

# How to let Agile thrive in a Virtual Environment

One of the principles of the Agile Manifesto emphasizes the importance of co-located teams collaborating actively. Collaboration is still as valuable as ever but 2020 is forcing us to revisit how to achieve the benefits of co-location without the co-location. The good news is that much has changed since the Manifesto was written which has created some answers to how to enable the benefits of being Agile. Here's what you can do to allow [Agile to Thrive in a Virtual Environment](#).

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## How to Allow Agile to Thrive in a Virtual Environment

by Bryan Campbell and Bhavik Modi

Flashback to our digital lives in 2001 – Netflix was still mailing DVDs, Google was just getting started and Twitter, YouTube and Facebook didn't exist. At the same time, only 50%<sup>[1]</sup> of people in the United States had cell phones and the iPhone was 6 years away. It was during these times that 17 software developers came together in Snowbird, Utah and created what they called the [Agile Manifesto](#), a set of values and principles that would drive a revolution in how organizations and teams worked together to deliver business solutions.

Since the advent of the Agile Manifesto in 2001, practitioners have emphasized the importance of teams working together, side-by-side delivering valuable products for their customers.

This is typically referred to as co-location and the benefits of teams working in the same location are numerous, from developing trust as they learn more about each other, to learning from “osmosis” as they hear colleagues collaborating to seeing shared goals and progress metrics through highly visible information radiators.

Collaboration is still as valuable as ever but 2020 is forcing us to revisit how to achieve the benefits of co-location without the co-location. The good news is that much has changed since the Manifesto was written which has created some answers to how to enable the benefits of being Agile. Here's what you can do to allow Agile to Thrive in a Virtual Environment.

## **How to Enable Virtual Co-Located Teams**

The first value of the Agile Manifesto states “Individuals and Interactions over Processes and Tools”, however, remote Agile teams are going to need effective technology or tools to emulate a co-located experience. Fortunately, technology and accessibility have improved significantly since the Agile Manifesto was developed and a number of options available today are free or low cost. As a leader, it is important to check to ensure that your team has access to core enabling tools to facilitate work management, brainstorming and ideation.

It's likely your team interactions in a virtual environment are going to need some enhancements particularly during this extended time of remote work. Here are some areas that you should focus on and some starting technologies to consider:

Team Enablement Area	Intent	Technology Options
<b>Planning</b> Tools allow for better communication, visibility and progress	Agile emphasizes bringing the entire team together to understand and estimate the work that needs to be completed. This includes standard work management products like Jira, Rally and AzureDevOps (ADO) but also includes considering ideation tools like Mural, Conceptboard and Stormboard.	<a href="#">Conceptboard</a> , <a href="#">Stormboard</a> <a href="#">Mural</a> <a href="#">Jira</a> <a href="#">Rally</a> <a href="#">ADO</a>
<b>Daily Stand-ups and Team Communication</b> Tools promote asynchronous collaboration and ad-hoc interaction	Ensuring the team is actively communicating and collaborating is the cornerstone of a high performing Agile team. Remember one significant shift for many teams will be adjusting to more “asynchronous” communication so look for tools that keep a record for those that weren’t able to actively participate.	<a href="#">Discord</a> <a href="#">Slack</a> <a href="#">Notion</a> <a href="#">Getfeedback</a>
<b>Reviews and Demos</b> Tools showcase working products – allowing customers to “see” the solution and experience it to provide feedback	It’s important to step beyond basic phone calls to create a robust co-located experience. Video enabled conferencing solutions helps teams see one another as they collaborate which is an important dimension of human connection. However, don’t forget to give teams permission to take a break from their video use. Some <a href="#">studies</a> have shown that using Zoom for extended periods contributes to fatigue, the intense focus on words and sustained eye contact is exhausting not to mention seeing your own video heightens awareness of our facial expressions which is mentally taxing.	<a href="#">Zoom</a> <a href="#">WebEx</a> <a href="#">Skype</a> <a href="#">BlueJeans</a>
<b>Retrospectives</b> Tools encourage a safe environment to reflect, learn and improve	Teams should be actively considering what’s working for them and what do they want to improve. This will be particularly important as they adapt to working remotely.	<a href="#">Retrium</a> <a href="#">Scatterspoke</a>

*Clickable Links at end of article*

# Create Your Agile Working Agreements

As teams shift to remote work, team members and companies will need to reconsider many of their working agreements. Team members will need to discuss how they want to engage using Zoom and other tools including what their expectations are in regards to responding to messages and video conferences. This might mean considering whether to invest in high speed internet, efficient and ergonomically appropriate work spaces and considering how to minimize distractions (including your chatty Macaw) from affecting your productivity. It might also be necessary to create some working agreements in your household on how to manage noise levels and interruptions and possibly some personal working agreements on stretching and the frequency of your visits to the pantry. Companies should reconsider how to their onsite gyms and offer memberships to Peloton or Steezy, instead of onsite cafeterias look to DoorDash or UberEats and start tracking the benefits to the environment of not having your employees driving to work.

# Are We Having Fun Yet?

Agile also emphasizes creating a work environment that included having fun as a way to keep teams engaged. Ice cream retrospectives, jigsaw puzzle areas and plushy talking sticks are signals that this is an Agile team, so how do you insert fun into a virtual team setting? Once again there are some interesting options that have emerged that teams can consider. Try using one of the [Jackbox.tv](https://jackbox.tv) games that are easy to learn, team-oriented games accessible from phones, tablets and computers. Consider a virtual happy hour with the team and encourage everyone to share what they brought to the party. Another idea is a multi-player jigsaw game or maybe even create a Guild in an online game like [World of Warcraft](https://www.worldofwarcraft.com). You can even invite a llama to a team meeting through [Goat-to-Meeting](https://goat-to-meeting.com) and support a community farm. Encourage the team to offer their own ideas too.

## Three Moves You Can Make Tomorrow

It's time to accept that Agile can and will work in a virtually distributed environment, so now you need to decide how to get the most out of it.

1. **Create Your Agile Technology Stack:** Start with engaging your team and check to see if they have all the tools necessary to work effectively remotely.
2. **Enable Your Team's Working Agreements:** Create Working agreements with the team on how to engage with these tools and expectations on when and how frequently they should be used. Also teams need to check how they are setup in their home both from a technology and an ergonomics perspective. Small investments in keyboards, chairs and lighting can have big returns in productivity for companies and ergonomics for people.
3. Lastly and most importantly **Don't Forget the Fun!**

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[1]

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<b>Team Enablement Area</b>	<b>Technology Options</b>
<b>Planning</b> <i>Tools allow for better communication, visibility and progress</i>	<a href="#">Conceptboard</a> <a href="#">Stormboard</a> <a href="#">Mural</a> <a href="#">Jira</a> <a href="#">Rally</a> <a href="#">ADO</a>
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<b>Reviews and Demos</b> <i>Tools showcase working products – allowing customers to “see” the solution and experience it to provide feedback</i>	<a href="#">Zoom</a> <a href="#">WebEx</a> <a href="#">Skype</a> <a href="#">BlueJeans</a>
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# Remote First: Creating Resilient Organizations

One by-product of an increasingly global and interconnected world is the exponential increase speed of change and the feeling of constantly being in a state of crisis. How can companies thrive during in an environment of continual crisis? The answer is developing resilience and one important step is developing a Remote First organization structure. Learn more about this idea by reading: [Remote First: Creating Resilient Organizations](#) with my co-author Bhavik Modi.

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# Remote First: Creating Resilient Organizations

## Thriving in a Time of Continual Crisis

By [Bryan Campbell](#) and [Bhavik Modi](#)

The screen unfolds to images of the world reeling from a global airborne virus, Russia and the Middle East are locked in a no-blink oil price war and the most stable countries in the world are roiled by social unrest and riots. This isn't the start of a Hollywood blockbuster, it's the beginning of 2020. To describe this as "living in interesting times" would be an understatement and none of these events were anticipated

by any of the leading forecasters. In fact, Deutsche Bank recently released a report that estimates a 33% chance of a global disaster larger than Covid-19 occurring in the next decade[1].

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It illustrates that these crises not only can't be forecast but that we are moving into an age of continual crisis (the Australian and Brazil fires, Brexit and the Hong Kong protests already feel like distant memories).

However, the progressive advancement of technology, has created a new way for organizations to create the resilience they need to adapt to this business reality. Much has been said about individual resilience but organizations need to build their own muscles for resilience as they go through change. Instead of reacting to disruptions by shifting people and functions into a remote delivery model, it's time for organizations to take a **Remote First** approach and re-create themselves to operate as an efficient, disruption-proof organization. Remote first not only creates a responsive, adaptive means to respond to crisis it also drives down costs, increases talent reach and helps improve the environment.

## The Time is Now

One of the most significant changes for millions of people in 2020 has been the shift to working remotely. Countless articles, blogs, and videos have emerged chronicling the change from driving to the office to joining Zoom meetings in your living room. Remote working has helped organizations reduce costs, improve the environment and increase employee morale and yet none of this is particularly new. Technology and infrastructure shifted seamlessly into this new model and validated the push to cloud-based products and investments in network security (Zoom was able to respond to the rapid

increase in demand through their use of Amazon and Oracle Cloud services). The good news is that the time is ripe for this, 96% of all Americans have a cell phone[2] and 79% have home broadband services[3] and almost every major software solution has a cloud based, subscription offering. Worker

**In 2020, 96% of all Americans have a cell phone and 79% have home broadband services**

attitudes towards remote work have shifted significantly with 99% expressing an interest in working remotely at least some of the time for the rest of

their career[4]. With these forces all converging, first mover organizations have an opportunity to leverage these trends to their competitive advantage.

## The Benefits Are Real

Creating a Remote First organization unlocks powerful competitive advantages for companies that rapidly adopt this approach. Corporate offices served an important function when communication was primarily limited to face-to-face interactions but it also limited the ability of companies to hire talent outside the commuting distance of their office. With a Remote First strategy organizations can now attract talent anywhere in the world and there is little doubt that these are an organization's most valuable asset. Having the ability to access talent outside of a 50 mile radius of your corporate office increases and deepens your talent pool. It also has a residual effect of reducing pollution and demands on public infrastructure. It is estimated that CO2 emissions dropped by 17% during the pandemic[5] a significant portion of which was due to reduced vehicle traffic. This might be an important answer to the problem of climate change which will also resonate with new employees entering the job market.

However, there are also powerful bottom line cost saving benefits too. Commercial real estate costs had been increasing for 9 years at the end of 2019[6]. These prices have undoubtedly changed in 2020 but the fact is that providing corporate real-estate is a significant line item on the balance sheet of every company. Organizations can now re-think their investments in sprawling campuses and the high end furniture and consider where to direct that spending.

## **Start with the Culture**

Moving to a Remote First approach needs to support your organization's people as they adjust to this working environment. Remote working isn't about the technology, it's all about the culture. It takes real organizational commitment to unlock the potential of people working remotely. This is an important piece of the fabric of a resilient and adaptive organization and the cornerstone of a Remote First strategy. Remote First means thinking of how to deliver the value of your organization without a centralized office. To do this you need every person in the organization to understand the commitment to working remote and ensuring they are enabled to work this way. This means promoting and rewarding individuals that are working remotely and creating career paths they can pursue to increase their skills. It also means finding ways to keep remote workers invested in the organization even as they have fewer of the reminders that they had when they were working in a corporate office. This could mean providing corporate Zoom backgrounds, green screens, branded mousepads and other reminders of the company. The organization will need to protect the mental health of its works such as affirming its commitment to the benefits of vacation for example. Since remote workers can work anywhere it's easy for them to bring their laptops on vacation and adjust their schedules to stay connected. It's important to support the need for constructive breaks from work to re-charge and re-energize. Remote First organizations

will need to re-assess their corporate values and ensure these align to this new way of working.

## Support Your People

People are the first consideration in moving to a Remote First experience. What does human connectivity and community building look like when people are working remotely? While technology and accessibility have improved significantly over the last decade it hasn't completely replicated the experience of working together. Organizations need to consider how to recreate these experiences in a remote environment. The introduction of more accessible video conferencing has increased human connection when working remotely and the ability to connect anytime/anywhere has extended the work environment into a wide range of spaces. Now organizations need to consider how to create boundaries for their employees between work and their personal lives and support their mental health in this space. One way is to encourage employees to “unplug” periodically and to create their ideal work environment in a way they couldn't in a more traditional work setting. This might mean working on their patio or even moving to a different location now that people are unencumbered by travelling to an office.

**Organizations need to create boundaries for their employees between work and personal lives.**

Remote work also introduces both a potential benefit and challenge; asynchronous communication[\[7\]](#). Ensuring your teams have a means to communicate even if they are not able to meet at the same time is critical. Persistent “chats” are increasingly becoming a necessary part of the technology required for remote workers including some, like [Automattic](#), abandoning email with [a micro-blogging platform](#) that gives access to ideas and threads that would have been locked away

Asynchronous communication enables team members in different time zones to participate in conversations and research has shown it tends to be accompanied with greater thought and rationale.

in inboxes. Asynchronous communication enables team members in different time zones to participate in conversations and research has shown it tends to be accompanied with greater thought and rationale. However,

this doesn't remove the need for more traditional synchronous communication through Zoom meetings which build relationships, align multiple parties and are a better way to discuss sensitive topics.

There are other challenges that companies will need to prepare for as they move to this model. One concern is managing the health of your employees particularly as they begin their shift to permanent remote working. Ensuring safe and ergonomic work environments will be a shared responsibility of companies and their people.

## Rethink Your Company

With Twitter recently announcing that its employees will be working remotely permanently[8] it must lead Microsoft and Amazon to question their billion dollar investments in creating [Spherical Greenhouses](#) and [Tree Houses](#) for their staff. However, Twitter is not alone, Fortune recently surveyed CEOs and learned that more than 25% of their workforce will never return to the office opting to work remotely[9]. Prior to the pandemic there was increasing interest in Zoomers and Millennials to have more flexibility in their work location. Now most large companies are starting to re-evaluate their investments in sprawling campuses with exercise facilities and cafeteria dining. In the past these investments were important to establish work environment that

created 'collisions' that spurred creativity and ideas. Now organizations need to consider creating these in a virtual world. Some ideas include investing in Artificial Intelligence (AI) that looks at people and their work and connects them to foster creativity.[\[10\]](#)

So what should organizations offer remote workers if they can't provide tree houses and fitness facilities? These perks can still be extended to staff but in different ways, virtual exercise classes like [Peloton](#) or [Steezy](#) are low costs ways to encourage healthy behaviors and providing Door Dash coupons, Amazon gift cards and high-speed internet expense allowances can offer the same benefits of onsite cafeteria but with more options.

## Reimagine Your Future

As Satya Nadella recently stated[\[11\]](#) organizations will progress through three phases as they deal with the pandemic: respond, recover and reimagine. Most are rapidly progressing through the respond and recover stages but now is the time to start re-imagining the future. Remote First is one of the first compelling visions of what that re-imagined future might look like. It's time for every organization to start investing in how to enable and support their move to a Remote First structure.

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# Which is the Best Agile

# Certification for you?

In this age of rapid business acceleration, Agile is an answer for organizations struggling with how their traditional methods of Project Management are responding to change. Since, many organizations are looking for agile knowledge and experience to help them adapt their traditional methods, Agile certifications are an important way professionals can enhance their career opportunities so they can be part of this rapidly growing area. Agile certifications provide career advancement, salary and promotion opportunities so they're a great way to invest in your future.

There are a lot of Agile certifications available and it's important to pick the right one so you can get the most for your time and money. Here is a short overview of the top 3 Agile certifications so you can pick the one that will help you the most.

[Read Article](#)

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**Requirements and Analysis:  
Techniques and Tools  
(article)**

# The Requirements Discipline

## Requirements Drive Development: A Use Case-driven Process

*As stated in previous posts and in articles like [Real World Development Practices: RUP and XP](#) , I apply much of Craig Larman's UP style and its emphasis on rightsized, "essential" use cases, which then collectively act as a lynch pin that links together the disparate disciplines of Business Modeling, Requirements, Analysis and Design, Implementation, Test and Project Management. Furthermore, achieving success with use cases is more difficult than it first appears, and many pitfalls in usage await the inexperienced practitioner. Consistent application of the techniques espoused by Alistair Cockburn's de facto standard for [specifying use cases and structuring them in relation to goals](#), which provides a repeatable, traceable discipline for use case development and maintenance.*

## Executable Requirements: Aligning Requirements and Development

*These days I particularly like the idea of 'Executable Requirements' (XR) to capture requirements. This approach has the benefit of not only enabling the Pull method described above but they also ensure that software developed matches the specifications provided. XR basically provides a mechanism where a requirement is captured in a 'pass/fail' style using an Excel or HTML table to define the requirements. The power of this approach is that it not only moves requirements out of the fuzzy, prose style that can plague use cases (and which is why use cases have so many sections) but also allow a team to automate a series of tests that demonstrate that a requirement has been 'fulfilled'.*

*For those of us with a testing orientation we can immediately see the opportunity to regress through all of our*

tests every iteration and ensure that new changes don't break old functionality. There's a lot to this subject and something that I'll update on more in the future but there are some good reference sources for this such as the [Fitnessse wiki](#) and Ward Cunningham's [Functional Integration Testing \(FIT\) Framework](#).

## **Managing Risk and Non-functional Requirements (ATAM, EVO)**

*Addressing Non-Functional or Supplementary Specifications is often a neglected component of software development. Notable references in this area are Tom Gilb's iterative [EVO](#) method, which emphasizes full and careful definition of non-functional requirements (which Gilb calls "attributes" leveraging his Planguage approach) and [SEI's ATAM](#) (Architecture Tradeoff Analysis Method) methodology. Documentation of all significant architectural decisions – a component of the ATAM approach – as a key mechanism for reasoning about and justifying choices between architectural options. This fits well with leveraging risk analysis as a major driver of iteration plans.*

## **Early, Continuous Delivery of Business Value: Complementing the Risk Driver**

*The agile methods complement UP by providing an important emphasis, not only on risk reduction, but also on the [early and continuous delivery of business value](#). Hence, a full iterative development discipline has two drivers: delivery of useful functionality and management of risks. The use case-driven approach, when combined with non-functional drivers and the dispatching of work into developer tasks provides tangible evidence of progress to the business at each iteration's end. (See some of the [XP](#), [EVO](#), and [FDD](#) links for further details.)*

# The Analysis Discipline

## From Use Cases to Developer Tasks

*The Larman method takes analysts and designers through a series of simple intermediate steps leading up to operation contracts on a system or service level interface. In accordance with [Agile Modeling](#) [below], intermediate artifacts need neither be formally developed nor maintained if the ceremony level of the process does not warrant it. I also believe strongly in a “pull”-driven approach to developer task definition, a key element in [Lean Programming](#).*

## Applying Analysis Patterns to Streamline Design

*I encourage analysts to leverage [Martin Fowler's Analysis Patterns](#), rather than reinvent the wheel. This emphasis provides synergy with the product line process mentioned later, and also opens the analysis up to alignment with standardized vertical models such as well defined reference models (e.g. Insurance Application Architecture). Another useful source of such patterns is [Penker and Eriksson's book](#).*

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# Discipline by Discipline: Requirements

As many who follow my blog entries and have read my articles know, I use the Unified Process as framework to manage projects and programs. While the phases of the UP (Inception, Elaboration, Construction and Transition) are powerful ways to manage the risk and narrow the [‘cone of uncertainty’](#) of a

project, I find the disciplines within the Unified Process as useful containers for ensuring roles are established and that artifacts are being developed that will support the project.

However, beyond the phases and disciplines I find most of the artifacts and activities as too abstract for effective application in most real world projects. Instead, I mix in a series of techniques that I have applied successfully and found round out the details of each of the disciplines with RUP. This first article focuses on the top of the “V” model, Requirements and Analysis.

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## **A Unified Approach to Agility (Article)**

With the increasing interest in Agile techniques such as Scrum and XP, I often come across clients and project managers assuming that these approaches alone are sufficient to ensure the success of their projects. In actuality, the [Agile Principles](#) are really a value system that help contribute to effective behaviors on a project. None of the agile techniques recommend dispensing with the well defined practices that govern effective project implementations such as risk, scope and change management (amongst others). In fact most of the Agile techniques found in current literature are intended to work within existing frameworks and metamodels, without which your projects won't succeed.

When I develop project plans and teach project management approaches, I frequently turn to the Metamodel offered by the

[Unified Process](#). What I like specifically about the Unified Process is that it breaks a project into four phases (**Inception, Elaboration, Construction and Transition**) that have clear entry and exit criteria that are easy to manage against. In addition the phases are well defined and relatively intuitive to most people (**Inception** involves scoping and structuring the project, **Elaboration** focuses on de-risking the project and developing an Architecture, **Construction** emphasizes the rapid development phase of the project and **Transition** focuses on readying the application for deployment).

The UP also contains a number of useful '*disciplines*' which reflect major workstreams in a project lifecycle. **Business Modeling, Requirements, Analysis and Design, Implementation, Test and Deployment** ebb and flow across the project lifecycle while **Project Management, Configuration/Change Management and the Environment** disciplines are focused on supporting the lifecycle in its entirety (these latter are found in the IBM version of the Unified Process called the [Rational Unified Process](#)).

The popularity of the Unified Process is reflected in its evolution into a number of forms including the [Agile Unified Process](#), [Enterprise Unified Process](#) and even the [Oracle Unified Process](#). IBM recently released an open source version called [OpenUP](#) which is based on its popular Eclipse [Process Framework](#).

Over time I've come across a number of agile/lean techniques that support the disciplines I mentioned above and enhance these disciplines to make them more effective. Over the next few postings I'll offer a walk through on a discipline by discipline basis on each of these techniques.

## **Discipline by Discipline**

[Requirements and Analysis](#)

[Design](#)

Development

[Testing](#)

[Project Management](#)

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[Read the article](#)

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## Project Iteration Routemap

The Iteration Route Map is a tool that identifies what functionality will be delivered in each iteration of a project. As the name suggests it acts as a map that project

stakeholders can reference in order to anticipate how the application will develop throughout its lifecycle. The Iteration Route Map is primarily used by the **architect** and **development team** to manage *analysis and design* and *implementation* activities throughout the project but every team member and stakeholder will find value in reviewing it once completed. The template comes with instructions and examples.