For an Impact-Not-Access Future, Curiosity Must Survive Childhood

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Abstract: "Knowing" is an essential component to action itself. 'Knowing', however, requires that information be not merely encountered, but engaged and evaluated. Personal biases may prevent adults from engaging and evaluating information, but the results of a recent study suggest that curiosity may be the attribute that prompts adults to engage with information that does not conform to their pre-held biases. In keeping with the Knowledge School tenet of practitioner-informed and influenced knowing, this article argues that practicing K-12 teachers should have a large role in any attempt to foster curiosity within the minds of older juveniles. Information professionals such as practicing librarians, however, also play a key role in fostering curiosity in youth, engaging these young people in ways that the classroom is not equipped for.

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As of the writing of this essay, the United States of America is immersed in a culture wherein information itself – and the journalists, researchers, and scholars who produce and distribute it – is routinely dismissed upon encounter. This is not due to any rigor of critical thinking being applied to and vetting newly-confronted information. Rather, charismatic leaders and those in the business of producing "alternative facts" have learned how to exploit those emotional parts of the human brain that react faster to information than those rational and critical thinking cerebral regions. Information must be met with a desire to believe it, lest that information be discarded without review. Meanwhile, the disposal of information that does not conform to the biases and pre-set beliefs of individuals often aids the agendas of those in charge, so "leaders" within society cannot be counted on to encourage critical thought among the masses; they may, instead, encourage dismissing information by shouting "fake news" and referring audiences to a select few sources that stick to a favorable narrative.

As the producers and distributors of information, journalists, editors, researchers, scholars, academic presses, and publishers undoubtedly go into their workday hoping that new information will not just exist, but that it will have an impact on audiences. These information professionals wish to think that the audiences that encounter the information they produce will ruminate on it, accept it as truth, and contextualize it as part of their understanding of the universe they inhabit. However, the producers and distributors of information cannot by themselves create a desire or tendency within people to exclude emotion from their information evaluation process.

Similarly, as the gatekeepers who make information accessible to people, librarians, archivists, and other professionals within the library and information science field may hope that the information that they preserve, protect, and provide will enrich the perspectives of information seekers in addition to filling information needs. A public librarian may get radically different information queries, perhaps

being asked for materials on evolution and creationism by one patron, and then asked for driving directions by the next patron. But even with these examples, both patrons are asking for information to aid them in making sense of the world they inhabit. These gatekeepers of information also cannot by themselves create a desire or tendency within people to exclude emotion from their information evaluation process.

Information seekers visiting the library or the archives may sometimes come to accept truths that they do not want to accept. Absent the intervention of practitioners who approach the information seeking process without emotional influences, accepting and even confronting these hard truths may not occur. Curator Earl Ijames of the North Carolina Museum of History comes to mind; some years ago, I heard Ijames share a story about how he had gotten a skeptical African-American family to accept that an African-American ancestor of the family had served on the side of the Confederacy during the American Civil War. And readers of newspapers, magazines, books and journals may also come to accept difficult truths. For the past few years, the narrative on policing in this country has incrementally changed as mainstream news outlets have begun to report on possible excessive force more than ever before.

But while a transformative acceptance may happen on an individual basis here and there, librarians, archivists, and the producers/distributors of information are not equipped to provide the culture shift necessary to make openness to non-conforming information a general trait among members of society. That is because those in these roles never have a captive audience of the overwhelming majority of Americans. The culture shift must happen elsewhere: in the public schools, which educate roughly 90 percent of American children. It is within our public schools – and with the assistance of librarians, journalists, and others – that we must cultivate from an early age the very trait

that can spawn openness to evidence and curb susceptibility to fake news and other low-quality information: curiosity.

During my earliest days of elementary school in the late 1980s and early 1990s, I remember calculated attempts by my teachers to cultivate our curiosity. Like thousands of other elementary school students of that time, probably once per week, my classmates and I were gathered together in front of what was that era's largest television units and shown episodes of "Reading Rainbow", a show which – even in its iconic theme song – prompted youngsters to turn to books to "be anything", "go anywhere", and discover the workings and features of the world they inhabited. We frequently played "show and tell", a game in which our curiosity as to what may be in a container was rewarded with not only an eventual revelation, but also a small lesson about the revealed item. Guest speakers who came to our school made us wonder what it would be like to walk in their shoes or hold the jobs that they held. And the field trips, oh, the field trips. A field trip to an aquarium or zoo did not leave one simply satisfied that they had seen animals. If effective, these field trips left us wondering what it was like to live as one of these creatures in their natural habitat.

Researchers in education have long recognized and stated the benefits of fostering curiosity in the early childhood grades in order to motivate children to learn (Pielstick & Woodruff, 1964; Bradbard & Endsley, 1980; Lesch, 2009; Arnone, Reynolds, & Marshall, 2009; Arnone, Small, Chauncey, & McKenna, 2011). But according to existing research, curiosity appears to fade as children progress into adulthood (Harter, 1981). Engelhard & Monsaas (1988) found in a study of elementary school students at one religious school and two American public schools that curiosity in students decreased as grade level increased. The researchers stated that their findings appeared to support previous research findings on curiosity and age. Harter (1980) found that curiosity declined steadily in schoolchildren

from the third grade all the way through the ninth grade. A few studies suggest that once people reach adulthood, their curiosity does not continue to decline as they become older adults (Giambra, Camp, & Grodsky, 1992; Stoner & Spencer, 1986; Camp, Rodrigue, & Olson, 1984), and this, for me, generates hope that if curiosity can be cultivated as a trait in humans into adulthood, that perhaps they will possess lifelong curiosity.

I cannot, in a thorough search of the literature, find any research-based postulation as to why curiosity may diminish as children progress through their grade levels and reach adulthood. I'm sure more than one factor is at play. Perhaps young children are the most curious in part because they have the least amount of exposure to the world around them. Perhaps there is an enthusiasm for learning and discovery at a younger age that naturally dwindles as young people age and gain more confidence in their own knowledge. Maybe children have less time to actually be curious as they get older. Or could it be that, similar to losing the ability to quickly pick up on a spoken language, the brains of children recognize less of a need for curiosity as the children age? Any combination of these factors, plus additional factors not listed here, could be curbing the curiosity of kids.

And also, perhaps, curiosity declines in part because educators in upper grade levels cannot or do not value it as much as a trait, and therefore, do not cultivate curiosity within students with the same emphasis found in the early childhood grades. Imagination and creativity appear to be traits that are closely associated with curiosity in the professional education literature. Imagination and creativity are also traits that seem to be less necessary for pupils as they creep closer to adulthood. It is an unfortunate truth, as even when confronting the serious upper-grade subjects like United States history, trigonometry, physics, and foreign languages, imagination and creativity may enhance the ability of students to understand and relate to the subject matter that they are attempting to digest.

The current political climate may be teaching us, however, that fostering curiosity into adulthood and preventing it from giving way to maturity may be crucial to any goals that we as information professionals have in combating misinformation and disinformation. That is because, in light of a 2017 study by Kahan et al., the possibility exists that curiosity may be the "inoculation" for fake news, as Hinchliffe hypothesizes (2017). Kahan et al. (2017) suggested that their data support the notion that *science curiosity* counteracts politically biased information processing. Science curiosity is a desire to seek out and consume scientific information just for the pleasure of doing so. And those who possess high science curiosity – per Kahan et al. (2017) – are more willing to take new information into account when forming opinions.

The idea that higher curiosity makes people more willing to take new information into account makes sense. We can think back to our children. From birth until the upper elementary school grades at least, our children are highly curious about the world around them and tend to soak up everything they can from language to social behavior to arithmetic, and a host of other things. This is likely a survival mechanism, but the bottom line is that these curious children are possibly the most willing among us to take in new information. When you thirst for information to shape your understanding of the world, you just might be inclined to confront and consider non-conforming information. And when you are a child still at a stage of needing to learn all you can about a world which is brand new to you, you probably have no better option than to confront, process and consider this information. Ignoring or discarding non-conforming information could prove a fatal error for a young mind. In a community devoid of teachers and information professionals, the family and close friends of a child would be uniquely tasked but possibly also ill-equipped to engage the curiosity of children by exposing them to new information and knowledge.

I would argue that while the imminent survival aspect may no longer be present, it is probably still as beneficial for adults to possess the curiosity necessary to counteract politically-biased information processing as it is for children. So, it would benefit various societal stakeholders – educators, librarians, journalists, etc. – to attempt to discover what may cause fading curiosity as children age and mature. Further, society will subsequently benefit if these stakeholders can intervene and encourage continued curiosity of the mind even into adulthood.

Unfortunately, modern information streams have facilitated the availability of "information a la carte", wherein those who lack curiosity and wish to operate within a bubble of exclusively-conforming or mostly-conforming information may do so; the ease of doing this will only increase in the future. Left and right-leaning television networks, radio programming and web sites currently allow information consumers to receive information with enough spin that their comfort will not be compromised. Conspiracy theorists have also been legitimized with the emergence and success of such sites as "InfoWars." The conflicting results of corporate-funded studies and those studies performed by academics are often equally easy to access. Even in the social media discourse, which some originally believed was going to bring us closer together and force previously-avoided conversations, dodging non-conforming information is as simple as unfollowing, unfriending, and/or blocking. Colleges and universities are perhaps the most depressing stage in which the tragic comedy of "information a la carte" is playing out. Once bastions of free speech and exchange of controversial ideas, American universities are uninviting controversial speakers, censoring professors, and ushering students into "safe spaces" at seemingly unprecedented rates.

Repeating an assertion made earlier, the public schools are the arena in which this fight to cultivate curiosity through childhood and into adulthood must take place. A very important quote from

the guidelines of the Universal Design of Learning website sets the context: “The purpose of education is not to make information accessible, but rather to teach learners how to transform accessible information into usable knowledge” (Universal Design of Learning, n.d.). Librarians, archivists, and other information professionals make information accessible. Journalists, editors, publishers, researchers and scholars produce and distribute information. But K-12 teachers are not in place to merely provide information to pupils. A key goal of pedagogy is to help students use their lessons beyond the classroom to perform life tasks more effectively, and to better navigate and understand society and the world they live in; ultimately, all the information in the world – even if accessible – is useless if it is not informing process, informing behavior, or informing life. It would appear that curiosity is a large part of this process of transforming accessible information into usable knowledge, as curiosity could be the only factor causing some information – otherwise rejected for emotional reasons – to actually undergo consideration within the minds that need it.

That is not to say that the gatekeepers, access providers, producers, and distributors of information do not play a role. I think it would be unrealistically optimistic to claim that libraries, museums, and similar information hubs enjoy the same captive audience of youth that the public schools enjoy. But we can offer things the public schools cannot. Chant (2017) notes, for instance, that many young people start out curious but have classroom experiences that lead to them not asking questions. A flustered teacher trying to teach two dozen students may naturally have to put parameters on the time devoted to answering one particular student’s questions. Also, classmates may shame a student who is perceived as asking a “dumb question”. But all people must be empowered to ask questions at the library and satisfy any curiosity they may have. Such a large captive audience as

public schools have, in our realm, could actually be problematic, as it could hinder our ability to satisfy curiosity within the comfort of a one-on-one exchange.

Anne-Marie Deitering & Hannah Gascho Rempel, two Oregon State University librarians, have even used their platform as librarians to become the educators of educators. After recognizing the lack of curiosity in the work of first-year composition students, Deitering & Rempel did assessments with students and faculty, with their work leading to the cultivation of curiosity becoming an essential feature of their university's first-year composition courses (Deitering & Rempel, 2017). Working with Deitering & Rempel then became an embedded portion of the required seminar for Oregon State University's first year composition instructors. But we need more of this, and preferably before young people graduate from high school and move on to college. Ideally, Deitering & Rempel would not have to work to remedy an absence of curiosity in college students because the curiosity levels those students had as younger children would still be present.

We must continue to discover ways in which those in our field can use our expertise and resources to cultivate the vital curiosity needed to entice individuals into evaluating information with a critical eye. The library's role does not have to be limited to serving as an intermediary between information providers and information integrators. Obviously, in order to transform accessible information into usable knowledge, accessible information must first and foremost be a thing that actually exists. But, properly contextualized, libraries, museums, and other information hubs can likely open the door of wonder for a blossoming mind through the proper programming and services. Perhaps young people who can truly appreciate the wonder of all of the human accomplishment that is documented in every library will default to curiosity regarding what else is left for discovery, and what else can the work of human beings accomplish. If most children can gain and maintain this level

of curiosity, I believe they will not be so willing to settle only for information – real or fake – that affirms their already-held positions.

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