Information Literacy and the Value of Truth

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abstract: Though library literature has much to say about so-called post-truth, there is surprisingly little agreement about the concept of truth itself. This article reviews prominent discussions of truth as it relates to information literacy in order to identify a series of common misconceptions. A modest and pluralist conception of truth is proposed as a core concept for understanding information literacy. Practical implications are discussed, including how a conception of truth can shape librarian pedagogy, ground a virtue-oriented approach to information literacy, and contextualize certain strands of populist rhetoric.

Introduction: The Curious Case of Truth in Library Scholarship

For the better part of a decade, the literature on information literacy has been dominated by a shared concern about falsehoods; articles invoking misinformation, disinformation, fake news, and post-truth have proliferated. Reviewing just the period from 2016 to 2018, Matthew Sullivan describes librarians as "virtually unanimous in their conviction that they have a central role to play" in combating the spread and the pernicious effects of fake news.[1] Reviewing 27 articles published between January 2018 and September 2020, Jorge Revez and Luís Corujo identified a repeated insistence on the role of information literacy instruction as the core library strategy for dismantling fake news and the post-truth mindset.[2] Likewise, Saoirse De Paor and Bahareh Heravi surveyed the literature and found frequent calls for librarian advocacy against post-truth attitudes, including many proposals to reframe information literacy itself.[3] Clearly, post-truth has occupied a central position in recent library scholarship.

Yet, for all the scholarly attention the library literature has paid these falsehoods, the literature has also demonstrated a strange aversion to directly confronting the very thing that post-truth rejects: the value of truth itself. The post-truth attitude has two prongs:

1. a rejection of the value of objective truth and
2. an emphasis on emotional appeals and/or confirmation of personal beliefs.

portal: Libraries and the Academy, Vol. 26, No. 1 (2026), pp. 149–171.

Librarian researchers have elected to address the second prong, invoking this or that variant of information literacy as a means of combating the motivated reasoning and confirmation bias that undergirds the post-truth mindset. Surprisingly, very little attention has been paid to the first prong, with the pure concept of truth left largely unanalyzed. This is not necessarily a new development, as John Budd noted well before the post-truth zeitgeist: "truth tends not to be spoken of a great deal in information science."[4] To wit: the ACRL Framework for Information Literacy does not include the words *true*, *truth*, *fact*, or any similar terms.[5] This leads to the question at hand: if the post-truth mindset rejects the social and political value of truth, then what exactly is being rejected?

The purpose of this paper is to demonstrate that the concept of truth has a vital role to play in the theory and practice of information literacy. The intent is not to advocate for a specific theory of truth or commit librarianship to the work of a specific philosopher. Philosophers have spent centuries debating the topic, and it would be an instance of epistemic trespassing for this paper to declare the matter finally resolved.[6] Likewise, the intent is not to rehash the old quarrels about postmodernism and relativism: this is not a polemic. Rather, the present argument is normative and will demonstrate that—whatever truth happens to be—truth is something that the information literate person ought to value. Hence, librarians interested in information literacy have a vested interest in the value of truth. The discussion will begin with an examination of how truth has previously been understood within the library literature, with an emphasis on uncovering several common misconceptions. This is followed by an outline of a modest conception of truth that draws heavily on Michael Lynch's functional account of truth. This account is modest insofar as it is only concerned with establishing the most basic requirements for having a truth concept: 'truth' is a functional property that we use to indicate statements or beliefs that are objective, that we should aim to believe, and that are correct. These are the minimum conditions for any concept of truth. Further, and in order to sidestep debates over specific theories of truth, a pluralistic account of truth will be presented that allows for the concept to manifest in many different ways, so long as the core functions of objectivity, value, and correctness are met. Finally, several practical implications of adopting a modest conception of truth are discussed with an emphasis on demonstrating how truth can improve pedagogical approaches to teaching information literacy, help librarians cultivate epistemic virtues through information literacy instruction, and, hopefully, reclaim some of the rhetoric of truth.

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Part 1: Misconceptions about Truth in the Library Literature

Traditionally, when "truth" is invoked as an object of inquiry, that inquiry proceeds in at least one of three ways. The first approach is to argue for or against specific, substantive definitions of the predicate "is true." Variations on correspondence theory—to be true is to correspond with a fact; coherence theory—to be true is to cohere with other beliefs;

various pragmatic theories—truth is the end of inquiry or truth is what is useful to believe; and minimalist theories—truth as merely a logical property—occupy much of this space. The second approach is to argue for or against certain metaphysical constraints on the possibility of truth, as in debates between realists and relativists or between objectivity and subjectivity. Finally, the third approach is to adopt a normative stance regarding the value of truth, either in general or with respect to certain goals. Thus, inquiry into the nature of truth is generally focused on answering at least one of three questions: what does it mean for a statement to be true, what limits are there on acquiring true beliefs, and what is the value of acquiring true beliefs? Since the arguments in this article fall into the third category, there is no need to rehash the debates between competing definitions of truth or the debates between postmodernists and positivists. Instead, the focus is on the normative aspects of truth and why truth is worth valuing in the first place. Naturally, some of the discussion will touch on the first two approaches—it is unavoidable to some extent—but a detailed understanding of the philosophy of truth is not necessary for establishing that truth is a valuable concept.

In this spirit, it is perhaps best to start by examining how truth has been invoked in library literature of the past which, as has been noted, is not very often. Rather than offer a detailed critique or defense of arguments in the extant literature, this article adopts the rhetorical strategy used by Michael Lynch to highlight certain myths or misconceptions that interfere with the ability to understand the nature of truth.[7] Instead of arguing for specific preconditions for a theory of truth, clearing away misconceptions about truth helps bring clarity to the concept by identifying its conceptual core; this is less about asserting necessary and sufficient conditions for truth and more about clearing away barriers to a shared understanding.

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Misconception 1: Truth has a Capital 'T'

Truth, as philosopher Huston Smith has noted, is a multifaceted concept that has been used across diverse cultures to refer to core existential and metaphysical ideas.[8] Confucian traditions conceive of truth in terms of existential questions about the proper pathways that lead to living authentically.[9] Vedic philosophies, pre-Socratic Greeks, and Abrahamic religions conceive of truth in terms of a metaphysical unity underlying the cosmos (*Ātman, logos*, and the word of God, respectively).[10] In all of these cases, the concept of truth is connected to larger, cultural and spiritual worldviews that seek to address morality, existence, human nature, and the divine. Truth with a capital 'T' is an ontologically-thick, metaphysically-weighty, fundamental aspect to existence. Truth is a big deal.

This reification of truth has also been bound up with libraries for millennia, where the desire to preserve and promulgate religious Truth was one of the core motivations for the founding of great libraries across Byzantium, the Muslim World, East Asia, and

Western Europe.[11] It is also no coincidence that many of the libraries, museums, and universities built in the 19th century borrowed architectural features from Greek and Roman temples or Gothic cathedrals, nor a coincidence that these same institutions are frequently spoken of as "temples of knowledge." As Miroslav Kruk notes, many librarians still pine for a lost Golden Age of libraries, when libraries "belonged to the sphere of the sacred" and allowed humans to "discover [the] divine pattern and order in the Universe."[12] Again, the belief is that Truth is absolute, Truth should be revered, and, further, that libraries are key participants in promulgating that Truth.

However, a third conception of truth has accompanied the metaphysical and existential views; namely, the view that truth is a property of language and belief. Under this conception, truth is understood as a predicate instead of a subject, where 'is true' is just a property of statements or beliefs and carries with it no commitments to metaphysical or existential doctrines.[13] Aristotle's famous definition of truth is the standard example for this semantic approach to truth in antiquity: "to say that what is is not, or that what is not is, is false; but to say that what is is, and what is not is not, is true."[14] While this is a tongue-twister, the shift away from metaphysical commitments is clear: the concept of truth applies to what we believe about reality, not to reality itself. Moreover, the semantic approach emphasizes that truth is a property that applies to beliefs that have been deemed to be *accurate*. Granted, the exact nature of this accuracy is contested, with longstanding debates over the aforementioned correspondence, coherence, and pragmatic theories, along with a host of others. Regardless of which theory is adopted, the central claim is that the kinds of things that can be true are individual beliefs, usually expressed as statements, sentences, or propositions and not doctrines, worldviews, or grand narratives.

Ultimately, the existential, metaphysical, and semantic conceptions of truth are not mutually exclusive; they coexist because they function in different domains of human experience. However, when approaching truth from the standpoint of information literacy, there are at least three reasons to adopt a semantic conception of truth. First, by focusing on a truth as a property of individual beliefs, librarians can sidestep the need to adopt or promulgate any particular metaphysical doctrine; the semantic conception can coexist with existing religious, spiritual, and cultural traditions even if those traditions have conflicting metaphysical and existential conceptions of truth or absolute reality. Second, this language-focused conception of truth accords with librarians' professional commitments to semantic information; information literacy itself is rooted in how we use identify, locate, access, evaluate, and communicate language.[15] Finally, there is the simple observation that metaphysical, spiritual, or religious commitments are not a standard feature of how information literacy is understood within the profession; concordance with Ultimate Being or perfect harmony are not evaluative criteria within any standard or framework for information literacy. For these reasons, librarians ought to embrace the small, semantic conception of truth and leave the metaphysical and existential conceptions of truth to the domains of cultural identity, spirituality, and religion.

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Misconception 2: Truth is a Matter of Opinion

Many historical movements have sought to disentangle spirituality and knowledge, with perhaps none more widely discussed by librarians as the 18th century European Enlightenment. Though the various theories and thinkers of the Enlightenment Age were far too heterodox to form a single movement, the simplified story often encountered is that the Enlightenment was characterized by the rejection of traditional authority such as the Church, an optimism about our ability to use reason to uncover the nature of reality, and an effort to structure society in accordance with objective principles.

In the context of information literacy, the long tail of the Enlightenment is typically understood by way of a cluster of concepts bundled together under the aegis of "positivism." Cushla Kapitzke describes positivist theories as those insisting on neutrality, objectivity, and a commitment to there being an external world, separate from learners and accessible through language.[16] To this short list are often added concepts such as a preference for decontextualized, quantitative data, empiricism, and an emphasis on certainty.[17] Positivist tendencies in information literacy have been said to lead toward a conception of truth as "certain, objective and good, something that can be detected through using dispassionate and rational problem-solving techniques."[18] To be fair, this is an extremely reductive description of a robust and extensively documented paradigm. However, this rough characterization is close enough for the current discussion: there is an objective, external reality that can be described accurately using reason and evidence.

As influential as positivism has been in the social sciences, it has also drawn a healthy amount of criticism. Critical theorists have argued that positivism cannot account for the social processes that factor into the creation of knowledge: truth claims are always expressed within a language, and language is a social construct governed by social forces that are often reflective of specific ideologies. Hence, external reality is not discovered. Instead, an understanding of the world is negotiated through specific, local cultural practices; other social groups or cultures likewise negotiate their own conceptions of reality and there is no Archimedean point from which to privilege one viewpoint over another. In this light, Max Horkheimer and Theodor Adorno famously argue that positivism is better understood as a tool used by dominant power structures to cloak their agendas in the rhetoric of truth, objectivity, and neutrality, thereby providing cover for injustices including colonialism, imperialism, and oppression.[19] As Michel Foucault described it, truth is nothing more than "a system of ordered procedures for the production, regulation, distribution, and circulation of statements" that the powerful use to dictate the bounds of what constitutes socially acceptable belief.[20] Hence, power enables itself to assert the superiority of one race over another, to enforce rigid gender roles, to pathologize sexual preferences, and to claim moral authority for capital, all under the pretext that these are simply objective, neutral facts. Thus, truth cannot be understood independently from the historical contingency imposed upon it by "regimes of truth" that seek to impose power and enforce exclusion. In response to this line of argument, social groups who have been excluded from the canon of "rational thought" have rejected appeals to objective truth in favor of theories that destabilize the conception of truth and deconstruct truth-claims as socially conditioned standpoints and intersubjective agreements.

In this spirit, with respect to libraries and information literacy, Gary Radford highlights the way positivism leads to "values of order, control, and suppression" that render

the library "an emotionless, cold, and mechanistic place."[21] Kapitzke posits that positivism is an "exclusionary ideology" that is incompatible with the educational outcomes presupposed by information literacy.[22] Others have argued that positivist conceptions of information literacy place the onus of learning on the student, ignoring the influence of existing power structures, and that this undermines participatory approaches to information literacy.[23] Several librarians have criticized the ACRL Framework for paying lip-service to the way power structures knowledge, while simultaneously being rooted in problematic positivist conceptions of individual autonomy and learning as an individual, ahistorical practice.[24] Others have argued that positivism has undermined diversity and fairness within librarianship and that positivism does not align with research in library science.[25] In a review of the literature on critical information literacy, Eamon Tewell summarizes these attitudes: positivism is at odds with the critical impulse to "understand how libraries participate in systems of oppression."[26]

It is difficult to contest these observations. Positivist conceptions of truth and knowledge have resulted in oppression and exclusion, and positivist conceptions of information literacy are in danger of complicity in this oppression and exclusion. Yet, there are subtle equivocations underlying these critiques of positivism. In particular, many of these critiques fail to distinguish between what *is* true and what *is believed to be* true. The many criticisms of positivist conceptions of information literacy are rejections of particular beliefs *about* truth, but they do not establish that truth and objectivity are totally unimportant or objectionable. There is no contradiction in holding both that positivism is a morally bankrupt theory and that truth and objectivity are important. Truth can still be a valuable concept, despite a history of weaponization and abuse by those in power. The key insight here is that the rejection of positivism entails a claim to the effect that some of what power *claims* is true is not *really* true. To criticize power and ideology is to admit that power and ideologues are *wrong*, and for the possibility of error to even exist there must be a minimal conception of objectivity. This does not mean a full-blown theory of objectivity in terms of correspondence to some ultimate reality, but a minimal sense in which it is generally accepted that social agreements might be mistaken. Put another way, criticisms of positivism are criticisms of *dogmatism*, not objectivity, and truth is not *merely* a matter of opinion or social agreements. To reject objectivity because of a certain, extreme interpretation of objectivity is nothing more than rejecting a straw man. That said, the critical impulse to uncover systems of oppression lurking within social institutions and practices is of the utmost importance; critical approaches to information literacy are invaluable to exposing oppressive epistemic practices and dismantling problematic norms. This especially includes the following problematic attitude towards truth.

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Misconception 3: Truth is the Highest Value

Even if objectivity is retained in a conception of truth, there is still the lurking presence of a normative question about how truth ought to be valued. Should truth be pursued

at all costs, even if that means rejecting, suppressing, or eliminating things we deem to be false? Robert Labaree and Ross Scimeca raise this exact concern. They posit that, if librarians place a value on truth, then librarians will be forced into the position of rejecting any and all information that they deem untrue.[27] The authors write:

> "without [the] suspension of truth in librarianship, the accumulation of past and present knowledge could be compromised. This compromise can take various forms, such as eliminating whole collections or suppressing information that does not share the present majority view, be that view scientific, religious, or political."[28]

As evidence, Labaree and Scimeca point to the destruction of Mayan literature and culture at the hands of Spanish colonizers who destroyed the majority of Mayan manuscripts in an *auto-da-fé*, claiming later that "they contained nothing but superstitions and falsehoods of the devil."[29] There are countless other examples of epistemic and cultural genocide that are rooted in the interconnected claims that:

1. truth is the highest value,
2. truth must be pursued at all costs, and
3. untruths must be eliminated.[30]

Thus, according to the arguments of Labaree and Scimeca, truth should not be accepted as a value within librarianship.

The problem is that this line of thinking runs roughshod over the fact-value distinction. From the fact that a librarian values truth, it does not follow that truth is all that matters when that librarian evaluates information or library collections. Again, there is a conflation of dogmatism with objectivity: Spanish colonizers did not destroy Mayan literature solely because they deemed it false, they destroyed it because of a dogmatic belief that all truth claims that disagree with Catholic teachings must be destroyed. So, Labaree and Scimeca have provided no necessary connection between attitudes toward librarianship and attitudes toward truth. Against their interpretation, there are a multitude of reasons for librarians to collect information, even if they believe it to be false. Librarians collect information on the basis of cultural importance, aesthetic beauty, popularity, community representation, and patron demand, just to name a few reasons. There is also the simple fact that even if a specific proposition is false (or a text contains false statements), true statements can still derive from that proposition (or text). Is the Ptolemaic conception of the solar system true? Of course not. But Ptolemy's writings are still important in library collections because they allow us to derive true statements like "Ptolemy believed the Earth was at the center of the solar system." In many ways, the value of a library's collection is not merely to be found in the truths therein, but also in the truths that can be learned. Contrary to what the argument against truth requires, librarians can believe in truth without reifying it as the only criteria that matters. Truth is valuable, but so are justice, fairness, representation, and respect for dignity, and it is certainly possible to set aside a quest for truth if it appears to infringe upon other values.

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Misconception 4: Truth Requires Certainty

In a compelling argument for a virtue-based account of information literary, Wayne Bivens-Tatum claims that information literacy does not require a theory of truth grounded in objective reality because it is unlikely (even impossible) to achieve certainty.[31] No one is an expert on all topics, and no one can reasonably be expected to pursue certainty with respect to all that they believe, librarians included. Instead, with respect to information literacy, librarians focus on heuristics and surrogates for expertise, such as credentials, reputation, and reliability, as defined by scholarly communities. Bivens-Tatum explains that, because librarians work at the level of these scholarly conversations (evaluating authority and epistemic norms of scholarly communities), librarians do not need a theory of truth grounded in objective reality. He states, "*[E]ven if* there is a true, objective reality 'out there' that humans can really discover…librarians still have nothing to do with that."[32] In large part, Bivens-Tatum is correct. The task of a librarian is not to determine the truth; the best librarians can do is cultivate an understanding of the epistemic conventions of various discourse communities.

This argument unfolds against a backdrop of virtue epistemology, wherein Bivens-Tatum makes a case that information literacy ought to cultivate a range of intellectual virtues, such as open-mindedness, intellectual humility, intellectual courage, epistemic justice, and other character traits. Bivens-Tatum leans on work from notable virtue theorists like Jason Baehr and Linda Zagzebski, among others. This creates a tension for Bivens-Tatum, given that virtue epistemology places a very high value on truth. As Baehr explains, intellectual virtues are motivated by truth, and "an intellectually virtuous person…is one with a positive psychological orientation toward truth, knowledge, understanding, and other epistemic goods."[33] Linda Zagzebski further explains that intellectual virtues are defined in terms of their abilities to motivate actions that lead agents to acquire true beliefs.[34] So, even if Bivens-Tatum is correct that librarians may never attain certainty about what is and is not true, that still leaves open the possibility that truth is a goal that motivates information-seeking.

The epistemic virtues Bivens-Tatum promotes are defined by their directionality, not by whether their aims are successfully met. It is enough to adopt intellectual habits that are directed *toward* having true beliefs, even if that truth is unattainable. As Bernard Williams explains, a desire for true beliefs

> does not mean that we want to believe any and every truth. It does mean that we want to understand who we are, to correct error, to avoid deceiving ourselves, to get beyond comfortable falsehood. The value of truthfulness, so understood, cannot lie just in its consequences.[35]

Thus, truth-oriented epistemic practices are not valuable because they reach truth, they are valuable because they guide intellectual life, steering us away from error and encouraging us not to deceive others. Similarly, truthfulness is not motivated by having a conception of truth; rather, a conception of truth serves a regulative function that guides our understanding of intellectual virtues. Bivens-Tatum fails to distinguish between the consequences of truth-seeking behavior and the motivations for truth-seeking behavior, and he rejects truth on consequentialist grounds, not considering that, even if no belief ever reaches perfect certainty, truth can still be a worthy goal.

This emphasis on motivation over consequences is the case with many other core concepts in society. For example, the concept of *justice* is equally as difficult to define as truth, and it is likely that a perfectly just society is unattainable. But this does not entail that justice is unworthy of pursuit. Concepts like truth and justice are normative; they are targets for meaningful action. Even if truth and justice are unattainable, there can still be value in society becoming *more* just, or in knowers acquiring *more* accurate beliefs. Librarians do not need to become experts on every discipline in order to value truth as the aim of inquiry. Valuing truth does not entail an insistence on certainty and acquiring absolute knowledge; valuing truth entails recognizing truth as a worthy goal by which to evaluate epistemic practices and epistemic virtues. We may never hit the target, but, without it, we would not know where to aim.

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Part 2: What is this Truth that is Worth Valuing?

Reflecting on the misconceptions discussed, one can make several general observations about what the concept of truth minimally entails. Borrowing from the work of Michael Lynch these observations can be structured around certain platitudes that describe the function a truth claim has in communication. Lynch proposes the following "core truisms" about truth:

1. Objectivity: True propositions are those that, when we believe them, things are as we believe them to be.
2. End of Inquiry: True propositions are those we should aim to believe when engaging in inquiry.
3. Norm of Belief: True propositions are those that are correct to believe.[36]

Lynch acknowledges that there are many other platitudes about truth, but these are the most central. Given the discussion so far, and the implied permission to extend the platitudes, it seems only natural to highlight one additional concept:

4. Semantic Property: Truth is a property of beliefs, usually expressed through language.

This additional platitude may have been too basic for Lynch to include, given that it is definitional within philosophy, but in light of the misconceptions covered so far, and in order to avoid the belief that truth is sacred and worthy of reverence, this additional platitude seems warranted, if only as a reminder. Importantly, these platitudes are not theories of truth; rather, they are the conditions under which a person can be understood to be discussing *truth* rather than some other concept. These platitudes can certainly be contested, but to deny any of them outright is simply to change the subject to something *other* than truth.

Readers looking for something more definitive may not find this satisfying. Those who expect this article to single out the work of one specific philosopher as the best theory for libraries are out of luck: this is not a referendum on the merits of particular philosophers. Likewise, the task of choosing a specific theory of truth as the best theory for librarianship invites an incredibly complicated conversation ranging from logic, to epistemology, to linguistics, and beyond. These entanglements are messy and require a great deal of background knowledge that is unfair to expect outside the discipline of philosophy. Thankfully, a complete definition of truth is not needed in order to understand why truth is valuable. Williams explains that truth, as a property of propositions or sentences, cannot really have a value in the first place; the phrase "the value of truth" should be taken as shorthand for the value of the activities that are associated with truth.[37] It follows that, even if there is disagreement about the nature of truth itself, the activities associated with truth can be understood and valued in their own rights. Concepts like honesty, open-mindedness, sincerity, accuracy, and reliability are all related to truth and can be valued, even if truth is a fuzzy concept. So, as a matter of practical expediency, this paper will adopt a pluralist conception of truth as a means of disentangling from knotty philosophical problems.

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Pluralist approaches to truth generally reject the claim that there is a single conception of truth to be discovered at the end of all the debate. Instead, as the pluralist maintains, truth is a property that manifests in many ways: there are many different ways of being true. As Nikolaj JLL Pedersen and Cory D. Wright explain,

> [W]hat property makes propositions true may vary across domains or from subject matter to subject matter. Corresponding with reality might be the alethically potent property–the property that can make propositions true–when it comes to discourse about ordinary, concrete objects. On the other hand, cohering with the axioms in Peano arithmetic and being endorsed the most widely might be the relevant properties for discourse about respectively arithmetic and the goodness of consumer goods.[38]

For Lynch, this comes down to the idea that truth is a *functional property*, which is to say that truth needs to be thought of in terms of the function that it plays in ordinary discourse. That function is simply to show that a given statement fits with the core criteria for truth mentioned previously. Thus, to say that a claim corresponds with reality, coheres with other beliefs, or can be verified is just to say that the claim is objective, the claim has value, and the claim is the product of epistemic motivations. A precise definition of truth can still be debated; the pluralist approach simply ensures the sides of the debate are concerned with the same concept.

Pluralist conceptions of truth have appeared in library literature on at least one previous occasion. Laura Saunders and John Budd propose adopting pluralism as a means of recognizing the value of truth across multiple conceptual schemes, thereby allowing librarians to understand authority in terms of the way truth manifests in different

forms, depending on context.[39] As with Rinne, their discussion is somewhat conflating justification with truth, and they do not linger long on pluralism before moving on to the work of Steve Fuller (who is a sort of pariah in mainstream philosophy) and Alvin Goldman (one of the leading voices in social epistemology). Consider this essay a rehabilitation and extension of the work proposed by Saunders and Budd. At this point, the argument is that truth is a concept that connects beliefs and intersubjective agreements to an external world. From a pluralist viewpoint, truth guides epistemic practices, helps distinguish between beliefs that should and should not be adopted, and motivates the spirit of inquiry. This is the modest conception of truth, and the next section will discuss positive implications of adopting truth as a core concept in the theory and instruction of information literacy.

Part 3: Practical Applications of Truth in Information Literacy

Though truth may seem to be a purely theoretical issue that does not have much practical benefit, Michael Flierl and Clarence Maybee have argued that good educational practice requires active engagement with the theoretical side of information literacy.[40] In what follows, several practical applications that fall out of a conception of truth will be discussed. What will *not* be discussed are claims that librarians should directly teach students *about* truth or philosophical arguments; nothing here is about turning the information literacy classroom into a philosophy lecture. Consider the following applications as organizing principles to help librarians think about how certain topics are framed, how to foster intellectual virtues, and how to advocate for information literacy in a world where truth may have lost some of its currency.

Truth Affects Pedagogy

How librarians conceive of truth has direct effects on how they choose to teach about information literacy. An understanding of truth influences the choice of which concepts of evaluation are worth teaching and which metaphors to use to introduce students to those concepts. These effects may be subtle and often go unnoticed, but they can have far-reaching impacts on student learning.

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Consider the initial stages of the research process, wherein students struggle to formulate research topics. Research under the Project Information Literacy program indicated that 84 percent of college students surveyed claimed that getting started with a research topic is the most difficult part of the research process.[41] Further research supports the idea that introducing students to the concept of "research as conversation" shows promise for improving student learning outcomes.[42] That said, the metaphor of research as conversation is only partially constitutive of the research process. While it is true that scholars enter into a sort of conversation when they start their research, if that is all there is to be said, scholarship becomes little more than a matter of following disciplinary-specific social scripts in pursuit of community acceptance—scholarship risks becoming a per-

formative contest of ideas. At its core, the conversation metaphor fails to acknowledge the *aboutness* of scholarly research: even though disciplinary standards are social constructs, the scholarly conversations within those constructs are *about* matters external to the conversation itself.[43]

Focusing attention on the aboutness of research is only possible within the context of the basic platitudes of truth. Without the norm of objectivity, scholars could not be sure their scholarly conversations were about the same phenomenon. Without acknowledging truth as the end of inquiry, scholarship would be nothing more than a language game and, hence, not *about* anything other than rhetorical strategy. Without truth as a norm of belief, scholars would not be motivated to modify their beliefs in light of new evidence, nor would they be motivated to challenge existing scholarly consensus. Put another way, a modest conception of truth is what allows for the observation that scholars can be *wrong*. The history of scholarship is littered with wrong ideas (for example, extramissionism, phrenology, or the pathologization of sexual preference), but those ideas have not been rejected and superseded *solely* because the conversation changed—they were also rejected because they did not cohere with external reality. Moreover, a conception of truth allows current students and scholars to hold open the possibility that the current scholarly consensus may be rejected or superseded with something that better approximates truth. The concept of truth helps to determine whether the scholarly conversation is on the right track. Ultimately, the concept of truth allows librarians to teach students that scholarship is a conversation *about* the world, and that conversation may change in the future; whether that change represents progress depends on whether it approaches truth. Librarians who embrace this point can help students see through the veil of rhetorical persuasion and false appeals to authority to reflect on whether scholars are only negotiating meaning, or if they are trying to reach understanding.

Ultimately, the concept of truth allows librarians to teach students that scholarship is a conversation about the world, and that conversation may change in the future.

Truth can also help librarians at the meta-evaluative level by helping to identify which concepts of information evaluation are worth teaching in the first place. Looking over the vast array of checklists and heuristics discussed in information literacy research, myriad evaluative concepts fall out: accuracy, authority, bias, coverage, currency, objectivity, purpose, relevance, and more.[44] Why these concepts and not others, such as popularity, simplicity, familiarity, or holiness? The parsimonious answer would be that librarians prioritize some evaluative criteria over others on account of how well they aim at truth. Librarians do, indeed, value truth and use it to refine their conceptions of information literacy. If librarians really did not think of truth as a norm of inquiry, then something like popularity (a source is reliable if it gets the most likes on social media) might be a legitimate contender for the P in CRAAP (Currency, Relevance, Authority, Accuracy, and Purpose) test. Instead, librarians already apply the concept of truth when considering information evaluation; they just don't often say it explicitly.

Finally, the concept of truth can help librarians come to a clearer understanding of the concept of *reliability*. College students are often asked to find "reliable sources" for their research assignments, yet reliability is often left undefined and underdetermined. Similarly, where the ACRL Framework mentions "accuracy and reliability" under the Authority is Constructed and Contextual frame, reliability is also left undefined. Thankfully, the definition of reliability is fairly straightforward: a reliable information source is one that has a good track record of communicating the truth.[45] In other words, information itself is neither reliable nor unreliable; rather, those who share information are reliable or unreliable in proportion to their track record for sharing true information. Reliability is a property of the sources that share information, not of information itself. Reliable sources are those that get things right more often. Importantly, reliability is also one of the most important grounds for authority.

David Lankes argues that reliability and authority are related concepts that exist on opposite ends of a spectrum.[46] As the ACRL Framework describes it, authority is influence exerted within a community and the standards for acquiring authority vary between disciplines. On this conception, students must become acquainted with disciplinary conventions in order to identify cognitive authorities, so a core pedagogical goal of information literacy instruction must be to familiarize students with disciplinary standards. Yet, once an authority is identified within a given domain, that authoritative source can still lose its credibility and status if it regularly gives out false information; some minimal commitment to truth is needed to regulate the criteria for maintaining authority status.[47] Further, in the increasingly fragmented and distributed world of online information, traditional markers of authority lose much of their salience for students. These traditional conceptions entail social arrangements that confer credibility and mark the end of inquiry: if a particular authority says that something is the case, then it is definitely the case, and the scholarly conversation is over. In contrast, an emphasis on reliability keeps the scholarly conversation open and ongoing: the track record over time for communicating truth is more important than disciplinary conventions and agreements.[48] Put another way, authority is constructed and contextual, but authority can be revoked when it becomes unreliable, when it loses its track-record for telling the truth. In this light, librarians can augment their discussions of authority by invoking the concept of truth through the lens of reliability, to show students that authority can be undermined and even revoked if it strays too far from the truth.

Truth Provides the Grounds for Epistemic Virtues

One of the upshots of adopting a conception of truth is that valuing truth allows librarians to speak cogently of epistemic virtues. As mentioned earlier, Bivens-Tatum gives a convincing argument that information literacy ought to be understood in terms of epistemic virtues and, moreover, that library instruction has a role to play in inculcating these virtues. As he describes it, a virtue-theoretic approach to information literacy is one that focuses on the cultivation of certain habits of mind, such as epistemic humility, inquisitiveness, open-mindedness, epistemic justice, and similar traits. The core idea here is that information literacy can and should distinguish between information literate acts (such as identifying if a source is credible) and the motivations that lead to those

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acts. The information literate person cannot be defined solely in terms of their abilities to find and evaluate information; people are routinely in situations in which they know how to find or evaluate something, but choose not to. Indeed, a great deal of the conversation surrounding post-truth involves examples of people who may be perfectly capable of fact-checking or engaging in lateral reading but choose not to out of a desire for convenience, belief-validation, or social acceptance. On the virtue-theoretic approach, information literacy is connected to a responsibility to promote character traits that can displace these desires.

However, contra Bivens-Tatum, virtue epistemology is deeply concerned with the concept of truth and the consensus among virtue theorists is that truth is the fundamental epistemic good that underlies intellectual virtues in the first place.[49] As Zagzebski explains, love of truth is a motive that confers value on cognitive activity.[50] Zagzebski also makes it clear that any characteristic sufficient to turn a belief into knowledge must entail truth.[51] That is to say, epistemic virtues like humility, inquisitiveness, open-mindedness, or thoroughness, are valued in part because they are connected to a commitment to truth and aversion to falsehood. Recognizing the centrality of truth is a basic condition of having a theory of epistemic virtues in the first place.[52] Truth provides the normative grounds for intellectual activity: it is the norm of belief.

This normative approach to motivation forms a large part of the rationale for thinking of information literacy in terms of epistemic virtue. Intrinsic motivation is crucial for fostering a desire to learn and find information independently, and an intrinsic motivation to know is the most important predictor of information literacy self-efficacy.[53] Yet, not all motivations are created equal. In order to distinguish virtuous dispositions like open-mindedness from vicious dispositions like dogmatic closed-mindedness, an external criterion needs to be applied. This criterion cannot be another mental state or disposition, for fear of a circular regress, so it must be something independent from subjective mental states. In other words, the criterion must be objective.[54] A modest conception of truth provides just such an objective grounding for distinguishing epistemically proper from improper motivations. Epistemic virtues are those dispositions that aim at correct beliefs and epistemic vices are those dispositions that impede correct beliefs. This is not purely a philosophical conceit either; research in cognitive science has identified an "illusory truth" cognitive factor that increases susceptibility to false beliefs.[55] This illusory truth factor is rooted in epistemic vices such as familiarity, cohesion (fit with existing beliefs), and fluency (ease of understanding).[56] What distinguishes epistemic virtues from these sorts of vices is simply the extent to which they are truth-apt.[57]

Ultimately, the virtues of information literacy must be connected in some way with a desire for truth. Learners demonstrate epistemic humility when they acknowledge that some of their beliefs may not be true. They demonstrate open-mindedness when they act on a desire to listen to other knowers, even if what they hear contradicts what they

believe to be true. They demonstrate discernment when they adjust their beliefs in response to true information rather than falsehoods. In these and similar cases, the norm of truth provides the foundation for understanding epistemic virtue; truth, even if never achieved with absolute certainty, still functions as the guardrails that prevent the adoption of questionable intellectual practices.

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Moreover, a concept of truth allows librarians to extend information literacy to encompass at least two additional epistemic virtues not covered by Bivens-Tatum: the virtues of truthfulness. Williams offers a detailed account of *accuracy* and *sincerity* as the virtues of truthfulness, explaining that these are the virtues that demonstrate respect for truth.[58] Importantly, Williams adds, respect for truth does not entail obsequiousness toward certainty or servility to cognitive authority; the previously-discussed positivist insistence that the pursuit of truth is all that matters is wrong-headed, and positivism is an affront to truthfulness.[59] As Williams explains, the virtues of truthfulness are rooted in a very simple argument: humans are social creatures that need to cooperate, successful cooperation requires trustworthiness, trustworthiness requires truthfulness, and truthfulness is rooted in accuracy and sincerity.[60] Accuracy is the virtue of investigative thoroughness. The accurate person investigates and evaluates the truth information before accepting it. Sincerity is the virtue of being genuine when sharing information. The sincere person genuinely believes in the truth of what they are communicating.

Because these virtues of truthfulness are characterizations of how people interact with information and incorporate it into their existing belief structures, accuracy and sincerity have a close affinity with the aims of information literacy. They also provide a clean interpretation of the harms of misinformation and disinformation. Misinformation is spread by people who have not properly investigated the truthfulness of the claims they are sharing. Disinformation is essentially a result of insincerity: the person spreading disinformation is insincere about what they believe to be true. In other words, misinformation and disinformation are problems precisely because they flout the virtues of accuracy and sincerity, respectively. In both cases, there is a propensity for believing or sharing falsity due to a lack of concern for truth. Developing teaching strategies and assignments aimed at cultivating accuracy and sincerity would then be another option for librarians with respect to information literacy.

Cultivating the virtue of accuracy involves exposing students to investigative processes; research in science education provides a wealth of teaching strategies specifically designed to encourage students to pursue investigative thoroughness through inquiry-based learning.[61] In particular, incorporating opportunities for students to reflect on their search and evaluation processes has demonstrated effectiveness in helping students develop their dispositions toward thorough investigation of truth-claims.[62] The nature of this reflection is not arbitrary: students are asked to reflect on their own information-gathering behaviors and whether they feel they were sufficiently thorough in their investigations to come closer to acquiring true beliefs and knowledge.[63] Several studies related to librarianship support this approach and provide concrete examples of pedagogical tactics.[64]

Cultivating the virtue of sincerity involves encouraging students to cite information responsibly, to be fair in their evaluation of information that challenges their beliefs, and, above all, to be motivated to modify their beliefs in light of new evidence. Students can demonstrate sincerity by honestly reflecting on how the pursuit of information has shaped their own beliefs. An insincere student might disregard sources that contradict their thesis statement or personal beliefs. A sincere student will acknowledge this contrary evidence and be forthright in considering how their own personal beliefs might have to be modified. If accuracy entails a reflection on investigative thoroughness, sincerity entails a reflection on how beliefs (or thesis statements) have been modified in light of new evidence.

Recent educational research supports the promotion of sincerity through instruction that provides opportunities for generative learning and knowledge revision. Generative learning strategies are those that prompt students to make sense of new information by integrating it with prior knowledge.[65] These generative strategies prompt students to go beyond the information presented by an instructor and make meaningful changes to their existing beliefs, beyond just banking new information for a future test.[66] Several teaching methods have been proven to cultivate sincerity in learners, including: asking to generate questions based on information they are taught, incorporating practice testing, and incorporating concept mapping. These and similar generative instructional strategies directly address student metacognitive abilities, such as the ability to reflect on how new information might supplement or supplant prior beliefs.[67] In other words, generative learning strategies promote epistemic sincerity.

Though generative learning has been studied extensively in educational literature, it has not been well-studied in the context of information literacy. The scant available research has focused on question generation (interrogation prompts) in the context of graduate student information literacy, the use of reflective questioning to identify prior knowledge among librarians and faculty (though, not students), and concept mapping as a strategy for addressing prior knowledge in online instruction.[68] Overall, though, these teaching strategies are under-researched by librarians, and the relative lack of research points to the possibility for fruitful research aimed at improving student inquiry with respect to information literacy. At this point, the case should be clear that thinking about information literacy in terms of truth-motivated dispositions like accuracy and sincerity can help develop information literacy research as well as provide a grounded understanding for the effectiveness of existing practice.

Demythologizing Truth

One of the more perplexing aspects of the contemporary post-truth era is that, even as misinformation and disinformation proliferate, the rhetoric of truth and rationality is loud and insistent. Sun-ha Hong identifies a set of rhetorical strategies that characterize much of contemporary social and political debate: fact-signaling and fact-nostalgia.[69] Fact-signaling involves performative appeals to truth as a means of asserting authority and establishing legitimacy. Think of the way populist right-wing influencers cloak themselves in the language of truth, objectivity, and reason, with mantras like "facts don't care about your feelings" and dedicated social media platforms like Truth Social.

Fact-nostalgia acts as a sort of backdrop for this fact-signaling by mythologizing a supposed past where society was once more rational and truth-oriented. In both cases, the rhetorical aim is toward a hyper-partisan populist message that "*we* are the rational side that respects truth; *they* are the ones who are out of touch with objective reality."

This weaponization of the rhetoric of truth is not limited to one side of the political spectrum; the attitude of speaking "truth to power" is widespread across ideologies. However, recent research shows that populist ideologies have a special relationship to fact-signaling, and the populist worldview is especially sensitive to accusations of misinformation and disinformation.[70] As Silvio Waisbord explains:

> Populism embraces the notion that truth does not exist as a common good. Truth as a collective enterprise is dismissed as a pure ideological illusion of liberalism. There is no such a thing as shared truth-seeking enterprise because truth is always partial. Truth is divided, partisan, and ideological; it is anchored in particular social interests. Truth-seeking politics is about reaffirming 'popular' truths against 'elite' lies.[71]

The reasons for this curious relationship are manifold, but a common through line is a well-documented aversion to uncertainty—to not having access to the truth. Decades of research have coalesced around a model in which the psychological motives that underlie authoritarian and populist mindsets are characterized by dogmatism, intolerance of ambiguity, a need for epistemic closure, and a need to justify social dominance.[72] These attitudes can be construed as psychological consequences of the misconceptions about truth encountered earlier in this paper: if truth is an absolute that entails perfect certainty and should be pursued above all other values, then it follows that ambiguity and uncertainty should be cause for concern. So, while librarians may not talk much about truth, some of the most vocal purveyors of conspiracy theories and misinformation cloak themselves in populist rhetoric of absolute certainty and objectivity, even as they dive headlong into the post-truth mindset.

In some ways, the relative silence from librarians on the matter of truth is disquieting. Wrapped into the populist mindset is the belief that truth is legitimized through authority and requires ideological fidelity, and this conception leads to suspicion and even violence towards institutions that attempt to foster epistemic humility, open-mindedness, or other critical thinking skills.[73] The disquieting part is that librarians do not seem to have a good response, in large part because librarians do not offer much of an alternative. After all, the correct response to "facts don't care about your feelings" is not "facts are a quaint relic of the Enlightenment" or "we are not concerned with facts." These attitudes play directly into the fact-nostalgia that motivates populism: truth used to matter, but the intellectual elites have abandoned it.

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The argument suggested here is that if information literacy does not include some modest conception of truth and cannot speak to how information literacy is aimed at truth, then there is a gap in theory that runs the risk of being occupied by more problematic conceptions of truth. However, this argument does not imply that librarians need to assert themselves as gatekeepers of knowledge who have a special connection to

truth, nor does it imply that truth be situated as the central value of information literacy (recall misconception 3). The practical implications are that adopting a conception of truth in both scholarly discourse and pedagogical practice allows librarians to directly confront the misconceptions about truth; allows librarians to push back against populist fact-signaling and fact-nostalgia; and encourages librarians to think critically about the role that epistemic virtues play in information literacy.

Conclusion

In 2017, former United States Senator and Secretary of State Hillary Clinton told a rapt audience at the American Library Association (ALA) Annual Conference that librarians were on the front lines of "the fight to defend truth and reason, evidence and facts."[74] This exhortation was echoed in a subsequent ALA Special Report, "Fake News and Alternative Facts: Information Literacy in a Post-Truth Era," in which information literacy was described as taking on a new meaning and urgency in the post-truth era.[75] The drumbeat has been insistent: post-truth is a cultural problem that librarians are uniquely qualified to address due to their skills at debunking and deciphering fake news.[76] However, skills alone do not confer information literacy and promoting information evaluation skills alone will not solve the problems of post-truth. The challenge librarians face runs much deeper than this or that particular evaluative skill.[77]

Information literacy needs a firmer grounding if it is going to live up to popular expectations. Through careful attention to the concept of truth, librarians can better situate information literacy as an ameliorative to dogmatic misconceptions. Truth provides the grounds for trustworthiness, sincerity, intellectual humility, and other virtues of the mind. Truth is the norm of belief and the end of inquiry. However, the concept of truth has been reified and weaponized throughout history; ideologues have insisted on a certain and absolute truth that transcends culture and should be pursued at all costs. Meanwhile, philosophers have developed increasingly laborious arguments trying to pin down a precise definition of what it means to be true, to the extent that discussions about truth are often inaccessible to non-experts. In light of both the abuses of truth and the difficulty of defining it, most discussions of information literacy have either disregarded truth as irrelevant at best, or dangerous at worst.

Yet, truth has always been lurking just under the surface of discourse about information literacy. Objective reality grounds the *aboutness* of scholarship and provides direction to student inquiry. Librarians implicitly appeal to truth as they refine their understanding of information evaluation, and which practices best steer learners away from irrelevant or even wrong information. Contemporary concerns about misinformation and disinformation are, at heart, concerns about students and researchers acquiring and sharing information that is not true. In a sense, information literacy instruction has long been concerned with helping students avoid falsehoods and prematurely naturalized facts. A core argument of this paper has been that such concerns are only possible to the extent that information literacy instructors share some basic conception of truth as objective, as the goal of inquiry, and as a norm of belief.

It also bears repeating that acknowledging a shared conception of truth does not entail that librarians are tasked with determining what is and is not true, that informa-

tion literacy instruction has to include content explicitly covering the nature of truth, or that the information literate student must acquire truth. Instead, truth should be used to refine a shared understanding of information literacy, to advocate for the importance of an information literate society, and to give a direction to student learning. Truth is a powerful motivator, as truth-signaling populists have made clear, and librarians are well-situated in society to push back against dangerous propaganda cloaked in the rhetoric of absolute certainty. This should be non-controversial; librarians already implicitly share a respect for truth, they just rarely say it in the scholarly literature, leaving a gap that can easily be filled by misconceptions and straw-men. Consider this paper a sincere attempt at occupying this gap in the information literacy literature and offering a conceptual approach that lays the groundwork for reaffirming the practical value of truth to understanding the place of information literacy in uncertain times.

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