

The Virtual Workspace Architect's Guide

**How to Design and Build a Workspace to Support
Remote Collaboration for Your Team**

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Introduction

This guide is designed for information professionals who have suddenly found themselves working remotely without a platform or structure in place to support them. It is for those of us who are suddenly working from home when we were used to working with our team in an office. It's for those who are taking up new types of work, because what we used to do isn't possible at the moment. It's for anyone who is feeling that they've maybe got the hang of meeting remotely, but is still aware of a painful lack of collaboration and connection with their team.

It's also for people who are joining a team for the first time and have to figure out how to onboard remotely. It's for their teammates and managers, who want the new person to feel welcome and come up to speed, but aren't sure how to make that happen in the distributed environment we find ourselves in. It's probably less useful for established remote teams in big organizations that already have virtual workspace tools in place, though those folks might pick up a tip or two.

Now that we've gotten our brains around how to meet virtually, we need to figure out how to collaborate remotely, which is an entirely different thing.

This guide shows you how to build, with and for your team, a workspace that supports remote collaboration. What will your team's virtual workspace look like? How will it support full collaboration while building on the ways your team prefers to work? How can you select and introduce tools that stick—ones that truly support what your team needs to do and the way team members prefer to work?

Throughout this guide, you will explore those questions. We'll start by investigating the essential nature of a workspace designed to support remote collaboration. We will discuss why it absolutely must offer visual support for group work and review the small set of universal, non-negotiable workspace requirements.

Then we'll collect some data about your team's needs that will inform your workspace design. After that, we will create a plan that involves the whole team in deciding what is most important and setting the pace of the work. Finally, we will build the blueprint for your team's unique workspace.

When you have worked through this guide, you will have a complete plan for action including a design for a supportive virtual workspace that will facilitate remote collaboration and a set of steps you can take on your own and with your team to create it. Building your team's perfect workspace will take time and effort, and probably some trial and error, but in the end you will love the results.

About the Author

An experienced facilitator, trainer, and project manager, **Rachel S. Smith** has worked with teams from diverse industries (software, manufacturing, healthcare, education, business, and others) at all levels, from front-line staff to executive leadership. Over the past two decades, Rachel has designed and facilitated hundreds of remote and face-to-face meetings addressing topics from workflow improvement to company-wide vision and strategy setting. Rachel is particularly adept at helping diverse groups reach consensus on difficult decisions. She writes about facilitation and remote collaboration at digitalfacilitation.net.

Author's note. Throughout this guide, I have chosen to use the gender-neutral pronouns and possessives 'they,' 'them,' 'themselves,' 'their,' and 'theirs' when referring to nonspecific persons of any gender, whether as individuals or as groups.

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Templates and tools to accompany activities in this guide may be downloaded at digitalfacilitation.net.

Chapter 1. The Workspace Your Team Deserves

What does a *virtual workspace* look like? Perhaps the phrase calls to mind a 3-D virtual world or an integrated enterprise content management platform. Or maybe your vision is a collection of small, modern tools, web-based and seamlessly integrated with one another.

In reality, your team's virtual workspace will be a collection of the tools that serve the team best. Some teams will have more tools. Some will opt for larger, more integrated solutions, and others will be happy with a mix of independent tools that don't even talk to one another.

You can think of the virtual workspace as a technology platform: a collection of tools that provide the support your team needs in order to collaborate. It's important to build a robust platform that does what you need, but otherwise the particular platform—or set of tools—doesn't matter: what matters is that everyone on the team shares the same set.

Before you rush out and subscribe to a bunch of tools, take time to consider what your workspace actually needs to support.

Think of the virtual workspace as a collection of tools that provide the support your team needs in order to collaborate.

A Virtual Workspace is More than a Meeting Room

I've written elsewhere¹ about virtual meetings and best practices for remote facilitation. Often when we think of working virtually, we think about remote meetings; and there is certainly a lot to be done to make that experience better. However, improving your virtual meetings is not going to address all the challenges that impede remote collaboration. Meetings happen *in* the virtual workspace, but the workspace is not built *of* meetings, so virtual meetings are definitely not our only consideration.

Information workers are engaged in complex collaborative work, which requires teams to work interdependently toward a shared goal that is beneficial to their employer and takes time to accomplish. Time-bounded projects, ongoing organizational support tasks, research and development, visioning and strategy are all examples of complex collaborative work. These are multifaceted, long-term efforts undertaken by groups of people who need to work together to get things done.

Meetings may punctuate a team's calendar, but the main body of the work flows around such scheduled events. The workspace you build must support the meetings your team needs to have, but it must also support the complex collaborative work that the team does together, while physically separated.

Essential Collaboration Processes

Often when remote teams form, people choose their own tools as they go, and soon the team is grappling with a mishmash of technologies, each of which is only understood well by one or two people. One of the most powerful changes a distributed team can make is to spend time aligning on the tools and processes that make up their virtual collaborative workspace.

It's tempting to start by shopping for tools. There are beautiful, functional web-based tools for calendaring, task tracking, collaborative editing, kanban systems... you name it, there's a tool for it. But don't start there.

¹ See digitalfacilitation.net, my blog about remote collaboration and virtual facilitation.

Instead, think about the processes your team needs to engage in. What do you actually do together? Then consider your team's unique profile of preferences, and think about how your team's preferences will influence the features they will find most useful in tools that support those processes. This way, you will be sure that your tool choices support your team's needs, rather than your team having to adapt to imperfect tools that looked good when you saw the demo. We'll go through those steps in phases one and two of building your workspace.

For now, take a moment to review the following list of basic collaboration processes that most teams use and the possible features that would support them. Not all of the listed features will be necessary (or appealing!) to everyone, and your team may want features not listed here.

Basic Collaboration Processes

- *Calendaring.* Look for features like polling for availability, flexible views (month, week, day, agenda), publishing working hours, different visual displays (color coding, Gantt chart view), the ability to check the whether invitees are available, sharing calendars, and sending meeting invitations.
- *Informal social communication.* Look for easy-to-use social networking tools that are available for desktop and mobile, allow users to set notification preferences, give users control over who sees their contributions, and support images, links, and videos.
- *Instant text communication.* Look for features like multiple party chat (more than two people in one channel), persistent chat records, file sharing, desktop and mobile clients, and status indicators (e.g. free, busy, traveling).
- *Quick video and audio meetings for small groups.* Look for features like contact lists (so you can enter your teammates' information and have the system send them invitations), quick start (so you don't need to schedule the meeting in advance), recording, screen sharing, the ability to give presenter or host control to anyone in the meeting, security features like waiting rooms and lockable meetings, and auto-answering of incoming calls.
- *Large-group meetings.* Look for support for the size group you normally have, then add five to that number in case of guests. Recording, screen sharing, and breakout groups are also desirable features.
- *Creative or brainstorming meetings.* Look for visual tools that let all participants create information. You might want a card or kanban system, a corkboard, sticky notes, color coding of cards or notes, the ability to dot vote or poll for interest, an exporting feature (to spreadsheets or other documents), the ability to upload graphics to create templates, and the ability to contribute anonymously or with attribution.
- *Project planning and tracking.* Look for color coding, multiple views (Gantt chart, card display, spreadsheet, or other), fine-tuned authoring control (setting permissions to edit, view, share, and so on), the ability to track multiple projects, data import and export capabilities, and the ability to link to other systems or documents.
- *Information archiving and retrieval.* Look for systems that let you organize files in a way that makes sense for your team. Other good features are folder-level permissions, multiple ways to access the information (web, desktop, mobile), version history, automated backups, file previews, import and export of data, and plenty of storage space.
- *Specialized processes based on your team's type of work.* This will obviously vary depending on what your team does, but if you have an internal system that isn't available to remote workers or, in extreme cases, a system that is entirely paper-based, you might want to look for a tool to make that process available remotely.

The Non-Negotiable Workspace Requirements

Now that we've considered some of the most common collaboration processes, let's map the ones your team particularly needs.

Think of a co-located team that engages in collaborative work. What is required for them to succeed? Interaction among team members is necessary, obviously. A shared understanding of the objectives or desired outcomes of the work is vital if team members are to know whether or not, or when, the work is complete. The team also needs a working environment that every team member can access and use, as well as a way to keep track of work that has been done, is in progress, or has yet to be done. None of these requirements is surprising. Almost all of them are routinely provided to co-located teams when they are asked to do complex collaborative work.

Yet when a team that is not co-located engages in complex collaborative work, many of these requirements are not adequately supplied. We assume that because people can email one another, the requirements for interactions are fulfilled. We assume that because the outcomes or objectives are clear to some people, they must be clear to everyone. We imagine that as long as a manager knows what each person is working on, the requirement for being able to track work is taken care of. We assume that everyone has their own working environment and that it will be set up as needed, or we assume that because everyone is remotely located, there is no need to think about a working environment at all. No wonder remote teams find it so hard to collaborate!

Let's take a closer look at these four workspace requirements, and what happens when they are not met.

The Four Non-Negotiable Workspace Requirements for Remote Collaborative Teams

1. Interactions among team members (both formal and informal) need to be easy and reliable.
2. The workspace must support a shared understanding of objectives or desired outcomes.
3. The workspace must provide shared visual tools that everyone can access.
4. There must be a clear way to track work, accessible to everyone on the team.

When one or more of these requirements is unmet, collaboration suffers.

Requirement 1: Easy and reliable interactions.

In a supportive physical workspace, we can easily imagine many opportunities for team members to interact. Dropping into one another's offices or meeting in the halls, they can exchange updates, ask questions, and enjoy social conversation. In small group spaces they can collect around a whiteboard or sit together at a table. They can pin notes to bulletin boards for absent colleagues, leave sticky notes on desks, hand objects to one another, shake hands. The supportive virtual workspace also needs to provide for these types of interactions.

Such interactions involve pairs, small groups, synchronous exchanges, and asynchronous exchanges. All of these need to be supported for remote teams, and the teams need to know how and when to participate in each type of interaction. If a team's workspace does not support needed interactions, team members will have a harder time building connections with one another. As a team, they may experience disorientation and lack of trust because they are struggling with unclear information and poor communication.

Let's make sure your team's workspace supports the types of interactions your team needs to have. Start by identifying the kinds of interactions your team needs or prefers to engage in, and then decide together how you will agree to handle each type. For example:

- One-on-one or small-group synchronous or asynchronous social chats are useful for exchanging greetings, personal information, and location or availability updates. They can be enabled by instant messaging or chat platforms that give users the freedom to wander from strictly work-related dialog.
- Small group asynchronous social chats can also be supported by social networking platforms already used by the team, as long as everyone feels comfortable connecting with colleagues that way. In cases where employees would rather keep social networking channels separate from work, choose a new tool specifically for team conversations.
- Synchronous or asynchronous status updates, often handled via email, can be more effective if posted to a central information hub or other group space.

These are just a few examples. Your list will likely be longer. Use the planner on the next two pages to review your team's interactions—current and desired—and the types of tools that support them.

INTERACTIONS PLANNER, Page 1

This chart is not exhaustive and you may want tool types not listed here.

Your Team?	Number of People	Timing & Purpose		Examples	Look for Tool Types
	2	Synchronous & Social		• coffee breaks • greetings • personal exchanges	• audio conferencing • instant messaging • video conferencing
		Synchronous & Professional		• mentoring or coaching • quick work-related questions • joint decision-making • performance reviews • goal-setting	• audio conferencing • co-browsing • document sharing • instant messaging + • video conferencing • screen sharing
		Asynchronous & Social		• personal exchanges (between individuals)	• instant messaging • social networking • texting
		Asynchronous & Professional		• updates between partners • non-urgent requests for information • meeting requests • collaborative work	• document sharing • forums • group chat • team messaging +
	3-5	Synchronous & Social		• coffee breaks • personal check-ins	• audio conferencing • group chat • video conferencing
		Synchronous & Professional		• mentoring or coaching (groups) • small-group status updates • small-group meetings	• audio conferencing • co-browsing • collaboration spaces • collaborative documents • document sharing • group chat + • video conferencing • screen sharing
		Asynchronous & Social		• personal exchanges (team or subgroup)	• forums • group chat • social networking • team messaging
		Asynchronous & Professional		• small group project/status updates • non-urgent requests for information • scheduling/calendaring • collaborative work	• collaboration spaces • collaborative document editors • document sharing • forums • group chat • project management • scheduling • shared calendars • task management • team messaging +

INTERACTIONS PLANNER, Page 2					
<i>This chart is not exhaustive and you may want tool types not listed here.</i>					
Your Team?	No. of People	Timing & Purpose		Examples	Look for Tool Types
	5+	Synchronous & Social		• coffee breaks • shared meals • group bonding • games • team rewards	• audio conferencing • group chat • team games (synchronous) • video conferencing
		Synchronous & Professional		• team meetings and retreats • setting team norms • whole-team updates • strategy and visioning • team development	• audio conferencing • breakout groups • call recording • co-browsing • collaboration spaces • collaborative document editors • decision-making • document sharing • group chat + • screen sharing • video conferencing
		Asynchronous & Social		• personal exchanges (team) • team games	• forums • group chat • social networking • team games (asynchronous) • team messaging
		Asynchronous & Professional		• project/status updates • location or availability updates • non-urgent requests for information • scheduling/calendaring • collaborative work	• collaboration spaces • collaborative document editors • document sharing • forums + • group chat + • project management • scheduling • shared calendars • task management • team messaging +

+ Look for tools that offer archiving as a feature.

This two-page worksheet comes from The Virtual Workspace Architect's Guide by Rachel S. Smith. © 2020 Rachel S. Smith. It may be printed or copied for personal use or for use with your own team.

Requirement 2: Support for shared understanding of objectives or desired outcomes.

This requirement is often assumed to be in place when it isn't, even in face-to-face teams; so it isn't surprising that remote teams commonly miss it. Team members who understand how the work they do on a daily basis furthers the organization's goals are better able to contribute to the success and efficiency of the business. Understanding and committing to a shared vision and goals helps create a joint sense of purpose on the team.

If the goals and vision are already defined, it may be a matter of making sure everyone knows and understands them, and ensuring that they are accessible in the team's knowledge base. Post and store the goals and vision such that they are easy to access and review as needed. When new members join the team, their onboarding process should include an orientation to that information and where it resides.

If the goals and vision are unclear, or if the team is operating with a vision and goals that belong to the larger organization or department but not specifically to the team, invest some time in defining a vision and set of goals just for the team. They should support the departmental or organizational goals and their connection to those objectives should be clear.

Jointly setting the team's vision and goals is a powerful way to link remote team members with headquarters, get buy-in on the team's direction, foster ownership and trust, and send a message that the team's work is valued. Teams that omit this requirement often struggle with disorientation, lack of clarity, difficulty coming to agreement, and ineffective action.

See the section *Creating a Team Knowledge Base* in Chapter 5 for ideas about setting up and maintaining an information archive if your team doesn't already have one in place.

Requirement 3: Shared visual tools that everyone can access.

A lot is implied in this seemingly simple requirement. First, the team needs a set of tools in common. This will involve some compromise, since no single tool is perfect for everyone. The tools must be reliable and stable, and capable of supporting collaborative visual work. Then there needs to be organizational support in the form of money to buy the tools (if they are not free), time and training for team members to become fluent in their use, and ongoing technical support. The team needs to establish norms for using the tools. Finally, everyone on the team needs to be able to access the tools and be committed to using them in alignment with the group norms.

The difficulty with this requirement is that a virtual workspace means different things to different people. The team's preferences come into play here as well: team members will have different ideas about the type of tools they want to use.

Teams that do not take the time to align on a set of shared visual tools will find themselves frustrated by tools that get in the way of their interactions instead of making them smoother. Consider making a list like the one shown in the table below of the types of work your team needs to do, and then evaluate whether you have or need a shared visual tool to support each type.

List the types of work your team needs to do down the left side, then place a dot in the corresponding column that describes your team's situation as regards visual tools to do that kind of work. List suggestions for tools you might try in the rightmost column when you find that tools are needed by some or all of the team.

Shared Visual Tools for Teamwork

Type of Work	Everyone has access to supporting visual tools	Only some people have access to supporting visual tools	No one has access and/or we need visual tools to support this	Visual tools to try
Brainstorming, idea generation				(name tools that some people already use as well as new tools)
Synchronous meetings				(if it ain't broke don't fix it)
Kanban system				(research this type of tool and list ones you want to try here)

Requirement 4: A clear way to track work, visible to the whole team.

The team's work needs to be as transparent as possible to all members of the team, especially for teams with shifted schedules that do not have a lot of synchronous contact. In the absence of information, people make assumptions and jump to conclusions that are often rooted in cognitive biases such as stereotyping (the tendency to draw conclusions about someone's characteristics based on a group they belong to rather than on knowing them as an individual) or the fundamental attribution error (the assumption that someone else's actions reflect their personal preferences or character while attributing our own actions mainly to external circumstances). This tendency to jump to conclusions can bring about feelings that are not conducive to developing a healthy, productive, fun, and high-performing team. It can be countered by, among other things, increased transparency about information that matters to the team.

Different teams need to track different types of information, such as:

- The team's vision, purpose statement, and/or charter
- Team norms and operating agreements
- Membership information (who is on the team)
- The team's overarching objectives

User-generated Information Sites

Movies, books, video games, and TV series all have enthusiastic fan bases who want to engage with the content of their favorite media. They will willingly, and apparently effortlessly, create online encyclopedias that contain a wealth of information about characters, plot, game mechanics, story arcs, history and backstory, links to the real world and popular culture, and more.

The tool most commonly used to support these informational sites is the wiki, a user-editable website where content producers and content consumers can be the same population.

Imagine if your team were as enthusiastic about maintaining a 'fansite' for the team's work, including all the documents you need to connect with each other and with the team's purpose, to onboard new members quickly, to reference past work and reuse it when you can, and to capture what you collectively learn along the way.

- Project-based objectives and progress tracking
- Processes for team tasks, tool use, company policies, etc.
- Descriptions of each key tool the team uses, along with how to get technical support
- Stakeholder, client, or customer lists or databases
- How-to documents and FAQs
- Work in progress
- Archived, completed work
- Lessons learned
- Rewards, recognition of effort, and celebrations

Not everything needs to be tracked in the same way or with the same tool, but team members should understand the system and know where to find information. Not everyone may require the same level of access to every piece of information, but everyone should be able to access any information they do need. Each team member should understand that they are responsible for keeping the information up to date as it pertains to them, and this should be a team norm.

Maintaining information and records and updating progress trackers are not exciting activities for many people, but it is absolutely critical for remote collaborative teams to master them. Consider listing the types of information your team needs to track, and evaluating whether your current toolset supports everyone's access, using a table like the one shown below.

Clear and Accessible Work Tracking Tools

Type of Information	Everyone has access to this information	Only some of people who need it have access to this information	No one has access and/or we need a place to capture this information	Tools to try
Team records (policies, norms, vision, goals...)				(research this type of tool and list ones you want to try here)
Team member contact information				(if it ain't broke don't fix it)
Ongoing project status				(name tools that some people already use as well as new tools)

List the types of information that your team needs to access in the leftmost column. Place a dot in the corresponding column that describes your team's situation as regards that type of information. In the rightmost column, list tools that would support access to the information types that aren't adequately available.

Bonus Requirement: Organizational support dedicated to remote workers.

There is a fifth requirement to take into account; it is not part of the workspace as such, but it may be critical to have in place if your remote collaborative team is to succeed.

Your organization must have support systems in place that address the specific needs of remote workers, not as an afterthought, but at the same level that the needs of onsite workers are addressed. This is outside the scope of the workspace we are building, but if it doesn't exist, your efforts to create a supportive virtual workspace will be much more difficult.

This organizational support would include human resource policies, career development opportunities, reward and recognition systems, information technology support, and access to training in technical subjects, cross-cultural effectiveness, and remote working practices. Also, the organizational culture needs to be explicitly supportive of remote workers.

Those in positions of leadership should model the effective use of collaborative tools and be inclusive of remote team members as a matter of course. Without this embedded support, remote workers will always feel, on some level, disconnected from the organization.

If such support is not already available, work with your human resources business partner to establish policies, create and run pilot programs, or draft proposals to senior leadership to put support structures in place for virtual workers.

A Phased Approach to Building Your Workspace

The next four chapters present a phased approach with step by step instructions for finding out what your team needs in its workspace, preparing for new tools and new workflows, choosing tools for your workspace, and using it effectively once it is in place.

Chapter 2: Complete Your Team's Profile (Phase 1) guides you through the process of collecting information about the interactions, processes, and tasks your workspace will need to support. You'll also identify the personal preferences of your team members that will influence how you design and build the virtual workspace.

Chapter 3: Get Ready for Change (Phase 2) shows you how to create a plan of action and how to introduce new tools to your team. You'll learn how to decide when a tool should be added, removed, or replaced from your workspace, and how to ensure that new tools integrate smoothly into your workflow.

Chapter 4: Design Your Ideal Blueprint (Phase 3) includes tools and step by step instructions for imagining what your team needs in its workspace and how to find tools that match those needs. You'll design the virtual workspace around what your team needs to do, not around what tools are available or interesting.

Chapter 5: Make Your Workspace Work for You (Phase 4) explains how to keep your workspace up to date (it's not as hard as you might think) and how to make the most effective use of it once you have it in place. Look here for activities to introduce new team members to an established workspace, too.

Ready to get started? Let's go!

Chapter 2. Complete Your Team's Profile (Phase 1)

So far, we've thought about your team's work and identified gaps in your toolset. In this chapter we will look at the specific ways your team collaborates in time and space. To do this, we will identify the collaborative configurations your team uses and collect some information about your team.

Configurations for Collaborative Work

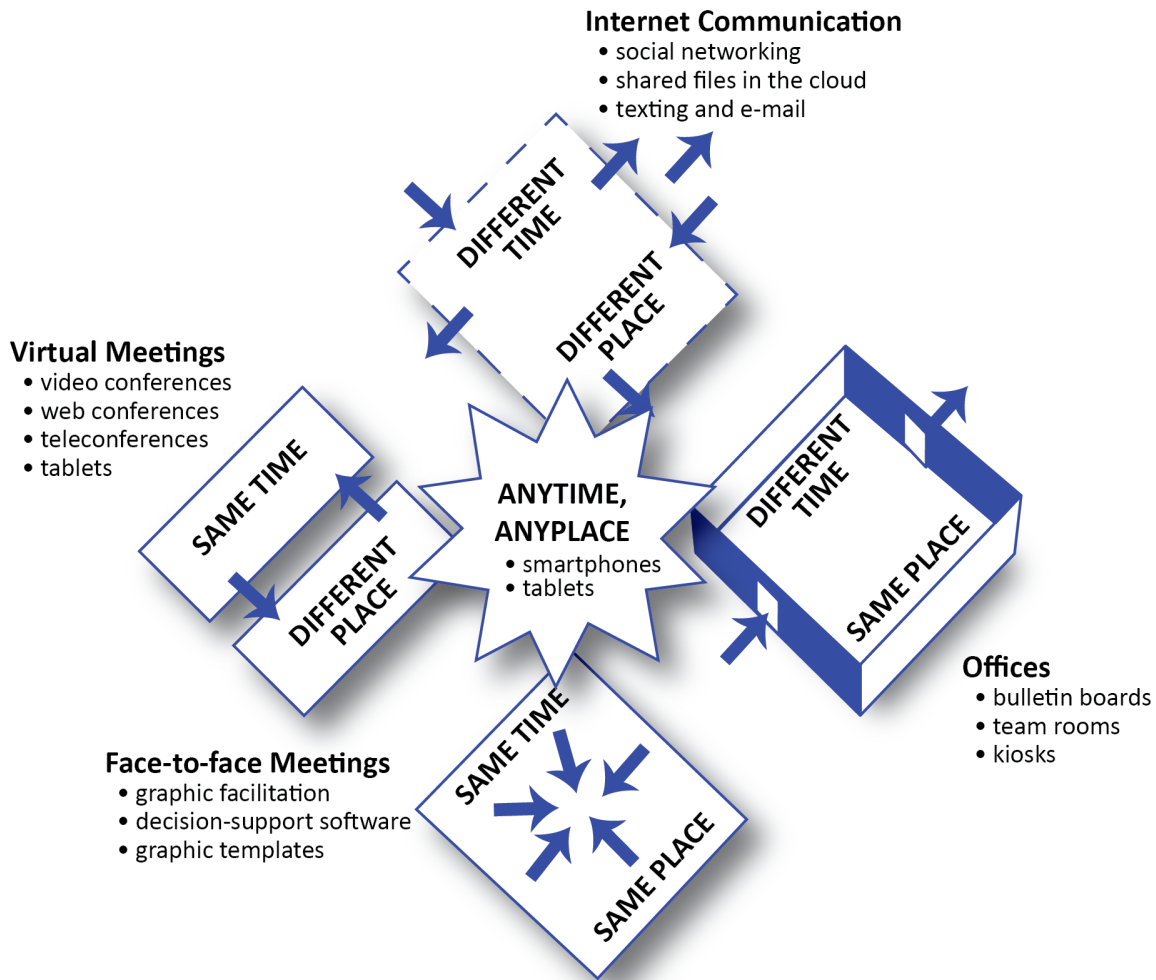
To lay the groundwork for a truly supportive workspace, we must consider different configurations for collaborative work. The goal: to establish your workspace as a base for actively facilitating the team's work in a way that helps them collaborate better in any configuration.

Where *place* refers to a physical and not a virtual location, collaborative work can be configured in time and space in four possible ways:

- **Same time, same place.** This is the traditional model of co-located teams who share a physical office and similar working hours.
- **Same time, different place.** When we think of remote collaborative teams, this is the most common configuration that comes to mind. It covers synchronous virtual meetings as well as teams whose members have significant overlap in their working hours but live and work in different physical locations.
- **Different time, different place.** This configuration is quite common but is frequently overlooked when thinking about how to support remote teamwork, because we seem to assume that it will handle itself. Here, team members are not only located in different physical locations, but their working hours are different as well; or, to look at it another way, they devote different parts of their working day to the collaborative work of the team. This is asynchronous collaborative work.
- **Different time, same place.** This model assumes co-located teams who use a shared space at different times. Think of a team working in the same office but on different shifts to ensure round-the-clock coverage, or a team whose members job-share and work the same job but part time and on different days.
- An extra configuration is **anytime, anyplace** and can stand in for any of the others. Mobile technology and ubiquitous internet access make it possible to erase the physical boundaries, and in some cases the temporal boundaries, between team members.

Keep in mind that many teams experience more than one of these configurations simultaneously. A blended team that is partly co-located and partly not, for example, may have a significant *same time, same place* contingent with a few *same time, different place* members and one outlier who falls into *different time, different place*. Of course, from the point of view of that last team member, **everyone** is in the *different time, different place* configuration.

The illustration on the next page shows these five configurations and lists categories of groupware tools that support each.



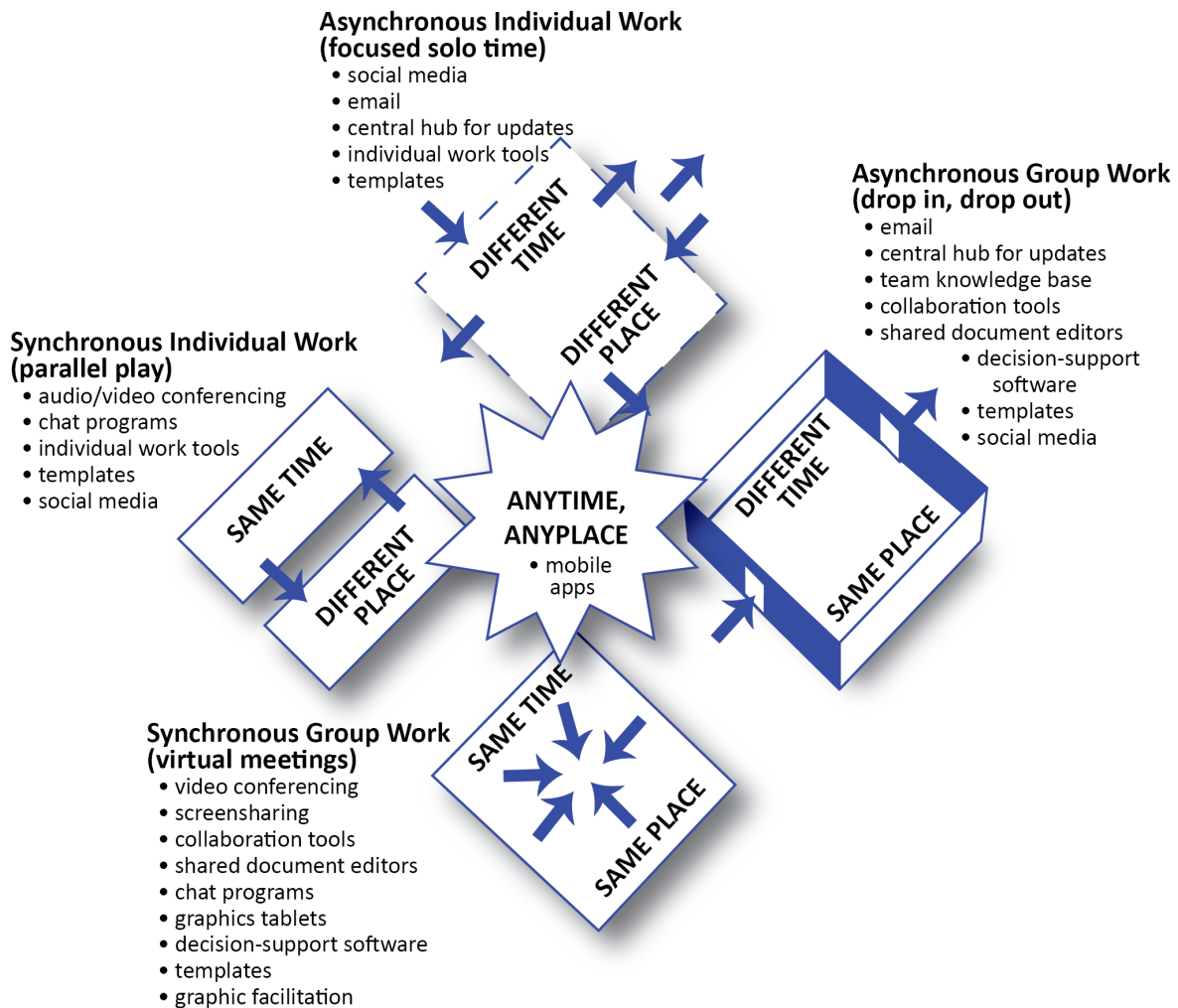
This map of groupware technologies that support the different configurations was created by David Sibbet and appears in his 2011 book *Visual Teams: Graphic Tools for Commitment, Innovation, & High Performance* (p. 23). It is adapted from an earlier version jointly created by The Grove Consultants International and the Institute for the Future for a 1991 book called *Leading Business Teams: How Teams Can Use Technology and Group Process Tools to Enhance Effectiveness*.

Since we are concerned with building a virtual workspace, we will modify the definition of *place* so it refers specifically to a virtual workspace and not a physical location. We aren't concerned with where people are physically located this time. When we make this shift, the description of each of the four configurations changes slightly:

- **Same time, same place.** Everyone gets together for a virtual meeting at the same time and goes to the same virtual space to connect. This configuration implies that everyone is seeing the same thing at the same time and can communicate freely with one another in real time. Coordination of effort is easy and natural. Not all same time, same place configurations involve virtual meetings, of course. Two or more people may be working in the same collaborative tool, such as a sticky note board or a ticket-based bug tracking system, where they can see what everyone is doing even if they are not actually in an audio or video meeting.
- **Same time, different place.** Everyone gets together at the same time, but people are using different tools or working in different spaces. In this model, team members can communicate freely, but they are not necessarily seeing the same thing at the same time. Imagine a team working on a marketing release. Someone is writing copy; another person is creating visual assets; a third is working on the layout of brochures. Each is immersed in their own piece of the whole, without necessarily knowing what the others are doing—just that they are doing something. The team can coordinate their efforts easily, but updates are essential to keep the work flowing. This is a bit like 'parallel play' in small children, where they occupy the same play space but are engaged in unrelated activities.
- **Different time, different place.** Team members work to their own schedule, using the spaces and tools that support their individual efforts. Coordination and status updates are critical when using this configuration, and they need to be organized especially well, because they do not happen organically. Responses to questions may be delayed because of offset work hours or time zone differences. For people who work best during focused solo time, this is a comfortable configuration.
- **Different time, same place.** Team members work in the same virtual space, but not at the same time as their colleagues. When they arrive, they may see the results of work their colleagues have done in their absence. People drop in when it's time to work on the project and drop out of the space when it's time to do something else. The team needs to devote extra time to coordination and updates so that each person can get up to speed quickly on what has evolved while they were gone.

Blended teams who adopt this second set of descriptions will find an advantage over the first: instead of starting from the point of view of team members who happen to be co-located and then designing solutions to bring remote members to them, the starting point is that *everyone* is part of a distributed team and everyone is, in a sense, remote. Any solutions need to work for everyone equally, and with this frame in mind, teams can plan accordingly.

The illustration on the next page maps these descriptions along with some supporting tool types.



This map shows some of the remote collaboration tools that support each configuration when we assume that *space* refers to a virtual location, not a physical one. Adapted from *Four Square Map of Groupware* (Sibbet, 2011).

Which collaborative configurations does your team use?

The configurations that your team encounters will have a bearing on the workspace you build. Think about how your team is distributed and how team members typically work. Imagine the kind of support team members will need based on when and where they work.

If your group does a lot of work at the **same time** in the **same virtual place**, your workspace will need tools that permit easy communication by voice or text so that team members can stay coordinated. You'll most likely want collaborative tools that support multiple people making changes at once. A dashboard to keep track of progress would be helpful as well.

If your group often works at the **same time** in **different virtual places**, you'll look for tools that streamline synchronous communications. You might not need collaborative editing tools, but you will certainly want a way to keep track of progress made in the different 'places.' Depending on the kind of

work you are doing, you may also want tools that make it easy to share work in progress and get feedback from colleagues.

If most of your group's work is done at **different times** in **different virtual places**, your workspace will need to support asynchronous communications, keeping different threads of conversation organized when they build at different times. You will likely also look for tools that let team members keep track of one another's progress as well as tools for review and feedback.

If your group primarily works at **different times** in the **same virtual place**, in addition to asynchronous communications tools and collaborative editing tools, you may want a virtual bulletin board where team members can leave notes for one another about the state of the work.

There are other interactions that your workspace will need to support besides those listed here. This starter list should get you thinking about how your workspace can best support the configurations that are most common for your team.

Pulling Your Team's Profile Together

What you now know about your team's remote configurations will guide the choices you make when drawing up your workspace 'blueprint' in the next chapter. If you also take your teammates' personal preferences into account, the workspace you build will be even more supportive for them.

Create a team profile by noting how each person prefers to work and interact when they are remote. In particular, consider these factors about your team:

How and Where Your Team Works

- Is your team distributed, co-located, or blended?
- Does your workspace need to support synchronous work, asynchronous work, or both?
- How much of your team's work is interdependent, and how much is done independently by each team member?
- How does your team handle conflict, and when is conflict most likely to occur?
- What are your team's greatest pain points when it comes to remote work right now?

Personal Preferences

- How much does each person like or dislike technology?
- What communication modes does each person prefer (text, email, phone, video...)?
- What is the blend of extroverts and introverts on your team?
- Who is more active in the morning, who prefers the afternoon, and who is at their best even later in the day?
- Who is most creative when working alone, and who prefers to work in company with others?

From Chapter 1 of This Guide: How Does Your Team Interact?

- What type interactions are most important for your team? Which ones are you not able to have with the tools you use now?
- What types of work does your workspace need to support?
- How does your workspace need to support your team in the tracking of ongoing work and work products?

From This Chapter:

- Which remote team configurations does your team use?

If you don't know the answers, especially to the questions about your team's personal preferences, get the team together and ask. Keep the answers to these questions handy as you search for, evaluate, and eventually select the tools that will make up your virtual workspace. Now you're ready to prepare your team for change and then to create the 'blueprint' for your team's workspace!

Further Reading

Penny Pullan's book *Virtual Leadership: Practical Strategies for Getting the Best out of Virtual Work and Virtual Teams* (2016) goes into depth about **configurations for collaborative work** and **choosing and introducing technologies**.

Another good source for **selecting technology to support specific meeting purposes** is *Mastering Virtual Teams: Strategies, Tools, and Techniques that Succeed* by Deborah L. Duarte and Nancy Tennant Snyder (2006). In addition to charts indicating which technology types match which meeting outcomes, the book includes a disk with checklists for building and managing virtual teams.

Chapter 3. Get Ready for Change (Phase 2)

You, as the enthusiastic architect of your team's ideal virtual workspace, may be ready for a change, but that doesn't mean the rest of your team is. As you design, plan, and begin to roll out new processes and tools, it will help if you pay attention to how people shift their processes and how they encounter new technologies. The following example is adapted from my March 26, 2020 blog post, *Habit Tracker: Get Those New Tech Tools Under Control*.²

Have you ever had to change email clients? If so, you probably remember feeling very disoriented at first. Maybe you missed some important emails, sent the wrong attachments to people, or accidentally copied people you didn't mean to include. It may have felt like you were learning how to use email all over again. And in a sense, you were.

Through use, you built up a lot of unconscious knowledge about how your old email client displayed information and where the controls were. All that unconscious knowledge gave you the power to gain understanding at a glance. You could instantly tell whether you had unread messages or whether you'd responded to a particular message, because you knew how to read the signals. Until you get comfortable with those signals in your new email client, you are likely to feel wrong-footed.

In interface design, those signals are called affordances. One example that's pretty universal for email clients is that an unread message appears in bold in the message list. Once it's read, it's no longer bold. This affordance is so effective that almost all email clients take advantage of it, which is why that part of your new email system probably didn't feel weird.

By understanding the affordances, you know what to pay attention to in order to get the information you need. But until you understand them, you have to pay attention to everything all the time, because you don't reflexively know which affordances give you the necessary information. It's exhausting, it's frustrating, and it leads to mistakes. Not just with email clients, but with any tool you're learning how to use.

Until you learn a tool's affordances, it will feel clunky and awkward. It takes about two weeks of daily use before those affordances are internalized, which means it takes about two weeks of daily use with a new tool before you become comfortable with it.

There's no shortcut to this. You can watch tutorial videos (and I recommend that you do), you can have someone show you the basics (also a good idea), but only daily use will fix those affordances in your mind so that you can understand the interface at a glance.

Given all that, no wonder people can be reluctant to shift their processes and learn new technology tools. Fortunately, we know how to motivate such a change.

The change formula³ reminds us that change (C) won't happen unless people's natural resistance to change (R) is overcome. The magic combination of factors that enables that is dissatisfaction (D) with the current state, a clear vision (V) of a better future state, and a clear idea of

The Change Formula:

$$C = DVF > R$$

² Smith, Rachel S. "Habit Tracker: Get Those New Tech Tools Under Control." Digitalfacilitation.net (blog). March 26, 2020. <https://digitalfacilitation.net/?p=657>.

³ The change formula was originally developed in the 1960s by David Gleicher at Arthur D. Little (ADL), adapted and published by R. Beckhard and R. T. Harris in 1975, further adapted by K. Dannemiller in the 1980s and 1990s and again by S. Cady and others in the 2000s. The version presented here is an adaptation that I learned during my time at The Grove Consultants International. See Cady, Jacobs, Koller and Spalding (2014) for a detailed history of the change formula and case studies of its use.

the first steps (F) each person must take to achieve that vision. Just as would be true if the change formula were a mathematical equation, if any of those key multiplicative factors (D, V, or F) is missing (that is, zero), the other factors will also be negated and the group will not overcome its resistance to change (R).

The plan set out in this chapter is based on the principles of the change formula. It is intended to draw the whole team into exploring their current level of dissatisfaction before jointly designing a vision of something better and finally naming and even taking the first steps toward creating a functional virtual working environment that everyone will use.

Your Plan, Your Vision, Your Strategy

Involving the team in designing and creating your supportive virtual workspace takes time and effort, but it pays off with increased commitment and engagement. Plan your workspace architecture process with your team by following these steps to apply the principles of the change formula.

1. **Define the critical, high-level outcomes of the process.** What do you hope to accomplish? Write out your overarching goal clearly to share with your team at the very beginning of the process. Alternatively, develop your overarching goals together with the team.
 - **TIP** Use a prompt to help people think about the outcome. For example, “When our workspace is complete, we will...” Encourage aspirational statements!
2. **Identify the types of work your team needs to do, and explore tools to support each.** Work with your team to identify key types of work, prioritize them, and select some candidate tools to explore.
 - **TIP** Use a table like *Shared Visual Tools for Teamwork* in Chapter 1 to capture notes and ideas.
 - **TIP** Review the team preferences you collected in Chapter 2 at this point.
3. **Identify your team’s pain points.** With your team, consider the question, “What is it about our collaborative processes, tools, and behaviors that hurts most right now?” Brainstorm possible ideas, discuss and rank them, and use a decision process like polling or voting to identify the top three pain points. Those are the top three things that need to change: the **D** part of the change formula.
 - **TIP** Consider **process** pains (what processes are we using that aren’t serving us well?), **tool** pains (which of our tools hinder more than help?), and **behavior** pains (what do we do as a team that gets in our own way when we try to collaborate remotely?).
4. **Create a vision of something better.** Collect ideas about what it would look like if the problems you just identified were totally solved. Stay away from picking specific tools and focus instead on improved outcomes or changed circumstances. This is the **V** part of the change formula.
 - **TIP** Ask, “What would our processes, tools, and behaviors look like if we solved our biggest pain points?” Ask for responses that start “We have...” “We do...” or “We are...” — as if those changes have already come to pass. For instance, “We all have access to the tools we need.”
 - **TIP** As a group, create a description, picture collage, or other record of your vision using a collaborative drawing or writing tool. Keep it visible as you build the workspace, so it reminds all of you what you are working towards.

5. **Build a bridge between the current state and your vision.** Review where your team is now (your pain points, the **D** part of the formula) and where you would like to be (your vision, the **V** part of the formula). Then think about the gap between those two, and how to build a bridge between them. This is the beginning of the **F** variable in the formula—actionable first steps.
 - **TIP** Ask, “Looking at where we are now with our pain points and where we want to be with our vision, what steps can we take to get there? What are the things we need to do to reach the vision?” Ask for responses that start with verbs. For instance, “Build a team knowledge base.”
 - **TIP** Keep the actions broad and high-level at this stage. Think of them as initiatives. You’ll add detail in the next step.
 - **TIP** At this stage, you can begin working on your workspace ‘blueprint’ (see Chapter 4).
6. **Finish your action plan and create a timeline of the work.** Look at each initiative in turn and break it down into actionable pieces. Take the time to make these actions achievable. This is the **F** part of the change formula: the first steps people will actually take, starting right now, to bring about your shared vision.
 - **TIP** Organize the actions into a sequence and break them up in rough phases to create a draft action plan or roadmap.
 - **TIP** Refer to *Make Your Workspace Work for You* (Chapter 5) for specific steps to add new workspace tools.
 - **TIP** Use your team’s project management tool to keep track of your action plan. Don’t have one? Make it one of your first steps to find one!
 - **TIP** Take a few minutes at each team meeting to review the roadmap, assess where work is progressing, and make adjustments as needed. Keep the plan fresh in everyone’s mind and show that the work is important. The best roadmap in the world is useless if it is never reviewed, so keep yours alive!

When you and your team have worked through this sequence of steps, you will have created the foundation for building your supportive virtual workspace. There’s more to do to build it out, but with your plan in place, you’re ready to roll.

When—and How—to Change a Key Tool

One of the outcomes of the above process may be discovering that some of your existing tools don’t really serve the team. Or the team’s needs may have shifted, meaning a tool that once worked well is no longer optimal. There are times when a change is necessary, whether it is to upgrade a tool to a new version or to replace it entirely.

Events that could trigger such a change are those that would adversely affect your team’s ability to collaborate remotely if they were not handled, such as:

- Your IT department upgraded your team’s computers or operating systems and your current version of a key tool no longer functions.
- You receive notice from the vendor of a key tool that development and support of that tool will cease within six months.
- After an update, the feature set of a key tool changes and it no longer supports your team’s needs or workflow.
- Your team adopts a new process or workflow that is not supported by any of your current tools.
- You become aware of a security flaw in the version of a tool your team is using.
- Your IT department bans one of your tools (for reasons of security, compatibility, or support, for example).

- The only person who really understood how a tool works leaves the team and no one else uses the tool enough to become its next advocate.
- You've been using a tool for several months and your team still finds it frustrating, confusing, or otherwise inadequate.

In other words, the time to change tools is when a pain point arises because of that tool.

A Strategy for Dealing with Tool Change

On the one hand, adopting a new tool is a time-consuming and disruptive process and you should only do it when you have to. On the other hand, adopting a new tool is also not the end of the world, and is a better option than having your team struggle with a tool that doesn't enhance collaboration. Don't be afraid to change tools if you have one that no longer supports the team.

While the time to change tools is when pain happens, the time to develop your strategy for changing tools is *before* the pain arises. That way, when something changes unexpectedly, your team is prepared to handle it with minimal interruption to workflow. My recommended approach:

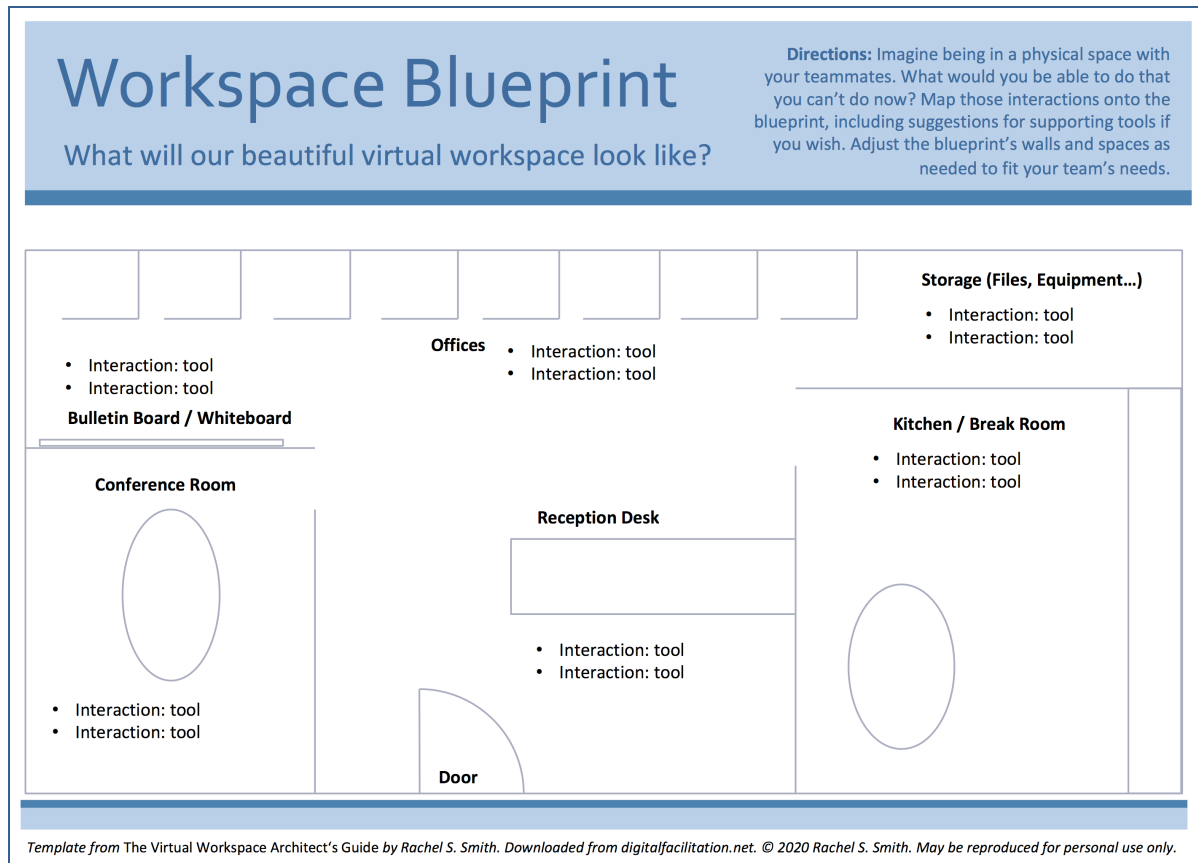
1. When considering any new tool, ensure that your data can be exported in the event that you need to change tools later. Data import is also a useful feature to have. Be wary of tools that keep your information in a proprietary system without allowing you to export it in a standard, usable format.
2. When your team first adopts a new tool, document both the tool and the processes it supports in your team's knowledge base (see *Creating a Team Knowledge Base* in Chapter 5). Include information about the primary account holder or purchaser; terms of the license; links to the tool's support site and details about support contracts you may have purchased; any team norms around use of the tool; and who has access, if it is only available to a subset of your team.
3. Appoint an advocate for each new tool you adopt. This person should be the resident expert about the tool. In addition to helping teammates learn to use the tool, the advocate should regularly check for updates and install them, if this is not already handled by your IT department or the tool's vendor. Add the advocate's name and contact information to the tool's entry in your knowledge base.
4. Establish a team norm about reporting pain points related to team tools when they first emerge. It is much easier to solve a new, small problem than an established one that has been causing frustration for some time.
5. When a pain point arises, first look for ways to address it with the current tool, such as changing the workflow.
6. If that isn't possible and the pain is severe enough, begin the process of finding and evaluating new options as described in *Adding a Tool to Your Workspace* in Chapter 5. Remember to partner with your IT department, if applicable, as you make your selections.
7. When your team finds a tool they like, set it up and import your data if needed. Begin using the new tool but do not remove the old tool yet (if possible). Ensure that everyone is using the new tool so that data is not lost by being entered into the old tool after the export, but keep the old tool available for comparison, backup, and emergency purposes.
8. After a two- or three-week acclimatization period, if the new tool has removed the pain point and is working for everyone, close down and remove the old tool. Update its information in your team's knowledge base to reflect when it was removed, why a replacement was needed, and what tool was chosen to replace it. Link to the new tool's entry in the archive.

Chapter 4. Design Your Ideal Blueprint (Phase 3)

Your supportive virtual workspace will have a ‘blueprint’ just as a physical office space would. The workspace blueprint is a little different than a typical architect’s drawing, however. Instead of detailing the measurements of rooms, hallways, doors, and closets, your blueprint will reflect interactions, information storage and access needs, communication norms, and team preferences, and name the virtual tools to enable and support them.

Why use the metaphor of physical space to describe a virtual environment? You are already familiar with physical workspaces. You know what they look like and what they feel like. You have an intuitive grasp of the types of interactions that tend to happen in different parts of the space.

Using the metaphor of a physical office to map out the areas of your virtual workspace yields two advantages. First, it helps you consider options for interactions that you naturally expect to have in a physical office but might not think to build into a virtual space. Second, drawing parallels between familiar physical spaces and unfamiliar virtual tools gives you a frame of reference for connecting with the purposes those tools will serve.



Download a slide template of the Workspace Blueprint from digitalfacilitation.net.

Mapping Your Team's Unique Workspace

If you completed your team's profile in Phase 1 (Chapter 2) and created your vision in Phase 2 (Chapter 3), you have all the information you need to draft the first version of your team's virtual workspace blueprint. Follow the steps below to create a draft blueprint with two or three candidate tools for each process or interaction your team needs.

Steps to create your ideal workspace blueprint:

1. With your team, agree to spend time thinking about the blueprint for your ideal virtual workspace.
2. Sketch a physical workspace with rooms, offices, and workspaces—whatever your team would need if it were co-located. If you wish, download and use the *Workspace Blueprint* template from digitalfacilitation.net. Some completed examples are provided below for your reference.
3. Make sure each of the interactions and functions you know your workspace must support is listed. If the blueprint template doesn't have the right spaces, change it!
4. If you already have ideas about specific tools you would like to explore, add them. Refer to your completed *Shared Visual Tools for Teamwork* and *Clear and Accessible Work Tracking Tools* tables (both from Phase 1 in Chapter 2) for ideas.
5. Review your team portrait data from Phase 1 (Chapter 2) and compare your list of interactions and any candidate tools to your team's profile.

Your blueprint isn't a record of your final choices of tools—you will complete that step in Chapter 5. Rather, the blueprint is a way to draw up your vision of a supportive virtual workspace with the rest of your team, get ideas out while it is still in the design stage, and create a holistic, easy-to-understand picture of a complex system.

Use your blueprint to help determine whether your organization can support your choices. Once you and your team agree on your draft blueprint, meet with your organization's IT services staff to discuss your needs and choices. Partner with them to create and support your team's virtual workspace. They may suggest alternative options that meet your needs and are easier to support or maintain from their point of view (or that are already in place at your organization). Understand their perspective, be willing to work with them, and ask how you can make it easier for them to take the following steps to support you:

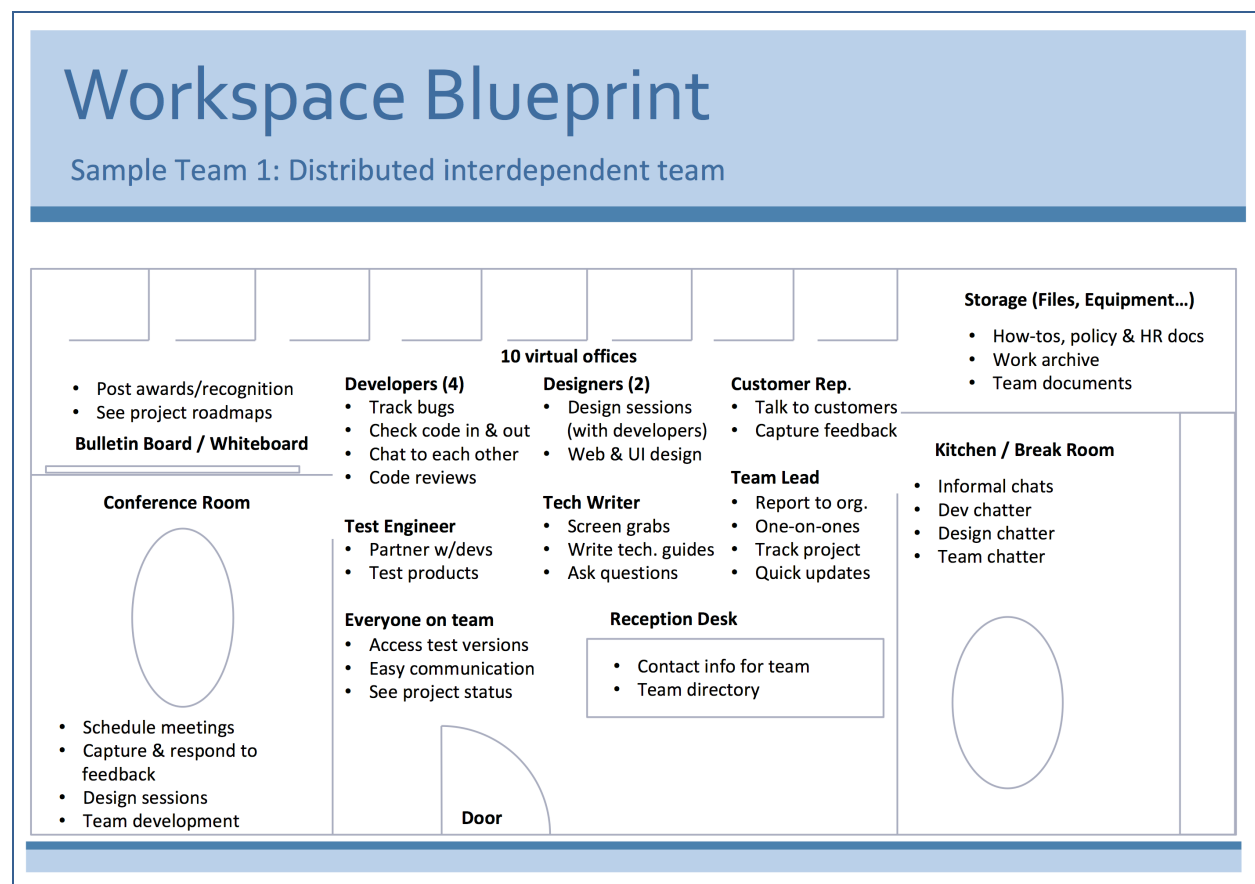
- Choose interoperable, flexible structures that support small tools loosely joined, mobile access, and team-level choice.
- Integrate new systems with older ones easily, and upgrade old systems (both hardware and software) to meet the state of the art today.
- Manage bandwidth and performance in real time, giving support and maintenance priority to collaborative systems used by distributed teams, and addressing issues quickly when they arise.
- Extend beyond the corporate firewall to integrate with systems that support distributed and mobile workers and, where appropriate, customer interactions.

Remember that compromise is always part of building a virtual workspace. No single tool or set of tools can possibly meet everyone's needs. There are safety and security issues that come with using third-party hosted tools to process company information. Your IT services staff can help you assess and avoid those risks as you build your workspace.

Three Sample Blueprints

Take a look at how three different teams might fill out their workspace blueprints. The step of identifying interactions has been done, but no tools are suggested yet. In each case, the blueprint has been modified to fit the team size and makeup.

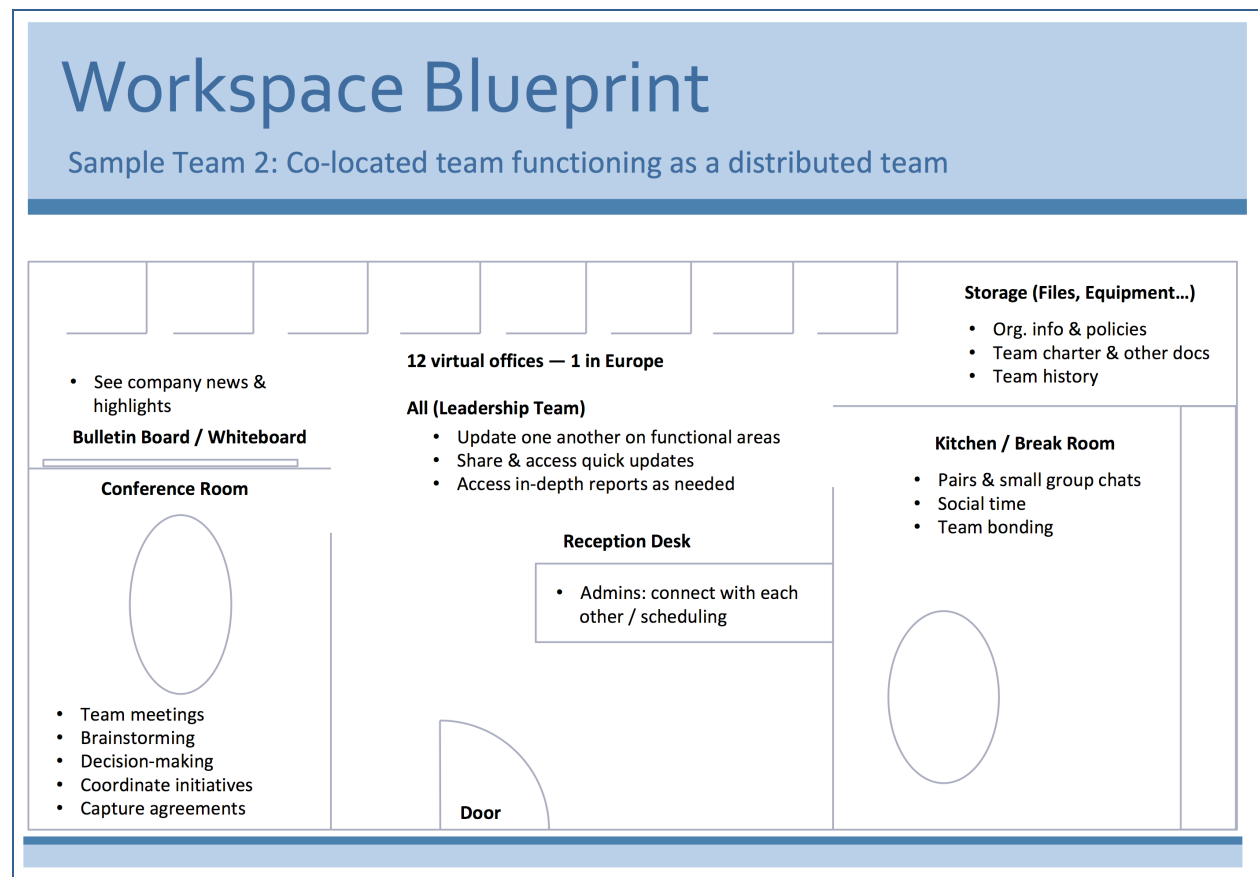
Team 1: Distributed interdependent team. Our first sample team is a small, highly interdependent project team tasked with creating customer-facing applications that are deployed on both mobile and desktop systems. The team includes four software developers, two based in Europe, one in India, and one in Canada; an interface designer, a web designer, and a test engineer, all based in the United States; a customer representative based in the United Kingdom; and an American contractor who is responsible for writing the technical documentation for the product. The team leader, who is also the project manager, is based in Europe. Everyone except the technical writer is an employee of the same organization. All of them consider themselves tech-savvy.



Sample Blueprint for Team 1 showing key interactions

Since this team includes developers who are familiar with a wide set of tools, they experiment and adopt new tools easily. They need tools that work within their company's firewall but also allow the external technical writer to access information she needs from outside the company. They have a high need for tools that track progress, give insight into the complexity of the projects they do, and interconnect so that comments in one tool can be linked directly to information in another. Their blueprint takes into account the high level of asynchronous communication needed to support their collaboration over so many different time zones.

Team 2: Co-located team functioning as a distributed team. The second sample team is a twelve-member cross-functional leadership team for a large organization. Although they are technically co-located at the US headquarters—except for one member who is based at the company’s European headquarters—they rarely see one another because of their heavy functional responsibilities and (usually) travel-filled schedules. Their collaborative work involves setting the organization’s vision and direction, coordinating the efforts of their individual functions, making policy decisions, and ensuring the company’s goals are met. Of the twelve team members, two are very comfortable with technology, but the others are not, to varying degrees. They have little time to experiment and learn new tools.



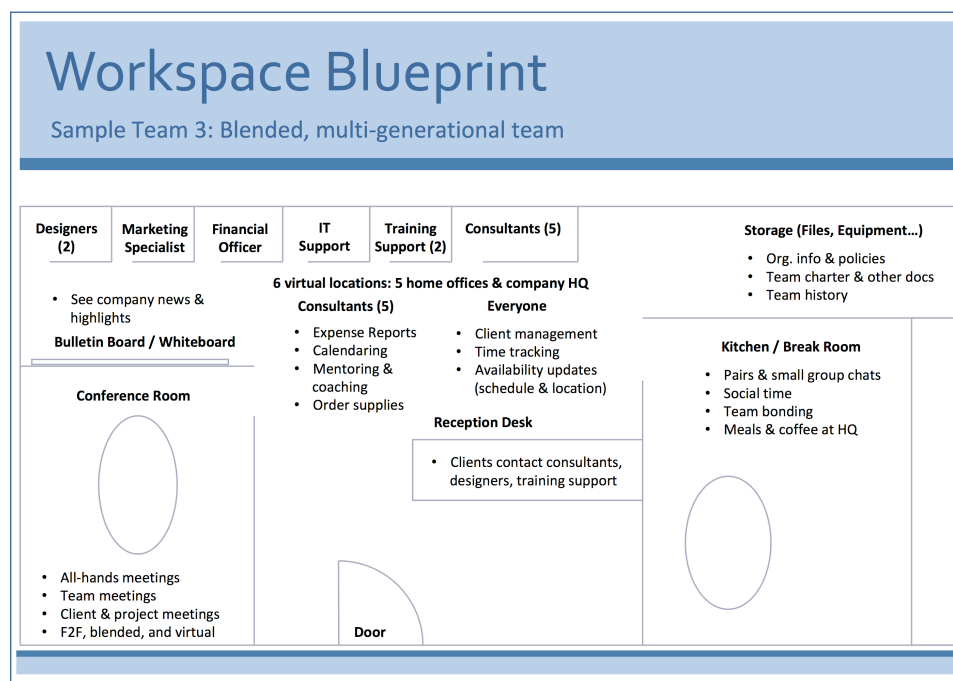
Sample Blueprint for Team 2 showing key interactions

The key needs of this team are access to information, efficient use of any time they have together, and up-to-date, easy-to-access, brief status reports that link to deeper information if needed. Team members expect to access what they need from laptops and mobile devices as they travel. When they do come together to make decisions, they need to work quickly and reach a high level of alignment and commitment. Their tools need to be easy to use and integrated with what they already use in functional areas, drawing on what they are already familiar and comfortable with.

Team 3: Blended, multigenerational team. Our third sample team consists of the employees of a small consulting firm. It includes five traveling consultant-trainers, two designers, a marketing specialist, a financial officer, two workshop coordinators, and an IT specialist. While there is a central office location, the consultants are rarely there, either because they are traveling or because they prefer to work from home offices.

The team's work spans the interdependence scale. The consultants obviously work very independently, but they do need to coordinate closely with the other members of the team for operational needs and with one another for coaching, mentoring, knowledge exchange, and other professional development opportunities. The designers and the marketing specialist work closely together on the company's digital and printed materials.

Of the five current workforce generations,⁴ three are represented on the team. They have very different attitudes toward technology, from enthusiastic early adopters to those who actively dislike learning new tools.



Keeping things synchronized between the five remote consultants and the seven co-located people is critical for this team. Shared file storage and internet-based tools for scheduling, time tracking, expense accounting, customer relations management, and other functions will make it easier for everyone to stay abreast of what's going on.

Sample Blueprint for Team 3 showing key interactions

When this team selects tools, they will look for applications that everyone can use as though they were remote, minimizing the amount of information that is paper-bound or physically located at the office. Since some employees have a greater affinity for technology than others, they need to keep their toolset simple and provide excellent support. The early adopters can play a role in helping smooth the way for those who are hesitant to try the tools.

⁴ At the time of this writing, these include the Silent Generation (born 1928-1945, now mostly retired); Baby Boomers (born 1946-1964), Generation X (born 1965-1980), Millennials (born 1981-1997), and Generation Z (born 1995-2019, the oldest of whom are now in the workforce). This grouping is drawn from "Millennials surpass Gen Xers as the largest generation in U.S. labor force," Pew Research Center (2015), retrieved from <http://www.pewresearch.org/fact-tank/2015/05/11/millennials-surpass-gen-xers-as-the-largest-generation-in-u-s-labor-force/> and "Generations X, Y, Z and the others," WJ Schroer (2004), retrieved from <http://socialmarketing.org/archives/generations-xy-z-and-the-others/>. Other groupings exist.

Chapter 5. Make Your Workspace Work for You (Phase 4)

With your workspace blueprint—created with an understanding of the interactions and outcomes your team needs—in hand, you are ready to begin selecting tools to build it out. This chapter will guide you through the process of selecting and adding a new tool to your team’s workspace.

You will have noticed by now that nowhere in this guide do I recommend specific tools or applications. Instead, I talk about categories of tools that support this process or that outcome. The pace of technology change makes it impossible to recommend specific tools in these pages, and even the categories I mention will eventually be dated. Therefore, you will not find a list of required technologies below. Rather, you will find a set of steps to identify the best tools for your team and put them in place.

Now imagine that your team’s virtual workspace is unfolding around you. Your carefully selected tools support your workflow perfectly. You and your team incorporate visual approaches to make the work smoother and more effective. You all feel closer to one another than ever, and it shows in the quality of your output.

Then, unexpectedly, something changes: you innocently install an update to your operating system or one of your workspace tools and find a favorite feature has disappeared; a team member excitedly recommends a new application they saw in a demo; or, perhaps worst of all, you receive an email from the vendor of one of your key applications telling you that they will stop supporting the tool in sixty days. Oh, no!

No virtual workspace can last forever. Tools transform, people’s needs evolve, technologies age and new ones emerge. Change is simply an ever-present quality of any virtual workspace. When you think about all the work you and your team did to find, evaluate, select, and practice each component of your workspace, the idea of changing a piece of it can be daunting. This chapter is here to help.

The good news is that there are always other options available for any tool you will need to replace, and if it has been some time since you went shopping for a tool in that category, you may be pleasantly surprised by how technology has advanced.

Read on to learn how to incorporate new tools into your workspace, use templates to support repeated processes, and lay out a plan for change. Armed with the information in this chapter, you will flex gracefully when necessary, exchanging frustration and panic for the comfort and security of knowing you can handle whatever comes your way.

Feeling Out of Control

People who lack a feeling of control over their environment feel very disoriented, and new virtual spaces often make people feel out of control. It’s important to give people enough instruction and time to become comfortable with a tool so that they have a measure of control before asking them to use the tool for difficult work, or their feelings of disorientation will just get in their way.

Of course, this same feeling is possible in face-to-face meetings also. I once facilitated a meeting in a brand-new room in a high-tech building. The room included automatic lighting that adjusted with the ambient light in the room. Unfortunately, the room’s windows were partially shaded by leafy trees and it was a windy day. The lights responded to the shifting sunlight by constantly turning themselves off and on every few minutes. No one knew how to make them stop, so we conducted the entire meeting like that. Our lack of control over the environment was disorienting and unsettling to everyone.

Adding a Tool to Your Workspace

If you are aware of one or more needs that are not filled by tools that you have in place, use this process with your team to identify and select additional tools.

1. **Decide what your need is, or your outcome** (e.g., we need better visibility into how much each person has on their plate).
2. **Come up with a list of possible processes** to support that need or outcome (e.g., weekly calls; a project board; sending updates to one person who compiles them and sends out a digest; a place where everyone posts their own updates and all of us can read them whenever we want). Stay away from thinking about tools at this point—just brainstorm processes that could work.
3. **Think about how your team likes to work**, and consider the amount of effort each proposed process requires from everyone on the team. Which ones suit your team best? Narrow your list down to two or three possibilities.
4. **Think about each process you have left on your list.** What features would best enable that process? For instance, if you are looking for a central hub to post project updates, you might want to be able to identify who made a post very quickly by seeing their photo next to the post; to link the quick update to more detailed information elsewhere; or to make sure that no one can accidentally delete a co-worker's post.
5. **Now you can look at tools.** Ask colleagues what they recommend. Do a web search on the process you're trying to enable. Review the *Interactions Planner* from Chapter 1 to find categories that sound promising; use those as search terms, too. From your findings, select two or three tools that support each process to explore in more depth.
6. **Go to the vendor's website for each tool** and look at the list of features. Does it match your list of requirements? If so, keep going; if not, cross it off your list. You might make a table that lists the features you want down the side and the tools you are considering across the top. Mark off whether each tool has the features you want, and then compare the results.
7. **Look at sample screen shots or videos of each tool in action**, if available. Does it appeal to you? Does it support the visual work you want your team to do? If so, keep going; if not, cross it off your list.
8. **Sign up for a free trial account or a guided demonstration**, if available. If you opted for a trial account, use it for a small task or project that is representative of what you would actually need the tool to do. If it's a collaborative tool, enlist help to test its collaborative features. Test the tool two or three times, over the course of a few days, rather than doing one quick trial. When you return to it, does it feel familiar? If it gets easier to find your way around, that's a good sign.
9. Now that you have some experience with the tool, **compare it to the four non-negotiable workspace requirements**. Does it satisfy them? Don't be seduced by sexy-looking tools that violate one or more of the non-negotiable requirements:
 - It supports easy, reliable interactions between team members.
 - It supports the team's objectives or desired outcomes.
 - It supports working visually and everyone on the team can access it.
 - There is a clear way to track work done with it and everyone on the team can access that.
10. When you find a tool you like, **set up trial accounts** for two or three team members and arrange a time when you can walk them through it to get their feedback.

11. **Don't try to add several tools at once.** Identify a need, select a tool, and get it set up and working smoothly before you move on to the next one. Recall that it takes two weeks of daily use for a new technology tool to become comfortable (Chapter 3).
12. Before you buy a tool, **make sure their support staff can resolve any problems you encountered.** If your organization's IT department will be supporting your team's use of this tool, check with them as well to get their feedback and make sure they can give you the help you need.

Creating a Team Knowledge Base

The knowledge and skills residing in a remote team can be difficult to access or even to recognize because team members are in contact with one another so infrequently. Each person may build up their own resource library of how-to information, connection details, notes, visual records of meetings and projects, and work products. Figuring out how to share that information is a challenge.

A co-located team might establish a filing cabinet or departmental library to store group documents; they might set up a corkboard to post memos and policy information; posters of team agreements might be hung on the walls. A distributed team's knowledge base is their virtual filing cabinet, corkboard, memo board, reference library, self-paced learning center, and repository of team agreements and norms. Follow these steps to set up a knowledge base for your team.

1. Orient the team to the value of establishing and using a knowledge base. Address any concerns or questions that come up.
2. With the team, discuss the broad categories of information that the knowledge base will contain. Your list might include topics like these:
 - Visual records of team meetings
 - Templates, outlines, or other reusable frameworks
 - Team purpose, operating agreements, norms, and similar documents
 - Information for each tool in the team's workspace, including where to find it, shortcuts, links to tutorials, team member tips, how to contact technical support, and so on
 - Work products, retrospectives, lessons learned
 - Best practices for team-related activities
 - Team member profiles
3. Follow the steps outlined in *Adding a Tool to Your Workspace* (above) to select and deploy a tool to support your knowledge base.
4. Create reasons for the team to add information at first. For instance, assign each person an area to populate with information they already have at hand. Once that first pass is complete, give everyone a different area and ask them to add new information there. This will help everyone get past the two-week learning period and set the expectation that the space will be revisited often.
5. Refer to the knowledge base often. In the beginning, be prepared to remind people to look there for answers and to prompt them to post work there.

Tips

- Ease of access and ease of use are the two most important features of your team's knowledge base. Make sure that the tool you choose supports what your group needs most, but make sure it can be updated quickly and that information is easy to find.

- Build the knowledge base over time—don't try to put everything in at once. It's much better to get it up and running quickly and get people accustomed to using it than to invest a lot of time getting it perfect before anyone sees it.

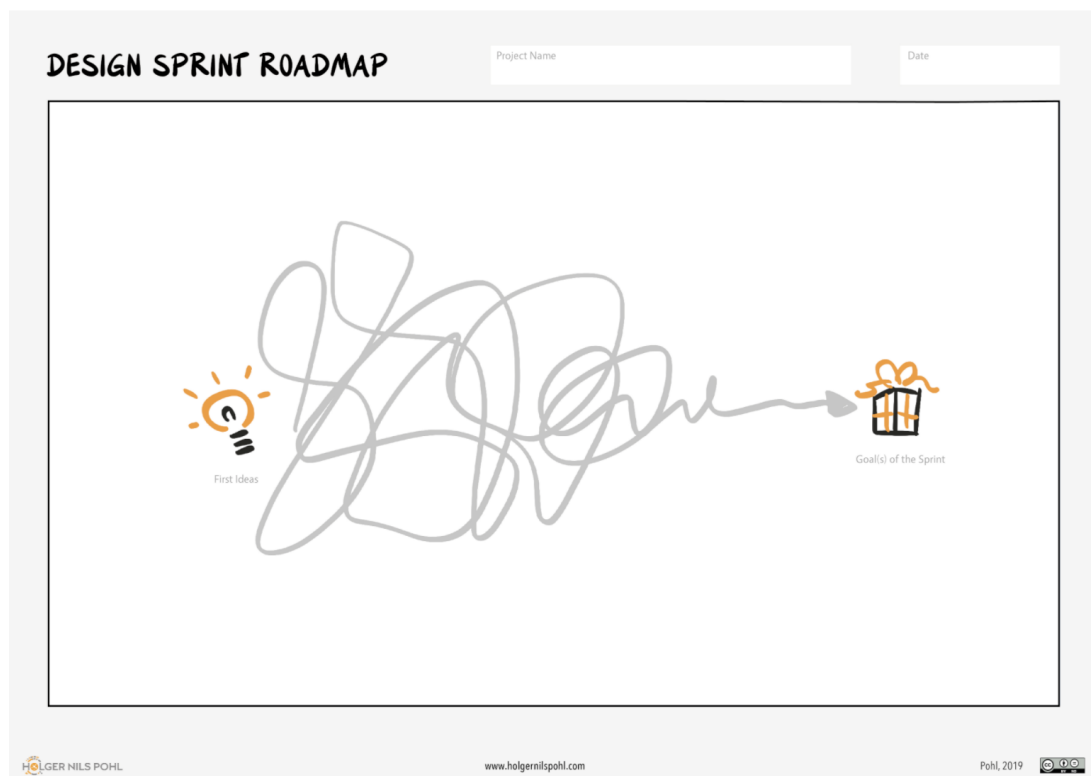
Part of what makes a knowledge base successful is that everyone in the group can add to it. Don't impose a strict editorial policy; it's better to welcome all contributions (within reason—content should remain professional).

Streamlining with Templates

You may not always need a new tool to support a process. Sometimes, all you need is a template that can be used with a tool you already have. Templates are visual structures that help organize information. They are start-up documents that you use for repeatable processes.

You may find that your team has certain conversations over and over again—not that you revisit the same topic, but the structure of the conversation is repeated. For example, if your team does a lot of project work, you probably have a conversation at the start of a project to assign roles, clarify deadlines, and define deliverables. Creating a template that captures all the necessary information, one that you can reuse every time you start a new project, will help the conversation go more quickly each time and ensure you don't overlook any critical piece of information.

A template contains sections for all the common categories of information involved in a task or discussion. It supports your team as you move back and forth between the details and the big picture, acting almost like a co-facilitator for you by showing the scope and direction of the conversation and helping keep the group on track.



An example of a template. This one is used for facilitating design sprints.
 (Design Sprint Roadmap by Holger Nils Pohl. cc-by-nd 2019, Holger Nils Pohl. Available at <https://www.holgernilspohl.com/blog/design-sprint-roadmap>. Used with permission.)

Digital templates can be drawings that you write, draw, or type on top of, such as the one pictured above. They can be part of a software tool or they can be imported into tools you already use, and may be images or other document types (spreadsheets, slides, and so on). Some tools are designed so that only one person can write on a template at a time while everyone else watches and discusses; others allow everyone to create content simultaneously, sometimes from different devices including mobiles, tablets, and computers. The structure of the template helps keep an otherwise chaotic activity organized and clear.

Many web-based tools offer free template galleries, either inside the tool itself or separately in a resources section of the tool's website. To find templates that have been designed to work with one of your tools, simply do a web search on the name of the tool and the word 'templates.'

Once a team is familiar with a template, using it again speeds up the work and ensures nothing important is overlooked. Your team's virtual workspace should include a library of templates ready to go in the formats required.

Staying Current with the Technology

You've chosen your tools, created your templates, and identified team norms for collaborative work. Your virtual workspace is running smoothly and it supports the interactions your team needs to have. Six months later, a friend tells you about the latest and greatest application she's just discovered. A colleague from another team asks if you've upgraded to the newest version of one of your team tools—it has some fantastic new features. You begin to wonder if your team's toolset is outdated. You worry that you aren't keeping up with the technology. What do you even need to know to stay up to date?

The first and most important thing to know is that **it is not necessary to stay current with the state of the art in collaborative technology**. In fact, for most of us, it isn't even possible. There are simply too many options to keep up with and they change too quickly. Unless your position requires you to advise others on the best collaborative applications available for any situation at any given moment, your goal is not to be on top of remote collaborative technology. Your goal is to build and maintain a virtual workspace that does what your team needs it to do.

Do maintain your tools, however. There is a gardening aspect to any virtual workspace. Someone needs to be responsible for checking for upgrades, which are important because they often address emerging security issues. Someone needs to periodically check with the team to find out if there are any workflow issues or technical problems related to the tool. Similarly, someone needs to be responsible for making sure the team is using each tool in accordance with established team norms; if team members are deviating from norms, it could be a sign that the tool does not meet their needs and should be replaced, or that the norms are outdated and should be revisited.

Your team may have a single 'gardener' for all tools. Perhaps this responsibility rotates among team members on a quarterly basis, or perhaps it is part of one person's job description. Alternatively, each team member may elect to become the advocate for a particular tool so that everyone shares the responsibility. In either case, ensure accountability by regularly giving the gardener(s) time to report on their findings, then generate appropriate action steps and follow through as needed.

Give yourself permission not to know everything about remote collaborative technology. Focus instead on knowing your team's own virtual workspace inside and out.

Onboarding Team Members

When new people join your team, they will need to be introduced to your workspace. Because you and your team will have spent time designing, building, and using it, you may be unaware of how complex it will seem to someone who is new. Recall that people react differently to new technologies. If a new team member encounters several new technologies at once, that effect could be multiplied. If the

person is new to working remotely or has come from an organization or team with a very different culture and set of attitudes about remote work, the transition could take even longer.

Here are some steps you can take before a new person joins the team to help make their onboarding smoother:

- Have each team member create a short video about one tool, group norm, or process. Everyone can be the expert on something! Post the videos in your team's knowledge base. New team members will get a sense of their teammates' personalities as well as valuable how-to information.
- Include a 'lessons learned' section in the knowledge base entry for each tool and process to extend the value of hard-won information.
- Ask the advocate or gardener of each tool to be a resource when the new person has questions about that tool, or assign this role to someone who is comfortable with all the tools.
- Identify sources of training for complex tools and be ready to connect new team members with learning opportunities.

One of the most effective practices you can implement—not only for onboarding but also for increasing your team's efficiency overall—is to build and maintain a team knowledge base. If your knowledge base is consistently built over time, used well, and carefully maintained by the entire team, it will facilitate orientation, build connections between people, contribute to information clarity, aid in keeping commitments, support ongoing action, promote high performance, and leverage the collective learning of your team—quite a good return on your investment.

As people onboard, they need to build an understanding of the environment they have entered. Make it easy for new people to explore the team, the work, and the tools.

Exploring the Team: Gather the following items and make them available in the team's knowledge base to help new people connect with the team's purpose and ways of working.

- The team's charter or statement of purpose
- Communication norms (eg., everyone's preferred mode of communication for different types of conversation, be it email, text, phone, or video)
- The team's working agreements or norms, if you've established some
- A description of each team member's role, including which tool(s) they are the advocate for
- The team's values (or the company's values, if they are the same) and examples of those values in action

Exploring the Work: Maintain the team's knowledge base so that new people can easily navigate it to find artifacts that show what the team has done and give a glimpse into how the team actually collaborates.

- Team calendar and recurring meeting schedule
- Team dashboard (current status of work, links to critical resources)
- Post-project reviews or post mortem results

Exploring the Tools: Not least of all, new team members need to understand how their virtual workspace fits together and supports the work they will do. Fortunately, everything they need is there in your team’s knowledge base. Remember that it takes at least two weeks to become comfortable using a new tool. Be patient with new team members who have to learn all the tools in your virtual workspace at once. Here are two ways to help new team members get up to speed quickly; read on for detailed steps for each one.

- **Team Tools Scavenger Hunt:** Play a game to onboard new team members.
- **Externalize Expertise:** Make it easy for new people (or any team member) to find answers to their own questions.

Activity: Team Tools Scavenger Hunt

Team Tools Scavenger Hunt

Key Tools and Access Information

Directions: Visit each of the team tools listed to find the requested information.

TEAM TOOL	YOUR TASK	YOUR ANSWER
Name of Tool Access link or information	What each person has to do, find, or capture	I found it:
Name of Tool Access link or information	What each person has to do, find, or capture	I found it:
Name of Tool Access link or information	What each person has to do, find, or capture	I found it:
Name of Tool Access link or information	What each person has to do, find, or capture	I found it:
Name of Tool Access link or information	What each person has to do, find, or capture	I found it:

Template from The Virtual Workspace Architect's Guide by Rachel S. Smith. Downloaded from digitalfacilitation.net. © 2020 Rachel S. Smith. May be reproduced for personal use only.

Outcome: Everyone on the team knows where and how to access key team tools.

Time: Significant preparation plus 30 minutes for activity

Overview: Different people react very differently to new technology tools. It’s likely that some people on a team will have no trouble adopting a new tool, while others will struggle or even resist. Take time to introduce new tools in a low-risk way to

help people become comfortable. This scavenger hunt lets people work at their own pace to explore newly-introduced tools and discover how to access and use them. A single-page worksheet addresses information overload by listing key tools and how to access them.

Download a slide template of Team Tools Scavenger Hunt from digitalfacilitation.net.

Steps:

1. Create a scavenger hunt by hiding a message, an image, or another piece of data somewhere in each tool you want to introduce.
2. Use the *Scavenger Hunt* slide template or create your own worksheet. Include a question that prompts people to find the hidden information in each tool. If needed, include instructions for accessing the tool. Don’t record or ask for sensitive information like passwords.
3. As an alternative to asking people to find an extra message or image, have participants take a screen shot of a particular screen (include instructions on your worksheet).
4. Send a prize, such as a gift card, to everyone who completes the hunt successfully by the deadline.

Tips:

- Take advantage of team members who are already familiar with a tool. Invite them to serve as 'tour guides' for a few minutes in team meetings, sharing their screen to walk through the tool, or ask them to offer friendly tech support for teammates.
- Instead of (or in addition to) finding information, the hunt could ask participants to leave traces of their visit: filling out user profiles, leaving comments or questions, or entering some other kind of relevant information.
- For small teams, ask each person to find or leave different information and record their progress in a shared document. Everyone can then learn from everyone else's work.

Activity: Externalize Expertise

Outcome: Team members capture and preserve what they know in a sharable way.

Time: Ongoing

Overview: People make discoveries as they undertake the journey of doing remote collaborative work. It might be something small, like finding an overlooked feature in a team tool that streamlines a workflow. It might be something large, like creating a reusable framework that saves time on a frequent task. Sometimes the discoveries go unmentioned or are revealed almost by accident; sometimes they are shared and briefly applauded in a meeting, then forgotten; sometimes, they are preserved in an email outlining the steps, which then disappears into the sea of messages received.

None of that is enough to support a remote team over time: such discoveries and inventions should be routinely recorded and broadly shared with the whole team. Remote teams in particular need to be disciplined about this practice so that they can function efficiently and avoid duplicating effort and repeating mistakes.

Steps:

1. Orient the team to the value of externalizing expertise.
2. Ask if anyone has an example of a discovery or invention they could share that others might find useful.
3. After the person has spoken, ask the group how they would like to find that information later if they suddenly realized they need it. Lead a conversation about how this team could capture and archive expertise and discoveries.
4. Capture any agreements or norms that arise from the conversation.
5. Be prepared to remind people to capture and store discoveries for a while. When someone mentions something, or when it is evident that a discovery has been made, request the person to write it down and work with them until it is preserved in the agreed-upon spot.

Tips:

- Collect and store externalized expertise in your team's knowledge base (see *Creating a Team Knowledge Base*, above).
- Reinforce the behavior of using the archive frequently at first. For example, during opening check-ins at team meetings, ask if anyone has used the archive recently and if so, what they looked for or learned.
- Consider reserving the last 15 minutes of a team meeting for a five-minute brainstorm of ideas about what each person could contribute, then taking the last 10 minutes for people to write some of them up.

What's Next for the Virtual Workspace?

Predictions are tricky; predictions about technology tend to be both tricky and laughably outdated by the time anyone sees them. Remote collaboration, though, is really less about technology and more about how people work together when they aren't actually *together*.

In his 2011 book *Visual Teams*, David Sibbet related three hypotheses about virtual work—hypotheses that he actually formulated much earlier, in the 1990s. These hypotheses have nothing to do with specific technologies and everything to do with collaboration, and as a result they are as relevant today as they were then:

1. **Face-to-face meetings will become less frequent and more important** in that they will need to be well-facilitated since virtual teams depend on them to develop personal relations.
2. **In spite of the variety of communication platforms, teams will need to agree on one or two basic ones** to connect.
3. **Narrower communication channels** (i.e., texting, phone vs. face-to-face) **will require more robust meta-language** for talking about talking and thinking about thinking (p.24).

At the moment, I am in agreement with all three of these points, although I believe that we need to get better at developing personal relations remotely, especially right now. I also have two hypotheses to add to the ones above. My research and experience has led me to believe that:

4. **Remote collaborative tools will become more plentiful and more visual** as younger generations continue to enter the workforce. Their affinity for the highly visual mobile applications that they use in other contexts will influence the development of beautiful, flexible applications that enable people to collaborate in ways that we can't even imagine today.
5. **We will increasingly develop (and prefer) practices that are uniquely possible in remote environments over those that are 'almost as good as' face-to-face practices.** This will progressively establish remote teamwork as a valuable concern in its own right, rather than a second-best solution when co-location is not possible.

Whatever the future holds for new processes, tools, and attitudes toward remote collaboration, I hope that the ideas and approaches in this guide help make your experience with remote work more enjoyable and your remote teams more effective.

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