## **Finding Digital Tools and Apps**

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#### **Hypothes.is Social Annotation**

This chapter is annotated every year as part of an undergraduate/graduate class on Teaching and Learning with Technology. To turn off the highlighted text, click on the "eye" icon in the top right corner of the browser screen.

#### Introduction

There are thousands of digital tools and apps out there in the world waiting to be discovered by educators like you. So, how do you find out about the latest trends, tools, and apps for teaching and learning? And, how do you discover which tools other educators are using with great success?

In this chapter, we will first discuss how to use a simple **Internet search** to find tools and apps. We will provide tips for **evaluating websites and blogs** that provide advice about tools and apps. Then, we will showcase educational technology (edtech) databases, curated lists, and tool review sites that can serve as helpful resources for finding digital tools and apps. Finally, we'll wrap up the chapter with a discussion about how to cultivate a **digitally enhanced professional learning network** to connect and learn with others about current and emerging technology tools.

### **Finding Digital Tools: Internet Searches**

If you have a learning objective or classroom challenge (e.g., my students are struggling with math fractions) in mind, you can use an Internet search engine, such as Google, Yahoo!, Bing, or DuckDuckGo, to see if you can find a tool or app to meet your teaching needs.

However, combing through all of the results from a single search can be overwhelming. There is also the risk of finding yourself deep down the rabbit hole of interesting results and forgetting what you initially set out to find. To reduce this risk and narrow your Internet searches, here are some tips:

- Include **specific details** in your initial search, then **add or remove terms to adjust the results** (e.g., if "augmented reality" gives too many results, use "augmented reality map of national parks").
- Use quotation marks to group words that should be searched together (e.g., "augmented reality math app").
- If you have a specific question, write it out in the search bar. **Framing a search as a question** will often result in finding pages that specifically answer that question (e.g., "How can I teach with augmented reality?").
- If you do not see results that match your needs, **try using similar terms** that could also be used to describe this tool or topic until you find what most authors use to describe it (e.g., different ways to describe a school: "elementary school" or "primary school" or "K-12" or "early grade").
- If you want to focus your search on **specific sites**, or kinds of sites, add "**site:**" and a portion of a URL (e.g., "site:.gov" searches only government sites, "site:.edu" only searches education sites, and "site:umass.edu" only searches sites hosted by the University of Massachusetts Amherst).
- If you want to see newer pages, activate the "Tools" feature in the Google search and limit your search by time frame (e.g., setting this tool to "Past Month" for a search on "Yellowstone National Park" will limit results to the most recent posts about the park.) (see Figure 1).

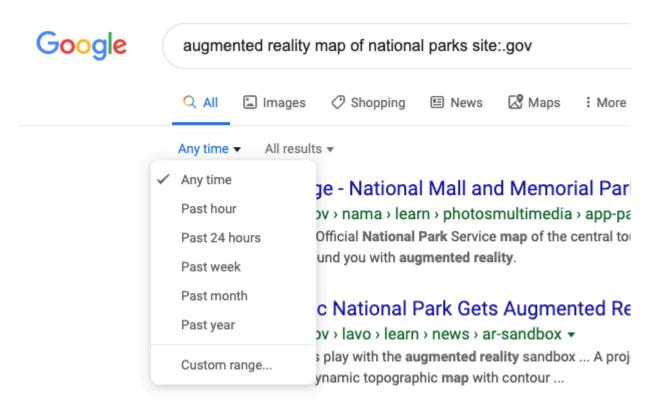


Figure 1. Using the Google search "tools" feature to restrict results to a certain time frame.

- If you want to find **specific types of files**, add "**file:**" to your search. This will show results that are only a specific kind of file (e.g., "national parks lesson plan file:pdf" will only show PDF files of lesson plans related to national parks).
- If you typically "know it when you see it," use the **Google image search**. This lets you review results more quickly by skimming images of software screenshots or students in action (e.g., searching for images of "augmented reality" will show pictures of what different augmented reality tools look like when in use).

### Applying the SIFT Model to Identify Reliable Sources

When using an Internet search engine to find a tool or app, you will be presented with various sites, including blogs, articles, and websites, as well as videos that relate to your search query. **How do you know which ones to trust?** 

First, take a moment to check that the information is accurate, reliable, and valuable. Some pages that promote educational technologies are posted by the same company that sells them or benefits from their use.

You can use the **SIFT model of evaluating online information** to quickly assess the veracity of a website or video (see the Check Please! Online course for more details about SIFT).

SIFT stands for Stop, Investigate, Find, and Trace:

**Stop.** When you first enter a site, take a moment to notice information about the site itself, such as revision dates, author names, author profiles, and other background information about the author or organization. Reputable sites will include details about themselves, including contact information.

**Investigate the Source.** Look for signs the site has been recently and regularly updated - When was the page last updated? Are there broken links? Who maintains this site or posted this review? Does the individual or company have a page that describes who they are and their motivation for posting this information?

**Find Trusted Coverage.** Is this the best source available? Do other experts reference this site? Can you find references to this organization or individual outside their own site? Highly respected sources will be referenced on other sites and in tweets about this topic.

**Trace Claims, Quotes, and Media to Their Original Content.** What criteria do they use to review tools? Do they reference known frameworks and principles? Do they provide links to other sources? Do they post evidence of how this tool makes a difference for students (other than a few endorsements)?

#### **Use SIFT Before You Click**

Keeping the SIFT model in mind when you conduct Internet searches will help you identify blogs, articles, websites, and videos that you can trust to provide accurate and reliable information that can guide your tool selection process.

## **Finding Digital Tools: Social Media Searches**

Did you know that you can search for digital tools, apps, strategies, subject-specific content, and people within social media platforms, such as Facebook at Twitter?

Take a look at <u>Tessa Davis' Twitter thread about how to use advanced search terms on Twitter</u> to fine-tune what you are looking for.



# Finding Digital Tools: Databases, Curated Lists, and Tool Review Sites

If you are interested in discovering the newest or most popular digital tools and apps for educators, it's often easier to explore databases, curated lists, and tool review sites than to conduct a broad Internet search. These digital resources are usually created by educators who have experience using the tools or non-profit organizations who seek to help educators with their tool selection process.

Edtech tool and app databases, curated lists, and review sites can be a **good place to browse** if you are simply looking for ideas and inspiration. **You may even find a tool serendipitously** (one that you did not know you needed) that would be a perfect fit for your instructional goal(s).

The following websites and blogs are a great place to find reviews and curated lists of tools:

- o Online Tools for Teaching & Learning
- o Common Sense Media
- Practical Ed Tech Handbook
- Digital Connections Toolkit
- ISTE Edtech Advisor (requires ISTE membership)
- Free Tech 4 Teachers
- Practical Ed Tech
- Cult of Pedagogy
- o OER Commons
- Edutopia
- <u>TeachThought</u>
- <u>eLearningIndustry</u>

Ideally you will find a database, curated list, or tool review site you **can continue to use as a resource** whenever you need to find a new tool. When you find authors who regularly post curated lists of tools and apps, **subscribe to their blogs or follow them on social media** so you can keep up to date with the latest information they share, which leads us to one of the best ways to find tools: cultivating a digitally enhanced professional learning network.

# Finding Digital Tools: Cultivating a Digitally Enhanced a Professional Learning Network

Sometimes you cannot find an appropriate tool on your own, or you are just not sure if a tool you have found is as effective as it appears to be. Or, you may want to keep up to date with the latest digital tools and apps but have no time to do so. This is when personal recommendations from educators in your professional learning network (PLN) can be useful.

A professional learning network (PLN) is your own curated system of **people, spaces, and tools** that support your ongoing learning and professional growth (<u>Trust, Krutka, & Carpenter, 2016</u>).

When searching for digital tools, you can turn to your PLN for recommendations of new tools to try, examples of how a specific app can be used in a classroom setting, advice for how to use digital tools to address classroom challenges or meet instructional goals, and assistance for figuring out how to find and evaluate digital tools and apps for teaching and learning.

In the following video, <u>Professional Learning Networks (PLNs)</u> for <u>Educators</u>, Dr. Daniel Krutka discusses how the people, spaces, and tools in his PLN support his professional growth as an educator.



Watch on YouTube

#### **Adding People to Your Professional Learning Network**

In addition to peers, family members, and people in your immediate school or community, you can use social media to reach out to a wider network of people committed to supporting each other and sharing information about teaching. As Rachelle Dene Poth (2019) stated, "It's through these relationships and finding the right tools that we will grow personally and professionally, and bring our best selves into our classrooms each day" (para. 1).

Consider who is currently part of your PLN. Who do you go to for advice about teaching, learning, and/or technology? A classmate? A colleague? A Pinterest board curator? A YouTuber?

How often do you learn about digital tools and apps for teaching and learning from the people in your PLN? If your answer is "not very often," then consider adding people to your network, such as the <u>six edtech bloggers who focus on classroom implementation or FableVision's Nine EdTech Thought Leaders to Watch in 2019.</u>

When you are deciding who to add to your PLN, it can be helpful to reflect upon the people currently in your network and assess how you interact with them in order to identify ways to grow your PLN. Start by considering the following questions:

- How do the people in my PLN add to my professional growth?
- How often do I engage with them?
- What perspectives do they offer me? My PLN?
- Am I missing any perspectives that might help my professional growth?
- In what ways do I interact with the people in my network? (e.g., am I just following others and reading social media posts or am I engaging in thoughtful conversations with my PLN?)

Clarifying the social aspect of your network is a great first step toward expanding your PLN.

#### **Choosing the Best Spaces to Grow Your Professional Learning Network**

There are many spaces where you can connect, communicate, and learn with others as part of your PLN. These spaces might be **physical places** you go to in person, such as your school or classroom, teachers' lounge, graduate course classroom, workshop, conference, Edcamp unconference, or district training. There are also **virtual spaces**, where you can discover new ideas and engage in conversations with others both near and far, such as video conferencing tools, text and voice messaging apps, social media sites, discussion forums, blogs, and YouTube/TeacherTube.

Take a moment to think about which spaces you currently go to learn about teaching, learning, and technology:

- Which spaces are most valuable in helping you grow your craft as an educator?
- Which spaces help you learn about new digital tools and apps?
- Do spaces you visit present voices from diverse perspectives?
- Do spaces you visit push and challenge your thinking as an educator?

If you are looking for more spaces to add to your PLN, consider exploring some digital spaces that will allow you to interact with people across the country and around the world whom you might add to your network, such as Twitter chats, Facebook groups, Reddit forums, or Edmodo communities. Take a look at the <a href="Online PLN Spaces for Educators">Online PLN Spaces for Educators</a> <a href="database">database</a> to see if you can identify new spaces to add to your network. Look for spaces that are active (frequent posts) and relevant to your instructional goals.

### **Selecting Tools to Support Your Professional Learning Network**

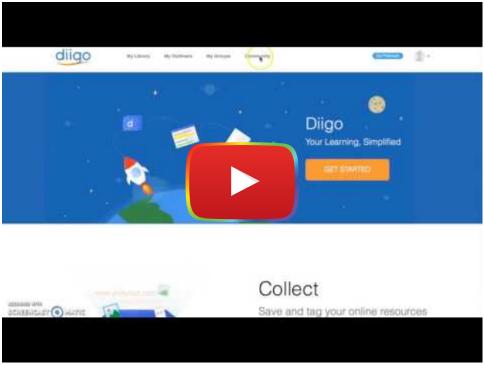
A PLN is made up of people, spaces, AND tools that support your ongoing learning and professional growth. Professional learning network tools range from those that allow you to **acquire new information** (e.g., email listservs, Internet or database searches, phone calls, curriculum materials, books) and **curate information** (e.g., spreadsheets, email folders, note taking apps, social bookmarking tools).

Which tools have been the most beneficial for you in finding new digital tools and apps for teaching and learning?

When you find amazing new tools, apps, ideas, and resources, how do you keep track of them all?

It might help to use an organizational tool to create curated lists or folders of things you learn from your PLN that you can reference when needed. Popular tools include <u>Google Keep</u>, <u>Diigo</u>, Google Spreadsheets or Docs, Microsoft Word or Excel, or <u>Symbaloo</u>.

Diigo is a social bookmarking tool that allows you to keep track of websites and also add comments/highlights directly on any webpage, article, or PDF. The following video provides a brief overview of Diigo:



Watch on YouTube

# **Designing a Professional Learning Network That Promotes Personal Growth**

A PLN should promote learning, growth, and change. Does your PLN interest you and excite your passions? Does your PLN offer you support and encouragement? Does your PLN challenge you to think differently? Keep changing it until it does!

The best way to do this is to make sure your PLN features a broad range of ideas and perspectives, allows for a varied learning interactions, and evolves with your interests, needs, and goals (see the PLNs for Educators open online course). Three attributes to look for in a PLN are **Diversity, Depth, and Dynamism:** 

- **Diversity** Having a diverse PLN means surrounding yourself with people and spaces that provide you with a variety of different perspectives, including gender, age, religion, nationality, pedagogical approach, discipline, years of teaching experience, school community (e.g., rural, suburban, urban), subject(s), and grade level(s), for example.
- **Depth** Your PLN should provide deep, quality interactions with others that are engaging, discovering, experimenting, reflecting, and sharing.
- **Dynamism** Your PLN should shift, grow, and evolve over time based on your professional goals, interests, and needs.

### **Participating Fully in Your Professional Learning Network**

When you attend a workshop or conference or visit a social media space, which of the following actions do you typically do?

- 1. Read posts or listen to others
- 2. Retweet or share ideas provided by others
- 3. Ask for advice, resources, or ideas
- 4. Engage in thoughtful conversations about your practice
- 5. Collaborate with others
- 6. Write or present your own ideas

**Each of these actions can support your learning and growth.** Reading posts and listening to others can help you discover new ideas and tools and even spark creative thinking about how to use technology in your classroom. Retweeting and sharing ideas provided by others can help you build your digital reputation and network for further learning. Asking for advice, resources, and ideas is a direct way to find digital tools and apps you can use immediately in your practice. Engaging in thoughtful conversations might lead to changes in the way you teach with technology or think about teaching. Collaborating with others can result in the development of new digitally enhanced lesson plans and learning activities. While, writing or presenting your own ideas can lead to advice, feedback, or insights from others that will support your professional growth.

While each of these actions can support your learning and growth, the key is to **vary your actions within and across the spaces** in your network in order to maximize the value of your PLN learning experiences.

If you think that you don't have anything to contribute to your network and would prefer to just "lurk and learn," think again! Whether it is success stories, epic fails, or creative ideas, you have something you can share that will benefit others. Participating and connecting with others allows you to heighten your opportunity for learning and crowdsourcing.

## **Expanding Your Digital Professional Learning Network With Feedly and Twitter**

In the following two sections, we will take a closer look at two popular tools for expanding your PLN: **Feedly** and **Twitter**.

#### **Feedly**

<u>Feedly</u>, a news aggregator, can be used to gather posts from multiple sources into a single "feed." Instead of having to go to multiple sites to check for updates, Feedly curates the latest posts and information from blogs, news sites, or social media channels you follow into a single site.

Getting started is free and easy. Feedly is offered on <u>Android</u> devices, at the <u>App Store</u>, and in your favorite web browser.

Once you log in to Feedly, you can create a "feed," which is a folder where you can curate multiple blogs, news sites, or other RSS feeds. For example, you might create one feed for "edtech" and another one for "teaching."

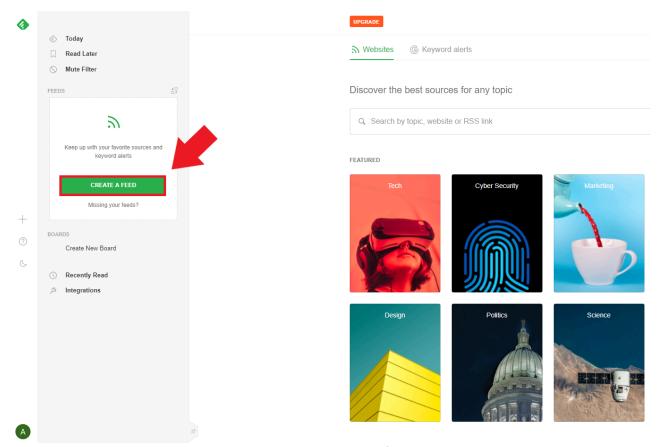


Figure 2. Creating a new feed.

Though your edtech feed will start completely empty, it is simple to start adding sources you would like to follow. Click the "Add Content" button (or plus "+" sign on the left side of the screen) to get started. We recommend adding the following blogs, which have been around for quite some time, are largely trusted by educators, and provide an excellent jumping-off point for your explorations into digital tools and apps:

- Free Tech 4 Teachers
- User Generated Education
- Cult of Pedagogy
- <u>TeachThought</u>
- Getting Smart
- EdSurge
- History Tech

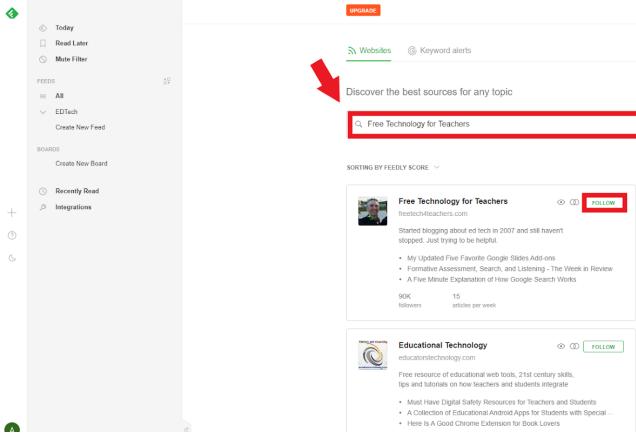


Figure 3. Adding blogs to your feed. NOTE: Type in the name of the blog in the search bar and hit the follow button!

Feedly will automatically recommend related sources depending on sources you have already added. Explore these options and see if any pique your interest.

Once you are done adding sources to your edtech feed, click on the edtech feed button on the left side of the screen. This will allow you to see the latest posts from all of the sources in that feed.

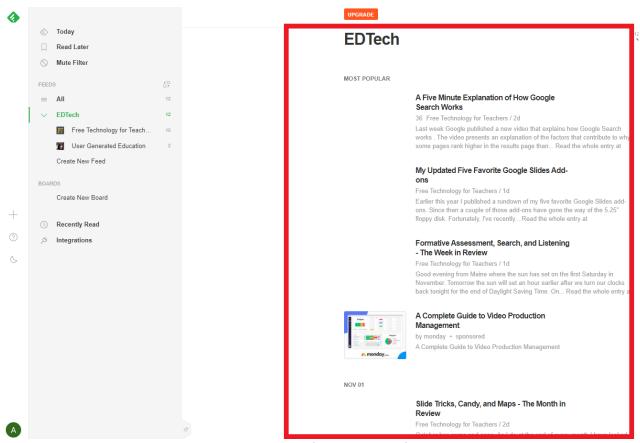


Figure 4. Viewing all the blogs from the EDTech feed in one area.

Feedly is a great way to meet other educators from different education communities. For example, Richard Byrne, whose blog Free Tech 4 Teachers was mentioned earlier, has a section on his website with contact information, so you could follow him on Twitter.

Feedly also allows you to share your personally curated feeds with anyone—friends, classmates, colleagues, your PLN—through the Feedly Teams feature. This is a great way to keep everyone up to date on the latest edtech news.

To get started, go to the feed you wish to share and click on the icon that looks like an arrow pointing at two people (in the top right corner of the screen). Follow the on-screen instructions, and you and your teammates will automatically receive updates from your feed!

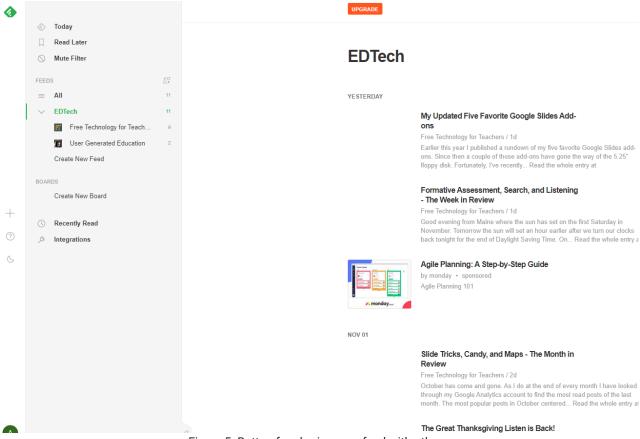


Figure 5. Button for sharing your feed with others.

Feedly provides an extraordinary amount of information that can sometimes become overwhelming without proper organization. To keep track of the most valuable information and tools you find in your feed, we recommend **using either a note taking software or organizational tool**. <u>Google Keep</u> is a great way to take notes and keep them organized. Alternatively, you can use <u>Diigo</u>, a social bookmarking website and browser extension that allows you to annotate, bookmark, and share web pages. Even a Google spreadsheet or Microsoft Excel file can help keep your tools organized and make your PLN experience as smooth as possible.

#### **Twitter**

While Feedly is a great way to follow, read posts, and learn from others, it is not a social media tool. That is, you can't interact with others, collaborate, and exchange ideas and insights through Feedly. In order to do this, you'll need to join social media spaces for educators.

Twitter is a popular social media space among educators. You can connect and engage in conversations with others located across spatial and temporal boundaries (e.g., around the world!).

Twitter can provide more timely access to experts, some of whom will even answer questions you post to your network. As your social media network grows, and you become more comfortable contributing your own ideas to the network, you will find the social connections can become strong enough to develop into in-person connections, such as meeting at conferences (Krutka, 2017).

To get started with Twitter:

- **Create a Twitter account** if you do not already use it professionally. If you already use Twitter for personal posts, you may want to create a separate account for your teaching.
- **Find people to follow** on Twitter who will help you learn more about digital tools and apps (explore this list of suggestions: <u>Top 25 EdTech Influencers to Follow on Twitter in 2018</u>) and who will expand your thinking and perspectives (e.g., <u>Inspirational Black Educators to Follow on Twitter</u>). Note: Do not follow too many people when you first sign up or else your account may get blocked, as Twitter might think you are a bot.
- Then, **explore hashtags** on Twitter for topics that interest you. Take a look at the other hashtags that are used in the tweets of interest to you (e.g., a single tweet might have multiple hashtags like #edtech #edtechchat #gbl #GAFE) and explore those as well.
- Continue adding more people to your network. When you find a person who shares ideas you like, "follow" them. This will put their posts directly in your feed. When you read books and articles that inspire you, check to see if the author is active on Twitter. When you go to conferences, presenters will often list their Twitter handles on slides and handouts. As you follow more people, Twitter will begin to suggest similar accounts. You can keep adding people as long as you feel you can keep up. Do not worry about missing anything! No one assumes you are reading everything on Twitter. Check in whenever you have time or are looking for ideas!

**Getting more out of Twitter.** Initial interactions on Twitter are as simple as "liking" posts you want to support. Commenting on posts can begin conversations full of useful ideas and expand your network of followers. Retweeting posts shows your support for a tweet, shares the tweet with your network, and adds the tweet to your own feed where you can find it later. Posting your own questions and ideas to Twitter puts them out into the public sphere where others can see them and respond or share them. Adding hashtags to your posts (e.g., #K12) helps group them with similar posts on a topic and allows you to reach a broader audience (e.g., anyone exploring that hashtag rather than just your followers).



Watch on YouTube

After you get used to following people on Twitter and posting your own ideas, look for **Twitter chats** to join. Twitter chats occur at a set time and cover a specific topic. Everyone in the chat uses a specific hashtag (e.g., #games4ed) to

associate their posts with the chat, and a moderator typically keeps things moving with questions (that begin with Q1, Q2, Q3...) to prompt discussion. Participants in the chat respond to questions by using A1, A2, A3, etc... to match with the corresponding question number (see <a href="How to slay your first Twitter chat">How to slay your first Twitter chat</a> & <a href="Understanding Twitter Chats">Understanding Twitter Chats</a> - A Guide to Start & Join the Conversation).

To find a chat related to education, explore the ISTE list of <u>40 Education Twitter Chats Worth Your Time</u> and the <u>Education Chats</u> calendar. If you miss a Twitter chat, you can still see what everyone tweeted by exploring the hashtag later that same day or the following day.

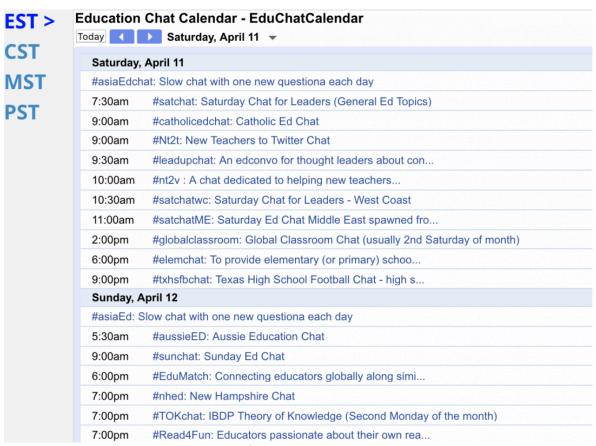


Figure 6. Screenshot of the Education Chats calendar on Google

The first time you participate in a live Twitter chat, plan to just watch it go by. Use a tool like <u>tchat.io</u> to pause the chat, as needed, or reduce the retweets to make it more manageable to follow. Once you are comfortable with the pace and the topic, begin interacting by liking and commenting on posts. Once you begin to post your own answers to questions, you will find yourself connecting to others with similar ideas who will also like and comment on your posts. Next thing you know, you are helping others as much as they are helping you—a sign of a valuable PLN.

### **Chapter Summary**

Digital tools and apps can inspire creativity, support critical thinking and problem solving, transport students to virtual worlds, and offer students new learning experiences never before possible. This chapter showcased how you can get started with finding digital tools and apps, and, ultimately, improve teaching and learning. Whether you conduct an Internet search, explore tool review sites and curated lists, or tap into the power of your PLN, you can find digital tools and apps with ease.

#### **Checklist of Next Steps**

- Conduct an Internet search to identify specific tools and apps for teaching and learning.
- Find blogs, databases, and review sites that provide you with good recommendations.
- Cultivate a digitally enhanced PLN that is diverse, deep, and dynamic to engage in ongoing learning and professional growth.
- Set up a Feedly account to follow useful blogs so you can easily keep up to date with the latest edtech trends.
- Set up a Twitter account and start following professionals who offer useful advice.
- Join a Twitter chat on a topic that interests you.
- Become a resource for others by posting your own ideas on Twitter or another social media site

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