

Finding Truth in the Age of Misinformation: Information Literacy in Islam

JUSTIN PARROTT



Author Biography

Justin Parrott has BAs in Physics and English from Otterbein University, an MLIS from Kent State University, an MRes in Islamic Studies from the University of Wales, and is currently Research Librarian for Middle East Studies at New York University in Abu Dhabi.

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Abstract

Information literacy is the set of skills needed in the modern age to discover, evaluate, interpret, and use information properly and truthfully. With the worldwide proliferation of misinformation on the internet, information literacy is rapidly becoming the most important human competency of the 21st century, as important as reading and writing were to previous generations. Essential components of information literacy include maintaining appropriate attitudes towards learning, assessing the authority of information providers, employing appropriate research methodologies, engaging information-sharing and scholarly communities, and utilizing the latest technology. In many ways, the scholastic tradition of Islam foreshadowed modern information literacy concepts as classical scholars prioritized ethics and manners, systematic curricular learning, and a devotion to understanding the truth of matters as they actually exist in objective reality. This article introduces readers to modern information literacy concepts, drawing parallels to their precedents in Islamic tradition.

Introduction

In the name of Allah, the Gracious, the Merciful

Perhaps the most defining characteristic of our age is the prevalence of all types and sources of information. Computers, smartphones, social media, and, of course, the internet at large, can provide us with the things we want to know, when we want to know them, instantaneously. Certainly, these tools have the potential to provide a tremendous advantage for scholars, researchers, and seekers of knowledge.

But the benefits of these technologies are offset by their darker side: misinformation, disinformation, and the weaponization of information technology. Like any tool, information technologies can be, and are, used for evil. They spread lies around the world in the blink of an eye, incite panic or mob-rage with hoax

text messages, and even alter the course of entire nations for the worse. Some professionals have ominously dubbed our current situation as the 'post-truth' era.¹

For this reason, a key competency in our information age is the ability to sift through mountains of information to distinguish between the good, the bad, and the ugly. This is what information scientists and professionals refer to as information literacy.

As Muslims, the verification of truth, source methodology, and the proper management of knowledge are essential components of our religion, which is why على الله scholars, for example, went to great lengths to authenticate what the Prophet really said. Imam Muslim (rha) introduced his compilation of authentic *hadith* with a chapter entitled, "The chain of verification (al-isnad) is part of the religion and narrations are only accepted from the trustworthy." Building upon this precedent, we can combine the lessons of our righteous predecessors with modern principles of information literacy to help us navigate the swells of this massive information ocean.

This article defines information literacy and relates its principles and methods to precedents in our Islamic heritage and tradition.

What is Information Literacy?

According to the American Library Association (ALA), information literacy is defined as "the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning." These abilities include academic and technological skills, as well as critical thinking, logic, and attitudinal dispositions. Information literacy is simply "learning how to learn" in the information age. The key features

Oxford Living Dictionaries, "post-truth." https://en.oxforddictionaries.com/definition/post-truth

² Ibn al-Hajjāj al-Qushayrī Muslim, *Sahīh Muslim* ([Bayrūt]: Dār Ihyā' al-Kutub al-'Arabīyah, 1955), 1:14, al-muqaddimah, bab fi an al-isnad min al-din.

³ American Library Association (ALA), "Framework for Information Literacy for Higher Education." http://www.ala.org/acrl/standards/ilframework

of this age are that "change will be constant, and it will be a century of data and information abundance."4

Firstly, we must distinguish between "knowledge" and "information." Over thirty years ago, futurist scholar John Naisbitt lamented, "We are drowning in information, but starved for knowledge."5 This was the state of things before the ascendancy of the internet, smartphones, and social media, so how much more true is his statement today?

True knowledge is to understand something as it actually exists in reality, based upon the premise that there is such a thing as objective reality. In contrast, information consists of reports and data, which could be true but are liable to misinterpretation, misrepresentation, and outright forgery. When information is false or misleading, it is called *misinformation*. When information is deliberately falsified to obscure the truth, it is called disinformation; as applied to states and armies, it is called *information warfare*.

Al-Mahalli, commenting on Imam al-Haramayn al-Juwayni's (rha) classic primer on the fundamentals of Islamic jurisprudence (usul al-figh), defines knowledge and ignorance as follows:

Knowledge is to recognize what is known, that is, the conception of something one knows, as it exists in reality... Ignorance is to imagine something, that is, to conceive of it, differently than it is in reality.⁶

Thus, it is possible for a person to have access to all kinds of misinformation and disinformation, creating the illusion of knowledge but which is, in fact, complete ignorance. When several false assertions in one's mind reinforce each other, this results in compound ignorance (jahl murakkab), which can only be remedied through a long process of debunking each individual piece of misinformation.

⁴ Alan Bundy, Information Literacy: The Key Competency for the 21st Century (Adelaide: University of South Australia Library, 1998), 1.

⁵ John Naisbitt, Megatrends: Ten New Directions Transforming Our Lives (New York: Warner 1982), 24.

⁶ Imām al-Haramayn al-Juwaynī and Jalāl al-Dīn Muḥammad ibn Aḥmad al-Maḥallī, *Sharḥ al-Waraqāt fī Usūl* al-Figh (Filastīn: Jāmi'at al-Quds, 1999), 79-80.

It is only authentic knowledge of reality, not simply information, that gives people an edge over others, as Allah said, "How can those who know be equal to those who do not know? Only those who have understanding will take heed." As such, it is our duty to search for the truth and to accept it when and where we find it.

The pervasiveness of false information, and the ease by which it is transmitted, is a clear and present threat to societies and communities. According to Anne P. Mintz:

Misinformation on the internet is dangerous and part of a much larger picture. Bending the truth or telling outright lies is not new. It's just the messenger who has changed, and this messenger spreads the word lightning fast and to far-flung places. In just the past decade, we have witnessed government leaders and chief executives of major corporations misinform the public in ways that have had enormous consequences, some involving life and death, and others contributing to financial ruin.8

Alan Bundy, a scholar of informatics, asserts that information literacy is *the* key competency of the 21st century. Without a critical mass of citizens competent in making sense of a profusion of information—sifting good information from bad information—society runs the risk of failing to produce enough new knowledge, upon which the global economy depends, as well as failing to address mutual world-wide challenges that threaten the planet and civilization itself.9 Just as human society in the past required its citizens to become literate in reading and writing as a matter of survival, today we are in desperate need of citizens to become literate in information access, evaluation, and technology.

Information literacy is also particularly relevant to our community, because the anti-Muslim hostility we call *Islamophobia* is largely based upon misinformation, and sometimes disinformation, on the internet about our religion and its teachings.

⁷ Sūrat al-Zumar 39:9; M. A. Abdel Haleem, *The Qur'an: English translation and parallel Arabic text* (Oxford: Oxford University Press, 2010), 460.

⁸ Anne P. Mintz, Amber Benham, et al., Web of Deceit: Misinformation and Manipulation in the Age of Social Media (Chicago: Information Today, Inc, 2012), ix-x.

⁹ Alan Bundy. *Information Literacy: The Key Competency for the 21st Century* (Adelaide: University of South Australia Library, 1998), 17.

Some Muslims even leave Islam because of they are presented with misinterpretations of its sacred texts, misinterpretations which are, unfortunately, also sometimes reinforced by Muslims who should know better.

We ought to be concerned, but also optimistic. The skills we need to acquire are not terribly difficult to understand or teach, and they have strong precedents in our own Islamic tradition. We are merely building upon the scholarly methods of our predecessors to meet the needs of a new age.

Lifelong Learning

The most important part of acquiring information literacy may be the attitudinal dispositions that must underpin it. In other words, we need to develop good character, intellectual curiosity, and humility, all of which facilitate the personal growth needed to tackle large swaths of information.

As we know (or *should* know), certain categories of knowledge are obligatory upon Muslims to acquire, such as the basics of Islamic creed, worship, and ethics. However, this is only the *minimum* obligation as delineated by scholars. Those of us who want to advance our religious understanding, or our contribution to our communities through beneficial fields of science and administration, should cultivate a thirst for knowledge and an *identity* as a lifelong learner.

Allah, in fact, commanded the Prophet ملي and all of us by extension, to supplicate to Him for an increase in knowledge, as He said, "Say, 'Lord, increase me in knowledge!"" Therefore, the Prophet علي considered continual learning to be an obligation for Muslims, "Seeking knowledge is a duty upon every Muslim." ¹¹ The Prophet مل الله himself applied this advice and he carried on with learning until the day he passed away. Ibn Utaybah (rha) said, "The Prophet صلى الله continued to increase in knowledge until Allah Almighty took his soul."12

¹⁰ Sūrat Tāhā 20:114; Abdel Haleem, *The Our'an*, 321.

¹¹ Muḥammad ibn Yazīd ibn Mājah, Sunan Ibn Mājah (Bayrūt: Dār Iḥvā' al-Turāth al-'Arabī, 1975), 1:81 #224. kitab al-muqaddimah, bab fadl al-'ulama'; declared authentic (sahīh) by Al-Albānī in the commentary.

¹² Ismā'īl ibn 'Umar ibn Kathīr, *Tafsīr al-Ourān al-'Azīm* (Bayrūt: Dār al-Kutub al-'Ilmīyah, 1998), 5:281, verse 10:114.

صلي الله There are only two constant hungers that can never be satiated, as the Prophet said, "The seekers of two concerns are never satisfied: the seeker of knowledge and the seeker of the world." And the Prophet ملي said, "Moses asked his Lord: Who are the most knowledgeable of your servants? Allah said: A scholar who is unsatisfied with his knowledge and adds the knowledge of people to his own."14 This being the case, we should direct our best efforts towards beneficial knowledge and not transient worldly pleasures.

The great imams, scholars, and leaders of our religion considered themselves to be lifelong learners. Imam Malik (rha) said, "It is not befitting for anyone with knowledge to give up learning." It was said to Ibn al-Mubarak (rha), "For how long will you seek knowledge?" He replied, "Until death, if Allah wills. Perhaps the words that will benefit me have not yet been written." ¹⁶ Ibn al-Mubarak said on another occasion, "A person will continue to have knowledge as long as they seek knowledge. If they assume that they have knowledge, then they have become ignorant."¹⁷ And Ibn Abi Ghassan (rha) said, "You will have knowledge as long as you are a student. If you consider yourself sufficient, then you will become ignorant."18 Put differently, you will continue to have knowledge as long as you keep seeking knowledge with proper methods; once you stop learning, you become ignorant. Like sharks, if we are not swimming, we are sinking.

The Prophet صلي in addition to seeking religious knowledge, also encouraged us to seek beneficial knowledge from natural sciences, tradecraft, medicine, and more. One particular incident demonstrates a demarcation between religious and worldly knowledge. The Prophet مليوسلم once passed by people grafting trees and he said, "It would be better if you did not do that." They abandoned the practice and there was

¹³ Sulaymān ibn Ahmad al-Ţabarānī, *al-Mu'jam al-Kabīr*. (al-Qāhirah, al-Riyād: Maktabat Ibn Taymīyah, Dār al-Sumay'ī, 1983), 10:180 #10388; declared authentic (sahīh) by Al-Albānī in Sahīh al-Jāmi 'al-Saghīr ([Dimashq]: al-Maktab al-Islāmī, 1969), 2:1125 #6624.

¹⁴ Muhammad ibn Hibbān, Sahīh Ibn Hibbān (Bayrūt: Mu'assasat al-Risālah, 1993), 14:100 #6217, kitab al-tarikh, bab dhikr al-su'al kalim Allah jall wa 'ala; declared fair (hasan) by al-Albānī in the commentary.

¹⁵ Yūsuf ibn 'Abd Allāh ibn 'Abd al-Barr, *Jāmi 'Bayān al-'Ilm wa Fadlih* (al-Dammām: Dār Ibn al-Jawzī, 1994), 1:401 #579.

¹⁶ Ibid., 1:406, #586.

¹⁷ Ahmad ibn Marwān al-Dīnawarī. *al-Mujālasah wa Jawāhir wal-'Ilm* (al-Bahrayn: Jam'īyat al-Tarbiyah al-Islāmīyah, 1998), 2:186, #308.

¹⁸ Ibn 'Abd al-Barr, *Jāmi' Bayān al-'Ilm wa Faḍlih*, 1:408, #591.

a decline in the yield. He passed by again and said, "What is wrong with your trees?" They said, "You told us to stop." The Prophet عليه said, "You have better knowledge of the affairs of your world."19 In another narration of this event, the Prophet صلي الله said, "Verily, I am only a human being. If I command you to do something in religion, then adhere to it. If I command you to do something from my opinion, then I am only a human being."20

The Muslim community is in collective need of both religious and worldly knowledge. Imam al-Shafi'i (rha) said, "Indeed, knowledge is of two types: knowledge of the religion and knowledge of the world. The knowledge of religion is to achieve understanding of the law (figh) and the knowledge of the world is medicine. Do not settle in a land in which there is no scholar to inform you about your religion, nor a doctor to inform you about your body."21 That is, in the time of Al-Shafi'i, medicine was the most important worldly science and he considered it necessary for a medical expert to live in every Muslim town. In our times, several additional categories of knowledge have been developed that are essential for modern living.

As a seeker of knowledge, you need to find your role in the community, whether as a religious scholar, a scientist, an administrator, a doctor, a businessperson, or any other occupation, and then direct your learning towards achieving literacy, competency, and eventually expertise in your chosen field.

That said, be aware that knowledge is also demarcated between what is beneficial and what is trivial or even harmful. The Prophet عليه said, "Ask Allah for beneficial knowledge and seek refuge in Allah from knowledge without benefit."22 Whatever role we decide upon and commit to lifelong learning in, it must be beneficial to the community in some way. Al-Ghazali, for example, describes some fields of knowledge, or "sciences," as being "blameworthy," such as astrology, fortune telling, and the occult sciences.²³ It is impermissible in Islam to study such

¹⁹ Muslim, Sahīh Muslim, 4:1836 #2363, kitab al-fada'il, bab wujub imtithal ma qalahu shar'an dun ma dhakarahu. ²⁰ Ibid., 4:1835 #2362.

²¹ Ibn Abī Hātim, Ādāb al-Shāfi'ī wa Manāqibuh (Bayrūt: Dār al-Kutub al-'Ilmīyah, 2002) 1:244.

²² Ibn Mājah, Sunan Ibn Mājah, 2:1263 #3843, kitab al-dua', bab ma ta'awudh minhu; declared fair (hasan) by al-Albānī in the commentary.

²³ Abū Ḥāmid al-Ghazzālī, *Iḥyā' 'Ulūm al-Dīn* (Bayrūt: Dār al-Ma'rifah, 1980), 1:30.

subjects with the intention of practicing them. So whatever field of knowledge you commit to, you need to be sure that it will benefit yourself and your community.

As lifelong learners, it is very important that we have intellectual humility. One needs to accept the possibility that in secondary religious issues, as well as in any worldly endeavor, one could be wrong or mistaken. Ibn Hajar al-Haytami said, when asked about differences in secondary religious issues (al-furu'), "Our way (madhhab) is correct, but could be mistaken. The way of those who disagree with us is mistaken, but could be correct."24 The same attitude applies to any field of knowledge; we pursue the most accurate information we can, while keeping in mind that, like anyone else, we have our own biases and we commit errors. Regular self-evaluation and inward mindfulness is necessary to avoid intellectual stagnation. If we fail to acknowledge that our personal perspective has a degree of subjectivity, we might be misled by our own confirmation bias, which is our tendency to uncritically accept new information that supports our pre-existing narrative or theory.

Finally, we should be humble enough to accept the truth wherever we find it and from whoever says it, whether it is from an opposing scholar, a dissenting scientist, or a common person. Ibn Rajab reported, "Some of the righteous predecessors said: Humility is that you accept the truth from anyone who brings it, even if they are young. Whoever accepts the truth from whoever brings it, whether they are young or old, whether he loves them or not, then he is humble. Whoever refuses to accept the truth because he regards them as beneath himself, then he is arrogantly proud." 25

These attitudinal dispositions are the prerequisites not only for acquiring information literacy, but likewise for achieving success in religious and worldly learning. Now, we will discuss some of the methodological principles that apply specifically to our situation today.

²⁴ Ibn Hajar al-Haytamī. *al-Fatāwá al-Kubrá al-Fiqhīyah* (Bayrūt: Dār al-Kutub al-'Ilmīyah, 1997), 4:313.

²⁵ Abd al-Rahmān ibn Ahmad ibn Rajab, *Jāmi 'al-'Ulūm wal-Hikam* (Bayrūt: Mu'assasat al-Risālah, 2001), 1:307, #13.

Information Authority

Information literacy depends upon the ability to distinguish a credible source from a less credible or totally unreliable source. We need to be able to identify the experts in various fields, including their leading organizations and associations. Expertise is not infallible, of course. Individual scholars and even entire organizations make mistakes, but experts are far more likely to be correct than laypeople. This gives them a certain amount of authority in their fields, because they take public responsibility for their errors. They are the first sources from which to seek knowledge. Relying upon experts in this manner is the concept known as information authority.

Allah tells us to ask the experts whenever we do not know something, as He said, "If you do not know, ask people who know the Scripture." This command was directed to the unbelievers, who doubted whether the message of Islam agreed with previous revelations. Early Muslim scholars interpreted the "people of the Scripture" to mean Jewish and Christian scholars, who could confirm the truthfulness of the Prophet's ملي الله revelation, or it could mean the scholars of the Ouran.²⁷ We can extract a general principle from this verse that the way to acquire knowledge is to refer questions to expert guidance. This is the only way to overcome ignorance of an issue, as the Prophet عليه said, "Is not the cure for ignorance to ask questions?"28

However, we are sometimes presented with information from unreliable sources, information that may or may not be true. Such an incident occurred in the time of the Prophet ملي الله and Allah revealed guidance for us in such situations. Allah said, "Believers, if a troublemaker brings you news, check it first, in case you wrong others unwittingly and later regret what you have done."29 It is said, in various ملي الله narrations, that this verse was revealed about Walid ibn 'Uqbah. The Prophet

²⁶ Sūrat al-Anbiyā' 21:7; Abdel Haleem, *The Qur'an*, 323.

²⁷ Al-Tabarī, *Jāmi ' al-Bayān ' an Ta 'wīl al-Our 'ān* (Bayrūt: Mu'assasat al-Risālah, 2000), 18:413-414, verse 21:7.

²⁸ Abū Dāwūd Sulaymān ibn al-Ash'ath al-Sijistānī, Sunan Abī Dāwūd (Şaydā, Lubnān: al-Maktabah al-Aṣrīyah, 1980), 1:93, #337, kitab al-taharah, bab fi al-majruh al-tayammum; declared fair (hasan) by al-Albānī in the commentary.

²⁹ Sūrat al-Hujurāt 49:6; Abdel Haleem, *The Qur'an*, 517.

sent him to collect alms from tribes among Banu Mustaliq, who had recently converted to Islam. Walid was afraid of them, perhaps because of a dispute he had with them or a rumor he heard (depending on the narration), so he returned to the Prophet ملي الله and incorrectly claimed that the tribes had rejected giving alms and that they wanted to kill him. The Prophet مسلم became angry and he sent Khalid ibn al-Walid to investigate. Khalid found that they were, in fact, still Muslims and the rumor of their rebellion was false. Upon this, the Prophet منايوالله said, "Composure is from Allah, and haste is from Satan," and the verse was revealed. ³¹ Al-Bayhaqi narrated this *hadith* about not rushing to conclusions, alongside the verse, in his section on "the manners of judges" within the chapter on "verification in judgment."

This verse and the cause of its revelation deliver important lessons for us: when exposed to dubious information, caution is warranted. The standard recitation of this verse tells the believers to "seek clarification" (tabayyanu), but an authentic variant recitation also says to "seek verification" (tathabbatu). 32 The two meanings reinforce each other. A group of scholars extended the prohibition to include not narrating from people whose "status is unknown" (majhul al-hal), out of caution that they might be untrustworthy.³³ Historically, Muslim judges applied this principle from the very beginning, as they would assess the credibility (ta'dil) of a witness in court through a process of screening (tazkiyah).³⁴

When we access pertinent information from a non-credible source, we have a responsibility to investigate further before we act upon or deny that information. Ambiguity is inevitable in today's information environment, so one must be able to verify dubious claims or, if verification is not possible, to suspend one's judgment.

³⁰ Aḥmad ibn al-Ḥusayn al-Bayhaqī, *al-Sunan al-Kubrá* (Bayrūt: Dār al-Kutub al-'Ilmīyah, 2003), 10:178 #20270, kitab adab al-qadi, bab al-tathabut fi al-hukm; declared authentic (sahīh) by Al-Haythamī in Majma' al-Zawā'id wa Manba' al-Fawā'id (al-Qāhirah: Maktabat al-Qudsī, 1933), 8:19 #12652.

³¹ Muhammad ibn Ahmad al-Qurtubī, *Jāmiʻli-Aḥkām al-Qur'an* (al-Qāhirah: Dār al-Kutūb al-Miṣrīyah, 1964), 16:311-312, verse 49:6.

³² al-Tabarī, *Jāmi 'al-Bayān 'an Ta'wīl al-Qur'ān*, 22:286, verse 49:6.

³³ Ibn Kathīr, *Tafsīr al-Qurān al-'Azīm*, 7:345, verse. 49:6.

³⁴ Ron Shaham, The Expert Witness in Islamic Courts: Medicine and Crafts in the Service of Law (Chicago: University of Chicago Press, 2010), 37.

Healthy skepticism in this context, but not cynicism which assumes the worst, is an important attitude to have.

Hence, we should be cautious against spreading misinformation in the form of chain emails, spam text messages, conspiracy theories, and fake news articles, all of which are plentiful in the online environment and damaging to society. The Prophet على said, "It is enough falsehood for someone to speak of everything he hears."35 That is, it is enough sin to damn a person in the Hereafter if they negligently pass along gossip, rumors, and unverified information to others. The danger is all the more real in our times, as a lie can be transmitted around the world at the speed of light, literally.

The counterbalance to this misinformation involves referring to experts and authorities who can fact check various claims. Academic books are subject to peer review, before and after publication, so dissenting scholars can point out their mistakes and disagreements. It requires the skills of academic literacy, an awareness of peer review sources and methods, to sift through competing narratives on university campuses. Entire organizations have branches within them that are dedicated to debunking false claims made in their respective fields. No matter the subject, information literacy rests upon identifying credible sources to verify controversial assertions.

Credibility is also an inverse function of bias; the greater the bias, the less credible the source. Scholars, organizations, and other entities inevitably adopt a certain stance towards their subject matter. Perhaps this is most apparent in the current news media environment. News organizations invariably have a political or national bias, whether it is right-wing or left-wing, pro-government or pro-opposition. No media source is free from leaning one way or another (as is true for all people, who unavoidably draw upon their subjective life experiences). Consequently, an aspect of *media literacy* is the ability to evaluate news articles according to their sources, methods, and editorial standards. Purveyors of

³⁵ Muslim, Sahīh Muslim, 1:11, #5, al-muqaddimah, bab al-nahi 'an al-hadith bi-kuli ma samia'.

information might have a conflict of interest related to that information, a bias that we should take into account when evaluating their claims.

To see how this works in the online environment, which is probably the first place many of us need to apply these principles, Amber Benham provides us with some guidelines for evaluating websites:

Ask yourself: Who wrote this article? Who sponsors the site? Is there an agenda to the content? Is it complete, accurate, and current? What kind of page is it? Is the URL appropriate for the kind of content on the site?

The internet is a powerful tool with a tremendous amount of information to offer, but verify, verify, verify is still the name of the game. When you take all that you've investigated into consideration, count on your instincts to tell you whether you can trust the information you've found. Don't take shortcuts, and remember: Buyer beware— even if it isn't money that's changing hands. 36

There are many scammers, swindlers, and crooks on the web who are out to sell you false promises and shoddy goods. There are professional fake news artists who want to influence your opinion to their own advantage by using targeted disinformation. And there are professional Islamophobes who specialize in demonizing Islam, its people, and its traditions. By familiarizing yourself with the principles of information literacy, you can protect yourself from all of these online predators, as well as from contributing yourself to their nefarious actions.

Lastly, although authority is a key principle of information literacy, it also has its limits. Authority is contextual and constructed by communities. Expertise in one field does not readily transfer to another field. An expert biologist is not necessarily an expert theologian, and vice versa. Authority can also be misplaced and undeserved. To rely entirely on authority, known in Islamic jurisprudence as taglid, is sometimes permissible and necessary when we do not have the ability to

³⁶ Anne P. Mintz, Amber Benham, et al., Web of Deceit, 161.

investigate further. Yet to do so is to make an argumentum ad verecundiam, an argument based solely upon authority, which is a potential logical fallacy because, as we know, authority is not infallible. Therefore, to move beyond our reliance upon authority, we need to learn how to study a subject and subsequently become authorities ourselves.

Roots and Branches

Every subject that can be studied has within itself a hierarchy of priorities; first concepts and principles, secondary issues, and tertiary matters. To master a subject, one has to learn and absorb its fundamentals before moving on to its details.

In this manner, scholars divided the Islamic sciences into fundamental principles or "roots" (al-usul) and from these are derived subsidiary issues or "branches" (al-furu'). According to Imam al-Juwayni (rha), "The 'root' is that which secondary topics are based upon. The branch is that which is based upon a primary topic."³⁷ Like a tree, the most important parts are the roots, which keep the tree firmly planted and allow it to grow. The branches are likewise important, but they always—always—emerge after the roots.

This method of learning is best illustrated by examining a basic curriculum in Islamic jurisprudence. For example, if I want to become an expert in the Shafi'i school of jurisprudence, I would begin my studies with a primer, such as Matn Abi Shuja', which states the position or verdict of the school without discussing its evidences or disagreements within the school. After I sufficiently understood this primer, I would move on to its commentaries and other intermediate texts, which discuss evidences, arguments, and more details about issues within the Shafi'i school itself. Once I have completed the proper study of those texts, I would move on to large, comprehensive, and comparative works, such as Al-Majmu' Sharh al-Muhadhdhab by Imam al-Nawawi, which compare the views of the Shafi'i school with the other orthodox schools. Through the course of my studies, I would be able to acquire expertise in the Shafi'i school and Islamic jurisprudence more generally. Reaching the 'end' of a course of study and acquiring expertise,

³⁷ al-Juwaynī and al-Maḥallī, *Sharḥ al-Waraqāt fī Uṣūl al-Fiqh*, 66.

however, is never truly the end of learning a particular subject; there is always more to learn.

Through structured, hierarchical, curriculum-based learning in this manner, focusing on first principles before details, students can achieve mastery in their subjects. The same dynamic is at work in various fields of knowledge. Each discipline has reference works, such as encyclopedias, which summarize the current state of knowledge in any given field. They have primers, usually called 'introductions' or 'companions,' which give students the 'big picture' of the field. After these introductions come more specialized, granular works that explore a particular secondary issue in all of its details.

Academic resources consist collectively of reference works, monographs (books by a single author), edited volumes, book reviews, journal articles, subject dictionaries, and more. Each category of literature plays a specific role in the acquisition of knowledge, and they play different roles within different fields. Thus, to become literate in any given field is to be knowledgeable about its specialized literature. A student needs to know the literature from a bird's-eye view and set about studying in a trajectory of beginner, to intermediate, to advanced texts, under the guidance of an expert.

Furthermore, each discipline has its own specialized terminology, what Muslim scholars of the classical period refer to as mustalahat. For instance, in the Hanafi school of jurisprudence, one will find terms such as "the greatest Imam," and, "the two Shaykhs," and, "Shaykh al-Islam," and, "our three Imams," and so on. 38 One cannot know who they are talking about unless one consults an expert or a subject-specific dictionary. Similarly, each field has its own 'language' one must learn in order to properly understand and advance in it.

Not only should learning be structured and methodical, students also need to have the technical research skills to discover and access new resources. Modern research is increasingly conducted online using computer systems and discovery tools like

³⁸ Maryam Muḥammad Ṣāliḥ al-Ṭufayrī, *Muṣṭalaḥāt al-Madhāhib al-Fiqhīyah wa Asrār al-Fiqh al-Marmūz fī* al-A'lām wal-Kutub wal-Ārā' wal-Tarjiḥāt (Bayrūt: Dār Ibn Ḥazm, 2002), 1:92.

search engines and content aggregators. Books, articles, and data are accessed by searching databases using keywords and controlled vocabulary (again, all the more reason to know the 'language' of the field). Searches can be filtered and refined to pinpoint even more relevant resources. Each database and research tool, such as Google Scholar, has its own advantages, disadvantages, and quirks, so each researcher needs to learn how to get the most out of each tool they use.

In addition, resources we find usually cite other resources. By examining bibliographies and 'works consulted' pages, a practice called citation mining, we can 'branch out' to find even more resources; one article might lead to a book, which leads to an expert author, who leads to a school of thought in the field, which leads to an authoritative scholarly association. Each new piece of scholarship absorbs the work of previous authors, allowing a researcher to effectively trace the origins of concepts.

Finally, the creation of knowledge is often an unfinished conversation between experts. Listening to multiple perspectives and acknowledging a diversity of opinions reduces bias and corrects errors. In the academic world, this is the process of peer review. A single scholar or expert may not represent the only, or even majority, perspective on a given issue. For example, in the authoritative work on advanced Hanafi jurisprudence, Al-Hidayah fi Sharh Bidayat al-Mubtadi by Burhan al-Din al-Marghinani, the author narrates several instances when Imam Abu Hanifa's own students disagreed with him, or when the Hanafi school disagrees with Al-Shafi'i, and so on, while providing arguments, evidence, and reasoning for the author's preferred position. Other scholars responded to these arguments with their own arguments, evidence, and reasoning, all of which amounts to an ongoing dialogue between experts.

Today, Islamic scholarship is not merely in the hands of a few individual scholars. Rather, it exists in large communities, associations, and councils, just as the Hanafi school does not solely represent the views of Abu Hanifa, but instead the collective and cumulative work of thousands of scholars over centuries who followed his methodology. Likewise, the major scientific, scholarly, and professional associations reflect the combined efforts of numerous individual experts.

One should aim to progress in his or her field in order to become an expert contributor, and not only a consumer, in the information marketplace. A budding expert embeds him or herself into a scholarly community or an association, which exchanges ideas and information, and can provide mentorship and guidance to those just beginning their journey of seeking knowledge. These associations act as suppliers and verifiers of information and, through that function, they facilitate the creation of new beneficial knowledge for future generations. As the great physicist Sir Isaac Newton said, "If I have seen further, it is by standing on the shoulders of giants."39

Conclusion

Information literacy is the set of modern skills needed to discover, access, verify, and correctly interpret information in an age of abundant misinformation on the internet. It is perhaps the key competency of the 21st century, essential to the prospering of human civilization—in the same way learning to read was for previous generations—as well as the religious health of the Muslim community. It is based upon attitudinal dispositions, or character traits, which coincide with Islamic teachings on seeking beneficial knowledge for life, verifying truth, and intellectual humility. It also involves methodological principles of evaluating sources, consulting experts and expert communities, curricular learning, search strategies, citation mining, and technical computer skills.

By acquiring and teaching these skills within our community, we can protect ourselves, our families, and our communities from Islamophobic disinformation, scam artists, fake news, conspiracy theories, and other such sources of deceit. More importantly, we will protect our souls from earning the sin of complicity in the worldwide propagation of false narratives, fraud, and lies.

³⁹ Alexandre Koyré, "An Unpublished Letter of Robert Hooke to Isaac Newton." *Isis* 43, no. 4 (1952): 315. http://www.jstor.org/stable/227384

Success comes from Allah, and Allah knows best.