

The importance of engendering, expanding, and sustaining multiple literacies through the library is an essential step to be taken as we head into the fog of the future while, at times, we continue our struggle to understand the present. The only eventualities of this world yet to come we might consider inevitable are that our way of life will endure considerable change, and the rate at which it does so will be profound. The demands society places on individuals to adapt to new technologies will coalesce with other such societal pressures produced by our dynamic environments. The metaliteracy model of managing and understanding our level of knowledge concerning these new standards as well as our awareness of where and how literacies intersect will become more crucial than ever before. The following is a selection of resources and materials that are useful in the pursuance of understanding, developing, and advocating for the multiple literacies framework.

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### Information literacy --

Chartered Institute of Library and Information Professionals (Great Britain). (2007). *Journal of information literacy*. London: Information Literacy Group, the Chartered Institute of Library and Information Professionals.

The Journal of Information Literacy is the academic journal of the Information Literacy Group, part of Great Britain's Chartered Institute of Library and Information Professionals (CILIP). Since 2007, the journal has published peer-reviewed academic research, articles, and other such scholarship near the forefront of the push to support information literacy in the UK through education initiatives and awareness campaigns. Much of the content found in this journal demonstrates how remarkably similar the British approach to information literacy is to that of the United States, while there are very subtle examples of dissimilarities. Regardless, learning of the dissimilarities is more likely to inspire creative thought about potential changes to the way of doing things in the United States. And while in some ways it appears that the UK allocates more public funding to their public libraries than is usually the case stateside, reading through a few articles in an issue of the *JIL* (or some other similar academic journal based out of the UK) one might discover that some of this perception may be due to British libraries benefiting from a less fragmented approach to petitioning for national advocacy as well as a centralized, singular source of funding.

Health sector. (n.d.). Retrieved December 9, 2019, from <https://infolit.org.uk/sectors/health-sector/>.

This is a section of the website for the Information Literacy Group (ILG), a subcommittee of CILIP. It is intended as an information resource, helpful for enabling those working directly with patients to help promote information literacy, or for those in the healthcare industry who are involved in information literacy training and professional development at their places of employment. It's stated that the role of information literacy in the healthcare industry is substantial, and that adhering to the practice of evidence-based medicine (the "movement" in the healthcare field toward a fairly strict reliance on documented, verifiable scientific evidence to inform medical decisions and diagnoses) compels those working in the field to develop and maintain strong

information literacy skills. A link is provided through which a module can be downloaded which represents an example of a lesson plan for an evidence-based medicine approach to information literacy in the healthcare field. Also provided is an invitation to contact the ILG should a visitor to the page be planning to start an information literacy program in the healthcare industry—it's explained that the ILG might be of assistance in terms of connecting the visitor with other healthcare professionals with relevant experience, and that they (the ILG) frequently posts information about information literacy best practices as well as research.

Levitin, D. (2017). *Weaponized lies: How to think critically in the post-truth era*. New York, NY: Penguin Books.

Cognitive neuroscientist, author of four nonfiction books this century, each reaching #1 New York Times Best-Seller status, discoverer of phenomenon (the Levitin Effect) disproving long-held convictions that the human mind was, in an overwhelming plurality of cases, incapable of recalling songs from memory with perfect pitch—there are times that Daniel Levitin can come across as that rare kind of person who has yet to become well acquainted with the “swing-and-miss.” His most recent book—the endlessly readable *Weaponized Lies* (2017)—was his most successful literary effort yet, and the timing of its publication date couldn't have been more favorable as an historically divisive and partisan political atmosphere domestically only fanned the glowing embers of suspicion--that the US presidential election of less than a year prior was compromised by Russian interference—into an uncontrolled grass fire marked by swirling allegations, the disruption of across-the-aisle cooperation and a sharp reduction in overtures of bipartisanship. When the president himself is so clearly the progenitor of a great deal (if not the lion's share) of dubious claims and outright falsehoods, the times are ripe for the assessment and education of a citizenry coddled and weak after four luxurious decades of White House administrations that at least made legitimate efforts to *appear* somewhat interested in representing and leading a citizenry informed by factual information. Levitin delivers a decidedly entertaining page-turner that exposes the methods of bad actors and the unscrupulous forces behind the recurring attempts to spread disinformation. The massaging and manipulation of numbers, fraudulent “gaslighting” and self-serving interpretations and analyses of current events, red flags of bias such as fallacious reasoning and politically charged language, conspiracy theories, confirmation bias, efforts to shape public opinion and beliefs through deceptive visual representations of data—so much is revealed by Levitin with an impressive economy of words. The chapters are no longer than they need be which makes it especially convenient for flip through for reference in a pinch.

McLeod, S. (2006). *Dangerously Irrelevant*. Retrieved December 2, 2019, from <http://dangerouslyirrelevant.org/>.

Dangerously Irrelevant is a blog maintained by Scott McLeod, Associate Professor of Educational Leadership at the University of Colorado Denver and renowned expert on subjects concerned with school technology leadership. He also serves as Founding Director of the Center for the Advanced Study of Technology Leadership in Education (CASTLE) with the nonprofit research organization University Council of Educational Administration (UCEA). McLeod has made regular content updates to the site since he created Dangerously Irrelevant in 2006, publishing thoughtful articles exploring contemporary topics emerging from areas at which technology and education tend to intersect. Of special note are these articles' comments sections, where readers—many of whom are themselves technology and education professionals—share accounts from their own experiences and engage in rational, informative dialogues.

Chartered Institute of Library and Information Professionals (London). (2017). *Information professional*. London: CILIP.

*Information Professional* is a monthly journal published by the UK's Chartered Institute of Library and Information Professionals (CILIP). It is a relatively new periodical in the information literacy realm and information science profession, having only begun publication in 2017, though it is one of the more prominent UK publications focused solely on information science and the library profession. Like most such professional journals, it presents academic and professional contributions and covers current events, industry trends, and conferences through interviews with prominent librarians and information scientists making a splash in certain industry circles. As it is very new, its distribution and diffusion throughout smaller markets and other European cities will likely be a gradual process, and until distribution is able to expand and establish a foothold, its reach will probably be limited.

### **Media literacy --**

Media Issues. (2014, August 29). Retrieved December 10, 2019, from <http://mediasmarts.ca/digital-media-literacy/media-issues>.

This is a selection of articles for young adults on important subjects related to media literacy. It is part of the website for MediaSmarts, a Canadian not-for-profit organization dedicated to creating and providing teachers, librarians, and parents educational programs and resources for the promotion and development of digital and media literacies in children and young adults. The articles are numerous and so are sectioned off into various subcategories of media literacy, each of them important topics for young people living in the twenty-first century. These include body image, gender, diversity and representation, intellectual property and copyright law, marketing and consumerism, and violence in media. Each of these is populated with a sizeable collection of great articles for youth that cover most conceivable topics for children and teens associated with the corresponding subcategory.

Center for Media Literacy. (n.d.). Retrieved December 8, 2019, from <http://www.medialit.org/>.

The Center for Media Literacy is a for-profit independent organization that develops curricula and educational frameworks, conducts academic research, publishes an academic journal. They are not affiliated with any political party, religious group, or corporate interests. The "Best Practices FAQ" section of the site is particularly helpful for those who might be interested in getting a feel for their organizational philosophy. They use the FAQ/Q&A format in this area of the site as an avenue for revealing some of their core tenets as well as a few finer points of the way they approach promoting the importance of media literacy in education in addition to the attitudes and perspectives that inform their work. It is *through* education, in fact, that CML *works*. That is, their main product line is, as described by them on their products page, "evidence-based curricula with framework," and is promoted as extremely useful for not only educators and institutions, but businesses and corporations interested in incorporating media literacy into their professional development policies and procedures as well. The "Reading Room" section of the site serves as a repository for an impressive selection of free articles taken from CML's publication *Media & Values*, which entered publication with its first issue all the way back in the fall of 1977. The Center for Media Literacy has roots in the media literacy discussion since before the term caught on in North America.

Levitin, D. (2017). *Weaponized lies: How to think critically in the post-truth era*. New York, NY: Penguin Books. Daniel Levitin's *Weaponized Lies*—covered elsewhere in this document—is so useful for gaining a healthy awareness and understanding of the constant barrage of misinformation aimed at us daily that failing to mention it as a great tool for the development of more than one literacy would be a mistake.

Levitin identifies a multitude of ways in which media disseminators with nefarious intentions misrepresent the truth, and they become increasingly important with each new item deemed newsworthy. Taking the step to “consider the source” is understandably the chief factor in determining the trustworthiness of a purveyor of media. A brief jaunt over to their Wikipedia page followed by searching for “Controversies” is probably the quickest way to weed out the most notorious offenders, but if vetting a source through this or similar means bears little fruit, some critical thinking is in order. Looking for obvious bias (political or otherwise) is effective, and those itching to share their rather one-sided viewpoints are quite often surprisingly eager to demonstrate their prejudiced take on things *in the headline*. The composers of headlines (who, incidentally, are almost never the writer of the article) are charged with producing intrigue in the reader, and editors-in-chief are increasingly willing to turn a blind eye to questionable ethical practices while their profession as they knew it disintegrates around them. Misleading representations of figures and data run rampant across a wide variety of information sources, so it makes a good deal of sense that Levitin devotes more than a third of the book to evaluating numerical claims in media. This material is probably the most revealing in the book.

Comey, J. (2019, December 9). James Comey: The truth is finally out. The FBI fulfilled its mission. *Washington Post*. Retrieved from [https://www.washingtonpost.com/opinions/james-comey-the-truth-is-finally-out-the-fbi-fulfilled-its-mission/2019/12/09/614df00c-1aad-11ea-8d58-5ac3600967a1\\_story.html](https://www.washingtonpost.com/opinions/james-comey-the-truth-is-finally-out-the-fbi-fulfilled-its-mission/2019/12/09/614df00c-1aad-11ea-8d58-5ac3600967a1_story.html)

In a guest column/op-ed piece written by James Comey and published just yesterday in the Washington Post, the former FBI director and former Attorney General of the United States calmly presents one of the most professional and courteously written “told-you-so” missives you’re likely to read. It was written in response to the report released by Justice Department Inspector General Michael Horowitz which examined the Bureau’s conduct during their investigation into Russian interference in the 2016 US presidential election, which represented an official rebuttal of claims—made by the US president, US Attorney General William Barr, literally hundreds of Republican congresspeople and officials, conservative media personalities, and an untold number of American citizens—of bias-fueled criminal acts committed by FBI officials. The details Horowitz lays out in that 434-page report, while indeed exculpatory of any criminal wrongdoing or participation in any conspiracy on the part of the FBI, indicated that officials did, to a troubling but non-criminal extent, exaggerate intel implicating members of the Trump administration while minimizing information in direct conflict with their preferred evidence in order to secure federal warrants to wiretap subjects of the investigation. Comey, whose sentiments conveyed in the column could be said to boil down to maybe a step or two above “nyah, nyah, nyah-nyah, nyah,” doesn’t do himself any favors if his intent was to persuade that rare individual who hadn’t already made up their mind prior to the report’s release. Nor is it favorable to his anti-*mea culpa* that he himself is guilty of downplaying analysis in the report which happens to be fiercely critical of entirely indefensible malfeasance at the hands of Bureau officials. The enlightening and educational aspects of the former Attorney General’s op-ed are many, but what’s perhaps most noteworthy in terms of media literacy and the search for the truth is that Comey’s letter is at once a proclamation that the righteous and good won in the end, a condemnation of those who intentionally disseminated misleading and false accusations for their own benefit, an opportunity seized upon to very publicly assume the role of “champion of the truth,” and a rather slanted and charitable version of the facts which makes use of gross mischaracterizations. A great deal on the nature of truth, lies, half-truths, deception, and the unrealistic expectation that we engage in what can sometimes seem like the Sisyphian undertaking of accepting nothing short of unadulterated facts. And to put all of this into perspective, it should be noted that, “before the ink even had time to dry” on the first copy of the Washington Post printed yesterday,

predictably, both Democrats and Republicans seemed to have dropped whatever they were in the middle of doing and post Tweets of “victory,” citing the Horowitz report as clear evidence.

Seargeant, P., & Tagg, C. (2018, February 15). The role of information literacy in the fight against fake news. Retrieved December 4, 2019, from <https://infolit.org.uk/the-role-of-information-literacy-in-the-fight-against-fake-news/>.

Seargeant and Tagg first define the concept of “fake news,” characterizing it as an increasingly serious threat to the unfettered dissemination of factual information through news sources and social media, claim that an innate myopia and general aversion to systemic change on the part of academia is a principal contributor, and offer potentially transformative (though vague and largely theoretical) measures through which, it is suggested, the problem might most effectively be mitigated. While they acknowledge that the brand of education characteristic of academic institutions tends to be rather dynamic and incorporative of state-of-the-art technology, the authors argue that the kinds of literacy skills and awareness being emphasized are beneficial primarily to the development of students’ “academic literacy” and that relatively simple retrofitting adjustments could be made to reshape the excessively didactic elements at the heart of these extant education policies so that upon leaving these programs, the graduate will have already developed a pragmatic skillset with real-world, off-campus value. They suggest, however, that though it remains crucial for institutions to augment their curricula, even the most adroitly calibrated revisions will take society only so far in the fight for truth and that for meaningful, lasting change to occur, universities must provide their students with a nuanced understanding of social media, its effect on the lives of individuals, and its broader ramifications for society. To phrase it differently, the authors propose that academic institutions educate students on social media in terms of media literacy since a given student having an adequate level of social media skills and experience (digital literacy) is all but a foregone conclusion these days. Ultimately, this article represents a useful and accessible introduction to the fake news problem, though it is less effective when arguing for its proposed solutions.

### **Health literacy --**

DISCERN. (n.d.). Retrieved December 10, 2019, from <http://www.discern.org.uk/>.

DISCERN is an interesting yet incredibly simple online tool that purports to assist the user in determining the quality and trustworthiness of an online source of consumer medical information. It was developed at the University of Oxford’s Division of Public Health and involves a questionnaire consisting of sixteen questions for which the user answers on a scale of one to five. It’s got a rubric of sorts with which the user can appraise the quality of information an online consumer health site provides. DISCERN might give some users the impression that this is a resource that could be replicated on an Excel spreadsheet, and that’s not entirely inaccurate. In fact, the tool’s only real function seems to be forcing users to think critically. It merely guides them through the questions they should be asking themselves whenever considering the reliability of content provided by an online source of consumer health information.

Database of Research. (n.d.). Retrieved December 9, 2019, from <http://cmch.tv/researchers/database-of-research/>.

The Center on Media and Child Health (CMCH) Database of Research is a database with over 3,500 citations of papers, articles and research covering children, media, and health. It is like most other online databases of

articles, but two distinguishing factors effectively separate it from what most are used to using. One of these aspects is that, along with the usual abstract, DOI, date of publication, etc., each of the roughly 3,500 citations in the database is accompanied by a summary of the item's content in plain English in an effort to make the resource more useful for the non-academic. The other feature is that the articles and research collected are from numerous disciplines and fields in order to ensure that the database's collection of evidence is as exhaustive as possible.

For Health Consumers and Patients. (n.d.). Retrieved December 11, 2019, from <https://www.mlanet.org/page/top-health-websites>.

This is a section of the Medical Library Association's website that lists what they have determined to be the top consumer health websites. It is a fantastic resource that is organized into eight sections: General Health, Cancer, Breast Cancer, Diabetes, Eye Disease, Heart Disease, HIV/AIDS, and Stroke. Additionally, it does not consist merely of a list of URLs but rather each of the links is supplied with a brief summary or important piece of information.

American Stroke Foundation. (n.d.). Retrieved December 11, 2019, from <http://americanstroke.org/>.

The website for the American Stroke Foundation is attractive and easy to use. It features many pictures of those who have benefited from their work throughout the site's sections and does not inundate the visitor with large blocks of text and messy pages of links. The Foundation itself is dedicated to helping post-rehab stroke survivors so those going to the site for lists of symptoms, risk factors, or recommendations on prevention will quickly discover that this is not a resource for that kind of information. What it does provide, though, is presented expertly. Special features of note include resources for caregivers, tips on how to interact with stroke survivors, information regarding support groups, and resources for family members of survivors.

Women's Eye Health.org. (n.d.). Retrieved December 11, 2019, from <http://www.w-e-h.org/>.

Women's Eye Health is an organization formed in 2001 whose mission is to provide educational resources and important facts regarding eye diseases which occur more frequently in women than men. Their website is not particularly pleasant to look at. It almost appears to have been tossed onto the internet shortly after the organization came into being with little consideration given to presentation. Regardless, it is a very useful resource and it is an important one—their stated mission of dedicating the whole of its expertise and efforts to those diseases affecting women at rates greater than they do men is a refreshing and gratifying aspect of WEH from a library sciences perspective as this kind of organizational philosophy is cognizant and considerate of the reality that the amount of attention and resources society is willing to spare for women's issues is disproportionately small compared to what it typically sets aside for those of men.

### **Digital literacy –**

Codecademy. (n.d.). Retrieved December 9, 2019, from <https://www.codecademy.com/>.

Codecademy is the premier online course and instruction platform for becoming fluent in a programming language and learning how to code. It offers the most basic introductory courses as well as intermediate and

advanced instruction in twelve different languages, from Python and Ruby to C++ and C#. Codecademy also offers a wide array of other IT-related courses focusing on web development, data structures, introduction to machine learning, even newer subjects like hardware coding with. Unfortunately, like so many other twenty-first-century tech services, what was once a free online resource (prior to profitability, all while generating as much industry buzz as possible and attracting investors) has begun to charge for many of the more advanced and in-demand services it offers.

Digital Literacy Training Program for Canadian Educators Workshop. (2019, October 2). Retrieved December 9, 2019, from <http://mediasmarts.ca/digital-media-literacy/e-tutorials/digital-literacy-training-program-canadian-educators-workshop>.

The Digital Literacy Training Program for Canadian Educators Workshop is about as no-nonsense a title as one could hope for, and it does indeed describe what interested participants are probably in for. The free workshop program can be download in either HTML5 format for implementation as a self-directed tutorial or, for teaching groups or classes, it's available in PowerPoint (PPT) format. Additionally, instructors can choose from three variants in order to tailor the material to their students' capabilities—one of these takes an introductory tack by focusing primarily on important terms, basic concepts, and is best suited for the ages falling within the kindergarten-through-sixth grade range. A version intended for junior high and high school students is more comprehensive and nuanced, while the third provides both general and thorough information with an eye toward meeting the basic instructional needs for any student. The program seems almost indistinguishable from similar enterprises in the United States, though I've found that, one way or another, distinguishing aspects will eventually reveal themselves.

Prensky, M. (2001). Digital natives, digital immigrants. *On The Horizon*, 9(5).  
doi: 10.1108/10748120110424816

This somewhat "famous" article is part of a larger series by Prensky in which he examines the uniquely remarkable position the younger generation (shortly after the turn of the twenty-first century) were in at the time—specifically, they will forever represent the first generation ever to have experienced a world in which the advent of the information age and the ubiquity of the computer have been integral to most aspects of their lives. This generation of "digital natives" can in some ways be thought of as a new kind of person—so why are we trying to teach them with decades-old teaching philosophies which are part of what is so clearly an outmoded educational framework? This short, very readable essay garnered a relatively wide audience in the very early part of the twenty-first century and influenced the narratives and primordial discussions in that most nascent era of what was—and what somehow remains—a burgeoning new frontier characterized by rapid changes in the way we value information and information technology. Prensky wants us to realize that our loyalty to and obsession with information was an inevitability, and that it has altered the human experience—permanently.

## **Cultural literacy --**

Greyling, E., & Zulu, S. (2010). Content development in an indigenous digital library: A case study in community participation. *IFLA Journal*, 36(1), 30–39.  
<https://doi.org/10.1177/0340035209359570>

This paper details a research study conducted in a small African community for the purposes of assessing aspects of these communities and determining more effective approaches to bringing about a greater level of interest and participation in digital library projects. It outlines some of the more substantial examples of the myriad obstacles and daily struggles experienced by the citizens which have a deleterious or dampening effect on efforts to generate enthusiasm for the libraries. It also details the way community participation in African libraries tends to be greater with those more financially fortunate than the much larger population who have little. The overarching goal behind the case study was to obtain whatever knowledge was produced by conducting the study but also of great importance was the preservation of indigenous knowledge, which was believed to offer community members great incentive to engage with the digital library project as a means of preserving indigenous pride and, in a sense, proclaiming rightful ownership of and preserving indigenous knowledge. Unfortunately, the paper explains, the preservation of indigenous knowledge and heritage can actually be a very costly endeavor—most of the time, prohibitively so. When we talk about “cultural literacy” we’re not only referring to the virtues of maintaining a broad knowledge and awareness of the way people in different regions of the planet live and have lived—also part of cultural literacy is learning about the conservation efforts made for a given culture’s heritage and the associated difficulties and pitfalls.