

What Is Information Literacy?

The average person is bombarded with the equivalent of 174 newspapers of data each day (Alleyne, 2011). The Internet, television, and mobile phones have increased the amount of information a person receives by 5 times as compared to 1986 (Alleyne, 2011). According to researchers at the University of Southern California, the digital age allows people to send out more information by email, Twitter, social networking sites, and text messages than at any other time in history. In 1986, each individual generated approximately two and half pages of information a day; however, in 2007, each person produced the equivalent of six, 85-page newspapers daily (Hilbert & Lopez, 2011). Imagine how that may have changed in the last decade! As one can guess, all of this information has to be stored and catalogued. It also has to be analyzed and sorted using our own interpretations and those presented by the media and other outlets. In a world where fake news and social media dominate most of what people read and hear each day, individuals have to be more savvy and use more critical thinking than ever in determining good information from bad information. Individuals also have to be skilled in acquiring facts and in deciding when information is needed and what to take from the data they gather. In other words, people have to be competent in *information literacy*. In this chapter, information literacy will be defined, and the skills needed to become an information literate person will be identified. Additionally, information literacy and its relationship to technology and critical thinking will be discussed. Examples of how information literacy is used in criminal justice will be provided throughout the chapter.

Information Literacy

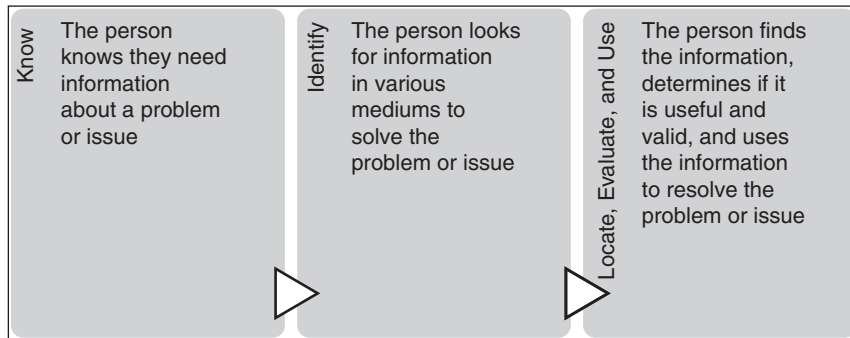
Information literacy is not just another buzzword. It is a skill that people can develop over time with the proper understanding of research, analysis, and writing. Information literacy is a crucial talent in the pursuit of knowledge, and it is required in the professional world. It is important in workforces that require lifelong learning, like criminal justice, and it is seen as a linking pin to economic development in education, business, and government (The National Forum on Information Literacy, 2018). The National Forum for Information Literacy, sponsored by the American Library Association (2018, para. 3), defined information literacy as a person's ability to "know when they need information, to identify information that can help them

address the issue or problem at hand, and to locate, evaluate, and use that information effectively.” Most colleges and universities recognize that students should be informationally literate when they graduate. In fact, in 2000, the Association of Colleges and Research Libraries developed the Information Literacy Competency Standards for Higher Education and, in 2004, the American Association for Higher Education and the Council of Independent Colleges endorsed the standards (Stanford’s Key to Information Literacy, 2018). Information literacy is considered a key objective for many university and discipline-specific accrediting bodies. Supporting this goal is the belief that information literacy is linked to critical thinking (another objective commanded by colleges and accrediting agencies) because the two skills appear to share very common objectives (Breivik, 2005).

Like information literacy, critical thinking skills require individuals to explore and evaluate ideas for the purpose of forming opinions, problem solving, and making decisions (Wertz et al., 2013). It has been argued that in both critical thinking and information literacy, individuals must collect information and evaluate its quality and relevance. Then, the individuals must integrate the information into their current understandings or belief systems on particular topics. Finally, in both critical thinking and information literacy, individuals must use the information to draw conclusions and understand the limitations of the information on those conclusions (Wertz et al., 2013). According to Wertz et al. (2013), doing all of this allows for effective decision making.

Other researchers, like Breivik (2005), have argued that it requires critical thinking skills to be information literate because individuals need to analytically assess the information overload they encounter when using technology. Further, a study of digital classrooms in Hong Kong (Kong, 2014) found that using digital classrooms to enhance domain knowledge also increased critical thinking skills among secondary students in a 13-week trial period. However, not all researchers are convinced there is a direct correlation between information literacy and critical thinking. Ward (2006) argued that information literacy goes beyond critical thinking by forcing individuals to manage information in creative and meaningful ways, not to just analyze it. Albitz (2007) claimed that information literacy is skill based, while critical thinking requires higher-order cognitive processes. Finally, Weiler (2005) stated that students in the early years of college may be able to find and access information but may not yet have the ability to critically analyze it because they have not developed beyond a dualistic intellectual capacity. Thus, even though a student may find the information needed, he or she may wait for an authority figure, like a professor, to tell them the answer to the problem. The actual relationship between information literacy and critical thinking skills may well be a chicken and an egg argument wherein the question is if a person needs critical thinking skills to develop information literacy or if information literacy can increase critical thinking skills. It is likely that the two are intertwined. Regardless of the answer to this question, there appears to be enough evidence to convince universities and accrediting bodies that both skills are absolutely required to produce effective, productive, and successful students and employees.

Figure 2.1 Information Literacy



Just like students are expected to use critical thinking in their academic work, information literacy is common today in all academic disciplines and is used in all learning environments. Many times, students are exposed to activities in classrooms that are designed to build skills in information literacy without even realizing it. Most students in college have probably used information literacy to write a research paper or to respond to a class assignment. But, gathering information on a single topic does not just stop there. The information has to be analyzed for usefulness and presented in a way that solves a problem or provides more focus to an issue. Information literacy requires that one also uses the information gathered in ethical and legal ways and that he or she assumes greater control over the investigation and becomes more self-directed in the pursuit of knowledge (The Association of College and Research Libraries, 2000). In fact, the Information Literacy Competency Standards for Higher Education require that an information literate person

1. Determine the extent of information needed
2. Access the needed information effectively and efficiently
3. Evaluate information and its sources critically
4. Incorporate selected information into one's knowledge base
5. Use information effectively to accomplish a specific purpose
6. Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally (The Association of College and Research Libraries, 2000, pp. 2–3)

Information literacy is related to information technology skills and extends beyond reading a book or listening to the news. Information literacy includes the technology-enriched digital information world. People use *digital literacy skills* when they rely on technology to communicate with family and friends; *computer literacy skills* when they use hardware, software, peripherals, and network components; and *technology literacy* to work independently and with others to effectively use electronic tools to access, manage, integrate, evaluate, create, and communicate information (Stanford's Key to Information Literacy,

2018). Each of these skills is interwoven with and overlap the broader concept of information literacy, as informationally literate individuals will inevitably develop skills in technology during their pursuit of information.

Using Information Literacy—Know, Identify, Evaluate, and Use

As suggested by the Information Literacy Competency Standards for Higher Education (The Association of College and Research Libraries, 2000), information literate individuals will follow a process in identifying and using information to resolve problems or issues. This process requires the person to know, identify, evaluate, and use information effectively, ethically, and legally. This process is summarized in the paragraphs that follow.

Know of a Problem or Issue That Needs to be Resolved

A person may become aware of a problem or issue in a variety of ways. The person may experience a situation that bothers him or her and makes the individual want to resolve it so no one else experiences the same situation. Consider the case of Megan Kanka who was kidnapped, sexually assaulted, and murdered by a man who had two previous convictions for sexual offenses. He moved into a home directly across the street from Megan prior to the crime. Neither Megan's parents nor their neighbors knew of his background. After her murder and the efforts of her parents to prevent similar crimes in other areas, Megan's Law was passed. Megan's Law created a sex offender notification system, which provides information on sex offenders to communities when a potentially dangerous sex offender moves into the neighborhood (Larson, 2016). Every state now tracks sex offenders and provides information to the public on them.

A person may be told that there is a problem or issue—perhaps through a meeting (i.e., inmates are complaining about an increased number of bugs in the cells), by constituents (i.e., a citizen writes a letter to the mayor complaining that local neighborhood kids are hanging out at the corner stop sign past midnight), on the news or through social media (i.e., a friend posts a video of a person abusing an animal on Facebook), or by noticing a pattern in data (i.e., crime statistics show increases in public intoxication rates during spring break each year). A student, for example, may be told to complete an assignment by a teacher that seeks to solve a problem or make recommendations about a social issue, like child abuse. Knowing about the problem or issue allows for the process of information literacy to start.

Identify Information

Once a person is aware that there is a problem or issue that he or she needs to resolve, the individual will begin the information gathering process. There are a couple of avenues a person may choose to gather information. He or she may use an information retrieval system, like the library or a database. A police officer, for example, may identify a high-risk area for homelessness by using the spatial statistics program, CrimStat, which analyzes crime by location. Another option is for a person to use lab-based activities or simulations to gather information. For example, to identify weaknesses in emergency preparedness a policing agency may hold mock emergency scenarios that

replicate terrorist attacks on a seaport or a building. A third approach may be for the person to use an investigative technique, like surveys or interviews. For example, a community policing officer may go from business-to-business in his assigned neighborhood talking with business owners about concerns or issues they are having with local citizens. Once the officer learns that young people are troublesome to business owners because they are hanging around the outside of businesses and harassing potential business customers, he can decide what to do with the remarks. Physical examination can also be used to gather information. Viewing and photographing a crime scene firsthand or witnessing an event with your own eyes can provide a wealth of information about an issue or problem. As an example, a complainant may call the police department to report behaviors similar to prostitution in a local neighborhood. Rather than taking the citizen's word, a police chief may have police officers stake out the neighborhood in undercover cars and/or solicit a potential prostitute, so they can witness the illegal behaviors for themselves. Witnessing the solicitation provides the information needed for the police to evaluate and determine the best course of action for the criminal activity.

Evaluate the Information

The person who is adept at information literacy will find the information he or she is looking for using various mediums, as discussed above. Then, the person will evaluate the abundant pieces of information found. In the evaluation process, the person is tasked with trying to determine whether the information is valid and reliable. The sources of the information should be examined critically to determine if the source is credible. To do this, the Center for Disease Control and Prevention (no date) suggests that the information literate person assess the information by asking several questions:

1. **Where did the information come from?** This consideration is focused exclusively on the source of the information. In the case of information retrieval systems, the person may assess the journal article and the journal in which the article was published. The information literate person may read the introduction of the journal to determine if the journal is scientific and if the article was peer-reviewed. Knowing that an article that undergoes peer review is much more reliable than an article published in a magazine allows the information literate person to accept the information in the article as trustworthy. Using an example from above, the police officer who evaluates crime data provided by CrimStat and who is familiar with the validity and reliability of these data can make a logical and well-informed decision about how best to handle the increasing number of homeless person arrests.
2. **How does the new information fit with what is already known about the problem or issue?** The police officer who visited businesses to gather information about issues or problems may want to compare juvenile arrest rates for loitering and trespassing from CrimStat to what the business owners are saying. He may also want to talk to other police officers who work in the area to see if they are telling youth to “move along” from businesses throughout

the day. Comparing the various pieces of information to one another and to information that was gathered previously allows the individual to determine which pieces of data to keep and which to discard. If the officer has worked as a community policing officer in the area for a while, he may already know where the young people in the community gather.

3. **Is funding involved in the creation of the information?**

Although funding may not be a part of every equation in solving an issue or problem, the ability to report findings in a study without bias can be skewed if the researcher writing the report has been funded by an outside source. In other words, the source of the funding for a research project may bias the reporting of the results. If funding is present, the source—that is, journal article, news report, etc.—should include that information. When reading an article or listening to a report, the informationally literate person needs to consider if the funders had anything to gain by the results. If so, questions of validity and credibility in the findings may exist. Consider the findings of a study on a youth mentoring program where the employees of the program completed the data analysis and where the study was paid for using program funds. If the study results demonstrated that the program was not working, the program may be closed, and the employees would need to find another job. If the funders did not have a stake in the results of the study, the funding will likely have less influenced the findings. A person evaluating the information for legitimacy should always contemplate the existence of funding.

4. **Can you trust the information from television, magazines, the Internet, and brochures?** Some reports in the media are based on peer-reviewed journal articles but some are not. Again, when hearing a report, one has to question where the information came from—the source—not who is reporting the information. Accordingly, a person should not just believe ABC News when they report record numbers in a motor vehicle thefts; instead, the individual should listen for the source of ABC News' information, which is hopefully the Federal Bureau of Investigation Uniform Crime Reports. The information literate person should also question if the information is consistent with previous information. For example, the media may claim that a finding is conclusive even though a single study's findings are never considered irrefutable, and other media outlets may be providing information in contrary to the news story. The information literate person must recognize that news stories focus on what is "new" and "exciting." Television stations need to sell advertising space to stay in business, and advertisers want to buy advertising space on television stations with the most number of viewers. The same goes for magazines and businesses who produce brochures. Funding may play a key role in the types of stories reported and/or the focus of the stories.

Thanks to President Trump, few people are not aware of the term *fake news*. Fake news seems to be all the buzz these days. Although it may not be a new trend, it has historically been used in news satire, the fact that the information shared in fake news is widely accepted as a reality is concerning. Fake news articles exist on the television, in magazines, and most popularly, on social media and the Internet. Fake news can include completely made-up stories that resemble credible journalism; stories that are only a little bit fake such as stories that report actual truth but use distorted or decontextualized headlines to convince people to click on their web links; and news stories that are satirical or sarcastic (Hunt, 2016). Often times, the goal behind fake news on the Internet is to entice a reader to click on the story and visit a website to gain advertising revenue for the person hosting the website. According to a report in the *Guardian*, a man who was running a fake news website in Los Angeles told National Public Radio that he has made as much as \$30,000 a month from advertising that rewards high traffic to his website (Hunt, 2016). Identifying fake news can be rather difficult, especially in criminal justice; however, the In the News 2.1 shows an example of fake news involving political fraud. The story was published on the Internet and spread through social media, reaching over 6.1 million people before it was discredited by Snopes.com (Garcia & Lear, 2016).

Spotting fake news and evaluating it is not easy because society is flooded with news stories all day, every day. Taking the time to assess and evaluate each one may be an impossibility. However, the information literate individual can rely on the skills he or she has learned to evaluate information to spot fake news. He or she can also look for fake news indicators, such as websites with red flags in their names like “.com.co” and by looking at a website’s “About Us” page to determine the website’s sources. The individual can use Google Chrome plugins to filter fake news articles from their Internet searches, and they can google the sources of any quotes or figures in articles he or she may read on the Internet or on social media. Additionally, the information literate person should question websites that he or she has never heard of before. Obscure websites or websites that end in “.org” may have an agenda behind their reporting practices (Hunt, 2016). Finally, using websites to fact check an article, like Snopes.com, which is a fact-checking website with more than 20 years of information, may help to evaluate the credibility of the information provided.

The authors of this book would be remiss if we did not mention that students should be cautious when using the Internet for research and information gathering in the first place. Libraries, both electronic and brick-and-mortar, are still the best and most consistent places to find legitimate information. Even though the Internet provides a plethora of information, not all of it is reliable. Anyone can publish anything they want (as long as it is not illegal) on the Internet, even going so far as to make the website where the information is published look genuine. Unlike journal articles that may undergo peer review, websites are not monitored for quality, accuracy, or bias. A popular example of this is Wikipedia.org. Students often refer to and cite Wikipedia in research papers, and Wikipedia claims to be an encyclopedia. Yet, Wikipedia is an information website with an “openly editable content” (Wikipedia: About, 2018, para. 1). Anyone with access

In the News 2.1

Thousands of Fake Ballot Slips Found Marked for Hillary Clinton <http://yournewswire.com/thousands-ballot-slips-hillary-clinton/>

October 1, 2016, by Baxter Dmitry

Reports are emerging that “tens of thousands” of fraudulent ballot slips have been found in a downtown Columbus, Ohio, warehouse,

and the votes are all pre-marked for Hillary Clinton and other Democratic Party candidates.

Randall Prince, a Columbus-area electrical worker, was performing routine checks of his companies wiring and electrical systems when he stumbled across approximately one dozen black, sealed ballot boxes filled with thousands

OFFICIAL GENERAL ELECTION BALLOT

COLS 14-E 01

A Franklin County, Ohio	B General Election	C November 8, 2016
<p>Instructions to Voter</p> <ul style="list-style-type: none"> • To vote: completely darken the oval (●) to the left of your choice. • Note the permitted number of choices directly below the title of each candidate office. Do not mark the ballot for more choices than allowed. Vote either "Yes" or "No," or "For" or "Against," on any issue. • If you mark the ballot for more choices than permitted, that contest or question will not be counted. • To vote for a write-in candidate: completely darken the oval (●) to the left of the blank line and write in the candidate's name. Only votes cast for candidates who filed as write-in candidates can be counted. • Do not write in a candidate's name if that person's name is already printed on the ballot for that same contest. • If you make a mistake or want to change your vote: return your ballot to an election official and get a new ballot. You may ask for a new ballot up to two times. 		
<p>For President and Vice President (Vote for not more than 1 pair)</p> <p>A vote for any candidates for President and Vice President shall be a vote for the electors of those candidates whose names have been certified to the Secretary of State.</p> <p><input type="radio"/> For President Jill Stein For Vice President Ajamu Baraka Green</p> <p><input type="radio"/> For President Donald J. Trump For Vice President Michael R. Pence Republican</p> <p><input checked="" type="radio"/> For President Hillary Clinton For Vice President Tim Kaine Democratic</p> <p><input type="radio"/> For President Richard Duncan For Vice President Ricky Johnson Nonparty Candidates</p>	<p>For U.S. Senator (Vote for not more than 1)</p> <p><input type="radio"/> Scott Rupert Nonparty Candidate</p> <p><input checked="" type="radio"/> Ted Strickland Democratic</p> <p><input type="radio"/> Tom Connors Nonparty Candidate</p> <p><input type="radio"/> Joseph R. DeMare Green</p> <p><input type="radio"/> Rob Portman Republican</p> <p><input type="radio"/> Write-in</p> <p>For Representative to Congress (15th District) (Vote for not more than 1)</p> <p><input checked="" type="radio"/> Scott Wharton Democratic</p> <p><input type="radio"/> Steve Stivers Republican</p> <p>For State Representative (18th District) (Vote for not more than 1)</p> <p><input type="radio"/> Kristin Boggs Democratic</p>	<p>For Prosecuting Attorney (Vote for not more than 1)</p> <p><input type="radio"/> Bob Fitrakis Green</p> <p><input checked="" type="radio"/> Zach Klein Democratic</p> <p><input type="radio"/> Ron O'Brien Republican</p> <p>For Clerk of the Court of Common Pleas (Vote for not more than 1)</p> <p><input checked="" type="radio"/> Maryellen O'Shaughnessy Democratic</p> <p><input type="radio"/> Besa Sharrah Republican</p> <p>For Sheriff (Vote for not more than 1)</p> <p><input checked="" type="radio"/> Dallas L. Baldwin Democratic</p> <p>For County Recorder (Vote for not more than 1)</p> <p><input type="radio"/> Daphne Hawk Republican</p> <p><input checked="" type="radio"/> Danny O'Connor Democratic</p> <p>For County Treasurer (Vote for not more than 1)</p> <p><input type="radio"/> Ted A. Berry Republican</p>

of Franklin County votes for Hillary Clinton and other Democratic Party candidates.

“No one really goes in this building. It’s mainly used for short-term storage by a commercial plumber,” Prince said.

So when Prince, a Trump supporter, saw several black boxes in an otherwise empty room, he went to investigate. What he found could be evidence of an alleged election fraud operation designed to deliver Clinton the crucial swing state.

Early voting does not begin in Ohio until October 12, so no votes have officially been cast in the Buckeye state. However, inside these boxes were, what one source described as, “potentially tens of thousands of votes” for Hillary Clinton.

An affiliate in Ohio passed along a replica of the documents found in the boxes:

It is important to note that the above replica coincides with a ballot that a Franklin County voter would cast at the polling place on

Source: “Thousands of Fake Ballot Slips Found Marked for Hillary Clinton,” Baxter Dmirty, YourNewsWire.com. October 1, 2016.

Election Day, meaning the Clinton campaign’s likely goal was to slip the fake ballot boxes in with the real ballot boxes when they went to official election judges on November 8th.

Ohio, a perennial swing state in the presidential election, has been a challenge for Clinton and her Democrat counterparts in 2016. Many national Democrat groups have pulled funding from the state entirely, in order to redirect it to places in which they are doing better.

Clinton herself has spent less time in Ohio, and spent less money, in recent weeks as it has appeared that Trump will carry the crucial state.

With this find, however, it now appears that Clinton and the Democrat Party planned on stealing the state on Election Day, making any campaigning there now a waste of time.

This story is still developing, and more news will be published when we have it.

to the Internet can modify a page on the Wikipedia.com website, and anonymous contributors edit most of the content on the website. Although Wikipedia.org contends that the information contributed must be verifiable and come from a reliable source, anyone can post information on Wikipedia.org about a topic whether he or she knows anything about the topic or not (Wikipedia: About, 2018, para. 4). Thus, it is especially important that the information literate person evaluate, or use critical thinking skills to assess, the resource closely on Wikipedia and all other websites.

When evaluating websites, individuals should consider whether the name of the author or creator of the information is published on the website. He or she should also consider the author or creator’s credentials. Asking questions about the author or creator’s occupation, experience with the subject matter, position, or education is crucial. Additionally, the information literate person should determine if the author is qualified to write about the topic and if there is contact information for the author or creator somewhere on the website. Another factor to consider is if the author or creator is writing for or associated with an organization. In other words, could their role in the organization potentially influence what is published on the website? The reader may also want to take into account the URL identification and domain name. Domain names with “.org” indicate an affiliation with an organization, while “.com” and “.biz” may be commercial or for-profit websites. Domain names like “.edu” and “.gov” commonly publish articles that have undergone review and may be scientific in nature; although, it is still the reader’s responsibility to determine their legitimacy by considering the other features of the website.

Although using a search engine, like Google, Yahoo, Bing, or Ask, is a simple way to find websites and articles on a topic, the information literate person has to comb through the web links provided using the factors discussed above to identify those that are most beneficial and valid. Aside from the random Internet websites that may appear in a web search, there are collections of works on search engines, like Google Scholar, where the information literate person can identify scholarly articles from a number of disciplines. Most of the articles on Google Scholar are peer-reviewed and provide the author's name, citation, and location where the article is published. Google Scholar regularly provides links to libraries or websites on the Internet where students can find additional scholarly articles on the topic. Regardless of the type of Internet resource an information literate person chooses to use asking questions about the purpose, objectivity, accuracy, reliability, credibility, and currency of each website is key to identifying appropriate information (Georgetown University Library, 2018).

Finally, it is during the evaluation process that information is deemed relevant, not relevant, or invalid. This is where critical thinking skills are most important as the individual analyzes and assesses each piece of information. Relevant information is kept for future use, while the information literate person dismisses information considered not relevant or invalid. The person then moves into the final phase of the process—*using the information effectively, ethically, and legally*.

Use the Information Effectively, Ethically, and Legally

Once the information literate person identifies the new information, he or she will consider it in combination with prior information and use all of the information to effectively resolve a problem or issue. In using the information, the individual will organize the information and present it in a way that provides a resolution to the problem or issue. The information literate person may write a paper or proposal or do a presentation to an interested audience. The information literate person may also create or implement policy or use the information for their personal lifestyle or work changes. In whatever way the individual uses the information, he or she should strive to share it with an audience through technology or personal communication.

The information acquired should also be used ethically and legally. This requires the information literate person to understand the ethical, legal, and socio-economic issues involved with the information and the medium in which it is shared. Issues such as privacy and security in printing, posting, or broadcasting should be considered. The individual should also consider censorship and freedom of speech issues as well as copyright and fair use laws (The Association of College and Research Libraries, 2000).

Copyright laws protect original works of authorship to include literary, dramatic, musical, and artistic works, as well as computer software and architecture. Copyright laws do not protect ideas, facts, systems, or methods of operations; however, the way these are extracted may be protected (US Copyright Office, n.d.). To ethically use information under copyright laws, individuals are required to provide credit to the original authors of works when using a protected work. If they do not and the originator finds out, he or she can sue the person who used the work without credit or permission. Fair use

laws are a clause in the copyright laws that allow non-profit and educational institutions and libraries to reproduce works from original authors, prepare derivative works from the original works, and distribute copies of original works by sale or lease or other means. These entities can also perform the work publicly to include digital audio transmission, and to display the copyrighted work (US Copyright Office, n.d.). Although specific guidelines are attached to fair use, like the inability to photocopy textbooks or distribute copyrighted information to others, providing commentary, criticism, and news reporting and using copyrighted material in research and scholarship is allowable (when credit is provided to the original author). Individuals can also ethically and legally use information in the public domain. Although many believe that all of the information found on the Internet is public domain, this is not true. Works that fall within the public domain include those in which the intellectual property rights have expired, been forfeited, been waived, or where they do not apply. US government documents are excluded from copyright law and are considered as public domain. All other works, even those found on the Internet, are the intellectual property of the person who created them and fall within copyright-protected statutes. Information literate individuals must be diligent in their understanding of how information falls within copyright, fair use, and public domain regulations. These parameters are country-based and can vary—meaning what is copyrighted in one country may be public domain in another (US Copyright Office, n.d.). As such, providing credit to the originator or gaining permission to use the work is always the safest approach. The Digital Copyright Slider, created by Michael Brewer and the American Library Association Office for Information Technology Policy (2012), found on most library websites, is a practical guide for determining copyright, fair use, and public domain.

Developing information literacy skills takes time and effort. Information literate individuals practice the skills by becoming better and more efficient at locating, analyzing, and using the information. Often this practice requires the person to use technology in the process. Thus, he or she develops digital literacy, computer literacy, and technology literacy skills in addition to information literacy skills.

Digital Literacy, Computer Literacy, and Technology Literacy Skills

The information literate person will develop digital, computer, and technology literacy skills as he or she investigates topics using information literacy. These skills will likely become more effective over time and will greatly assist in gathering and dispersing information. Developing these skills allows collaboration with individuals near and far and dissemination of information beyond the intended audiences. As such, these skills, like being information literate, should be used within ethical and legal guidelines, namely privacy, copyright, confidentiality, and authorship.

Digital literacy is the “ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills” (American Library Association,

2018, para. 2). Digital literacy includes reading digital content and using digital formats to find and create content. For example, reading a book on a Kindle is digital literacy, as is using a search engine to find an article on cyber-bullying and sharing the results of a bullying video with friends and family on social media. Another example is sending an email or tweeting about a weekend activity.

Digital literacy includes digital writing, which may involve emailing, blogging, tweeting, and so on. Digital writing is intended to be shared with others so understanding its role in the social, legal, and economic community is important. Digital writing can be a potentially precarious tool if the information literate person does not consider the privacy implications of what he or she creates and shares and/or the safety and legal implications of sharing the information (Heitin, 2016). Consider an example where a 13-year-old female takes a picture of her genitals and Snapchats it to a boyfriend. If the boyfriend saves the photo and sends it to other friends, he may face criminal charges for distributing child pornography. By receiving the picture, he may also face criminal charges if he fails to report the photo to the proper adult or authority. The girl may face criminal charges for distributing child pornography. In this scenario, the picture may travel phone-to-phone through many youth, each facing their own privacy and legal issues when they receive, open, view, and, possibly, share the photo. The moral here is there is an increased responsibility that comes with digital writing and literacy that may not be as pressing in print writing. Print writing, depending on the source, customarily undergoes review before being disseminated, whereas digital information may not.

Computer literacy means that an individual has the basic knowledge and skills to use a computer. The person may be familiar with turning the computer on and off, word processing, printing documents, and so on. As the individual uses the computer, he or she may become even more literate in using other types of programs, operating systems, software applications, and web design. Computer literacy

can be understood in the same way that traditional literacy applies to print media. However, because computers are much more advanced than print media in terms of access, operation and overall use, computer literacy includes many more types of cognitive and technical skills, from understanding text and visual symbols, to turning devices on and off or accessing parts of an operating system through menus. (technopedia.com, 2018, para. 2)

Being able to code, develop web pages, and administer networks are higher-level skills developed by some computer literate individuals. Although not everyone will develop computer literacy skills comparable to a technical support assistant, most information literate individuals develop enough skills to surf the web, identify sources, develop documents and presentations, and disseminate information through the appropriate computer venues. For example, a corrections officer presenting training on prison paraphernalia may develop a PowerPoint presentation. A web technician employed by a

state department of corrections to maintain the department's website may post updated incarceration statistics, mission statements, and pictures of corrections officers working in the prison.

There are individuals who develop computer literacy skills but use them for illegal activity. They may create viruses, hack websites, and send out bogus or scam emails. The AARP reported in a survey of more than 11,000 Internet users that two-thirds received spam emails at least once per year (Paulas, 2016). Less computer literate individuals may fall prey to these phishing emails, especially if they closely mimic bank websites or formal notices from other businesses. Although the police and other social service agencies provide notices when illegal computer activity is flourishing in a specific geographical location, they cannot protect everyone from unethical computer practices. Classes designed to train people in computer literacy can be used to lower the potential for computer victimization, but these often require having discretionary money to pay for the classes. This is something some individuals may not find affordable. The information and computer literate individual will learn over time how to identify and avoid harmful computer practices and will observe legal standards when using the computer.

Quite simply, technology literacy is the ability to use the appropriate technology to communicate and search for information. In technology literacy, a person knows when to use the Internet versus email or when to create a webpage versus a PowerPoint presentation. A crime analyst, for example, would know when to use an Excel spreadsheet to disseminate crime information instead of using SPSS, a statistical analysis software package. Developing technology literacy skills is an ongoing process, as instructional and communications technologies change with every new invention. Computers and email are just the tip of the iceberg as there now exist digitized kitchen appliances, self-driving vehicles, and integrated manufacturing. Who knows what the future holds with regard to technology? Regardless, most agree that technology literacy incorporates four basic skills: (1) the ability to adapt to rapid and continuous technology change; (2) the ability to develop creative solutions to technological problems; (3) the ability to process technological knowledge effectively, efficiently, and ethically; and (4) the ability to assess technology's place in social, cultural, economic, and legal environments (Wonacott, 2001). Developing and using these skills in conjunction with information literacy is vital to identifying information and using it to solve problems. It is also essential to workplace productivity, decision making, global integration, and, on a more micro level, to finding and keeping a job.

In summary, the information literate person who develops digital, computer, and technology literacy is more likely to continue learning, and developing new and better critical thinking skills. Additionally, they are likely to display other skills desired in the workplace, such as evaluation, analytical thinking, creativity, problem solving, and research analysis and design skills. The literate person will demonstrate effective skills in decision making, such as acting in moral and ethical ways, and exercise more autonomy and positive work habits (Wonacott, 2001). Each of these skills is essential in the field of criminal justice.

CHAPTER SUMMARY

Information literacy is an acquired skill that allows individuals to know that they need information and to locate, evaluate, use, and share information. Information literacy is usually used to solve problems. Information literate individuals may use a variety of methods to find information, including media, print, the Internet, and other forms of technology. When doing so, the information literate individual is also developing skills in digital, computer, and technology literacy. All forms of literacy discussed in this chapter should be used within ethical and legal considerations. Knowing how the information a person disseminates can affect the social, cultural, economic, and legal environments is especially important in a global society.

Information literate individuals have better chances to acquire and keep jobs. They are more likely to display the types of skills employers demand to include critical thinking, evaluation, creativity, higher morals and ethics, and problem-solving abilities, among others. Workplace productivity can be greatly improved when organizations hire information literate persons. In criminal justice, being able to acquire, evaluate, use, and share information is an essential skill applied in every position and within all cases and interactions. When criminal justice professionals are not adept at information literacy, they can ruin cases, cause appeals, and in general, prevent the system from functioning effectively.

QUESTIONS FOR CONSIDERATION

1. You are a police officer. You receive a call about a domestic disturbance at a home on the south side of town. As you arrive at the home, you see two adults and four children standing in the yard. There are also three neighbors standing in the street. You know that you must use information literacy skills to determine what to do in the current situation. Using each of the skills identified in the chapter—know there is a problem, locate information, evaluate information, use and share the information—explain what steps you will take to resolve the domestic issue.
2. How might a probation officer use technology literacy to do his or her job?
3. Your college professor assigns you a paper for a class project. Using information, digital, computer, and technology literacy, explain how you would complete the project.
4. What ethical issues might an individual who posts information on social media face? What about legal issues? Provide an example post and discuss both the ethical and legal issues.