Chapter 22

Technology and Education

Freddy Cardoza, Ph.D.
Talbot School of Theology at Biola University

Technology changed everything. Since the dawn of the New Millennium there has been an exponential increase in the connection between technology and education.[1] From online degrees, educational apps, streaming video, and open access[2], the two fields have become inseparably linked. These realities present enormous possibilities and challenges for Christian teachers.

Educational Technology is a vast and dynamic field.[3] Even the term itself is not easily described.[4] For the Christian educator, educational technology can be defined as *the effective use of electronic or digital resources to enhance the teaching-learning process with the transformation of the learner as its goal.* The skillful teaching of God's Truth using digital learning can provide the next generations the meaning they crave, while outfitting them with

[1] Amemado, Dodzi. "Integrating Technologies in Higher Education: The Issue of Recommended Educational Features Still Making Headline News." *Open Learning* 29: 1 (2014): 15-30.
[2] Oblinger, Diana G., ed. 2012. Game Changers: Education and Information Technologies. Lawrence, KS: Allen Press. pp. 85-87. *Open access refers to educational research freely and openly available to anyone able to electronically access these materials, including entire learning courses offered at no charge.*
[3] Januszewski, Alan and Michael Molenda. 2008. *Educational Technology: A Definition with Commentary.* New York, NY: Routledge. pp. 1-14.
[4] Ellington, Henry, Fred Percival, and Phil Race. (1993). *Handbook of Educational Technology, 3rd ed.* East Brunswick, NJ: Nichols Publishing Company. pp. 3-10.

the knowledge, convictions, and character needed to live as dual citizens in the Kingdom of Earth and the Kingdom of God.

Technology and Teaching

Effective Christian teaching involves several important factors. Most important is the illuminating teaching ministry of the Holy Spirit.[5] Next is the cultivation and skillful use of the spiritual gift of teaching.[6] Also central are the careful study and accurate interpretation of the Word of God.[7] Then there is the integration of truth with the human experience, and its application to our lives.[8] These are aided by the winsome communication of God's Word and its delivery in various settings using different teaching methods and educational technologies.[9]

The delivery and application of the content by the teacher is the moment of truth. In real-time, our teaching makes its mark as truth is heard, understood, and applied— or not. Good teachers want to leverage every available resource at their disposal. The effective use of technology is one of the keys that can connect learners with the relevance of God's Word.[10] Because today's world speaks the digital language, it is the vernacular of choice for this generation—one that engages students' learning styles and imagination.[11]

---

[5] John 14:26.
[6] Romans 12:6-8.
[7] 2 Timothy 2:15.
[8] 2 Timothy 3:16-17.
[9] Gangel, Kenneth. Published: March 10, 2005. Thinking About Teaching Methods. https://bible.org/seriespage/1-thinking-about-teaching-methods. Accessed January 7, 2015.
[10] Bourgeois, David. 2013. *Ministry in the Digital Age.* Downers Grove, IL: InterVarsity Press. pp. 18-23.
[11] McKeachie, Wilbert J. 2002. *McKeachie's Teaching Tips: Strategies, Research, and Theory for College and University Teachers.* Boston, MA: Houghton Mifflin Company. pp. 210-213.

A Technology Teaching Mindset

Despite the opportunities of the Digital Age, many teachers and even some professors feel unprepared to integrate educational technology into their curriculum and pedagogy.[12] Too often, equipping in these areas was not a part of many teachers' training. [13] This can create feeling of threat among some digital immigrant teachers.[14] The speed of change has occurred at a velocity and with a force that few expected. Even so, good teachers are internally motivated to excel in effective education and are willing to make the adjustments needed to reach the goal of digital fluency. This begins with a technology teaching mindset.[15]

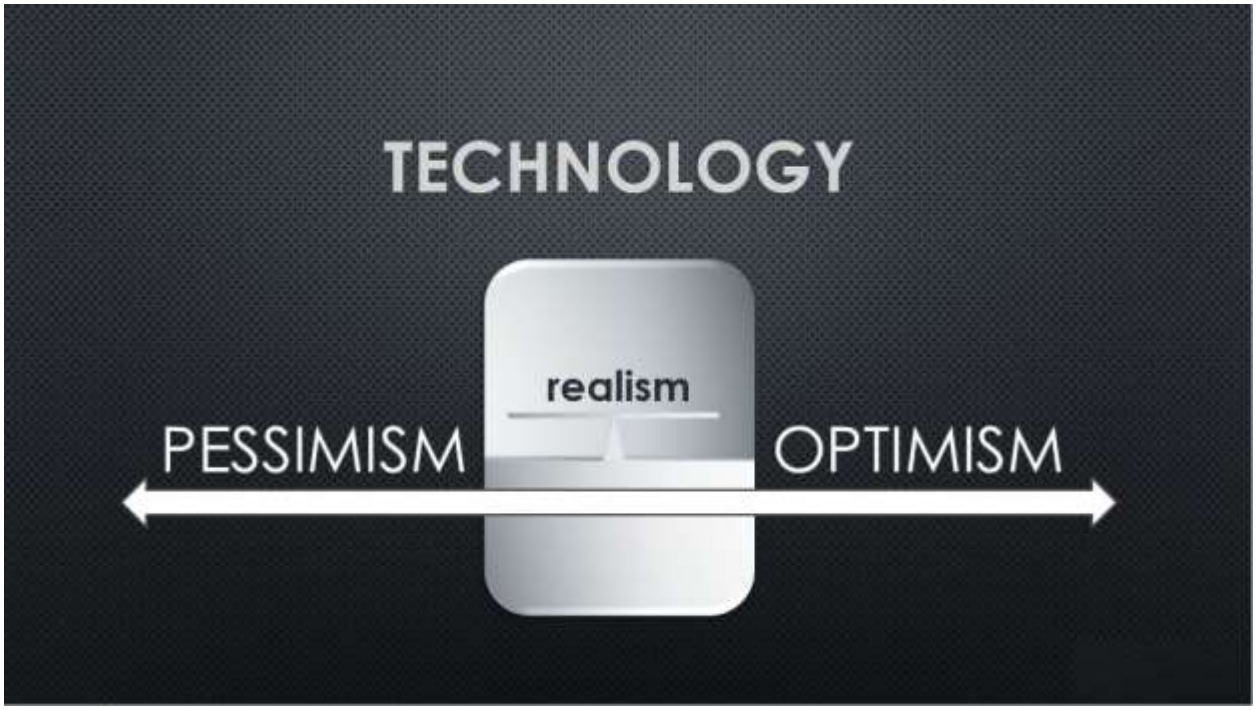
Realism about Technology

One helpful perspective in teaching digital natives is to reject outright pessimism about technology, as well as naïve optimism.[16] There are both positives and negatives for teachers. For this reason, realism is a middle way that provides the proper balance that will keep teachers from the dangerous extremities of the imbalance caused by an either-or perspective.[17]

---

[12] Collins, Allan and Richard Halverson. 2009. *Rethinking Education in the Age of Technology: The Digital Revolution and Schooling in America.* New York, NY: Teacher College Press. pp. 30-47.
[13] Peterson, Susan L. *Teachers and Technology.* 1999. Lanham, MD: International Scholars Publications. pp.4-13.
[14] West, Darrell M. 2012. *Digital Schools: How Technology Can Reform Education.* Washington, D.C.: Brookings Institution Press. pp. 1-7.
[15] Collins, Allan and Richard Halverson. 2009. *Rethinking Education in the Age of Technology: The Digital Revolution and Schooling in America.* New York, NY: Teacher College Press. 128-146.
[16] Gura, Mark and Bernard Percy. 2005. *Recapturing Technology for Education: Keeping Tomorrow in Today's Classrooms. Lanham, MD: Rowman & Littlefield Education. pp. 95-108.*
[17] Pew Research Center. (April 2014). "U.S. Views of Technology and the Future" http://www.prewinternet.org/2014/04/17/us-views-of-technology-and-the-future. Accessed October 9, 2014.

Figure 1: Realism about Technology



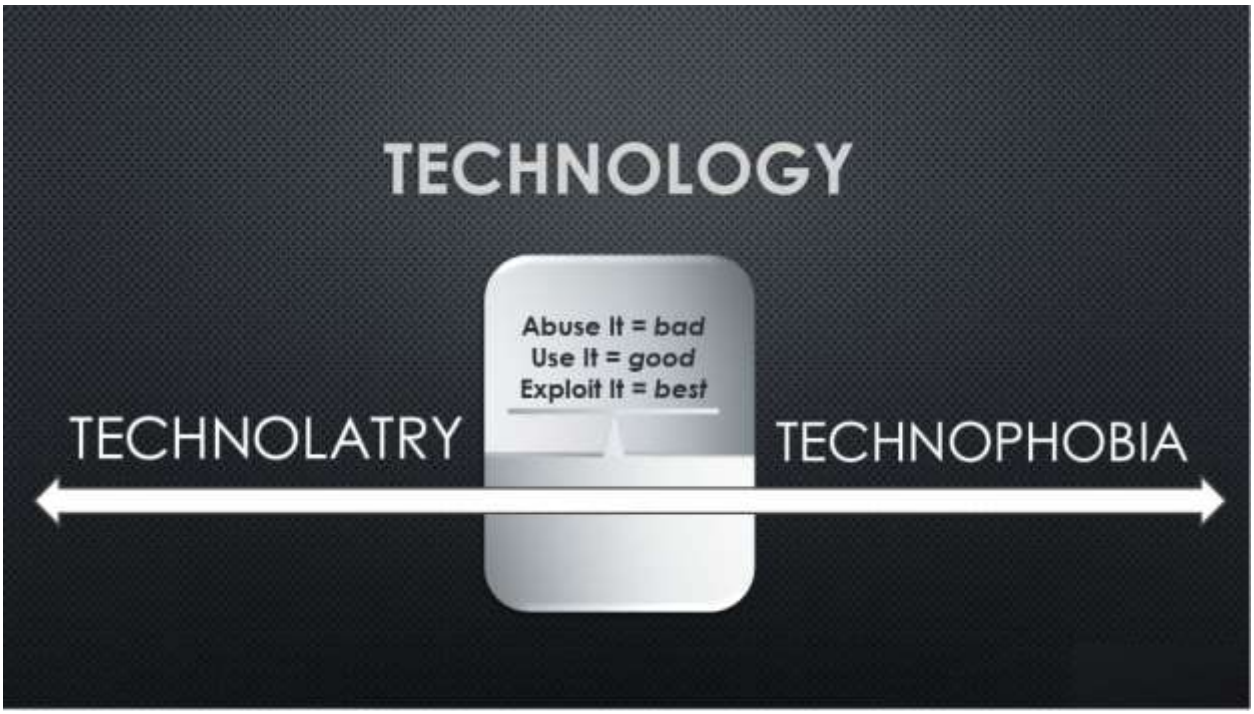
Fear or Fascination about Technology

Another important perspective for Christian Teachers is to avoid the emotional extremes of fear and fascination toward educational technology. Some who fail to embrace a realistic view of technology gravitate toward an unhealthy infatuation or obsession with it.[18] This imbalance might be called *technolatry*—where technology becomes their deity. Others move in the opposite direction and develop irrational caution and unnecessary fears about technology that could be termed *technophobia.*

[18] Collins, Allan and Richard Halverson. 2009. *Rethinking Education in the Age of Technology: The Digital Revolution and Schooling in America.* New York, NY: Teacher College Press. pp. 9-37.

A more thoughtful theological approach seems to be one in which the strengths, weaknesses, opportunities and threats of educational technology are all acknowledged. Then teachers can begin to avoid the abuse of technology, begin to use technology properly and, indeed, grow in their digital competencies until they are able to exploit the amazing opportunities of digital learning without falling victim to it.

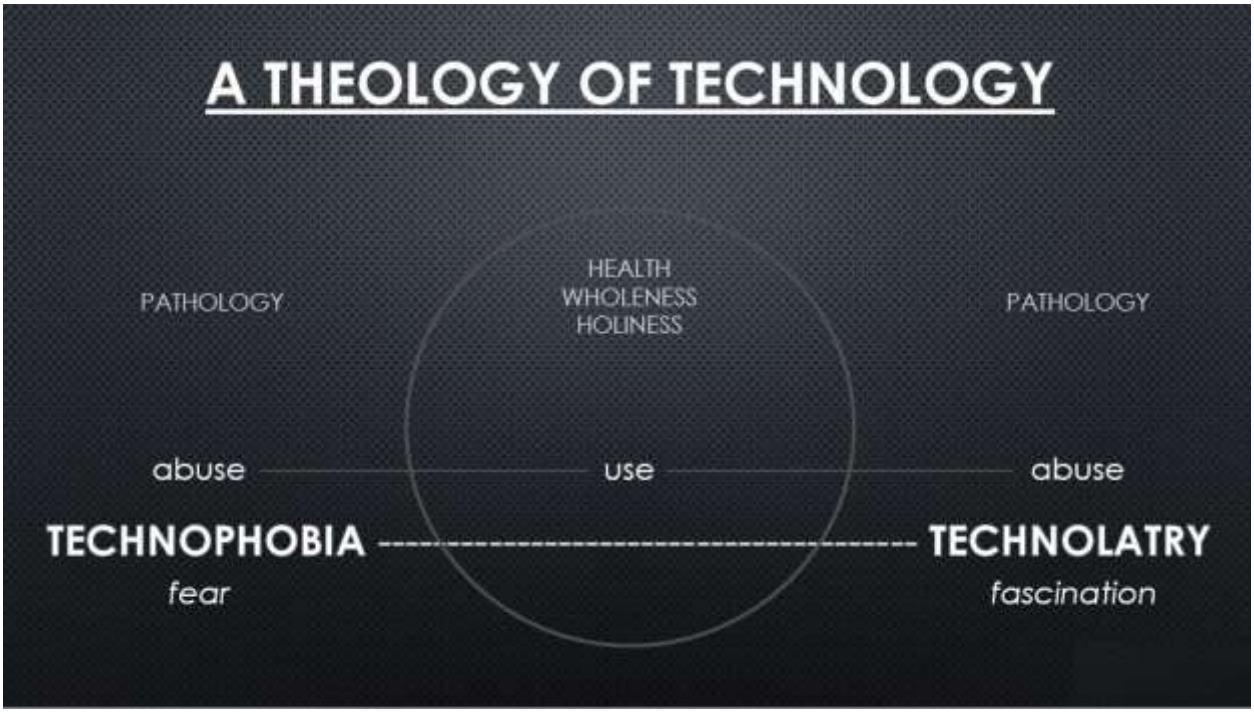
Figure 2: The Fear or Favor of Technology



A Theology of Technology

A final mindset helpful for Christian teachers to embrace is a proper theological view of technology. Doing so will both govern teachers in effective instruction and guide learners in effective living. The outcome should be the avoidance of pathologies in our personal lives, while working toward the health, wholeness, and holiness that is possible when technology finds its proper place.

Figure 3: A Theology of Technology



Technology and Learning

Thousands of educational technologies now exist. These learning tools range from simple to sophisticated. Some are free, while others are premium and offered at cost. Some involve using certain hardware or devices, and others require specialized software or services. Many resources can be easily obtained and are useful for many situations, while the acquisition or installation of others can be challenging and have more specialized uses.

For these and other reasons, not every resource or type of resource will meet the needs of every teacher nor interest every learner.[19] Some technology tools will be practical for some

[19] Bain, Ken. 2004. *What the Best College Teachers Do.* Cambridge, MA: Harvard University Press. pp. 55-59.

educational settings and impractical for others. Even so, the sheer number of educational technologies now available represent game-changing learning opportunities for both classrooms and discipleship.

Educational Technology Categories for Next Generation Teaching

Because so many resources are constantly being developed, educational technologies are best understood when placed into categories by type. This helps teachers locate the kinds of help they need, rather than being overwhelmed by the sheer number of available options. Following are numerous groups and overviews of these resources, along with brief descriptions of how they might be effectively used in various teaching settings.

With some alterations, what follows are categories of different teaching-learning resources created by the collaboration of over 1000 global educational technology leaders in collaboration with the Center for Learning and Performance Technologies.[20] For the purpose of this overview, the list has been combined into ten categories, each with subcategories and descriptions.

Becoming conversant in these resources and their capabilities will better facilitate learning through the use of educational technology.[21] For specific examples of each category or type, the reader should perform a simple web search using any *italicized* term provided. This approach will help teachers and learners find examples of the many devices, software,

[20] Hart, Jane. Directory of Learning and Performance Tools. http://c4lpt.co.uk/directory-of-learning-performance-tools. Accessed: December 7, 2014.
[21] West, Darrell M. 2012. *Digital Schools: How Technology Can Reform Education.* Washington, D.C.: Brookings Institution Press. pp. 105-119.

applications, and tools currently available without being distracted by brands or companies that may become obsolete or be replaced.

Ten Categories of Educational Technology Tools for Next Generation Teaching[22]

1. Digital Instructional Tools. *Digital Instructional Tools* are designed for teachers who want to create a more formal learning environment. These resources allow students to interact with other learners through a variety of online programs while also giving teachers enhanced means of building courses, delivering content, facilitating educational experiences, and holding students accountable for their performance.

There are at least four types of instructional tools. *Course Authoring Tools* help teachers design web-based e-learning (electronic learning) experiences for learners by building the environments necessary for online learning. *Evaluation Tools* include dozens of ways to build e-flashcards for memorization, quizzes and tests for evaluation, and to create other means of assessing learning.[23] *Simulation and Gamification Tools* allow learners to engage in immersive virtual experiences.[24] These devices simulate or augment reality through role play and educational game play.[25] In doing so, they facilitate the teaching of knowledge, attitudes, behaviors, or skills.[26] *Course Learning Management Systems (CMS or LMS)* are more sophisticated resources capable of organizing curriculum, courses, and students in academic

---

[22] Hart, Jane. Directory of Learning and Performance Tools. http://c4lpt.co.uk/directory-of-learning-performance-tools. Accessed: December 7, 2014.

[23] Tomei, Lawrence. 2001. *Teaching Digitally: A Guide for Integrating Technology into the Classroom.* Norwood, MA: Christopher-Gordon Publishers. pp. 229-275.

[24] Thomas, Douglas and John S. Brown. 2011. *A New Culture of Learning: Cultivating the Imagination for a World of Constant Change.* Publisher: Authors. pp. 90-105.

[25] West, Darrell M. 2012. *Digital Schools: How Technology Can Reform Education.* Washington, D.C.: Brookings Institution Press. pp. 44-56.

[26] Werbach, Kevin. Gamification. *https://www.coursera.org/course/gamification. Accessed January 5, 2015.*

programs. Also called *Virtual Learning Environments*, these provide all the necessary resources for managing traditional, blended, flipped, and online classes for some visionary missionary or ministry applications[27]

2. Social Collaboration Tools. *Social Collaboration Tools* gained nearly immediate acceptance in church ministries and were accepted reasonably quickly in academic practice.[28] These helpful resources include popular *social networks* that included microblogging, image sharing, and other creative social communications. These also provide learners with the opportunity to gather in one on one or small group interactions for building classroom community, group identity, and class cohesion.

There are at least three types of resources provided through this technology category. The most obvious are *Social Networks* which allow personal interaction including sharing one's location, activities, thoughts and ideas, surveys, and other information. These include today's well-known social networks, each of which can be used for different kinds of student interaction in formal and non-formal education.

Group Collaboration Platforms can allow teams of learners to brainstorm, track projects, do teamwork and task management, upload and share documents, and produce meeting agendas for study groups. *Social Classroom Tools* are interactive online platforms where students can receive messages, collectively share assignments and events, and partner in group

[27] Lewis, Gordon. 2009. *Bringing Technology into the Classroom. Oxford, UK: Oxford University Press. pp.* 82-83.
[28] Guy, Retta. "The Use of Social Media for Academic Practice: A Review of Literature," *Kentucky Journal of Higher Education Policy and Practice* 1, no. 2 (July 2012): 1-20.

blogging, wikis, social bookmarking, and class forums. Research has shown the promise of Social Media in educational environments.[29]

3. Web Conferencing and Virtual World Tools. The category of *Web Conferencing and Virtual World Tools* bridges the simulated and physical worlds through Internet-based technology. It includes programs that allow learners, depending on the capabilities of their devices, to connect by audio or audio-video through computers, tablets, mobiles, and even some wearables. These also enable participation in computer-based simulated environments through massive multiplayer online worlds (MMOW). Each of these have applications for teaching in either creative academic or ministry-based settings.

This category's four groupings includes *Webconferencing Tools*. These provide different means of conducting live personal or group meetings with people near and far. They can include web classroom environments using special resources for teachers, or they can be online conferences, and webinars. *Screen Sharing Tools* allow remote desktop sharing where others allow a guest user control over their personal computer. Some of these resources also provide screen sharing possibilities, where others are granted the ability to view a live or recorded version of another user's screen for collaborative interaction.

Webcasting Tools provide the ability to conduct web-based broadcasts or targeted narrowcasts to audiences using bandwidth-saving one-way, non-interactive presentations. *Virtual World Tools* are an exciting frontier of learning where 2-D and 3-D simulated environments (virtual worlds) allow multiple users to participate in learning games, alternate realities, and immersive

[29] Davis, Charles H.F., Regina Deil-Amen, Cecilia Rios-Aguilar, and Manuel Sacramento Gonzalez Canche. *Social Media in Higher Education: A Literature Review and Research Directions.* Tucson, AZ: University of Arizona and Claremont Graduate University, 2011.

learning experiences. These are made possible through photo-realistic worlds, video characters, and avatars (a computer icon representing a person). Some of these experiences, once considered niche hobbies, have produced rich possibilities for teaching and learning of digital natives.

4. Office-Related Suite Tools. Office-Related Suite Tools include the many different types of applications software popular in computer-based programs. These include products capable of creating, editing, displaying, and sharing documents, presentations, and spreadsheets. These tools can print information or present it electronically as paperless.

Numerous types of office suite tools exist. *Document Creation Tools* allow the creation and hosting of written content through word processing. Teachers and learners can author, share, collaborate, and view creative, technical, and theological content through written prose. *Presentation Creation Tools* allow the creation and sharing of professional and attractive multimedia that uses linear or dynamic content presentation styles. *PDF Tools* are those programs that compose documents of all types into sharable "portable digital files." These files are standardized and placed into a universal sharing format which allows the sharing of materials between teachers and learners without requiring viewers to purchase the software in which the original resources were created.

5. Blogging, Website, and Wiki Tools. *Blogging, Website, and Wiki Tools* are capable of dynamic learning experiences.[30] These include two-way, give-and-take interactive (Web 2.0) learning as well as interactive learning that adds the additional component of responsive social collaboration (Web 3.0) experiences.[31] Whereas some electronic tools are based on learners

[30] Lewis, Gordon. 2009. *Bringing Technology into the Classroom. Oxford, UK: Oxford University Press. pp.* 63-74.
[31] Smaldino, Sharon, Deborah Lowther, and James Russell. 2012. *Instructional Technology and Media for Learning, 10th ed.* Boston, CA: Pearson. 124-143

"consuming" content, Web 3.0 experiences focus on learners becoming actively engaged in *content creation.*

Blogging Tools are one of the five tools in this category. These include resources capable of helping teachers and learners author their own weblogs (blogs) that serve as a web publishing tool to reach large audiences with student-produced content by sharing information that includes uploaded audio, images, videos, and written text. *Wikis* are tools that help learners create and share information through individual or collaborative websites. *Wiki* is the Polynesian word for "quick," signifying the ease and speed of building these sites to display and share information in very versatile formats.

Website Tools are similar to blogging and wiki tools except for their sophistication. Website building tools provide the opportunity to build very powerful customized Internet destinations limited only by the creativity and ability of the author. *Form and Survey Tools* enhance learning through the creation of online or printed forms that include questionnaires, surveys, and polls that can help students conduct research for teaching. *RSS Feed Tools* refer to "real simple syndication" which makes it possible for anyone with a message to share to be able to distribute it at little or no cost. Several services like these exist, and they are helpful for disseminating teaching to large audiences.

6. Image, Audio, and Video Tools. *Image, Audio, and Video Tools* are widely available because of increased bandwidth speeds and the ability to harness the power of microprocessors. Though complex and expensive professional utilities are available, there are also numerous quality resources for novice users. These have the ability to produce and edit images of all types, in addition to doing post-production on audio files for podcasts, and video files for instruction, equipping, and training.[32]

[32] Smaldino, Sharon, Deborah Lowther, and James Russell. 2012. *Instructional technology and Media for Learning, 10th ed.* Boston, CA: Pearson. pp. 187-253.

Image Tools are capable of editing photographs, computer-generated illustrations and electronic drawings. They can also capture and manipulate images on screens and web pages. This includes photos produced from personal computers, webcams, tablets, and other smart devices. Other programs provide portfolios to show and share these images in online galleries which can all be used in teaching visuals when videoprojectors are available.

Audio Tools are capable of capturing, converting, and producing edited versions of spoken teaching content. Some can provide voiceovers, captioning, and revoicing in foreign languages. Other tools can provide metadata information, then prepare them in different formats for online sharing as audio files or host them in syndicated podcasts.[33] Beyond these, there are programs that allow teachers to set up live interactive audio discussions or voice message boards for their students.

Video Tools allow for video creation and editing, live computer screencasting, webcam and recording. Some resources allow for the creation of time-stamped discussions about posted videos that have been viewed, and the ability to conduct video chats. Teachers can also create and host presentation or training videos, tutorials, and use Chroma key (green screen or blue screen) technology for creative instruction, information, and inspiration.

7. Communication Tools. *Communication Tools* are those capable of providing a wide variety of interpersonal digital interaction. Technology allows for live (synchronous) communication that is especially helpful when learners are able to participate in the discussion in real-time. Many tools also provide for those who cannot communicate at the same time

[33] McConatha, Douglas, Christian Penny, Jordan Schugar, and David Bolton. 2014. *Mobile Pedagogy and Perspectives on teaching and Learning.* Hershey, PA: IGI Global. pp. 41-57.

(asynchronous) due to personal schedules or for those being taught in other time zones. These communication utilities involve numerous types of programs to facilitate student-teacher engagement in nearly every setting imaginable.

Text Tools include the ability to send brief short-character-count SMS (Short Message Service) messages by mobile devices. MMS (Multimedia Messaging Service) is how multimedia content can be sent between these devices, be it to an individual or a group. Similar to SMS and MMS are *Instant Messaging Tools.* Some are more feature-laden than the others, but MMS typically allows more secure environments, including a host of different providers capable of recording interaction, logging communication, creating groups, voice messaging, and sharing limited multimedia files. *Live Chat Tools* allows teachers to embed live discussion boards into their websites, blogs, and social network profiles, all while monitoring them for security. Some have online whiteboards for sharing drawings and other creations with virtual classroom participants.

8. Collaborative Sharing Tools. *Collaborative Tools* are resources that help people work together to increase learning or to produce something superior to what could be produced working alone. Though much learning and work in the Western Hemisphere has traditionally been primarily individualistic, the influx of people from cultures that value the development of collaboration and learning communities has greatly influenced American thinking. The result has been greater classroom interaction.

Numerous types of collaborative tools facilitate rich and meaningful interaction between learners and teams. *Social Bookmarking* is the use of web-based programs that allow people to search, find, save, and manage valuable web pages. Individuals and groups can permanently categorize, store, and share important collections of Internet destinations. These social bookmarking sites house this information in users' accounts to build personalized

libraries of knowledge. *Collaborative Research Tools* have similarities to social bookmarking sites, but focus on helping groups of people study together in order to share, organize, and discuss scholarly references with others.

Content Curation Services allow groups of people to gather and universally share videos, blogs, web pages, and other information with others. As they curate content, the services compile it by creating attractive and well-organized portfolios with media streams of content. This aids learning by giving people access to large amounts of curated material while saving them great amounts of time. Many other collaborative tools exist. Some of these include *Shareable Digital Notebooks, Group Organizers, Mindmapping Tools, Firesharing Tools,* and *Virtual Cork Boards* (sometimes called *Digital Bulletin Boards).* Collaborative tools are indispensable to facilitating different types of interaction and learning for students in classrooms, ministry staff, team members, and others.[34]

Learning Portfolios (also called *e-Portfolios)* are another widely-used resource whose popularity is increasing. These allow users to create self-styled websites that are typically formatted for sharing one's ideas with others. Digital portfolios are a tremendous way for teachers, ministry students, and other learners to promote the things they have learned.[35]

9. Public Learning Resources. The Internet, if it is anything, is the world's primary destination for learning resources.[36] *Public Learning Resources* comprise a large and growing category of web destinations that provide learners with information or instruction about a wide range of subjects, often for free.[37] These include sites that provide individual lessons, series,

[34] Hudson, James M. 2007. *Chatting to Learn: The Changing Psychology and Evolving Pedagogy of Online Learning.* Youngstown, NY: Cambria Press. pp. 1-7.
[35] Lewis, Gordon. 2009. *Bringing Technology into the Classroom. Oxford, UK: Oxford University Press. pp.* 72-74.
[36] Hird, Anne. *Learning From Cyber-Savvy Students: How Internet-Age Kids Impact Classroom Teaching.* pp. 13-18.
[37] Centre for Learning and Performance Technologies. Directory of Learning and Performance Tools. http://c4lpt.co.uk/directory-of-learning-performance-tools/find-out-about-anything-and-everything. Accessed December 7, 2014.

and entire courses of study, in addition to various types of research databases that can aid in personal study that can support or supplement Christian teaching.

Two primary types of public learning resources are especially useful for the purpose of Christian education. *Open Courseware* (OCW) is the permanent digital publication of free, high-quality college and university-level educational materials.[38] The Open Education movement makes available nearly every type of imaginable content including an increasing amount of biblical and theological content.[39]

Early terms coined for Open Courseware were Massive Open Online Courses (MOOCs) or Big Open Online Courses (BOOCs).[40] Though it is uncertain how this type of learning will fare as an educational model, the benefits to learners are undeniable. Every indication is that experimentation with different Open Learning approaches will continue to take place.

Electronic Research Databases comprise the other important type of public learning resource helpful to those in Christian education. The movement of many journals and other research materials from print to digital has rapidly expanded what is already available in search engines and scholarly databases. Examples of these include digitally-searchable monographs, collected essays, research reports, government articles, periodicals, dissertations and theses.[41] These resources can help equip students in ministry-based programs enrich their research and knowledge, ultimately making them better prepared for a life of Christian service.

---

[38] About OCW. http://ocw.mit.edu/about/. Accessed January 11, 2015.
[39] Tracy, Kate. Published January 24, 2014. As Harvard Hosts World's Largest Bible Class, Pat Robertson's Regent Launches MOOC. http://www.christianitytoday.com/gleanings/2014/january/harvard-largest-bible-class-pat-robertson-regent-paul-mooc.html?paging=off. Accessed January 11, 2015.
[40] Waters, John K. What Will Happen to MOOCs Now that Udacity Is Leaving Higher Ed? Created December 11, 2013. http://campustechnology.com/articles/2013/12/11/what-will-happen-to-moocs-now-that-udacity-is-leaving-higher-ed.aspx. Accessed January 11, 2015.
[41] http://library.taylor.edu/dotAsset/4726c833-e1be-4e3a-baa9-6848e7a44670.pdf. Accessed January 11, 2015.

10. Digital Christian Teaching Resources. *Digital Christian Teaching Resources* include many promising opportunities of educational technology for both Christian academic and ministry-based teaching. The quality and volume of these resources has greatly accelerated in recent years. This enormous investment on the part of Christian entrepreneurs have radically improved the creative digital resources available for students and professionals in teaching ministry.

At least four types of important developments exist in this category. *Bible Software* has entered a type of Golden Age, as many fresh and robust tools continue to be offered by organizations with tremendous vision of how to share truth with the world. These software are available at a variety of price points, including sometimes free, and they offer an array of features. These include study and teaching materials on the original languages, primary ancient and modern literature, lexicons, visual tools, semantics, comprehensive libraries, and much more.

Bible Lesson Software is also available from many providers. Available options include the ability to create customized Bible Studies and curriculum for various age groups using powerful time-saving technology. Each lesson planning software offers specific features for different types of needs such as age-group ministers including those with or without theological training.

Digital Ministry Equipping Services represent a newer but expanding type of educational technology tool filling a niche. Increasingly, the best legacy material available from key leaders across Christendom is being captured on video and audio as an equipping resource. Some of these materials are theoretical in nature while others are practical. Well-produced media of significant leaders in Bible, Theology, Ministry, Curriculum, and Teaching are available in streamed video or audio format, allowing today's Christian teachers to be instructed by top leaders of this and the last generation.

Christian Teaching Ministry Websites represents the remaining significant type of digital Christian educational resources available as forms of technology for today's Christian teachers. The number, quality, and content offered by various ministers and professors continues to expand, offering an inexhaustible body of materials to enrich one's teaching in any context or setting imaginable.

Challenge to Engage Educational Technology

Educational Technology is here to stay. It does not take the place of teachers, but it can enhance our teaching.[42] Though there are philosophical and practical issues that must be considered about its effective use, ample evidence points to its value and utility.[43] Some early and middle adopters have already embraced these educational tools while others have hesitated for various personal and professional reasons.

The time has come for Christian teachers to embrace a more radical brand of incarnational teaching. It is one that enters the world of today's Digital Native, seeking to become digitally fluent in educational technology. [44] To do this, teachers need to feel comfortable with technology, to have skills motivating students to learn with technology, and to implement educational technology at various student ability levels.[45] Doing so will help increase the educational effectiveness of today's teachers as we learn to speak the language of the next generations.[46]

---

[42] Safar, Ammar H. and Fahad A. AlKhezzi. "Beyond Computer Literacy: Technology Integration and Curriculum Transformation," *College Student Journal* 47, no. 4 (Winter 2013): 614-626.
[43] Gresham, John. "The Divine Pedagogy as a Model for Online Education," *Teaching Theology and Religion* 9, no. 1 (2006): 24-28.
[44] Conrad, Rita-Marie and J. Ana Donaldson. 2011. *Engaging the Online Learner: Activities and Resources for Creative instruction.* San Francisco, CA: Jossey-Bass. pp. 15ff.
[45] Peterson, Susan L. *Teachers and Technology.* 1999. Lanham, MD: International Scholars Publications. p. 95.
[46] Vazquez-Cano, Esteban. "Mobile Distance Learning with Smartphones and Apps in Higher Education" *Educational Sciences: Theory and Practice* 14, no. 4 (2014): 1505-1520.

Reading Reflection Questions

1. Based on your reading, how would you define and/or describe “educational technology?”

2. What are the major elements of effective Christian teaching and how does educational technology relate?

3. Recalling the diagrams provided above, how would you describe a healthy view of technology and a theology of educational technology?

4. What are two interesting types of educational technology you can imagine using in Christian teaching, and how might you integrate them into a ministry or Bible study setting?

5. What are some strengths, weaknesses, opportunities, or threats you learned from this chapter about the possibilities of educational technology for teaching the next generations?