



The Virtual Learning Expert's Toolbox

8 BLENDED LEARNING TOOL CATEGORIES



**DESIGN
DEVELOP
DELIVER
FACILITATE
PRODUCE
CURATE**

Are we using the right tools to design, develop, deliver, facilitate, produce, and curate learning? Or are we using our shoes, staplers, or anything else sturdy enough that we have on hand to get the job done?

I would argue that what matters MOST is that we are using our technology tools (aka: EdTech) and applications to meet the needs of our learners and to reach desired blended learning outcomes. And, within this process, we should always be focusing on how to create excellent learning experiences and sustain vibrant learning communities.

The Virtual Learning Expert's Toolbox: 8 Blended Learning Tool Categories

COMPARTMENTALIZING TECHNOLOGY TOOLS AND APPS



The tech tools and apps that we find in our learning industry toolboxes are typically used to either provide content, develop interaction, or perform assessment. We are going to break these areas down further and dive deeper into these eight technology toolbox compartments:

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KNOWLEDGE AND CONTENT



01

The materials that you create, curate, and deliver for your learners to access fall into the category of knowledge and content. The types of tools we see in this toolbox compartment are the ones we use to create learning assets such as job aids, presentations, eLearning modules, screencasts, videos, audio recordings, infographics, course maps, and the like.

TOOLS AND APPS FOR CREATING DOCUMENTS



I use the standard tools and apps including Microsoft 365, Google Docs, Adobe Acrobat, InDesign, and Framemaker. The Microsoft 365 apps work well on mobile, and, when combined with OneDrive or Dropbox, are excellent for collaborating with others on the go.

Features to Look For

Ease of use. These are the tools we use most often, and you don't want to find yourself struggling with a learning curve when you need to develop content. The most important feature for me? The ability to UNDO.

Considerations

Recently, I have been collaborating while creating documents, so tracking changes and version control are key. Also, it's good to know who else is in a document when you are working together. Dropbox Badge makes it really easy to see when others are also working on a file so that we can prevent conflicts.

You Might Want to Learn More About

Adobe Acrobat. If you're not familiar with all of the features available, take some time to explore them. There's a lot of power in a .pdf!

TOOLS AND APPS FOR CREATING PRESENTATIONS



PowerPoint, Keynote, and Prezi are my standards. I have just started using Google Slides, and I do like the results. Cloud based applications like Clear Slide and Slide Bean enable us to work and present online but can be costly. Slides.com and Haiku Deck are my favorites, but they cost from about \$10 a month.

Features to Look For

Check for features like templates, transitions, animations, and collaboration options. Different layout options are important to me—I don't want every slide to look the same in my presentations. Be sure you can add notes to your slides, and test out any presenter view in advance of your presentation so you know what to expect.

Considerations

If you're using an online presentation app, be sure that you can import your company logo and font if you need to. Many presentations can double as marketing pieces, so be sure that your colleagues can access your materials.

You Might Want to Learn More About

If you're on a Mac, try out DeskSet. It's my favorite these days. I write out my notes in Markdown language and then DeskSet turns the notes into amazing slides. If you're up for some fun, have a look at Visme – it is a cloud-based presentation app that has some exciting AI features.

TOOLS AND APPS FOR CREATING GRAPHICS



I love working with graphics and have accounts on iStock, 123RF, and Deposit Photos. I use Photoshop to create and edit images and Canva and Piktochart to create infographics. I also use Tableau (high learning curve and \$\$\$) to explore data for any visualizations that I work with.

Features to Look For

Ease of use is a big one here. Photoshop is fantastic, but not very intuitive. I find Canva much easier to use for creating graphics to use online. You should look for the ability to save in different formats (.png, .jpg, .gif, .tiff), and to set different resolutions for print as well as screen.

Considerations

Give credit where credit is due and read the fine print. Some graphics that you purchase may seem to be royalty free but have associated costs if you are using them commercially—if you are gaining monetarily from their use.

You Might Want to Learn More About

On the low (free) end, I HIGHLY recommend exploring the Noun Project for free icons (give credit), and UnSplash for fantastic photos to use as back grounds in your materials.

TOOLS AND APPS FOR CREATING INTERACTIVE ELEARNING



Captivate, Lectora, Camtasia and Articulate are the big names in this area, with my favorite being Articulate. It's easy to use Articulate Rise to create sleek, modern, and easy-to-navigate courses that will be accessible on any device.

Features to Look For

The ability to create branching scenarios and collect learner data are the most important features to look for. Many of these tools and apps feature rich image banks and the ability to add your own images to templates. Articulate Rise has a whole bank of complete courses and templates ready to edit as your own. That's always a good thing! Check that the tool you choose will work the way you want it to with your LMS! For example, some LMS's have a restriction on the size of SCORM uploads, and some will record quiz scores as well as % complete.

Considerations

Many of these tools are expensive and time-intensive. Check out online tool comparison charts to see which would work best for you. Also note that older versions don't always work with newer materials. Be sure that everyone on your team has the same version here!

You Might Want to Learn More About

The authoring options in your LMS. Many LMS's offer course libraries or authoring tools that are built in, meaning you may not even need to create your own elearnings.

TOOLS AND APPS FOR CREATING AUDIO



I'm a big fan of podcasting these days, and I use Zencast to record my sessions. I've used Audacity to record and edit audio and am currently using Adobe Audition to edit. I'll let you in on a big secret here – I use my phone to record audio most of the time. There are hundreds of audio recording apps for the iPhone, and I mostly use Just Press Record—it even has features for transcribing and editing!

Features to Look For

The key to audio apps is the formats that you can save in, so look for .wav and .mp3 options. Editing applications should allow you to use multiple tracks so that you can add music or additional audio (footsteps?) to your recordings.

Considerations

If I'm recording from my computer, I use a high-end external mic, not a headset. And I'm very careful about edits and changes that I make to a recording. Be careful about changing volume and pitch, and remember that getting good audio in the first place is more important than being able to edit it!

You Might Want to Learn More About

Google Speech-to-Text. It's built into Google Docs, and you can speak instead of typing. Microsoft Word has a similar Dictate feature. It isn't perfect, but it's a very interesting way to explore voice-to-text. Keep an eye on this feature—I think it's going to get better.

TOOLS AND APPS FOR CREATING VIDEO



I have used PowToon and Camtasia to create videos. I use my iPhone and iPad to capture a lot of the video I work with. You can use online tools like VideoScribe to create some fun presentation materials, but be sure that whatever you can create, you can edit. My one go-to for microlearning videos is Adobe Express. It is SO easy to use and includes generative AI, and I have created professional-looking videos in minutes!

Features to Look For

Be sure that you have a tool that will allow you to edit video. You want to check for input and output options on any editing tools and apps and the ability to import and export .wav, .mov, .avi, and .mp4 files.

Considerations

Be sure you have good audio input in your video capture utility and plenty of space to store these files. Audio and video files can be large, and some online services charge by file size for storage space.

You Might Want to Learn More About

Consider your background if you're going to do a lot of video of people or products. Replacing the background with a corporate logo or image could increase the professionalism of your videos. I use an iPad app called VeeScope Live that lets me record a video using a photo or video from my photo library to replace my background. No post-production required!

TOOLS AND APPS FOR CREATING SCREENCASTING



We use screencasting tools to share demonstrations and screen walkthroughs. I use Captivate for my screencasting, and if I have something simple and quick to do, I use Zoom or Teams. These tools all work the same, but there are more editing features in the higher end products like Dropbox Capture.

Features to Look For

You want to be able to set the screen capture area so that your learners don't catch sight of your entire workspace! Also, the ability to highlight and zoom and pan are useful editing tools. Again, check the file types that you can export—these files are video files after all!

Considerations

Before you start screencasting, determine the needs of your audience. You may be able to use lower-end tools for some of your productions that don't need highlighting or zooming.

You Might Want to Learn More About

Mobile screencasting tools and apps are fantastic. The built-in screen recording feature on the iPhone is simple to use and allows you to capture any mobile app or action. I have to say this is one of the best apps out there!

ALWAYS KEEP IN MIND

Many of these technology tools and apps come with associated fees. Explore pricing and keep an eye on monthly charges (and when they renew). With larger companies buying smaller companies, pricing can change overnight. I know this from experience.

The most important feature related to ANY knowledge or content technology tool or app is the ability to make changes and edits. We all have experience working on a project with last-minute changes. So, as you're exploring some of these tools or just reviewing what you have in your toolbox, take some time to think about how easy (or hard) it is to make changes in your knowledge or content materials.

HOW AI CAN HELP

Content generation is one of the easiest ways to start working with AI. Simply type a request into a generative AI chat bot like Chat GPT or Jasper, and it'll generate text for you on almost any topic. You can then use that text to create documents, elearning, or even the scripts for your training. The more specific your request, the more specific the content will be, so tell it who your learners are and what difficulty level you're aiming for.

AI can assist in creating training videos by generating scripts, automating video editing, and even producing voiceovers. Tools like Lumen5 and Synthesia can turn text content into engaging videos with minimal manual effort. AI can also generate quizzes and assessment that you can incorporate into your training. Once you've finished creating all your documentation, use an AI tool like Grammarly to proofread it for you.

TOWARD THE FUTURE

The internet has lowered the cost of contributing content across the board. In the future, I see prices coming down on many of these applications, alongside more ease of use.

In my crystal ball, I see that many of the standard knowledge and content technology tools and apps that you use today will integrate and work better with your mobile devices and offer more (and better) voice-to-text functionality.





COMMUNICATION AND INTERACTION

02 You will find the tools and apps you use to reach your learners via email, announcements, and any other outreach broadcast media in this toolbox compartment, along with discussion forums, chat, and collaboration tools.

At the core of each of these tools is functionality that enables us to talk to each other and share.

TOOLS AND APPS FOR COMMUNICATION



I consider these tools and apps to be my lifelines. I rely on email, phone, and text for my communication and outreach. I have several Gmail accounts as well as an Outlook email account. All of my email accounts are accessible from my iPhone, iPad and Apple watch. And I can text from any device that I'm on—in the phone's native texting app, WhatsApp, and Teams or Google Chat.

Features to Look For

We take many email features for granted, but I've started using more of them to organize, prioritize, and refer back to messages. For any communication tool or app that you use, look for filtering tools that will help you auto-sort incoming messages. Also look for voice-to-text options. I use voice-to-text to compose emails on a regular basis.

Considerations

Take the extra time needed to organize your email—it's worth it. To avoid getting overwhelmed checking multiple accounts, try merging all of your accounts. I've done this before with Gmail and it worked flawlessly. And check out the texting features of your email app (like Google Chat).

You Might Want to Learn More About

Mail consolidation services like Mail.com come in handy if you have multiple accounts on different services. I have used it in the past while on the road and it came in very handy. There's a great book on working with Outlook, called *Take Back Your Life*, that made a huge difference in the way I work with ALL of my email accounts!

TOOLS AND APPS FOR BROADCASTING



Many of us have access to what I refer to as broadcasting tools within our Learning Management Systems (LMS's) or through group messaging services. These are powerful tools for reaching groups and can be used for announcements, quick reminders, and calls for assistance.

I use the announcements feature in Talent LMS, Moodle, and Totara all the time to reach out to my learner groups. I like the way it automatically sends an email as well (to those who subscribe). I also use Slack and Teams for broadcasting out to specific groups—some are working groups, and others are my Personal Learning Network (PLN).

Features to Look For

I consider broadcasting tools and apps to be more focused on one-way communication, so you're really looking for the best way to get a message out. Look for tools that enable you to broadcast your message via text, audio, and/or video to better reach your audience.

Considerations

Think about when and why you would broadcast content. When I want to broadcast publicly, I use LinkedIn. I don't expect a conversation, or response of any kind, but I like the reach my broadcast messages get on LinkedIn.

You Might Want to Learn More About

Slack. If you haven't explored it as a broadcast or interaction tool, I recommend that you at least read up on it. Teams is another tool that I would explore if you have it available at your organization.



TOOLS AND APPS FOR INTERACTION



I would be lost without Teams and without my phone. My networks communicate via Teams messaging and text messages. I am using Slack more for interaction than I used to, but Teams and WhatsApp carry the weight of my interactions.

For more formal learning interactions, I use LMS discussion forums. Take time to explore how they work as many LMS's have really robust forums that can lead to high levels of engagement in between live classes.

Features to Look For

These tools work best when we can control the groups we are working with. You need to be able to add and remove users from groups and still be able to send private messages. I love Teams because I can connect via text or add audio or video when I want or need to. I also use Skype. Sometimes you just want to make a phone call, and Skype allows me to dial internationally for a small monthly subscription.

Considerations

Things can (and do) go wrong within these tools and apps, so you always need to have a backup plan for integrating interaction into your learning campaigns. Something as simple as a group chat broadcast can keep your learners engaged if they need to wait until a service is restored.

You Might Want to Learn More About

Don't be afraid of product vendors! If you come across an interaction tool or app that piques your interest, I highly recommend that you request a demo. I do this all the time for interaction tools so that I can see a full feature list, and I let an expert show me the details.



ALWAYS KEEP IN MIND

The telephone was invented in 1876, and it is still the most widely used communication and interaction technology. It has changed a lot over the years, but it still is a primary tool for many of us. It certainly is for me. It's woven so seamlessly into my work (and life) that I didn't even consider it as I was writing this until now. And I just read that Alexander Graham Bell refused to install a phone in his study as he thought it would distract him from his work. Hah!

Along with the phone, one of the most important components of any communication or interaction tool or app is the contact or user directory. We have them for email, text, broadcast, and interaction tools. We create groups, add and remove people, and manage our learning communities and personal learning networks. Take a moment and imagine that you've lost your contact list. Yeah. Not pretty.

As you are exploring communication and interaction tools and apps, take some time to see how contacts and users are managed and if you can import and export these lists.

HOW AI CAN HELP

AI tools like Chat GPT can generate email content based on a brief description of what you want to communicate. You can provide key points or a summary, and the AI will create a well-structured email. If you tend to have to review your emails to soften the tone before hitting send, save yourself some stress by using AI to check it for you. Tell Crystal or Grammarly how formal, friendly, or persuasive you want to come across, and they'll help you hit the right tone.

TOWARD THE FUTURE

I remember watching the Jetsons while I was little, thinking, "We'll never be able to see each other on the phone." Now, we communicate, broadcast, and interact in real time with so many of our senses involved.

In my crystal ball, I see us finding ways to see more and maybe even touch in the future. I think holographic technology, augmented, and virtual reality will shape the way we get together and learn together. And as more and more of our home technology is connected (the Internet of Things), the way we interact with our "things" will change too!

VIRTUAL CLASSROOM PLATFORMS



03

One of the core tools in any Virtual Learning Expert's toolkit is the virtual classroom platform. This is where your facilitation team will meet with learners for live virtual or hybrid events. Whether it's an information-sharing event like a webinar or a more interactive learning event, it's important to choose the right platform for your needs. Choosing the right one can be challenging as there are so many similarities between them as well as so many differences. I honestly do not have a favorite as at InSync, we're in all the main platforms (like Webex, Zoom, Adobe Connect, and Teams) every day!



FEATURES TO LOOK FOR



Here are some key features that I look for in a virtual classroom platform (in order of importance):

Audio

THE most important thing for any live event is to be able to hear what is being said. Look out for audio that is easy to connect, is reliable, and includes background noise removal.

Sharing

Whether the facilitator wants to share slides, an application, or any other visual aid, the ability to share screens is crucial. Look for the ability to share whole screens, windows, or programs as well as the ability to share computer audio if you want to include videos in your classes.

Chat

Virtual classrooms differ from meetings in that there will be times when you don't need to hear from each learner in turn. Sometimes, chat is the best way to respond, so you want to ensure your virtual classroom has a robust chat feature. Look for chat features that allow reactions or replies to messages and a way to privately communicate with the instructional team.

Reactions

The use of reactions such as a green check or red x provide an instant way to get feedback from learners and poll your audience. Look for reactions that are persistent rather than the ones that disappear after a few seconds. These persistent reactions are most valuable when used as a springboard to deeper discussions.

Annotations

Having the ability to annotate on the slides can provide a vast amount of opportunities for collaboration in the virtual classroom. Look for platforms that allow a variety of stamps, text, and shapes.

Breakouts

Like annotations, having the option to break the class into smaller groups is vital for collaborative learning. Look for platforms that allow learners to easily share their screens and work together in breakout rooms just as they do in the main virtual classroom.

Mobility

Learners join virtual classrooms from a variety of microenvironments such as meeting rooms, the office, their home office, or anywhere at all from their mobile phone. No matter where you want your learners to join from, they'll join from wherever it suits them personally, and they will expect to be able to fully participate. Look for platforms that provide all the functionality you need on a mobile device.

Video

Last on my list for a reason! We don't NEED to use webcams in every virtual classroom, but if we're going to use them, we need them to work well. Like audio, look for video that's easy to connect, is reliable, and includes optional virtual backgrounds for those that wish to use them.

CONSIDERATIONS

In addition to the features listed above, consider what else you need to ensure an engaging learning environment for your learners. Look for platforms that allow polling or quizzing if you want to use these tools or need to assess learners in the class. Look out for additional features such as closed captioning or translation if these would benefit your learners. Talk with your admin team to check what requirements they have around scheduling classes, recording, and reporting. Also consider the devices used by your organization. Will learners expect to join from mobile phones? Will facilitators want to use their tablets? Do you use video conferencing devices in meeting rooms? If so, will these work fully (many are not compatible with breakout rooms)?

Above all, consider the ease of use. It should be easy for learners and your instructional team to access and participate in the virtual classroom. It also needs to be easy to use for your admin team scheduling and managing all the events.

WHAT YOU MIGHT WANT TO LEARN MORE ABOUT

Whichever platform you choose, make sure you keep it up to date and read the release notes so that you're not too surprised by all the changes.

There are many other newer platforms competing with the more established platforms mentioned earlier. I recommend having a look at Hurdle if you do software training. Engageli is worth a look for more discussion-based training, using "tables" rather than breakout rooms.

ALWAYS KEEP IN MIND

No matter how many fancy features a virtual classroom platform includes, the technology will not beat an intentionally designed learning experience and a skilled facilitation team. The platform itself does not lead to engagement. That's the job of the human Virtual Learning Experts!

HOW AI CAN HELP

Many virtual classroom platforms already include an AI Assistant or Companion which will provide a summary of the meeting and even record action items for attendees. Some can translate what's being said into other languages or send chat messages to help attendees catch up if they arrive late. I'm sure we'll soon see even more AI features being added to virtual classroom platforms—just remember to think about whether these features will enhance the learning experience or distract from it before enabling them all.

TOWARD THE FUTURE

As I look into the future, I see more platforms emerging that are designed specifically for the hybrid environment. I'm not entirely sure what that looks like, but I suspect smarter audio functionality for shared spaces will be popular. If there are any developers reading, I'm sure our Producers would love a better solution to managing hybrid breakouts!



INTEGRATED LEARNING APPS

04

In recent years, we've seen a surge of learning apps that can be used on their own or in a virtual classroom to add to the interactivity options. If your virtual classroom falls short, or if you want to inject something different, consider incorporating a few integrated learning apps into your toolkit.

APPS FOR POLLING OR QUIZZING

Whilst most virtual classroom platforms include a polling feature, there are so many apps that provide better ones! More than multiple choice, think about question types that include word clouds, pin drops, sliders, open-ended questions, and sorting. Another benefit of using an app rather than the built-in polling feature occurs when in a hybrid learning environment. Learners may be joining the virtual classroom from a shared computer, but they can easily participate individually by scanning a QR code using their mobile phone. There are so many to choose from! Our favorites include Kahoot, Mentimeter, Slido, and Beekast.

Features to Look For

It might sound obvious, but look for apps that allow a variety of question types. Some will charge extra for the more interesting types. Also look for ease of use—for learners and facilitators. Make sure you try them before you buy them! As you begin using these apps in your classes, you're going to want an easy way to find the ones you need, so look for apps that allow you to save your polls into different folders or workspaces.

Considerations

Whilst most of these apps are intuitive, ensure you've planned enough time in the design phase to create instructions or job aids that you might need for your learners and your team. Also consider scheduling extra time for facilitation teams to rehearse with them.

You Might Want to Learn More About

New apps are released all the time, so keep up to date by searching for them and asking your Personal Learning Network what they're using. For example, StreamAlive can take responses from a Zoom or Teams meeting chat and create word clouds and even maps automatically. You might also want to check your virtual classroom platform's marketplace or integrations library. Some apps can be fully integrated so that you can run them from inside the classroom.

APPS FOR WHITEBOARDING



Again, most virtual classroom platforms include a whiteboard, but some are better than others. Using an app like Miro, Mural, or Twiddla can add additional functionality to encourage greater collaboration.

Features to Look For

Mobile learners may find any whiteboarding activity challenging. If mobile learning is popular at your organization, I highly recommend that you try out any whiteboarding activities on a mobile phone so you can decide whether to include them at all. Some whiteboarding apps work better on a smaller screen than others. You may also wish to look for the ability to use the whiteboard outside the live class so that learners can continue collaborating afterwards. Have a look at any templates the app can provide. Miro has a “Miroverse” full of templates you can take and edit for your own activities, which can save a lot of design time.

Considerations

Similar to polling apps, you will need time to create instructions for learners and your instructional team, and you’ll need plenty of time to practice using the whiteboarding app. Also consider learners’ comfort levels—are they tech savvy, or might they need more support with the tools? Some whiteboarding apps include the ability to anonymize annotations, which can be useful especially if you want learners to share any sensitive opinions or information.

You Might Want to Learn More About

I highly recommend that you regularly review the annotation features you already have. These are constantly changing in certain platforms, and, often, they’ll do exactly what you need without purchasing any extra apps. Make sure your facilitation team know how to erase annotations and how to disable them if required.



APPS FOR EVERYTHING ELSE

Integrated learning apps are not limited to polling and whiteboards. Look out for apps to add a timer, provide background music, or add a guided meditation to your class. There are also apps such as Equal Time which tracks who talks most during calls to help improve inclusion, or Badges (in Zoom) that allows you to award badges to learners who perform well in class.

ALWAYS KEEP IN MIND

No matter which kind of app you are thinking about integrating, always keep in mind your learning objectives and ask if the app will help learners meet those objectives or if it will distract from the learning.

HOW AI CAN HELP

Have a look in the integrations section of your virtual classroom platform, and you'll no doubt find several AI assistants ready to join you in class! From taking notes to summarizing tasks and even answering questions in chat, AI can add value to the virtual classroom experience.

TOWARD THE FUTURE

Looking ahead, I see even more apps appearing with promises of increasing engagement in the virtual classroom. In addition to AI apps, I see more gamification apps in our future, adding some competitive fun to our classes. Currently, learners expect to use their mobile phone to participate in these kinds of activities, so perhaps more smart watch apps are on their way too.

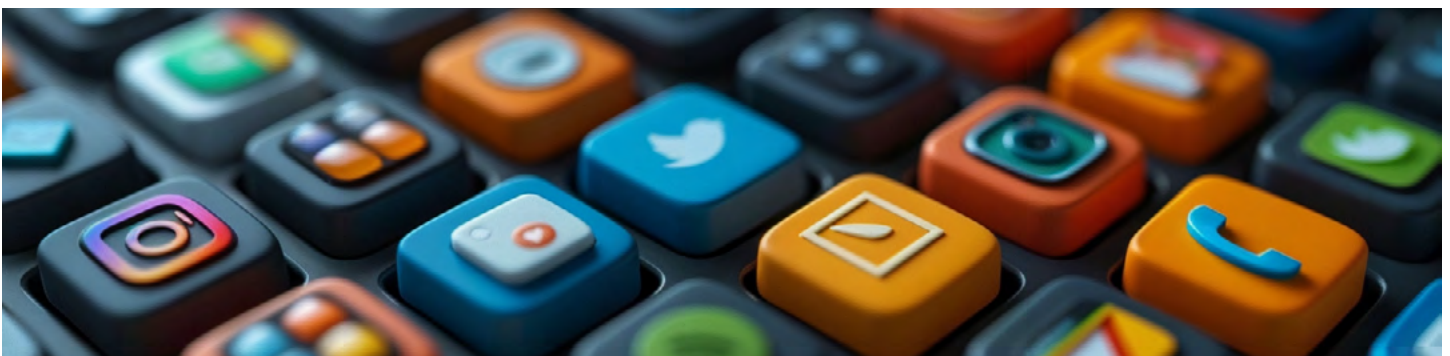




05

Some of the tools and apps you find here stretch across categories. We already use social media to share content, communicate, interact, and collaborate. We've created a compartment for these tools on purpose to highlight their social and collaborative nature and functionality. Sometimes creating a community of practice or personal learning network is not a project goal or objective, but we know that putting one in place will certainly promote knowledge and skill acquisition in our learners' moments of need. These social and community tools and apps can help us do just that.

This category is broad and deep and touches so many other compartments that I've established in our toolboxes. Instead of sharing my preferences of specific tools (LinkedIn, Facebook, Twitter, Instagram, Pinterest, Slack, Teams, etc.), I'm going to concentrate on overall features to look for, considerations, what you might want to learn more about, and my vision for the future of social and community tools and apps.



FEATURES TO LOOK FOR



Here are some key features that I look for in my social community tools and apps:

Profiles

Having a presence in a virtual space requires a profile of some kind. We need to know who our fellow community members are before we can learn from each other.

Connections

Learners need to be able to connect with each other, whether it's by following, friending, or selecting "favorites", and they need to be able to find each other in the crowds!

Groups

Learners (and facilitators) need to be able to create groups and establish rules for contributing within those groups.

Messages

Private messaging and group messaging features are the crux of community building.

Sharing

Learners need to be able to share within and outside of their groups – and they need to be able to share content, not just messages. Remember, finding and sharing content is part of the curation process!

Updates

Whether it's a news feed, or a space that highlights the most recent activity in the community, we need to keep our learners in the loop as to what's happening in our communities.

Search

Everyone loves a good search bar. There's just too much information in our social and community sites to explore on our own, and the results of a search can lead our learners to materials that they didn't even know they were looking for in the first place.

CONSIDERATIONS

Our teams, workforces, learners, and leaders are diverse and global, and we rely on technology to come together and break down any barriers that might inhibit our potential.

Once we get together, what comes next? Each of us (as individuals and organizations) interact socially within open and closed communities. These can be our Personal Learning Networks, learning communities, or even social groups.

The tools and apps in this category need to be reliable and stable, but more importantly they need to have boundaries. It may sound odd, but yes—we break down barriers and establish boundaries. Even our open communities have boundaries, and those boundaries shape (and nourish) our learners' approaches to collaborations and interactions.

WHAT YOU MIGHT WANT TO LEARN MORE ABOUT

Explore what you already have. Consider where your learners spend their time already and where you want them to be. For example, are learners all already on Teams for everyday work—wouldn't that work just as well as a separate app? Or, if you want to encourage use of the LMS, encourage learners to use it for this purpose too. Check the functionality that's built in to your LMS and use that for discussions, encouraging learners to share their experiences there.

ALWAYS KEEP IN MIND

The words "social" and "learning community" may imply collaboration to you, but some learners prefer to explore on their own in these environments. The tools and apps in this category enable a wide range of participation within social and community networks, from the "never-theres" to the "social butterflies." We need to leverage all available features so that we can connect and collaborate the way WE want to.

HOW AI CAN HELP

AI can significantly enhance social learning by facilitating interaction, collaboration, and knowledge sharing among learners. Check any AI Assistants that are built into your social platforms to see what they can do. Also check out Edmodo and Flipgrid; both come highly recommended when it comes to supporting peer-to-peer learning. For example, AI can provide immediate and personalized feedback on assignments and discussion contributions, helping learners understand their progress and areas for improvement. AI can also monitor discussions and flag inappropriate or off-topic content, ensuring that learning environments remain focused and respectful.

TOWARD THE FUTURE

As I gaze into my EdTech crystal ball, I see more seamless audio and video integrated into our social and collaborative tools and apps, along with augmented and virtual reality. I also see more cross-functionality between applications and easier ways to set up customized social and community dashboards for all of our learners.





ASSESSMENT AND EVALUATION

06

The tools that focus on quantifying or qualifying the impact of learning fall into this toolbox compartment. We use this array of tech tools and apps for tests, surveys, and assignments, as well as for determining the value of our learning initiatives. Adaptive learning is a hot topic these days, and the data and reporting tools that drive adaptive content are found in this area as well.

For some of us, these tools inform the effectiveness of our learning solutions; for others, these tools indicate our business impact. Simply put, we are using them to measure, validate, forecast, and inform.

TESTS, SURVEYS, AND ASSIGNMENTS

I use a wide variety of tools here, depending on the Learning Management System (LMS) or development platform I'm working in.

For surveys, my top two are Zoho and Survey Monkey. I create surveys on a regular basis to get learner feedback and to forecast future trends. These are both easy to set up and deploy, and I know I can get the results in a format that I can work in.

For tests and quizzes, I rely mostly on the features within the LMS that I work with—Talent LMS, Moodle, Totara, and Docebo. Most of these let you create a question bank and then select a random set of questions to include on a test or quiz and even let you randomize the answers.

If I'm embedding a quiz on a WordPress site, I use Quiz and Survey Master. It lets you create quizzes or surveys and embed them right in your site.

I've also been known to use a simple Google or Microsoft form to create a survey or quiz. It's quick and easy, and the data is simple to find and explore.

For assignments, I mostly use what is built into the LMS that I'm working with, and that means a drop-box utility. The LMS's that enable you to annotate assignments within the grading tools (it's a PDF plugin of sorts) are the handiest because there's no need to download, annotate, and upload all over again.



FEATURES TO LOOK FOR

Question types are key. Be sure that there's a variety of types to choose from. Also, you'll want to be able to download the results in a format you can work with. PDF is not good enough! Working with the actual data is an important part in validating your results. Be sure you can download your data in .xls or .txt format.

OTHER CONSIDERATIONS

Check back in with your learning goals and/or business goals as you're developing any assessment. If you're looking for easy-to-measure results, don't spend the money or time on a behemoth technology. If you only need to measure or validate learning that has taken place, there's no need for forecasting features.

SOMETHING NEW TO CHECK OUT

Bongo is a really interesting tool for assessing video. It has exciting AI features including a Coach that can provide feedback for you!

WHAT YOU MIGHT WANT TO LEARN MORE ABOUT

Data and reporting tools also fall into this category, and it's worth taking the time to learn more about analysis and forecasting features that are available in all of the survey, test, and quiz tools that you use.

Explore the reporting features in any of these tools that you use, and you may find ways to integrate adaptive learning elements into your learning campaigns. These can be as simple as branching options, or as complicated as algorithms that determine which content to display to your learners at any specific time or place.

ALWAYS KEEP IN MIND

Accessing the raw data behind any assessment or evaluation is important. You may need to show that data to support the impact of a blended learning initiative on the business or to display the need for more training and development. Find where that data is and learn how to use that data to illustrate the impact of your design, development, delivery, production, and facilitation work.

HOW AI CAN HELP

AI can help with the assessment and evaluation of training programs by enabling comprehensive data collection and analysis. These features will help you to identify trends and areas for improvement. Use AI for automated assessments and ROI measurement to provide objective and insightful evaluations. Think about how much time your team will save by not having to analyze survey results manually!

TOWARD THE FUTURE

As I gaze into my crystal ball, I see adaptive learning features seamlessly integrated into all of the materials we create, enabling our learners to easily establish personalized learning pathways. I also see L&D teams making more use of AI to analyze data and create reports. My dream for the future is to have less calculus and more statistical analysis in our schools so that we will be better prepared to explore the massive amount of data that we'll have at our fingertips!

IMMERSIVE TECHNOLOGY



07

These tools and apps enable us to create immersive learning experiences for our learners. Simulations have been around for a long time, but newer tools and apps enable us to engage our learners in immersive experiences on a much lower budget. What was once a highly segmented toolset is now available for us to explore and integrate into our toolboxes!

THE DIFFERENCE BETWEEN AUGMENTED AND VIRTUAL REALITY



Although both are immersive, situated learning environments, it's important to distinguish between augmented and virtual reality.

Augmented reality layers interactive computer-generated information on top of our existing reality. For example, I can open up an augmented reality app on my iPhone on a city street and catch a few Pokémon—yes, Pokémon GO is an augmented reality app.

Virtual reality is a computer-simulated replication or simulation of a space or situation. Virtual reality in learning allows learners to feel like they are actually experiencing the environment through audio and video input (and sometimes even more sensory input, like smell!). An example of virtual reality is being able to access the controls and drive a car within that virtual space.

Many of the virtual reality (and some augmented reality) tools and applications involve using a mobile device, wearing some type of headset, or even handling some type of hand-held remote. It's important to bring this part up here, as these units are becoming more and more readily available, at a much lower cost.

Google Cardboard really paved the way for this progress to happen by creating a simple piece of technology (essentially a cardboard viewing device) that can be used in both augmented and virtual environments. If you're just starting to explore these immersive spaces, I highly recommend getting yourself a Cardboard headset and taking it for a ride! All you need is your mobile phone, and there are hundreds of apps that you can download for free.

I highly recommend playing some games on a Meta Quest to get started and comfortable immersing yourself in virtual world stories and learning.

AUGMENTED REALITY: FEATURES TO LOOK FOR

Here are a few features that I look for in augmented reality tools and apps:

<i>Valuable Data</i>	There needs to be a reason to layer data, and the better augmented reality apps use layered data to enhance the knowledge you can get from immersing in a situation or offer you ways to interact.
<i>Ease of Use</i>	If I can't figure out how to use the app, or why to use the app, in under 10 minutes, it's a waste of my time. I once downloaded a beer distributor app while in Ireland. I held up my phone and instantly saw which pubs served that beer. Fantastic!
<i>Extra Features</i>	Some of these augmented reality games (like Pokémon GO), build competition into the space, which can engage a group of learners. I like to explore these features to help inform the augmented learning app that I'm going to build some day!

Think about how we layer information all the time. We may have a new product that needs to be demonstrated in the field and we create job aids, documentation, and on-site training to go along with it. Imagine if we could create an app that users could hold up to this product and learn while they are viewing, along with getting built-in help and other resources. Yes, this augmented reality app is most likely being developed as we speak and could change the way we design and develop learning going forward.

In other words, if you haven't been keeping an eye on augmented reality, it might be time to immerse yourself in an app or two. I recommend the Star Tracker app—an astronomy app for mobile devices. By pointing your phone at the sky, you can see stars, satellites, etc. Even better, you can get a very good idea of what augmented reality is all about.

VIRTUAL REALITY: FEATURES TO LOOK FOR

Be careful when you start playing in virtual reality spaces—they can be dizzying.

Here are a few more features that I look for in virtual reality tools and apps:

Built-In Instructions

Yes, you can dive right in to most of these apps, but it's always helpful if they have some sort of instruction or simple task that they get you to do so that you learn how to navigate within the situated space. My favorite app that does this is InMind VR—an app that puts you inside the human brain and has you “zap” away evil neurons.

AudioCapability

The visuals inside some of these apps are stunning, but the experience is much more immersive when there's audio.

Learning Material

After a few minutes in a virtual environment, I get bored. I need to have a reason to be there, and since my focus is teaching and learning, I want the app to teach me something. When you are first exploring these tools and apps, it is nice to just be situated in a new environment. After that, where do you go? Keep an eye on features that encourage you to explore and learn more.

CONSIDERATIONS

First, be clear on WHY you're using immersive technologies. Ask yourself if using them will lead to a better learning outcome, or if you just want to use them because it's new or fun. Also remember that when learners are wearing headsets and holding controllers, they are not easily able to take notes, so consider taking breaks to encourage reflection and/or provide job aids for future reference.

The tools and apps in this category are changing at a rapid pace, so be mindful about where you are spending money. Dip your toes in the water with lower cost headsets, and try out everything you can on your mobile device before investing in any big system.

Developing virtual worlds is no easy task, so if you are thinking about integrating augmented or virtual reality components into your blend, try to choose something that exists already. Development costs are high (in alignment with high-end simulations), so be sure to build that into your budget if you're developing from scratch!

WHAT YOU MIGHT WANT TO LEARN MORE ABOUT

360 cameras! When we talk about immersive, we're talking about our surroundings, and there's nothing that will give you first-hand experience of taking in 360 degrees than a 360 camera. These used to be only available at a high price (and high learning curve), but the Insta360 attaches right to your phone and lets you take in your surroundings—literally. And it's priced around \$200!

Also learn more about the 3D Model tool in PowerPoint—this could be all you need!

Again, tools and apps like this can help you think about how you can integrate augmented and virtual reality into your blended learning solutions.

ALWAYS KEEP IN MIND

Prices are dropping every day when it comes to augmented and virtual reality tools and apps. If you're interested in learning more, start out with free tools (and there are a lot of them out there). At least once a week I search online for the "top 10 virtual reality apps" and the "top 10 augmented reality apps." The results change every week!

HOW AI CAN HELP

AI algorithms analyze learner data to create personalized VR/AR experiences. By tailoring the content to individuals' progress, AI ensures that each learner receives the most effective and engaging training. AI can even adjust the difficulty level in real time based on the learner's performance. It can provide real-time feedback and coaching during immersive training sessions, providing immediate feedback to correct mistakes as soon as they arise. AI plus immersive technologies will lead to highly engaging, personalized training programs that are almost as realistic as real life!

TOWARD THE FUTURE

As I gaze into my EdTech crystal ball, I see more entry-level access (to development tools low cost, ease of use), along with more social and collaboration tools built into these apps. In the future, I'll be able to look up at the space station and share that experience with one of the astronauts up there! Knowing this field, I can most likely do that already!

CURATION



08

The last (but not least) compartment in our EdTech toolbox is curation tools. We use these tools and apps to explore the web to find resources related to specific topics that we can save for reference or share out through other channels. In any modern blended learning program, a curation strategy can improve the outcomes for your learners.

According to Anders Pink, curation for learning means

- //////// Finding the best content from multiple sources, usually external content.
- //////// Filtering it so only the most relevant content makes it through.
- //////// Sharing it with the right internal audiences, at the right time, in the right places.
- //////// Adding value to that content with commentary, context, or organization.

With so much content available out there, we need to leverage the power of these tools to more easily find appropriate resources and make it easier for our communities to access, share, and add to our curated channels.

AUTOMATION VS. THE HUMAN TOUCH

Curation tools fall into two wide categories: those that use artificial intelligence (AI) to drive their search and those that rely mostly on the human touch.

Curation technologies and apps that use AI and algorithms crawl content published on the Web and allow you to create filters, such as listing keywords or top influencers. These automated tools bring in a wide range of results and are updated on a regular basis—sometimes within seconds. The results can be narrowed down by focusing in on topics, keywords, etc.

I would argue that all curation tools rely on human input, but some certainly rely more than others on that personal touch. Yes, Google itself is a curation tool (any search engine is), but think about how much work you—the individual—still have to do to filter through those results.

Curation tools that rely solely on human input will never find as many results as those that rely on AI, but you can find that happy medium by starting out with AI-based curation tools and then filtering further using your own judgment.

FEATURES TO LOOK FOR



Most of the tools and apps in this category enable team contributions and have the functionality built in to generate embed code so that you can share them on your websites. Here are a few different types of curation tools that you can explore:

RSS Feed Readers

Almost every blog, magazine, or serial website has an associated RSS feed. You can pull these feeds together into your RSS reader, and have updated lists at your fingertips to explore. There's little topic curation at this level, but you can do a broad sweep of the blogs, news sites, and magazines that you want to keep an eye on.

I use RSS feeds every day to get a quick glimpse into all of my favorite online publications and bloggers. My top picks here are Feedly and Feeder, based on ease of use. If I'm on a site that I want to keep track of, I can just click on the Chrome extension icon for Feeder, and the site is added to my feeds.

Content Aggregators

Applications like Flipboard allow you to select topics and keywords of interest and set up magazine-like interfaces based on the AI searches based on your topics and keywords. This kind of app comes in handy when you want to bring together resources around a specific topic without doing any further filtering. There's a lot of power in these content aggregation tools, and their output is visually stunning.

Curation List Tools

I am a huge fan of these tools and apps, as I can easily create curated resource lists and share them with my communities. My favorites are Pocket, List.ly and eLink. There is not as much AI or algorithm work going on here, but these tools make it very easy for you to build and share curated resources.

Full Curation Engines

There are some very heavy hitters in this corner of the curation toolbox compartment, and some come with a hefty price. These engines are very powerful and are being integrated into Learning Management Systems and company web and intranet platforms. Many of these tools and apps can layer on top of existing content, which can then power searching and filtering through existing content. Think about companies with enormous content repositories and the benefits of that capability.

ADDED VALUE

Curation is all about adding commentary, context, and value. The two most important features that I'm always looking for in any content curation tool or app are these:

- 01 The ability to add comments and to enable my learners to comment as well.
- 02 The ability for learners to add curated materials and moderation capabilities so that I (or someone on my team) can moderate the relevance and appropriateness of those materials.



CONSIDERATIONS

Garbage in, garbage out. If you're using any type of automated curation tools or apps, remember that they require human input on the front end. The more time you put in to "train" the intelligence engines behind automated curation, the better your results will be.

Remember, curation is an ongoing task, and selecting keywords, influencers, tags, and topics that drive the intelligence engines should be an ongoing effort. Part of curation is care!

WHAT YOU MIGHT WANT TO LEARN MORE ABOUT

The curation tools and apps that combine AI, algorithms, and the human touch are at the top of my list. Anders Pink is a top player in this space, and they are always looking for training and development professionals to guide the evolution of their platform.

I would keep an eye on these folks as they grow and evolve their application. Out of every tool that I have explored, this team is the most focused on curation from a teaching and learning perspective.

ALWAYS KEEP IN MIND

The greatest value of curated content comes through annotation and context. That is where you, as curator, add your expertise to the showcase of selected works. In a modern learning scenario, annotation is more than letting your learners know where and when content was published; it is wrapping your knowledge around the selected content and contextualizing it.

To contextualize curated content, provide a title, short overview, and explanation of why you think the content is relevant to the learning community you are sharing with. At the very least, give them the answers to these questions:

What should they be looking for?

What will they find?

Why does it matter?

How does it apply to the work they are doing?

How does it apply to their learning goals?

Where can they find more?

Remember to reference where and when you located each piece of content that you share!

HOW AI CAN HELP

AI is already a strong component of any of the curation tools mentioned. AI can automate the selection, organization, and recommendation processes that can take humans a significant amount of time. AI can also provide more personalized recommendations for each learner based on their past behaviors, preferences, and search requests. AI will also be able to look at the content you already have, organize it into topics, let you know when it's outdated, and tell you how many learners are actually using it.

TOWARD THE FUTURE

As I gaze into my EdTech crystal ball, I see content curation tools and apps becoming more seamlessly integrated into learning management systems, social media platforms (they're already there), and training asset development tools. With AI evolving and the Internet of Everything connecting us together, I can only see search, curation, and sharing becoming effortless.

Don't worry, we'll always need that human touch as part of the curation process. That's the only way we can be sure that we're sharing only the highest quality content with our learners.



THE FUTURE TOOLKIT FOR VIRTUAL LEARNING EXPERTS

Can we possibly know what the future holds? I don't think we can, but we can certainly look to the horizon and consider what may be coming. We can use data, history, and recent trends to guide our forecasts. I am not a futurist, but I do see three distinct visions for the future of EdTech swirling around in the haze out there.

THE CONNECTED FUTURE

The Internet of Things (IoT) is real. Our homes talk to our phones, and our watches talk to our refrigerators. Our objects (wearable and embedded) are talking to each other—collecting and exchanging data. Machines are connected to machines, constantly passing information back and forth. According to Statista, the number of Internet of Things (IoT) devices worldwide is forecast to almost double from 15.9 billion in 2023 to more than 32.1 billion in 2030. Will we lose our human touch here? I don't think so.

The Internet of Everything (IoE), as defined by Cisco, is “the intelligent connection of people, process, data and things.” I see the Internet of Everything defining the future, especially the future of learning. We will be connected to “things,” but I am convinced that we will be connected to just as many people. Machine-to-machine connections will be prevalent, but I see people-to-people connections still being most integral to the learning function.

The Internet of Everything enables extensive, diverse, global connections that nourish and grow our learning ecosystems, allowing us to engage more easily and deeply with each other along our learning pathways.

THE SEAMLESS FUTURE

What if you could really measure how engaged your learners are? I see future EdTech tools and technologies, powered by the Internet of Everything, enabling us to know more about how our learners are learning. What we know about how the brain works (now and in the future) will be better threaded into our learning design, development, and delivery solutions.

Here is one future scenario posited by Deloitte in their Gov2020 report:

Neurosensors could provide insight into students' cognitive activity using EEG technology that measures the rate of brain waves like one might measure a pulse. Identifying which students are expending a higher amount of cognitive energy on an exercise would allow teachers to dedicate attention to students who need it – not just those who ask for help the loudest.

Science fiction is fast becoming common practice. I see lifelong learning evolving to be the central focus of the Internet of Everything as learning will become more seamlessly integrated into our work and our lives.

In the future, moments of learner need will be continuous, and seamless integration of learning resources (including humans) will be a reality. Our role is to help guide this future—to help stitch together this fabric of learning across the Internet of Everything.

THE ACCESSIBLE FUTURE

When we talk about technology, we often forget about inclusion, affordability, and access. There are so many barriers to learner access that we neglect to take into consideration when we are designing, developing, and delivering modern blended learning solutions. The Internet of Everything needs to be accessible in order for it to be viable and scalable.

I see learning becoming more accessible through advancements in technology, coupled with universal design principles and the Internet of Everything. Universal design principles are guiding the development of new tools and technologies. These principles focus on the why, what, and how of learning and ways to optimize solutions to meet the needs of all learners.

I will ALWAYS include the human element in any technological advancement (especially in EdTech), but I do think that accessibility is the one area where EdTech tools and technologies will evolve specifically to meet the needs of our learners—at low (or no) cost.

THE BOTTOM LINE

So as you sort through your own toolbox, what do you need to add? What do you need to throw away? What tools do you need to learn how to use properly? Although I can't possibly know what the future will hold, I will always believe that what matters MOST is that we need to be using our technology, tools, and applications intentionally to meet the needs of our learners and to reach desired blended learning outcomes. And, within this process, we need to focus on creating excellent learning experiences and sustaining vibrant learning communities.

What will the future hold? Lifelong learning.

Connected, seamless, and accessible.



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