The Definitive Guide to Multi-Device E-Learning
# Table of Contents

Introduction .............................................................................. 2
Defining Our Terms: Multi-Device E-Learning & Mobile E-Learning .............................................. 3
What You’ll Learn ...................................................................... 4

Getting Ready for Multi-Device E-Learning ............................................................ 6
Are You Prepared for Multi-Device E-Learning? .................................................................. 7
Are Your Learners Prepared for Multi-Device E-Learning? ................................................. 9
Is Your Organization Prepared for Multi-Device E-Learning? ............................................ 10
Key Takeaways ........................................................................... 11

Developing Multi-Device E-Learning ........................................................................ 12
Choosing Your Approach to Multi-Device E-Learning ....................................................... 13
Three Requirements for Multi-Device Authoring Tools .................................................... 16
Key Takeaways ........................................................................... 18
Chapter 1

Introduction
Next time you’re in a public place, take a look around you. Everywhere you’ll see people tapping, swiping, and scrolling on their tiny, handheld computers.

The average mobile user checks her phone around 150 times per day,¹ and that’s not just to play Candy Crush. A whopping 86% of smartphone users rely on their phones to access just-in-time information, such as driving directions.²

If you reach for your device any time you need to plan a coffee date or find the best pizza place in town, these statistics reflect what you already know. More and more of us are using mobile devices as our primary means of finding information.

The way we use our devices has spilled from our personal lives into the workplace. A 2013 study showed that 90 percent of full-time employees in the U.S. use their tablets and smartphones for work.³ It’s becoming an expectation for training to be accessible in this way. In fact, we surveyed our customers and 67 percent said they’re asked to create mobile learning.⁴

As an e-learning developer, multi-device e-learning allows you to provide content that can be consumed whenever, wherever. By making courses available on any device, you expand the reach of your training and give your learners the power to access the information they need, when they need it.

You might be excited and ready to get started, or you could be feeling a little hesitant. Either way, we’ve got your back.

Defining Our Terms: Multi-Device E-Learning & Mobile E-Learning

Before we dig into this exciting topic, we want to clarify a few key terms you’ll see us use in this e-book: “mobile

---

“multi-device e-learning” and “multi-device e-learning.” We don’t use these terms interchangeably since we think there is an important distinction between them. “Mobile” refers to a set of devices that people use on the go, such as tablets and smartphones. These are a subset of the “multi-device” category.

It’s rare for a person to access content using only one type of device. Learners might use their smartphone, tablet, laptop, or desktop computer to access your courses. In fact, they might use all of those devices to access one course over the span of a few days!

That breadth of devices is what we’re referring to when we use the phrase “multi-device e-learning” versus the more specific “mobile” or “mobile-optimized e-learning.”

Our bet is that you’re already creating courses that look great on desktop and laptop computers. We’re focused on giving you the resources you need to ensure they also perform beautifully on tablets and smartphones. This e-book is a great first resource to help you get acquainted with essential concepts and terms.

What You’ll Learn

By the end of this e-book, you’ll understand everything you need to begin developing and designing multi-device e-learning. We’ll answer your most pressing questions, including:

“What is true multi-device e-learning?”

Today, people consume content across multiple devices including smartphones, tablets, and laptops. We’ll talk about why your e-learning needs to work on every device learners may use, not just a select few.

“Am I ready for multi-device e-learning? Are my learners and organization ready?”

Even if you create the most engaging mobile-optimized content, your e-learning won’t be effective without the proper planning and support. We’ll provide you with the questions to ask to make sure everyone is ready.

“What should I look for in a multi-device e-learning authoring tool?”

Selecting the right multi-device authoring tools will make your job a whole lot easier. We’ve listed some helpful criteria so you can determine whether your authoring tool will speed up course development or slow you down.
“How do I design great e-learning that works on any device?”

There are key differences in the way users interact with handheld devices versus desktop computers. We’ll discuss how these differences impact the way you approach designing your courses.

Ready to get started? Let's dive in!
Chapter 2

Getting Ready for Multi-Device E-Learning
Before you start anything new, whether it’s a fitness routine or a project at work, it’s helpful to think through how to make your efforts a success. Building a plan for multi-device e-learning is no different.

This doesn’t have to be a major undertaking—just doing one or two of the things we suggest in this chapter will make your life easier—but it does take foresight. You want to give yourself time to have conversations with stakeholders at your company and figure out how multi-device e-learning will improve your organization.

When you have a plan in place, choosing the right tools will make it easy for you to design and develop multi-device e-learning. We’ll talk more about that in the next chapter.

In this section, we’ll provide you with the questions to ask to make sure everyone—you, your learners, and your organization as a whole—understands what’s involved in making multi-device e-learning a success.

Are You Prepared For Multi-Device E-Learning?

Let’s start by evaluating the part of the success equation you know the most about: you!

Like any new technology, multi-device e-learning will cause change at your organization. Learners will not only be able to access courses on their desktops and laptops, but on the go as well. This provides solutions to business challenges and creates new opportunities to improve performance.

You have the exciting opportunity to drive progress. To be successful, you’ll want to take a step back and consider your design and development approach, as well as how your responsibilities will shift when you introduce multi-device e-learning to your organization.

Your Design and Development Approach

Throwing a new technology into the mix with your authoring responsibilities will change your design and development approach. Here are some questions to consider to help you think about what that might look like:

How will your design and development workflow change?

We know that people often turn to their mobile devices for quick solutions to problems. How will you need to change your design process to factor this behavior into your project plan?
For instance, are there lengthier courses that you could break into shorter ones for learners on the go? Adapting and streamlining existing content rather than creating it from scratch is a big training timesaver.

**What new learning solutions can you create?**

Having the tools and perspective you need for building multi-device e-learning opens up a world of possibilities. What new solutions can you create for learners that it didn’t make sense to build before?

Things like online glossaries, quick reference checklists, and short how-to videos are just the tip of the design iceberg. Be sure to check out our list of *10 Things You Could Create Instead of an E-Learning Course* for even more ideas.

**How will you make e-learning that’s easy for mobile learners to use?**

Since mobile learners might be reading on smaller screens, you’ll want to figure out ways to take their needs into account when you’re designing e-learning that’s meant to be consumed across multiple devices, including mobile ones.

If you’re not sure how to answer this question now, don’t worry. In Chapter 3, Developing Multi-Device E-Learning, we’ll introduce you to tools that can help you build great-looking e-learning for any device, without creating more work for you. We’ll also cover a number of mobile-specific visual design tips in Chapter 4, Designing Mobile-Optimized E-Learning.

**Your Responsibilities**

Once you’ve launched multi-device e-learning, you may find that your responsibilities change. Your organization and your learners will look to you to lead the way—to make sure that:

- Everyone knows how to access and use e-learning on any device.
- Managers get the info they need about their learners’ progress.
- The IT team is ready support learners on mobile devices.

To begin exploring these new responsibilities and expectations, ask yourself these questions:

**What resources will my learners need to access training materials on their mobile devices?**

Do you know what your learners really need to be successful
on the job? Do mobile devices play a role in their success?

Are there other teams in my organization whose support I need to make my efforts successful? If so, how can I get that support?

Do you have a direct line of communication with partner teams in your organization or will you need to get some support from your manager? How can you reframe any new responsibilities or changes to their workflow as exciting opportunities?

What’s my communication plan for spreading this information to learners, their managers, and IT?

Once you’ve gathered insights into the needs of these stakeholders, you’ll want to see if there are conflicts to address. If so, who can help you resolve those conflicts?

Your responses to these questions should give you a better sense of how ready you are for the changes that can come with multi-device e-learning.

Are Learners at Your Organization Prepared For Multi-Device E-Learning?

Building multi-device e-learning that empowers learners starts with conversation and observation. You’ll want to first listen to their needs and consider how comfortable they are using mobile technology.

If you do this before you start laying the groundwork for multi-device e-learning, you’ll introduce a program that makes their lives easier and more productive.

Basically, you’ll want to understand the answers to the key questions below. We’ve provided tips for any sticking points you may encounter.

1. Do your learners already use mobile devices as part of their work?
2. Do you need to show your learners how using their mobile devices can help them do their job?
3. Are your learners pretty tech-savvy? Or will you need to help them develop basic skills for using mobile devices?
4. Do your learners typically have access to high-speed internet when they’re using their mobile devices?
We’ve developed a quiz to help you dig deeper into how prepared your learners are for multi-device e-learning: *How Ready Are Your Learners?* Observe the way they use mobile devices at work (or find out why they don’t), and then fill out the assessment.

The quiz results may highlight some potential areas for follow-up or give you the positive feedback you need to move forward more confidently. Either way, giving this a little thought now can help you make sure your multi-device e-learning courses are met with learners’ cheers.

Is Your Organization Prepared for Multi-Device E-Learning?

Multi-device e-learning could be the cornerstone of your organization’s learning strategy, or it could be a missed opportunity. You and your learners may be prepared, but using this technology to accomplish business goals is an organization-wide affair. Executives, supervisors, the IT team—these are all people whose buy-in can strengthen your multi-device e-learning plan.

Here are just a few of the perspectives you’ll need to consider:

**Executives**

Do they want training to take a bigger role in increasing sales, reducing response times, or other strategic priorities? If so, multi-device e-learning is a great way to achieve those goals, since it removes common barriers to learning.

**Managers**

With courses available on any device, managers may have new expectations for learners. For instance, managers may expect their employees to complete training more quickly. Are those expectations reasonable?

**IT**

Sometimes people need assistance when they’re using new devices. Will you need additional IT resources assigned to

---

**Answered yes to at least 3 out of 4?** Looking good! It sounds like your learners are ready to enjoy the benefits of multi-device e-learning.

**Answered yes to fewer than 4?** You’ll want to proactively address learner support with stakeholders in your organization. Things like additional training or technical support may help learners to be more successful with multi-device e-learning. And things like cellular data costs can be significant, so it’s a good idea to bring this up. We’ll delve into more detail about these conversations in the next section.
your new multi-device training initiatives? How can you partner with your IT team to make sure learners have the technical support they need for training on mobile devices?

These are just a few key players who may be impacted by multi-device e-learning. Every organization is different, so you’ll want to adapt these ideas to your workplace structure and brainstorm some additional questions of your own.

To help you in that process, we’ve created another handy tool: The 8 Questions You Need to Ask to See if Your Organization is Ready for Multi-Device E-Learning. Use this resource to uncover business cases for multi-device e-learning and to help guide stakeholder conversations about those opportunities.

Key Takeaways

- You need to be prepared to adapt your design and development approach, as well as your responsibilities, to multi-device e-learning.
- Consider your learners’ preferences and comfort levels when it comes to mobile devices. This will help ensure that what you build delights and empowers them.
- Organizational support for your multi-device e-learning plan is a must. Executives, managers, and IT professionals are all important people to approach for buy-in.

We use multi-device e-learning to refer to courses that look and perform flawlessly on any device, from desktops and laptops to tablets and smartphones.

Getting everyone ready for multi-device e-learning ensures that you spend your time building solutions that serve your learners and address a business need.
Chapter 3

Developing Multi-Device E-Learning
As an e-learning developer, your skills are a bit like a film director’s. You choose an approach and use different tools and techniques to build a scene that lands with your audience. Sometimes that means pulling out all the stops with sweeping wide-angle shots and lots of special effects. Other times all it takes is a simple close-up of an actor’s face or a particular gesture to support your message.

Developing multi-device e-learning is just like putting together any other learning solution. The approach you take depends on the content and your learner’s needs. There are two common approaches to multi-device e-learning: slide-based and web-based. Like the grandiose wide-angle shot and the close-up that says everything, they’re technically different. But we’ll show you how both can be equally appealing.

We’ll also discuss how to pick the right tools for your approach. We have three requirements for any tool you choose, so you can find ones that make developing multi-device e-learning easy (see page 16).

Choosing Your Approach to Multi-Device E-Learning

There are two basic approaches to multi-device e-learning: slide-based and web-based.

Most of today’s e-learning is slide-based. Slide-based e-learning courses are composed of many different types of content, including media-rich, complex interactions. These courses can be scaled up and down to fit different screen sizes, but objects on the slide need to stay in the same position relative to one another to make sense.
Web-based e-learning is similar, except the course content is responsive. That means it responds to the size and shape of the device you’re using, and it reflows accordingly.

For example, when you open a web-based course on a small-screened device, content might shift to a one-column layout where elements go from being arranged horizontally to being arranged vertically.

Flip the device from “portrait” to “landscape,” and it reflows again. Because web-based e-learning content doesn’t have relative positioning requirements, it can be shuffled around the screen or expanded to fit different screen sizes and still make sense.
Keeping this difference in mind can inform when you choose to build slide-based e-learning versus web-based e-learning. To get a better sense of when you might use each approach, let’s look at two real-world training scenarios.

**Scenario #1: A Request for Highly Interactive Scenario-Based E-Learning**

Say your boss wants you to train store managers on the ins- and-outs of conducting effective performance reviews. She wants e-learning packed with scenario-based activities that give managers the chance to practice their coaching skills and learn from their mistakes in a low-pressure environment.

But unlike e-learning you’ve built in the past, you want these courses to work flawlessly on desktop and mobile devices. After all, your store managers are on the go. If they’re between meetings and have 20 minutes to take a course, you want them to be able to pull out their tablet or smartphone and put that time to good use.

You’ll want to use slide-based e-learning for this type of training challenge. When you immerse learners in a richly interactive environment, it’s important that the characters, interactions, and other media you choose don’t move around. You don’t want to put a manager character behind a desk, only to find him standing on it when your learner is holding his or her device vertically.

And while a larger-screened device like a tablet or laptop computer would give your learners more of a cinematic feel, the right authoring tool can ensure that learners on devices with smaller screens also have a great experience. These tools ensure that your content always gets the most screen real estate, similar to consuming a video on your mobile phone or tablet.

**Scenario #2: The Refresher Training Needed Yesterday**

A customer at your Main Street store slipped on a freshly mopped floor and broke her leg. Not only is this a terrible experience for everyone involved, now the customer’s threatening to sue for damages.

To make matters worse, the store’s employees failed to complete an accident report because no one knew where to find it or how to fill it out. Now you need to develop training to get them up to speed so this doesn’t happen again. And time is of the essence.
Because the stores don’t have enough computers for everyone to access training, your course needs to be accessible from any type of device. It should be short and sweet: just a quick how-to screencast and some pointers to explain the process.

In this scenario, you’d likely want to choose a web-based e-learning approach. The content is simpler and more flexible than the immersive scenarios of the first example. A quick video, some how-to pointers, and a quiz can be reflowed to fit any screen size while still delivering a great experience to learners.

Now that you understand your options for creating multi-device e-learning, let’s look at what you’ll want to consider when evaluating tools.

**Three Requirements for Multi-Device Authoring Tools**

Your choice of authoring tool determines how quickly and easily your courses come together and the type of experience you provide to learners. You want a tool that gives you the flexibility to respond to any training request with e-learning that is both effective and works flawlessly on any device.

But if you’ve never developed multi-device e-learning before, or even if you have, it can be hard to know what makes one tool better than the next. Any tool you’re evaluating should meet all three of these requirements:

**Requirement #1: Courses must work on any internet-enabled device.**

Some tools only offer authoring support for specific devices. Organizations try to work with these limitations by requiring learners to use “supported devices” to access e-learning. But with new devices being released all the time, this approach simply isn’t scalable.

Additionally, limiting learners to specific tablets or smartphones is an unnecessary restriction that defeats the core purpose of multi-device e-learning: making training more accessible.

The only real solution is to choose an authoring tool that lets you build courses that work on any device.

**Requirement #2: You shouldn’t have to manually adjust courses to fit different screen sizes.**

Organizations love e-learning for its cost-effectiveness and scalability. And yet, some authoring tools undermine these two key benefits, especially when it comes to multi-device e-learning.
Many tools claiming to optimize your e-learning for mobile actually require you to manually adjust your content to fit every device a learner might use. And when a new set of mobile devices comes out, you have to go back to your courses and re-adjust content for each new screen size.

There’s no reason to settle for an authoring tool that makes delivering a great multi-device experience a huge hassle.

**Requirement #3: Courses must take advantage of all possible screen real estate and provide natural, intuitive navigation.**

Having courses that shrink or expand to fit your learners’ device is important, but what about features like the course menu that learners don’t necessarily need to see all the time?

Navigation elements like course players can occupy a lot of screen real estate. On smaller-screen devices like smartphones, you want your course itself to fill as much of the available space as possible. The authoring tool you choose should help you put your content front and center, automatically adapting navigation elements to best fit the space available, even when that means tucking them away.

**Articulate’s Approach to Multi-Device E-Learning**

At Articulate, we don’t think placing the burden on course developers to optimize e-learning for mobile is a sustainable approach for you, your organization, or your learners. That’s why we’ve created technology that lets you focus on designing and developing anything you can imagine—while our authoring apps take care of the rest.

Articulate 360 includes authoring apps that let you create both slide-based and web-based courses that work and look great on every device. You can use Storyline 360 to create interactive e-learning, Studio 360 to create e-learning from PowerPoint slides, and Rise to create responsive web-based e-learning.
Storyline 360 and Studio 360 include a responsive mobile player that scales to fit any device automatically, optimizes screen real estate, and has gesture support and mobile-friendly navigation.

Rise is a web-based app that makes it simple and easy to create responsive web-based courses. Designed with mobile in mind, Rise courses deliver an exceptional learning experience on every device.

And, we’ve got good news for longtime Articulate software users! If you have courses that you’ve created with earlier versions of Storyline or Studio, you don’t have to start from scratch to make them work on any device. You can republish your existing content to the responsive course player with one click.

The e-learning authoring tools in Articulate 360 make it easy for you to deliver great-looking e-learning every time—with no extra work for you.

Key Takeaways

✔ Slide-based and web-based e-learning are two approaches to e-learning. The approach you choose depends on your learners’ needs, but you should be able to make both types of courses available on any device.

✔ There are lots of authoring tools out there. Whatever option you choose, the most important thing to remember is that the authoring tool should do heavy lifting of adapting your courses for mobile devices, not you. Keep all three requirements for mobile authoring tools handy with our free authoring tool comparison worksheet.
Chapter 4

Designing Mobile Optimized E-Learning
Learners interact differently with handheld devices than they do with desktop computers. Understanding these differences is crucial when you’re designing multi-device e-learning that’s likely to be accessed on mobile devices. Once you’re familiar with these differences and key mobile design concepts, it’ll be easier for you to apply your authoring expertise to creating mobile-optimized e-learning.

Keep in mind that if you use a tool like Rise, you don’t need to think about mobile design at all. All Rise courses are automatically optimized for mobile.

We’ll dig into how learners interact differently with different devices shortly, but first we want to get you acquainted with two important terms.

**UX and UI**

You might have heard the terms “UX” or “UI” before. These concepts come up often when you’re creating and evaluating designs, so they’re important terms to understand.

A user interface, or UI, is the means by which people interact with a software application or hardware device. This broad term encompasses all points of interaction, including voice commands, the layout of a page, or a computer keyboard, to name a few.

A “user-friendly UI” allows a learner to easily figure out how to control and operate the software or hardware. That’s the ideal. You want the UI to be simple so that people can focus on what they’re doing.

User experience, or UX, refers to how users perceive the quality of their interaction with software or hardware.

For example, the user experience of flying from New York City to San Francisco includes things like booking the ticket, going through security, finding your seat, and being served drinks on the flight. The user experience is the sum of all these interactions, since each of these touchpoints shapes your feelings about the experience.

Good UX takes into account the user’s needs, values, abilities, and limitations. Being comfortable on a flight is something customers value, so building planes with sufficient leg room is an important consideration for a designer.

Similarly, learners on tablets and smartphones have certain expectations of how content on these devices will perform and respond to their interaction. In the next section, we’ll
talk about how to exceed their expectations when designing multi-device e-learning.

Three Key Concepts in Mobile Design

Imagine you’re searching your inbox for an email your friend sent you last week. Take a minute to think about how different that experience is on your smartphone than on your laptop.

You can probably come up with many differences in just a few minutes! You might think about things like using a mouse instead of touching the screen, or the way your inbox is structured differently on your tablet than on your desktop computer.

Being mindful of these differences helps you be a better designer, but keeping an exhaustive list of them in mind as you create e-learning isn’t practical (or possible).

Luckily, these differences fall into a few broad categories: immediacy, affordance, and interactivity. Once you start working with these categories, you’ll find that you naturally begin to design e-learning in a way that creates a great UX for your learners.

If you’re versed in design principles, some of these tips may feel familiar. We’ve coupled these with insights into how learners use mobile devices, making it easier for you to build great multi-device courses.

Immediacy

One of the things people love about mobile devices is that they divide big tasks into manageable chunks. Chunking content like this gives people the information they need to move forward at a given moment, making the job at hand seem easier overall.

For example, the popular Google Maps app for smartphones simplifies the process of getting from point A to point B so that you only have to focus on one small step at a time. It answers the question: what do I need to do right now to get to my destination?

The portability of mobile devices makes them ideal for getting learners immediate, detailed help on a task that’s right in front of them. As you’re designing e-learning, think about how you might use mobile e-learning to provide learners with step-by-step instructions for immediate workplace tasks.
Affordance

Affordances are the subtle visual cues that tell our brains how to interact with objects. When we see a button, we know to push it. Its beveled edge and the way it changes when it’s pushed all send signals to the brain that say, “Hey, there’s something to do here.”

Affordances are very useful in e-learning. They help learners’ brains clue-in to the function of elements in the course. Hovering your mouse over a button on your computer screen may cause the button’s appearance to change, giving your brain the invitation to click it.

On mobile devices, some affordances are different. For instance, since the mechanics behind a mouse click and a finger tap are different, things like hover states on buttons don’t work on mobile devices.

Because of this difference, it’s a good idea to avoid putting critical text or information on an object’s hover state when you’re designing for mobile learners. Instead, make that critical text or information the result of a tap, like a simple pop-up.

Interactivity

Using your fingers to interact with a device is a different experience than clicking and typing. To provide a UX that feels natural to the mobile learner, you’ll want to understand common mobile gestures, what they accomplish, and the design considerations that go with them.

Drag

Mobile users drag their finger or thumb up and down over the screen to scroll through content, or side-to-side to pan through content. Unlike a mouse which can click and drag very precisely, dragging to scroll is a little trickier, especially on smaller screen sizes.

When you’re designing e-learning for use on smaller devices,
make sure that learners can swipe through content without having to worry about being precise.

For example, if you have a long article embedded in your e-learning, make sure the scrollable text panel is big enough that your learner can comfortably flick through it with her thumb. If she has to use the tip of her finger to carefully swipe up or down through content or else risk losing her place, you’ll want to make the panel bigger.

**Swipe**

This mobile gesture lets users navigate forward and backward through content like they would a physical book. You don’t see this gesture a lot in desktop interfaces where users click a button or link to move through content.

Because e-learning on mobile devices is still a relatively new idea, mobile learners may not realize they can swipe from screen to screen to navigate through courses. It’s a good idea to offer up a few mobile navigation pointers to help them get up to speed.

---

**Pinch-to-Zoom**

Pinching and opening your fingers to fluidly zoom in and out of a section of content is a mobile gesture without a desktop counterpart. Instead, desktop users use keyboard shortcuts or click a button to zoom in and out incrementally.

Like swiping, learners on mobile devices may not realize that they can pinch to zoom, so it may be a good idea to point out this feature when it’s available in your course.

---

**Typing**

Mobile and desktop users alike both type with their fingers, but having a full-sized desktop keyboard is a very different experience than typing on a touch screen.

Keep this in mind especially when you’re creating quizzes for mobile learners. Input fields for things like fill-in-the-blank
questions can be trickier to select on smaller device sizes, and composing long-form responses may be tedious to learners who are doing it all with their thumbs.

Be aware that virtual keyboards also take up a lot of space. Learners can lose context and supplementary material when they’re filling out forms on a mobile device. Be sure to test quizzes with form-based responses on a couple different devices before sending them out to learners.

Mobile gestures are too numerous for us to present you with an exhaustive list. Even if we did, it’d grow constantly as mobile technology continues to evolve. Do your best to accommodate these basic gestures, and don’t shy away from drawing on your own experience as a mobile device user. If you use your tablet or smartphone a certain way, many of your learners likely do, too.

Articulate’s responsive mobile course player and web-based responsive authoring tool Rise both support these mobile gestures automatically, providing a natural experience for learners on any device.

Working with Design Elements for Mobile E-Learning

Although handheld devices tend to be smaller than desktop computers, graphic elements play an equally important role in engaging learners. You just have to make sure your characters, images, videos, and typography are designed in a way that makes them easy for learners to view—even when screen real estate is limited.

Let’s take a closer look at some pointers and best practices that will help you to optimize your graphics for mobile learning.

Graphics

Generally speaking, it’s easier for our brains to grasp concepts quickly when they’re supported by a strong, relevant visual. When you’re choosing graphics for mobile, you want to make sure they’re simple and easy to interpret at a glance. Detailed schematics or in-depth infographics
with lots of tiny details will be difficult to see on smaller screens.

How can you tell whether a graphic serves your learners needs or just makes it harder for them to take in your content? Here are two common graphic types and how to approach using each in multi-device e-learning courses:

Characters

Including characters in a course can be a great way to engage learners. But because they take up precious screen real estate—especially on a smaller-screened device—you want to make sure you use them thoughtfully.

Using characters to simulate a conversation is one approach that’s not only engaging and effective, but also mobile-friendly. That’s because, in a simulated conversation, the characters serve a purpose and aren’t just window dressing.

If you’re not sure if a character is supporting your message or just getting in the way, think about the character’s purpose. Will the content or interaction still make sense without them? And if you’re still not sure, mock up a few screens of your content. Share them with a few peers or a small group of test users to get some feedback before you’re deep in development.

For more ideas about how to use characters in your courses, check out these 5 Cool Ways to Use Characters to Engage and Connect with Learners.

Buttons

If you’ve ever tried to interact with a website that wasn’t optimized for mobile, you may have had the experience of trying to push a small button with the tip your finger only to accidentally push two other, different buttons.

Spare your learners this frustrating experience. Label buttons with short, clear, descriptive verbs such as “GO,” “STOP,” and “TRY” to eliminate confusion. And make them bright, bold, and big. This makes it easier for learners to click and tap them since fingertips are less precise than the point of a cursor arrow.

There’s no hard and fast rule to how big your buttons should be or how much spacing to put between them. You’ll want to test your courses on real devices to ensure that your button size and spacing work together to give learners a good experience.
Fonts

Readability is an important design concern, especially on smaller screens. Making sure your content is easy to read on any device is a matter of simplicity, consistency, and contrast. Let’s take a look at each of these considerations in more detail:

*Keep your fonts simple.*

While a fun, bold font can be great for punching up a dull title screen, we don’t recommend it for communicating critical information, especially when you’re designing multi-device e-learning.

Both *sans-serif* and *serif* fonts can appear clean and readable on devices with smaller screen sizes.

Serif fonts have distinctive shapes that help our eyes follow along, especially over longer passages of text. But on smaller screen sizes, they can look cluttered. In those cases, a sans-serif font may be a better choice. If you’re unsure, test your fonts of choice on different devices.

There’s no one size that will look great on every device, but a 16-point font is a good standard for body text. It tends to scale well on a variety of screen sizes without overwhelming your slides.

Another thing to consider is x-height, the distance between the baseline and the tops of the lower-case letters. A larger x-height in a font usually makes it easier to read on smaller screens.

Choose one or two fonts that you like, and stick with them. Limiting the number of fonts you use keeps your content looking clean and uncluttered, no matter the device.

---

Use consistent formatting.

Once you’ve picked your fonts and you begin to lay out your course, pay close attention to your formatting. Our brains love patterns and consistency, so inconsistent formatting can distract learners from your course content. Be predictable: headings on top, subheadings below, and then body text and bullet points with all the details.
Consider contrast.

People use their mobile devices in all sorts of environments—on airplanes and subways, in restaurants and at the beach. The untethered learner consumes your e-learning under lots of different lighting conditions. That’s one reason why contrast between onscreen text and the course background is an important design consideration. To maximize readability in lots of different environments, it’s a good idea to make sure the contrast between your text and the screen background is high, like in this example:

If you can, test your courses on a few different devices under a few different lighting conditions before you roll them out to the masses. This gives you a quick way to see if you need to adjust anything to enhance readability. It’s also a good idea to use free accessibility tools, like this [online contrast checker](#), to make sure your color palette works for everyone.

Videos

Learners already consume a ton of video content on their smartphones and tablets, so using it in your multi-device courses will feel like a natural mobile experience. To make sure your learners get the most out of e-learning with video content, it pays to keep a few technical considerations in mind.

Take note of the size and quality of the video you’re using. High-quality video files can get rather large, leading to slower load times on a mobile device. When necessary, sacrificing some quality for speed can be a strategic trade-off. Learners with poor internet bandwidth and those on a cellular connection will thank you.
Any time you work with video, you’ll want to do some quick testing. You want to make sure your videos load quickly and look crisp. There are lots of different video formats out there, each with their own pros and cons. If you plan to use video in your courses, you’ll find [this handy article](#) offers some great technical guidance.

**Key Takeaways**

- Adapting to a multi-device world doesn’t require learning new design skills from scratch. You can adjust your existing design skills to an evolving set of user behaviors.

- The way learners interact with content on mobile devices is fundamentally different than the way they interact with content on their desktop. Keep these differences in mind when designing your courses.

- When designing multi-device e-learning, it’s important to choose graphics thoughtfully, make your text easy to read, and understand the technical requirements of using video.

If you’re interested in learning more about current design trends, visit sites like [Pinterest](#), [Dribbble](#), and [Graphic River](#). Browsing the most popular content on these sites can help inspire new course designs.

We’re also excited to share the source of continuous inspiration right in our own backyard: E-Learning Heroes. Our helpful community members share their new projects regularly on both the [E-Learning Challenges Hub](#) and the [E-Learning Examples Hub](#).

And one final reminder: if you use an authoring tool like Rise, which is part of Articulate 360, any course you build is already optimized for mobile learning. In short, if you use Rise, you don’t have to worry about anything you just read in this chapter!
Chapter 5

Conclusion
We’ve covered a lot of turf, starting with how to prepare yourself for multi-device e-learning and working up to actually making your e-learning mobile-ready. Equipped with this knowledge, we hope you feel ready to start building your own multi-device e-learning.

You can always use this e-book as a resource any time you need a refresher. And if you’re looking for a community of talented developers to help you uplevel your skills, visit E-Learning Heroes. You’ll find how-to’s, examples, free assets like templates and graphics, and awesome support.

While we’ve packed a lot of information into this e-book, we know there are probably some different topics you may want to dig into even more deeply. Here are some additional free resources to help you continue your multi-device e-learning education.

- 3 Tips For Making Your E-Learning Course Content Mobile-Friendly
- What is Responsive E-Learning and Why Does it Matter?
- Why Rise is a Kick-Butt Multi-Device Authoring Tool
- Comparing the Storyline 360 Responsive Player with Adobe Captivate’s Responsive Solution
Appendix
Terms & Definitions

**Affordance:** n. The subtle visual cues that tell our brains how to interact with objects in the world around us.

**Multi-device:** adj. Involving more than one device, usually inclusive of tablets and mobile phones.

**Responsive:** adj. A state where objects like images, text, and navigation elements can reflow to react to different screen sizes.

**Serif** n. A slight projection finishing off a stroke of a letter in certain typefaces.

**Sans-Serif** n. A style of type that lacks serifs.

**Smartphone:** n. A cell phone with many if not all of the same functions as a personal computer. Most smartphones have a touchscreen and allow the user to install applications or “apps.” Some examples of smartphones include the iPhone, Google Nexus, and Samsung Galaxy.

**Tablet:** n. A portable computer with a touchscreen. Normally tablets come standalone without hardware keyboards, but many laptop computers now include a tablet-style touchscreen interface, blurring the lines.

**User interface (UI):** n. The means by which a person controls a software application or a hardware device, like a computer or a mobile phone.

**User experience (UX):** n. The quality of the user’s experience when they’re interacting with software applications and hardware devices.