions reached elsewhere within this paper. Below are a few excerpts from Microsoft's website.

What is DevOps? DevOps is a software development practice that promotes collaboration between development and operations, resulting in faster and more reliable software delivery. Commonly referred to as a culture, DevOps connects people, process, and technology to deliver continuous value.

Agile Planning and Lean Project Management? Commonly used in software teams, agile development is a delivery approach that relates to lean manufacturing. The development is completed in short, incremental sprints. Although it is different than DevOps, the two approaches are not mutually exclusive—agile practices and tools can help drive efficiencies within the development team, contributing to the overall DevOps culture.

(Microsoft, 2021)

Kotter's Organizational Change Framework

John Kotter first published his book titled *Leading Change* in 1996, which was based on his many years of experience with helping organization change and insights he has gleaned during his academic tenure at Harvard Business School. Kotter's text (Kotter, *Leading Change*, 2012), which has since been updated, introduced an eight-step methodology for leading change: Create a Sense of Urgency | Build a Guiding Coalition | Form a Strategic Vision | Enlist a

Volunteer Arm | Enable Action by Removing Barriers | Generate Short-Term Wins | Sustain Acceleration | Institute Change. The premise that led to the framework is that the marketplace is changing faster than organizations and managers are able to adapt to. Additionally, his experience has found that: “Task forces, work-streams, and project management organizations are still the most common vehicles used to drive significant change efforts... they have tendencies that can lead towards wrong processes, and they simply don’t have sufficient power for an extremely set of tasks” (Kotter, *Leading Change*, 2012, p. viii). Kotter’s proposed framework would be led by one or more senior executives with sufficient organizational power to lead the change, with the intent of convincing others that a need for change is imminent. A leader would then be able to continue, step by step, through Kotter’s eight stage change framework to lead change from within an existing organization. Given that the pace of change has continued to accelerate, a leader could then choose their next change effort and begin the process anew.

Kotter’s next book, *Accelerate* (Kotter, *Accelerate*, 2014), attempts to revisit the change framework he initially introduced and propose modifications based on the rate of change organizations, leaders and managers are experiencing today. It opens with an apt quote: “The world is now changing at a rate at which the basic systems, structures, and cultures built over the past century cannot keep up with the demands being placed on them. Incremental adjustment to how you manage and strategize, no matter how clever, are not up to the job” (Kotter, *Accelerate*, 2014, p. vii). A familiar similar eight-step methodology is introduced with a few modifications: Create a Sense of Urgency Around a Big Opportunity | Build and Evolve a Guiding Coalition | For a Change Vision and Strategic Initiatives | Enlist a Volunteer Arm | Enable Action by

Removing Barriers | Generate and Celebrate Short-Term Wins | Sustain Acceleration | Institute Change.

The major variant that Kotter introduces within his latest text is what he calls a Dual Operating System. He summarizes its intent in stating: “First, a dual system is more about leading strategic initiatives to capitalize on big opportunities or dodge big threats than it is about management. Second, although the dual system is a new idea, it is a manner of operating that has been hiding in plain sight for years” (Kotter, *Accelerate*, 2014, p. 19). Instead of driving change from within an existing hierarchy, as proposed originally in 1996, his continued learning and experience paired with the increasing rate of change has led him to identify the Dual Operating System model. Within the first model you would have a traditional, hierarchy-based organization that has been built upon and evolved around an existing product or service. Within the second model you would encounter the feel of a start-up company; one that is trying to do something big – but has not quite figured out the intricacies yet. The first model continues to manage and incrementally grow the existing business, while the second pursues big ideas or addresses major obstacles that are being presented within the marketplace. An important point to note is that these two systems operate in tandem, leveraging each other when appropriate, but allowing sufficient freedom for each side of the operating model to capitalize on what it does best.

The Innovators Dilemma

The Innovators Dilemma was introduced in 1997 by Clayton M. Christensen, also of Harvard Business School. While the title may seem a bit deceiving in regard to its relevance in context to this paper, that deception is clarified with the first sentence of the introduction: “This book is about the failure of companies to stay atop their industries when they confront certain

types of market and technological change. It's not about the failure of simply any company, but good companies – the kinds that many managers have admired and tried to emulate”

(Christensen, 1997, p. ix). Christensen's text introduces the concept of sustaining and disruptive technologies, which is similar in concept to Kotter's Dual Operating System. When faced with needing to change to address a major shift in the marketplace, Christensen advocates that doing more of what the traditional organization has been built to do will eventually be its downfall. He summarizes this concept in stating: “If good management practice drives the failure of successful firms faced with disruptive technological change, then the usual answer to companies' problems – planning better, working harder, becoming more customer-driven, and taking a longer-term perspective – all exacerbate the problem” (Christensen, 1997, p. xviii).

Much like Kotter, or perhaps as a prelude to Kotter's Dual Operating System approach given their respective employer, Christensen advocates for split approach as well. Through sustaining technology you would allow a traditional organization to continue to operate as is, while a disrupting technology would pursue and explore the unknown imminent change. Christensen introduces five principles of disruptive innovation that details the need for a Dual Operating System approach. The five principles are built around the idea that every organization works within distinct laws of organizational nature, which dictate what a company and its leaders/manager are able to accomplish. He issues an ominous warning for those who try to fight these intrinsic laws in stating: “These laws are so strong that managers who ignore or fight them are nearly powerless to pilot their companies through a disruptive technological change” (Christensen, 1997, p. xix).

Summary of Literature Review

Within the *Contemporary Project Management* text Kloppenborg differentiates between operational activities - those that are intended to maintain the status quo or incrementally increase upon it, and projects – those that are intended to deliver value above and beyond what may be offered incrementally. Using Blockbuster as an example, operational activities likely included adequately managing the supply chain to ensure Hollywood’s newest releases were available within their stores, that movie rentals were being returned in a timely fashion and that that returned movies were made available for new customers to rent. Project initiatives were likely introduced to offer video games and the associated consoles for rent, add concession style amenities within stores or even rearrange movie titles and sections within a given store. Blockbuster’s model was dominant in its time and focused on the consumers who wanted to experience the latest and greatest of Hollywood and/or video games without parting with the resources required to own the individual movies, games, and consoles.

The introduction of Netflix’s streaming was a fundamentally different business model; one that would not have prospered under strict organizational design, governance/risk, and project management protocols. No amount of incremental operational project management would have led Blockbuster to develop a streaming service. This modification would be a deviance from their sustaining organizational design and would have produced negative quarterly results for the existing business. For reasons that will likely never be fully understood, Blockbuster chose not to pursue disruptive technology entrants on their own or in the form of a competitor, Netflix. With the benefit of hindsight we know now what happens when an industry giant neglects new market offerings and competitors. In a now infamous decision, Blockbuster chose not to buy Netflix in 2000 for \$50m (Hastings, 2020).

In 2002 Netflix went public, with an IPO putting their market cap at \$0.22b (Companies Market Cap, 2021). In comparison, \$50m equates to \$0.05b. In March of 2008 (Reisinger, 2009) Blockbuster changed course and introduced a streaming service – a direct competitor of Netflix and Amazon. They were late to the market by no less than eight years and had chosen to merge their successfully DVD business with their streaming business. At the end of 2008, Netflix's market cap was 1.75b (Companies Market Cap, 2021). Blockbuster filed for bankruptcy in 2010 (Censky, 2010), while Netflix's market cap was \$9.27b and as of 2020 was reported at \$238.89b (Companies Market Cap, 2021).

Asking Hastings to reflect on how Netflix succeeded while an industry giant failed, he summarized: It was not obvious at the time, even to me, but we had one thing that Blockbuster did not: a culture that valued people over process, emphasized innovation over efficiency, and had very few controls (Hastings, 2020). Although he could not articulate it at the time, Hastings is stating that his organization knew that it was a disruptive technology and that they were entering uncharted territory. With this constraint and intent, an organization must be managed in a fundamentally different way in comparison to an existing organization that needs to focus on their operational success. The dichotomies he reflects on are the same as Christensen's (Christensen, 1997) sustaining and disrupting technology theories, which are the same as Kotter's (Kotter, *Accelerate*, 2014) dual operating system. Had Blockbuster chosen to purchase Netflix in 2000 and allowed them to operate in a dual operating/disruptive technology model one could argue that Blockbuster would now be standing alongside Netflix and Amazon.

Collegial Observations

In an attempt to balance out any biases I may have inadvertently imposed within the previous research and gather additional industry insight on the topics presented within this paper, I leveraged informal conversations with three peers who are current practitioners within the project management discipline. Their personal, educational and professional experiences all vary from one another, with their common ground being found as practitioners of project management. Due to the lack of formality used in gathering my peers feedback, their thoughts and opinions, or my interpretation of their feedback, does not constitute “research”. The referenced conversations discussions occurred in early 2021 and may be found within the Appendix (Appendices A – C).

My peers’ feedback was similar during the early part of the conversation. Their definitions of project management echoed that of the various definitions I encountered while completing my literary review. They recognize variations of project management, notably Agile and Waterfall, and state that each method has its place within the broader practice of project management. Change management seems to be considered a by product of the larger project initiative in question, which I think is short sighted. It is possible that this perspective stems from change management being thought of as an event introduced by a project versus the constant state of flux many leaders and organizations find themselves encountering on a daily basis. Only one of the participants made references that alluded to a base level understanding of Kotter’s and Christensen’s work, which is vital to the broader conclusion I arrived at and present within the conclusion. Without this vital linkage of thought process, their feedback may be construed to represent why the concept of Organizational Design is often overlooked and ignored entirely when selecting a project management methodology for a given project or as a standard for the entire organization to adopt (Appendices A – C).

Seminar Paper Conclusion

To conclude, the primary purpose of this research was to advocate Agile adoption within organizations and teams that deliver software. After completing the appropriate research, one conclusion is that organizations normally are not asking the right questions when selecting how to manage their projects. This is not to say that a methodology is unimportant, but rather to say that understanding and assessing the organizational design and associated governance/risk policies will dictate the discussion on the latter. Unfortunately, these topics are largely outside the scope of this research project.

Furthermore, there is not a finite or 'right' way to introduce a change and/or project plan as initially assumed. A deep organizational analysis will need to take place, with a focus on the appropriate governance and risk policies to influence the associated project management methods. This effort will need to be led by individuals within the organization as only they understand their intricacies. The first step for an organization's leaders and managers is to determine what type of efforts will be managed within the operations/sustaining methods, versus those managed within the project/disruptive methods. The second step then becomes defining the governance and risk models within the respective methods. Then, and only then, should change and project management approaches be considered.

Through operational and sustaining methods it is possible to apply a project management framework. Organizations will be able to identify the majority of the work that is required, which will lead towards a natural tendency to lean towards the Waterfall extreme of project management. After all, if it is possible to know everything up front, why are we not able to plan every activity out and manage that activity and associated resources? Assuming an individual is

allocated 10 percent of an eight-hour day for administrative and overhead activities, the remaining 90 percent - or 7.2 hours – should be spent on task. Project managers may then schedule these tasks, note the dependencies, and drop the entire project into a Gantt chart to be executed and closely monitored.

What happens when management is not able to know all the requirements and tasks at the onset of the project, as often in the case with software development? What happens if the organization is exploring a new module within an existing technology? How about introducing a brand-new technology to the organization? Is the exploration focused on the unknown of machine learning and artificial intelligence? These are all real examples of disruptive technologies that are being considered by existing organizations and start-ups alike. While a project is an appropriate way to contextualize and manage the context of the initiative, applying a waterfall project methodology is nearly impossible when attempting to discover the unknown. Furthermore, applying operational and/or waterfall methods to a disruptive exploration/technology will further complicate the interactions amongst the individuals expected to deliver. If a team member is managed by one or more individuals who report into and are incentivized by an operational organization, those operational leaders and managers will dictate the wrong ways of working onto a team member who has also been tasked with delivering a very different type of initiative. At a very granular level this is why many individuals within a larger organizational change context struggle: “Resistance to change does not reflect opposition, nor is it merely a result of inertia. Instead, even as they hold a sincere commitment to change, many people are unwittingly applying productive energy toward a hidden competing commitment” (Kegan & Lahey, 2001).

A few decades of research have shown what many are now starting to formalize. One process or methodology will not serve all purposes and under the right circumstances a new way of working is needed. While it is not impossible for an existing organization to adapt to disruptive market entrants, they must adjust their ways of work in order to succeed. As Christensen and Kotter have noted, a dual operating system is the best-known method to achieve the operational goals of existing organization while not succumbing to the pressure of new market entrants. The APM textbook provides an apt quote to summarize the impact of this research as it related to choosing a project management method within the technology sector:

Project management processes and performance measures are different for exploration and experimentation-based approaches than they are for production and specification-based ones. Production-oriented project management processes and practices emphasize complete early planning and requirements specification with minimal ongoing change. Exploration-based processes emphasize nominal early planning, good enough requirement, and experimental and evolutionary design with significant ongoing learning and change. (Highsmith, 2010, p. 21)

Seminar Paper Conclusion – A Brief Introduction into Organizational Design

The concepts of Organizational Design and Organizational Behavior were alluded to within university's Organizational Change Leadership (OCL) coursework, but were never thoroughly addressed in regard to the importance of these two concepts in relation to organizational change. As this research evolved, the connection between these concepts became clear and the author was compelled to offer findings from initial research into these topics.

Consider a summary offered within a recent *Harvard Business Review* (HBR) article titled: “4 Organizational Design Issues That Most Leaders Misdiagnose”:

Competent leaders misdiagnose organizational problems all the time. This is largely because recurring performance challenges run deeper than they initially appear. More often, they are symptoms of a larger problem rooted in organization design. Four of the most common problems that arise as a result of this are: competing priorities (caused by poor governance), unwanted turnover (caused by bad role design), inaccessible bosses (caused by excessive spans of control), and cross-functional rivalry (caused by misaligned incentives and/or metrics). (Carucci, 2019)

Addressing the issues detailed within Carucci’s article would go a long way in setting up the project management and change leadership disciplines for success as organizations evolve. As organizations grow, industries become more complex, technological advances and unknowns are encountered, organizations and the individuals within them must be ready to change and adapt to meet the challenges they are presented. Organizations no longer exist in binary environments where processes are simple, and tasks are straight forward. This concept is elaborated within an article titled “A new Approach to Organization Design.” The following is an excerpt from that article:

The business world of the early 21st century is radically different from that of the early 20th century, in two key respects. First, organizations now have to operate in a vastly more complex environment—one of globalization, hypercompetition, revolutionary technologies, and elaborate regulation... Second, in most companies the nature of work has changed: from algorithmic work—that is, clerical or manual labor—to knowledge or heuristic work. (Tollman, et al., 2021)

Organizational design and behavior are much more complex than realigning an organization's reporting structure and assigning new job titles. This work constitutes the proverbial tip of the iceberg in regard to the amount of work that lies ahead for leaders and managers within an organization. People and their underlying behavior changes are what drive true change within an organization. However, people are complex and often overlooked in broader change initiatives. While previously referenced, this complexity, in an article titled "Human After All: Organizational Change's Critical People Factor" offers additional industry insight on this important factor.

Why do companies change their operating model? Often, they wish to become more agile. Sometimes they hope to increase collaboration. Almost always it has something to do with behavior. But as the overhaul gets underway, facts and data become the focus instead. And by the time organizational charts are drawn up, rolled out to teams and explained, management is exhausted. Then someone remembers: We did all this to change how our people act. Oh, and those people are worried. Worried the changes aren't good for them and that they are going to lose some of their power. In the end, organizations don't change, people do. And that tired management team still has a lot of work to do. (Thurkow & Elk, 2020).

Bain & Company provides a concise summary of the importance of organizational design in today's complex business environment. Organizational design establishes the framework for people to work within, which sets the precedence for how projects are run. When discussing the proper project management framework, this paper supports that the decision has already been made at the organizational design level that has been implemented. Stating this differently, organizational design dictates the governance applied within an organization and sets the

precedence for how people and teams are to interact. With the precedence set, project methodology and delivery models will proceed accordingly. This conclusion is echoed through insight offered by Bain & Company:

To survive and thrive in today's business climate you don't just need to adapt: you need adapt quickly and effectively, again and again. That requires an organization that can keep pace with shifting industry boundaries, rapidly evolving technologies, and unpredictable change and disruption. Yet 80% of senior executives don't believe their organizations are structured in a way that helps them outperform. Rigidity, incrementalism and poor execution create complexity and hamper the organization's ability to move at speed. The right operating model can change all that. It provides an integrated system that unleashes the star power of your teams, ensuring that they are aligned, capable, effective, adaptable, efficient and inspired. They'll be prepared and motivated to go the extra mile, executing on strategy at speed and with purpose. (Bain & Company, 2021)

Fortunately, executives looking to align their organizational design/behavior are not exploring undocumented territory. There are a number of industry leading consulting companies that offer services and frameworks to aid an organization's transformation effort. There are a number of degrees available, yet it is important to note that organizational design/behavior are becoming their own discipline and are not fully integrated into common management degree tracks. While this may be part of the issue, in that individuals are not made aware of the difference in their pursuit of continuing education, they also do not need to change degree tracks. In addition to training offered by consulting companies, online training is evolving in an attempt to bridge this gap. A solution to consider for leaders wishing to explore this topic without

pursuing a formal degree may be found here: [Organizational Behavior Simulations](#) (Harvard Business Publishing, 2021). Finally, a fitting end for this paper is a quote from a recent *Harvard Business Review* article that uses humanistic language to identify the challenge faced:

My prevailing impression is that organizations either overlook the importance of organizational design or simply don't know what to do... It is also a pity since structure dictates the relationship of roles in an organization, and therefore, how people function. An outdated structure can result in unnecessary ambiguity and confusion and often a lack of accountability... Poor organizational design and structure results in a bewildering morass of contradictions: confusion within roles, a lack of co-ordination among functions, failure to share ideas, and slow decision-making bring managers unnecessary complexity, stress, and conflict. Often those at the top of an organization are oblivious to these problems or, worse, pass them off as or challenges to overcome or opportunities to develop. (Corkindale, 2011)

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Appendix A – Project Manager Peer Interview

1. Please provide an overview of your career as it relates to Project and/or Change Management.
 - a. One of my first jobs as an implementation manager at Epic Systems, which was a technical PM role, managing the installation, configuration, training and adoption of Epic software at healthcare facilities worldwide. I still use best practices and techniques I learned in that role. My PM roles continued in the technical and the business space for most of my career and I have stood up and run the PMO as well. Change management was not a buzzword until I was several years into my career. Up to that point, few business users actually interacted with the systems or technology being delivered. For example, in healthcare records were paper and most system applications were text based mainframe systems. One of the key challenges with early Epic implementations was enrolling doctors to use the electronic medical record and interact with the system. Change management became critical as the need for information and process efficiencies drove more business users onto applications. How it is interwoven into projects has been an evolution.
2. How would you define/explain Project Management as it relates to an organization's initiatives?
 - a. Project management is the key to delivering any non-routine / non-repeatable work for an organization. It provides structure, governance and timelines for delivery of items that an organization has never done before or that an organization estimates as a larger or high-risk effort.

3. How would you define/explain Change Management as it relates to an organization's initiatives?
 - a. Change management is necessary to ensure that the organization is ready to receive what a project is delivering and can with minimal disruption adopt the changes. Without change management, there is significant frustration and lost productivity as the intended users struggle to adopt the change. For example, if a company moves locations, they could not expect their employees or customers to show up the day after the move at a different location if the move was not communicated and questions regarding the move answered.
4. From your perspective, are there any variants within the discipline of Project Management? If so, how do you know when a variant is applicable?
 - a. Yes, I think there are variants of project methodology (waterfall, agile, and combinations of both). Which variant is applicable may be driven by the needs of the organization and its culture. High touch, interactive applications need a more iterative approach to truly deliver what the end users need, but that may need to be packaged in a waterfall wrapper if the organization's financial or IT structure requires it. High risk, complex changes may require gates more reminiscent of a waterfall methodology even though the design and features are being built agilely. Fundamental project management skills and goals (budget, quality and timeline) are applicable to any methodology variant.
5. From your perspective, are there any variants within the discipline of Change Management? If so, how do you know when a variant is applicable?

- a. I would not say there are variants so much as a catalog of change management activities and best practices to draw from. Different media channels for communications, interactive townhalls, training, office hours, etc. are different tools of change management that depending on the magnitude or impact of the change can be drawn from. In the location change example, generating early excitement about the move, holding an employee welcome party before the move, up to date communications would all help the team make the move. If the project is delivering new servers, users definitely need to be informed and aligned on the timing, but it would definitely not leverage all of the same tools the move would.
6. Do Project and Change Management intersect or complement each other in anyway?
 - a. Change management should be interwoven into all projects. The extent and number of activities varying as stated above.
 7. How does “Agile” intersect or complement the disciplines of Project and/or Change Management?
 - a. Agile is a variant or style of project delivery methodology. It inherently includes some change management activities as the end users are more engaged in the design and delivery of their outcome. Just using Agile as the methodology does not replace the need for change management to the broader organization and end user base.
 8. In your experience, what drive an organization to adopt an Agile initiative?
 - a. Waterfall failures are one driver to Agile. A company that is comfortable with waterfall may still migrate to Agile for the type of projects that failed using waterfall in the past while still maintaining waterfall as its go-to methodology.

Another driver is the business looking for faster to business value than a traditional, waterfall project. Smaller, potentially high value, changes are often bundled into a release or a larger waterfall project causing something that takes weeks of effort to design, build and test, several months to deliver to the business.

9. What are your thoughts on the work of John Kotter and Clayton Christensen as it applies to Project Management, Change Management and/or Agile Initiatives?
 - a. John Kotter's work is fundamental and reflects how change management has evolved. I am not familiar with Clayton's work outside of disruptive innovations.
10. Are there any other questions, comments, frameworks, or methodologies that should be considered when discussing the previous questions?
 - a. Understanding the organization and its drivers are key to both a successful delivery methodology and adoption of the solution or outcome. Asking questions around the portfolio process, release management and shadow IT will help in understanding if an IT organization is traditionally waterfall or agile. Asking questions about business user engagement, involvement and processes will help in understanding if the business organization is traditionally waterfall, agile or ready for agile. It is important to note that projects can be delivered successfully and their solutions adopted using agile, waterfall or a combination thereof. Understanding the key business and organization drivers will help determine what is the approach that will most likely succeed for a given project.

Appendix B – Project Manager Peer Interview

1. Please provide an overview of your career as it relates to Project and/or Change Management.
 - a. Over the course of my career, I have managed multiple IT projects and programs. From a magnitude perspective, I have managed projects as small as a month to projects lasting over a year. From a funding perspective, the largest project I managed had a budget of \$20M. I have a Certificate in Project Management from George Washington University. Earlier in my career the projects were mostly following a waterfall/traditional method, later in my career the projects were following iterative and/or agile.
 - b. Due to the nature of the projects, I managed, there was typically a significant amount of Change Management that was required along with the technical deliverables.
2. How would you define/explain Project Management as it relates to an organization's initiatives?
 - a. Project Management is a way of coordinating and managing the work needed to successfully deliver enablers (be it technology, process, or other) that are required to effectively deliver an organization's initiatives.
3. How would you define/explain Change Management as it relates to an organization's initiatives?
 - a. Change Management is a way of helping people understand and ultimately adopt process, technology, or other changes that an organization needs to make to meet an objective.

4. From your perspective, are there any variants within the discipline of Project Management? If so, how do you know when a variant is applicable?
 - a. While there are industry standards, there are variants that exist. Most companies have their own twist to the standard methodologies. In addition, some software companies and/or consulting firms have their own flavors as well.
5. From your perspective, are there any variants within the discipline of Change Management? If so, how do you know when a variant is applicable?
 - a. There are definitely different CM methodologies that exist as well. From my experience, the organizations or consulting firms that we had as partners usually dictated which CM approach that was used (e.g. Prosci, Adkar, etc).
6. Do Project and Change Management intersect or complement each other in anyway?
 - a. Yes, see response 1b.
7. How does “Agile” intersect or complement the disciplines of Project and/or Change Management?
 - a. Whether the approach is delivered in an agile manner or otherwise, the relationship to change management, in my experience is similar. Change needs to be planned for, communicated, and supported with reinforcement to be effective.
8. In your experience, what drive an organization to adopt an Agile initiative?
 - a. Two reasons:
 - i. Trendiness of the latest flavor of methodology is the drive in some instances.
 - ii. In others, it is the need to show progress quickly/meet business needs to get something delivered in bite size pieces.

9. What are your thoughts on the work of [John Kotter](#) and [Clayton Christensen](#) as it applies to Project Management, Change Management and/or Agile Initiatives? Not fully familiar with their work, so no specific comment to add for this one.
10. Are there any other questions, comments, frameworks, or methodologies that should be considered when discussing the previous questions?
 - a. From my experience, there is no one size fits all perfect methodology.
 - b. We are now starting to see the shortcomings of agile in a more clear fashion. It doesn't scale well which has led to the introduction of SAFe agile. Which, ironically, borrows a number of ideas from more traditional portfolio/project management.
 - c. Regardless of the methodology, the root cause of many project failures or challenges are related more to organizational issues vs. which methodology/approach was used. For example, lack of strong sponsorship, lack of appropriate funding and so on.

Appendix C – Project Manager Peer Interview

1. Please provide an overview of your career as it relates to Project and/or Change Management.
 - a. I've been in Project Management in some form since I was about 10 years old. I started in event management and stepped into formal project management about 20 years ago. I've been a project manager with a variety of organizations, including government, higher education, non-profit organizations, and private corporations. I've managed special events, conferences, renovations, database design, data migration, software design, software implementation/migration, new product/services, website design, regulatory, and a variety of publication projects.
2. How would you define/explain Project Management as it relates to an organization's initiatives?
 - a. Project Management provides a level of oversight to projects and programs to keep them aligned with organizational values and strategy (influencing up) while also keeping projects moving forward towards completion (influencing across and down). For large or complex projects, having this level of management or coordination is essential to success.
 - b. Companies often employ a Project Manager, a person that is dedicated to making projects happen. But anyone who manages project, whether dedicated to it or adding it to all of their other duties, is employing elements of the project management methodologies.
3. How would you define/explain Change Management as it relates to an organization's initiatives?

- a. Change Management is an element of any project or program. Similar to training, it is often overlooked and that oversight usually results in projects that are poorly implemented or received by end-users. Change Management is present from the very beginning of a project as new resources are brought onto the team, through socializing the project through the company and outside of it, and on into announcing a final successful project close.
4. From your perspective, are there any variants within the discipline of Project Management? If so, how do you know when a variant is applicable?
 - a. Absolutely. Projects are different. People are different. Values and priorities change during a project. There is no magic “one size fits all” solution in project management. I really like the PMI’s Disciplined Agile flow chart for deciding what type of project management style to use, including considering the type of project, time structure, and how the team can work.
5. From your perspective, are there any variants within the discipline of Change Management? If so, how do you know when a variant is applicable?
 - a. Yes, because of many of the same reasons that there are differences in project management. Ultimately, project and change management provide a toolbox to use to make the project successful. I’ll use whatever tools I can to make that happen.
6. Do Project and Change Management intersect or complement each other in anyway?
 - a. Absolutely. From my viewpoint, they are very much related, intersect, and complement each other. Not only can projects benefit from tools from each area, but can often benefit from having specialists from both PM and CM.

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7. How does “Agile” intersect or complement the disciplines of Project and/or Change Management?
- a. Agile is a way of getting things accomplished. I don’t believe that it applies nicely to everything that is a project, but there are absolutely benefits from having an agile structure available.
 - b. Agile intersects and complements Change Management the same way that Project Management does. There are elements of both in both of them.
8. In your experience, what drive an organization to adopt an Agile initiative?
- a. Often it is the lure of “faster, better, more with less.” There is also a huge pressure globally for business to adapt to new things faster and Agile is usually sold as being a perfect response to that.
9. What are your thoughts on the work of John Kotter and Clayton Christensen as it applies to Project Management, Change Management and/or Agile Initiatives?
- a. I agree with Kotter’s “both and” take on needed changes in management. The structures we have (waterfall) and the structures we want (agile) have their strengths and aren’t mutually exclusive. The trick is to apply them where they work the best.
 - b. Christensen offers an interesting point that sometimes you need to look at an issue from a different point of view – for instance, teaching that executive how to think rather than telling him what to do. Sometimes in Change Management, you don’t smack the issue head-on. You provide allegories, parables, or other story-telling techniques to help people look at things from a different point of view before providing them the information you NEED them to process or accept. Part of this

is politics, or human behavior techniques, but its all present in project and change management.

10. Are there any other questions, comments, frameworks, or methodologies that should be considered when discussing the previous questions?
 - a. I do recommend “How to Choose Your WoW” by Scott Ambler and Mark Lines, which is the guidebook for PMI’s Disciplined Agile.