

Lifelong Learning

Royce Kimmons



LBW7153, US Department of Education via Flickr, CC BY-SA

Learning Objectives

- Understand the need for lifelong learning;
- Understand strategies for developing a personal learning environment (PLE) and personal learning network (PLN);
- Identify threats to lifelong learning present in modern technologies;
- Choose a lifelong learning strategy that is appropriate.

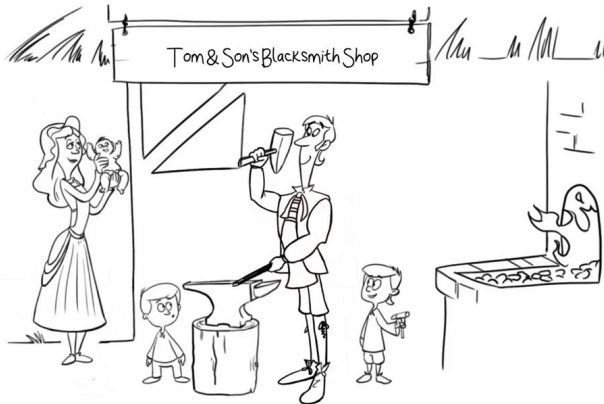
To be the best teacher possible, it is essential to be a lifelong learner. Lifelong learning implies that learning does not end when you leave a classroom or finish a degree. Rather, as you go through life it is essential for you to continually connect with other professionals to learn, to teach, and to share resources. Unwillingness to connect with others and to engage in the lifelong learning process leads to stagnation in your practice and will prevent you from being the best possible teacher for the children you serve.

In the past, lifelong learning has typically been limited to resources available to you in your institution. If you are a science teacher, and you are in a school with other experienced science teachers this would be great, because you can learn, share, and grow within this community of experts who are all working towards similar goals. However, not every teacher has the luxury of working in a school or department with other

teachers that can push them and improve their practice.

Social technologies empower us to connect with others in ways that were previously impossible or inefficient. With social media, such as blogs, social networking sites, discussion forum, image sharing services, and video sharing services, teachers are able to connect with other people and a variety of resources on an ongoing basis to improve their practice.

Technology tools can be leveraged to support lifelong learning in two major ways: personal learning environments (PLE) and professional learning networks (PLN). In this chapter, we will explore these different approaches to lifelong learning, what tools are available to support lifelong learning , and what are some risks that teachers need to be aware of in order to ensure that their lifelong learning is valuable.



Watch on YouTube <https://edtechbooks.org/-wk>

Key Terms

[Digital Footprint](#)

the electronic tracks that are left online as users create profiles, share posts, follow others, like content, etc.

[Personal Learning Environment \(PLE\)](#)

an environment that educators create by exposing themselves to information that is always updated and of practical value to their work (e.g., blogs, RSS feeds, news sites, social media feeds, podcasts, and video channels)

[Professional Learning Network \(PLN\)](#)

networks that professionals build around themselves via social media to improve their practice, share resources, and improve morale

Why Lifelong Learning Matters



Unlike previous professions, the jobs of today change rapidly, often evolving multiple times in a person's career.

The world is changing rapidly. Technology is one example that changes so frequently that many of the jobs that people have today did not exist 100, 50, or even 10 years ago. Centuries back, if you learned a trade like blacksmithing or animal husbandry, you would have been able to go forward throughout your career with a fairly stable understanding of what you would be doing and how you would be doing it for the rest of your life.

Once you stop learning, you start dying. (Albert Einstein)

Today however, technologies change how we do our work, what work is possible, and even the nature of the work we do. In the U.S. two centuries ago, farm labor was one of the most common jobs available. Less than a century ago, mass industrialization and the creation of factories and assembly lines drastically changed the work dynamic of the U.S. in terms of what jobs

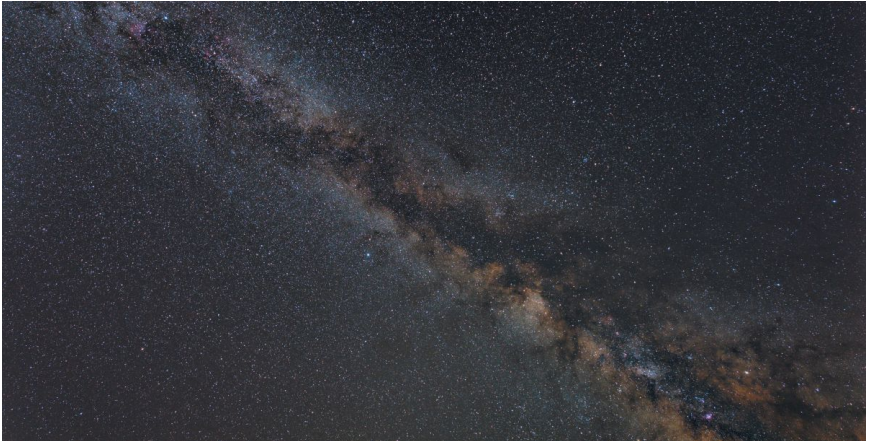
were available and what would make people seeking employment marketable moving forward. Today, advances in computing and information systems have again drastically changed this dynamic so that new jobs are created on a daily basis and existing jobs continue to evolve rapidly, becoming more technical and more collaborative.

In such a world, failure to become a lifelong learner means failure to adapt and to be marketable throughout one's life. Even in teaching, which is an historically stable profession, because every community needs teachers, things are changing rapidly. Today, if you went into a job interview for a teaching position and said that you have no interest in using technology in your teaching or learning about how new technologies should be used to improve teaching and learning, it is highly unlikely that a hiring committee would look favorably upon this stance. This is because we live in a time when technology is changing how we can teach, but it is also the case that teachers are expected to teach students technologies that will be applicable for them moving into professional careers of their own. This means that teachers must not only have a positive attitude toward technology and a willingness to use it in their classrooms, but they must also look forward to technologies that do not currently exist and strategically anticipate how their teaching will evolve throughout their careers in response to new shifts in technology capabilities and availabilities.

Beyond technology as a teaching and learning tool, however, most fields are very dynamic themselves and change rapidly. This means that often what was true or accepted as knowledge 20 years ago may now be rejected or no longer be considered cutting-edge.

Education is not preparation for life; education is life itself. (John Dewey)

In astronomy, for instance, improved telescopes, space flight, and robotics allow us to gain insights into our solar system that were impossible just a few years ago. In biology and genomics, the ability to sequence DNA and study the building blocks of life gives us new insight into the world around us, how it is structured, and how we can improve conditions impacting humans and the world itself.



From Cygnus to Sagittarius, Don McCrady via Flickr, CC BY-SA

Merely learning about astronomy or biology in a college class and then leading a 30-year career as a teacher is not sufficient to ensure that your students learn what they need to learn in order to be educated, capable participants in their communities and society at large. As a teacher, one of your primary goals is to model lifelong learning for your students to show them that

learning is not contained within a diploma or limited to a classroom. Rather, learning is a lifelong endeavor that should never end, and from a very practical standpoint, the jobs of today and tomorrow require just about everyone to be involved in a meaningful process of lifelong learning in order to be successful.

Personal Learning Environments (PLE)

Modern technologies, and web technologies in particular, provide us with access to a variety of information and media resources, and the lay internet user today has access to more knowledge than the wealthiest, most-educated researchers that lived just a few decades back. For this reason, it is important for professionals to learn to approach the internet as their own learning tool and to structure their experiences with it in a way that allows them to continually learn and grow.

By following particular blogs, RSS feeds, news sites, social media feeds, podcasts, and video channels, you have the ability to have information pertinent to you constantly streamed to you. As such, each person today has the capacity to construct her or his own **[Personal Learning Environment](https://edtechbooks.org/-ymp)** [https://edtechbooks.org/-ymp] (PLE) that is suited to that person's individual tastes and interests. In fact, by just following a few Twitter accounts of people you respect or subscribing to an educational blog or two, you can support your own lifelong learning by exposing yourself to information that is always updated and of practical value to your work as a teacher.

There are various tools that can be used to support the construction of your personal learning environment. A few examples include video sharing services, search engine alerts, personal knowledge managers, and RSS feed aggregators. Each of these examples will now be explained in a bit more detail.

Video Sharing Services

Video sharing services, such as YouTube or Vimeo, allow everyone from major news networks to lay users to upload and share videos with the world. Many modern celebrities first got their start by sharing personal videos on sites like these, and most videos on these popular sites are freely available. Users can also subscribe to channels that are created by users, which might include a constantly updated list of that user's own new videos as well as other videos that they like. For instance, subscribing to a channel on new science discoveries could be a useful tool for science teachers, or subscribing to a channel on mathematics tutorials might be useful for mathematics teachers. By creating an account on these sites, you can also create your own channels and collect existing videos or your own videos into categories for later viewing or sharing with students and colleagues.

Search Engine Alerts

Search engine alerts, such as Google Alerts, are services provided by search engine companies that will send you email notifications when new resources are available on the web that meet your search criteria. For instance, say you are a social studies teacher and you want to be sure that you are aware of any new stories that deal with discrimination. By creating a

Google Alerts search criteria with the word "discrimination," you can receive an email notification every time a new story is added to the Google search index that meets those criteria.

Personal Knowledge Managers

Personal knowledge managers, such as Diigo, are tools that allow you to collect, organize, and annotate on information you find on the web. For instance, say you are a music teacher and you want to collect links to sites that provide classical sheet music and performances. With Diigo, you can create collections of these resources, bookmark them, take notes on them, and share your collections with others.

RSS Feed Aggregators

Really Simple Syndication or RSS aggregators use information provided from websites like blogs to create a personal feed of relevant information for you. For instance, say there are a handful of blogs that you are interested in that are maintained by other educators or professionals in the field. By using an RSS aggregator and pointing it to those blogs, you can get a constant feed of recent posts on those blogs that come directly to you. This is useful for staying abreast of what is happening in your field. In most subject areas, there are prolific teachers on the web who keep blogs for posting resources and reflecting on classroom activities. An RSS aggregator helps you from having to track these sources down every time you want to check to see if something is new and provides a single window from which you can receive up to date information that is relevant to you.

Professional Learning Networks (PLN)

In addition to information, modern web technologies also empower us to connect with other professionals on an unprecedented scale. In a previous age, if you had a question that required expert guidance, you were very limited in your ability to get support. Now, you can regularly find world-class experts on teaching, classroom management, curriculum development, and any number of other issues with a web browser search or two. Similarly, you and other educators can connect with one another via social media and provide supports to one another as you engage in daily processes of teaching and problem solving together.

By selecting and following other educators on a social networking site like Google+, for instance, you can quickly construct a **Professional Learning Network** [<https://edtechbooks.org/-Tvf>] (PLN) of colleagues that can be of use to you when you have a question or concern. You can also use this network to provide you with fresh insights on how to improve your practice, share resources, and improve morale in a profession that can sometimes be isolating and lonely.

There are various tools that can be used to support the construction of your personal learning network. A few examples include social networking sites, blogs, and video conferencing tools. Each of these examples will now be explained in a bit more detail.

Social Networking Sites

Social networking sites, such as Facebook, Twitter, Pinterest,

and Google+, are commonplace as social spaces for people to connect with friends and family, but they are also useful for connecting professionals together. There are also strictly professional social networking sites, such as LinkedIn, which can be useful for cultivating a polished professional online presence as well as for job seeking. By creating a Twitter or Pinterest account and following the posts of other professionals in your area of interest, you can stay abreast of recent developments and also ask questions of the larger community. By creating your own profile and sharing your own classroom practices in these sites, you can also help others to learn from your experiences in the classroom and to gain value from the resources that you create.

Blogs

Similar to social networking sites, blogs are intended to be online spaces devoted to cataloging the experiences or thoughts of a single person or a small group of people. Common blogging platforms include WordPress, Edublogs, and Blogger. As an educator, you can keep your own blog where you share more information than is typically possible through a social networking site along with resources such as lesson plans, rubrics, and classroom activities descriptions. You can also elicit feedback from the community by allowing for comments on your blog and can read the blogs of others and leave them comments as well. By blogging and reading the blogs of others, you can create professional relationships that expand your teaching potential.

Video Conferencing Tools

Much of the interaction that occurs on the web is done through text-based communication, but the web also allows opportunities for professionals to connect virtually via audio and video communication. Common video conferencing tools such as Skype and Google Hangouts are useful for scheduled conversations with colleagues and might include a monthly chat with other teachers in your region or could be used to invite another teacher or professional to speak to your class remotely. These tools typically are not useful for initiating a professional learning network, because they are not intended to connect you with new people, but they are useful for sustaining and expanding the relationships that you have cultivated with other professionals either offline or through other tools (such as social networking sites).

Threats to Lifelong Learning

If lifelong learning was easy, everyone would be a pro at it. The reality of the situation, though, is that a number of issues make lifelong learning difficult. Some of these issues are universal, while others are unique or magnified for teachers. We will now briefly discuss three threats to lifelong learning along with suggestions for addressing them. These threats include: time constraints, professional considerations, and sheltering of the self.

Time Constraints

Time is one of the biggest constraints that teachers face. Most

teachers work long, exhausting hours with students during the day and either devote early mornings or late nights to grading papers, developing curriculum, or fulfilling other duties for the school (e.g., coaching, reviewing, monitoring, driving). Being a good teacher and a contributing member of the school community often requires teachers to strike a precarious balance between professional and personal life, and time devoted to the profession means time taken from somewhere else in a teacher's life. With this backdrop, if a teacher is told that she needs to focus on lifelong learning to become a better professional, one understandable response would be "When do I have time for that?"

The answer is that teachers often do not have time or resources to devote to formal lifelong learning activities, such as professional development courses or conferences, unless their schools give them some reprieve from their demanding schedules. Though formal lifelong learning undoubtedly occurs in school settings, these opportunities are too few and far between to provide all of the lifelong learning necessary for teachers.

One of the benefits of modern technologies is that they can make less formal and microburst-like learning available any time and anywhere (e.g., via a mobile device). This means that lifelong learning can be approached in a more flexible manner, with five minutes here or ten minutes there, rather than trying to carve out an entire day devoted to a formal learning session. This allows teachers to more realistically devote short periods of time to learning in a manner that is sustained from one day to another rather than relying upon infrequent, difficult-to-schedule formal learning opportunities.

For instance, one teacher might devote ten minutes each day to checking an RSS aggregator or some favorite YouTube channels. Another teacher might listen to a favorite podcast on the way to work in the morning, while another might have a 30-minute video conference scheduled every two weeks with other teachers in the region to talk about curricular development or other issues. These microbursts of learning do not altogether replace the more formal, time-intensive experiences that schools should support for their teachers, but they do provide a much-needed supplement and constancy to lifelong learning that is manageable even within a teacher's hectic schedule.

Professional Considerations

As explored in the chapter on online professionalism, the ways that teachers behave online could be subject to employer and public scrutiny, and if teachers are encouraged to use web technologies to promote lifelong learning, then there are some professional considerations that will impact how teachers use these technologies and what benefits they can actually take from them. For instance, before a teacher seeks to construct a PLN on Twitter or Pinterest, she should consider how her activities might be interpreted and whether they meet with standards of professionalism.

The tracks that you leave online are sometimes referred to as [digital footprints \[https://edtechbooks.org/-uLA\]](https://edtechbooks.org/-uLA), and they include your profile information, things you post, what you share, who you follow, what you like, etc. A majority of employers now will do some level of web searching (either via search engines or social media sites) to check on the digital footprints of people they are considering hiring. This means

that people will be searching for you, and what they find may have an impact on your professional life.

For this reason, you should take charge of your digital footprint and recognize that you have a role in grooming what is found about you online. There are several ways of doing this.

First, delete or hide old accounts and content and make your social media profile pages as private as possible.

Second, consider creating a professional website, portfolio, or blog. Even though a principal might not thoroughly look at the professional content you put online, doing so allows you to take control of what is available for others to see about you.

Third, consider creating a professional social media account that is public (such as Twitter) and strictly professional. In this public account, be extra careful and thoughtful about what you post. This will be a good sign to your employer that you are not posting things that could be risky or problematic.

Fourth, clearly demarcate between personal and professional uses of social media. Any personal uses should be as private as possible and should only be visible to people close to you that you trust (e.g., family). Professional uses should generally be more public so that you can reveal that you have a public persona of professionalism. Mixing the two can be a bad idea, because it can become very messy and sticky as people within your professional circles start to gain access to aspects of your private life that they may not have the contextual awareness necessary to properly understand.

And finally, get into the habit of regularly searching for yourself online. Review images and videos in your searches to make sure that you are aware of what results will be shown to others. As you look at this content, consider how others might interpret it given the fact that they may not have any contextual awareness of the situations and experiences in your life that may have produced them. Though we might post content online to help people to understand who we are, in this case, the more pressing concern is making sure that people do not *misunderstand* what your digital footprint says about you.

Thus, when constructing your professional learning networks, help to ensure that your footprint is actually *professional* in these networks rather than a difficult-to-decipher mix of personal with professional. If you truly do have a professional footprint online, it will allow you to more easily make connections with other professionals and to more meaningfully share your work and participate with other professionals in meaningful ways.

Sheltering of the Self

Though we have highlighted the positive potentials of modern technologies to make people more connected, informed, and socially-engaged, there are possible situations when these technologies may be turned against themselves to actually promote narrowness of thought and limited exposure to new information and experiences. Web technologies do give us access to a larger society than is possible in face-to-face interaction, but over a century ago, a prominent author pointed out the double-edged nature of big societies as follows:

It is not fashionable to say much nowadays of the advantages of the small community [in comparison to big societies]. There is one advantage, however, in the small state, the city, or the village, which only the wilfully blind can overlook. The man who lives in a small community lives in a much larger world. He knows much more of the fierce varieties and uncompromising divergences of men. A big society exists in order to form cliques. A big society is a society for the promotion of narrowness. It is a machinery for the purpose of guarding the solitary and sensitive individual from all experience of the bitter and bracing human compromises. (G.K. Chesterton)

On the web, technologies that are designed to provide us with only the information that we want may actually serve to limit our worldview and prevent us from having to confront our own biases and misunderstandings. A search engine, for instance, can learn about our interests and attitudes and only return results that solidify us in these ways of thinking (i.e. [filter bubbles \[http://dontbubble.us/\]](http://dontbubble.us/)). Similarly, by only following like-minded or demographically similar people on a social networking site like Facebook, we might set ourselves up for a situation where everyone we know in the medium supports, acknowledges, and encourages our viewpoint (rather than disagreeing with us and forcing us to grow).

For this reason, professional educators should be thoughtful about how their activities online and approaches to information seeking may help them to critically consider their own biases in an ongoing way. This might include following a diversity of

professionals, some of whom disagree with our world view, or counterbalancing information we find on one site with another site that is biased in an opposing direction (e.g., [Huffington Post \[http://www.huffingtonpost.com/\]](http://www.huffingtonpost.com/) vs. [FoxNews \[http://www.foxnews.com/\]](http://www.foxnews.com/)). The bottom line is that it is comfortable to place ourselves in situations where we are never challenged or pushed to consider others' viewpoints, and internet technologies are often designed to help us feel content in a digital echo chamber of our own thoughts. As professionals, however, we should surround ourselves with experiences that reflect the diversity of the world we live in so that we can overcome our own limitations and continually grow.

Lifelong Learning Scenarios

To illustrate the concepts presented in this chapter, a series of scenarios will now be provided in narrative form that will illustrate how these principles and concepts might be implemented in real-life settings.

Scenario 1: The Social Learner

Sal is an elementary school teacher and social learner who uses Facebook to stay connected with family and friends but also is connected with other teachers in his school. While using Facebook, he will often share links to news articles that he thinks are interesting and will occasionally post pictures of his growing family. He tries



to blend his personal and professional lives together judiciously within Facebook so that he can stay connected with the people that matter to him personally but also gain the benefits of building a PLN with the other teachers at his school.

When he first started connecting with other teachers on Facebook, Sal had to change some of his activities and the things that he posted to be sure that others would not get the wrong idea about him. For instance, he stopped posting overly political comments, because he found that they led to arguments that he did not want to have either with the other teachers in his school, on the one hand, or with his family members, on the other. He now will post cautiously about major family life events and spends most of his time on Facebook reading about what others are doing and sharing links (though not necessarily his thoughts on those links).

Benefits

The main benefit of Sal's approach is that it allows him to bring all of his connections and interactions into one location (Facebook) and not feel overburdened by having to login to multiple sites. He likes being able to share a little bit about himself and his family online but does this with the understanding that others might be viewing his activities through a professional lens and therefore limits or slightly censors some of the things that he might otherwise post.

Limitations

The major professional limitation of Sal's approach is that it prevents him from connecting with a lot of other educators and from sharing his classroom resources with others outside of his small social circle that might benefit from them and provide him with guidance on how to improve. Mixing personal and professional uses of these media together can also cause tensions that prevent Sal from really using Facebook the way he wants (e.g., not posting things that he feels strongly about perhaps because he is worried about how others might react to them). Sal also recognizes that because his network is so small and isolated to people that he knows in real life, he does not have much exposure to people who think differently than he does or who have different life experiences. This doesn't particularly bother him, but he wonders sometimes how much of his use of Facebook is actually helping him to learn and grow and how much of it is simply solidifying his own views of the world.

Scenario 2: The Seeker

Marta is a secondary science teacher who has accounts on various social media sites, including YouTube, Pinterest, and Twitter. On YouTube, she subscribes to channels from [NASA \[https://edtechbooks.org/-TW\]](https://edtechbooks.org/-TW), [Popular Science \[https://edtechbooks.org/-KnA\]](https://edtechbooks.org/-KnA), and [Discovery \[https://edtechbooks.org/-xge\]](https://edtechbooks.org/-xge), giving her a constant feed of new videos that relate to content area. On Pinterest, she follows boards from other science educators who post ideas for experiments and other class activities. And on Twitter, she follows celebrity scientists like [Bill Nye \[https://twitter.com/BillNye\]](https://twitter.com/BillNye) and [Neil deGrasse Tyson \[https://twitter.com/neiltyson\]](https://twitter.com/neiltyson), who will often share information about recent discoveries or interesting thoughts. Marta also uses an RSS feed aggregator to pull stories from the science sections of major news sites, feeding them directly into her email inbox and has a couple of Google Alerts set to let her know as new results pop up on the web related to climate change. All of these tools working together represent Marta's PLE, which gives her instant access to up-to-date, pertinent resources. Marta greatly values the resources she finds online, but she generally feels that the work she does is not important or that she has nothing to contribute to other teachers in similar situations.



Benefits

The main benefit of Marta's approach is that it allows her to have access to new, frequently updated information from a variety of sources. By following the recent posts of others, she is able to keep up on recent happenings in her field and to get helpful ideas for teaching her students.

Limitations

The main professional limitation of Marta's approach is that she isn't sharing her own expertise back with the online community, providing resources to other teachers, and becoming a full participant in social media. Marta's behaviors might be classified as "lurking," or as someone who watches others and gains benefit from what they share but who does not share back or help to support the community through her own contributions. Thus, she gains benefits from resources online but gains little social benefit from her activities and may feel undervalued in the work she does.

Scenario 3: The Micro-Celebrity

Rosa is a middle school teacher who keeps an active blog and posts multiple times each day to Twitter, Facebook, and Pinterest. On her blog, Rosa shares classroom activity ideas and writes position pieces about the problems that public education faces in her community, state, and the nation at



large. She sometimes stays up late into the evening writing thoughtful blog posts and responding to the many users who comment on her work. On Twitter, Facebook, and Pinterest, Rosa posts provocative snippets of her blog posts along with links to the full articles. The people that read her work in each site are different, but she has amassed a following in the tens of thousands on Twitter and Pinterest, showing that many people are interested in her ideas and work and that she has a massive PLN.

Because of the nature of the things she posts, she sometimes must moderate her blog comments or respond to people that disagree with her viewpoints, which takes a lot of time and energy. Frustratingly, many of the people she argues with the most are family members and long-time friends who are not educators themselves but who have very different viewpoints about public education than she does. She has been known to respond to these comments on her mobile phone while monitoring students during lunch and sometimes comes back to class frazzled from the experience.

Wanting to continue to push the limits of her work, Rosa has

begun placing advertisements on her blog to generate a trickle of revenue to supplement her modest teaching salary. She sometimes wonders if her classroom duties are getting in the way of her ability to be an advocate for things she believes in online. She also wonders if she will be able to continue to produce new content on her blog that will keep people interested, and in class she often finds herself spicing up her activities not for her students but for the blog post she will be able to write about afterward.

Benefits

The main benefit of Rosa's approach is that she is able to connect with a diverse group of people online, to share her expertise with others, and to learn from them through online interactions. The sheer number of followers she has on some of these sites suggests that her work is benefiting other teachers, and if her popularity continues to increase, she may be able to find ways to effectively monetize her work (either through advertisements or selling lesson plans). Also, because of her followers on social media, Rosa feels like she has a powerful voice for change in the world, which she finds quite exhilarating and liberating.

Limitations

The major limitation of Rosa's approach is that it is taxing both in time and energy and may actually have some negative impacts on her teaching, by distracting her from her students and other life duties. Because Rosa has no boundaries between her online professional and personal life, much of her frustration and emotional taxation seems to stem from tensions between her professional attitudes and personal relationships with family and friends.

What do you think?

Which of the three lifelong learning scenarios is most appealing to you?

- a. Scenario 1 - The Social Learner
- b. Scenario 2 - The Seeker
- c. Scenario 3 - The Micro-Celebrity

Conclusion

Lifelong learning is essential for everyone but is especially important for educators who must model lifelong learning skills

and dispositions for their students and must operate in a profession that changes in response to new innovations. Modern technologies, particularly web technologies, empower educators to participate in lifelong learning in unprecedented ways by improving access to resources and supporting social connections between professionals at a distance. This chapter has highlighted some of the current technologies that are available to support the creation of a PLE and PLN and has also provided some scenarios that highlight the benefits and limitations of certain professional practices online. With these understandings, teachers should consider for themselves how they will support their own lifelong learning and what role the construction of a PLE and/or PLN plays in this process.

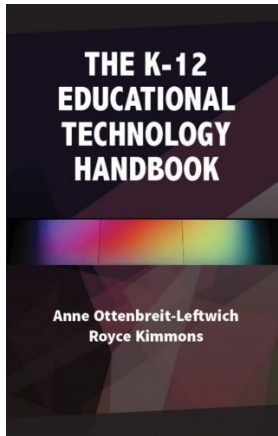
Suggested Citation

Kimmons, R. (2018). Lifelong Learning. In A. Ottenbreit-Leftwich & R. Kimmons, *The K-12 Educational Technology Handbook*. EdTech Books.
Retrieved from
https://edtechbooks.org/k12handbook/lifelong_learning

Royce Kimmons



Dr. Royce Kimmons is an Assistant Professor of Instructional Psychology and Technology at Brigham Young University where he studies digital participation divides specifically in the realms of social media, open education, and classroom technology use. More information about his work may be found at <http://roycekimmons.com>, and you may also dialogue with him on Twitter [@roycekimmons](https://twitter.com/roycekimmons) [<https://twitter.com/roycekimmons>].



Ottenbreit-Leftwich, A. & Kimmons, R. (2018). *The K-12 Educational Technology Handbook*. EdTech Books. Retrieved from <https://edtechbooks.org/k12handbook>



CC BY: This book is released under a CC BY license, which means that you are free to do with it as you please as long as you properly attribute it.

