I've spent more than two decades now, working at the intersection of technology and news. Where I tried to be a clear-eyed observer of the extraordinary changes we've witnessed in that period. And in the service of driving change -- strategically and operationally -- across large organizations.

It has required constant agility. An ability to absorb new technologies, new consumer behavior, new business patterns, and adapt rapidly. And 20-plus years in, the landscape has hardly settled. If anything the pace of change is accelerating -- challenging, in some pretty profound ways, our ability to adapt.

I think it is something to keep in mind over the course of the conference. Academic study and curriculum development tend to move, for good reason, at a somewhat deliberate pace. But the problem you're addressing is complex, dynamic and fast changing. And the way you think about it, the way you address it, will need to keep pace.

If I can be of value this morning it is to provide some context for the subject of this conference. And I hope to do that by addressing the broader forces operating on what we call news literacy; and in particular what I see as the critical role of Google, Facebook, Apple, and possibly Amazon in addressing this issue.

So what's the problem we're tackling when we talk about news literacy?

While one could certainly make an argument for earlier historical antecedents, news literacy, as we use the term today, can be traced back to the rise of the Internet, which opened the floodgates on access to information.

Although it took some time to acquire momentum, in pretty short order everyone had the capacity publish and, importantly, to disseminate information. If there are any remaining barriers at this point, they are institutional and cultural, not technological.

A couple of things happened along the way.

Established institutions -- government and media in particular -- lost their stranglehold on the dissemination and distribution of information -- and with it their role in
establishing a shared set of facts from which we drew a wider understanding of the world around us.

This wasn’t supposed to be a bad thing. Putting aside for the moment the business-model implications, the democratization of content creation and distribution, in theory at least, opened us to a much wider range of voices and viewpoints than ever before. Communities that struggled to find their way into the mass media, suddenly had a platform and could build an audience of interested individuals.

By 2003 or 2004, for example, the most valuable source of information on the development of the Internet and the changing state of the news industry, at least for me, was not the New York Times -- it was the collection of blog posts that came to me in my RSS feed.

There were some early warning signs that this might not be all good:

In this emergent environment, particularly once we moved beyond the big, branded, destination or portal stage of the Internet, propaganda, public relations, rank speculation, fiction, opinion, and news all lived side by side. And with time, as tools became more sophisticated, the physical appearance of these various sources of information became harder to distinguish.

Less obvious at the time -- certainly not until the rise of social media -- was the potential of this new found egalitarianism to not only blur the lines between different sources of content. But more profoundly, to erode our ability to drive any kind of national consensus -- and with it a sense of social cohesion that allowed us to thrive despite political differences.

Mainstream media may have been hegemonic and monolithic. But it also gave us a common set of assumptions from which to work.

That’s a very abbreviated view of how we arrived at the point we find ourselves now.

Broadly speaking, the practice of what we call news literacy is premised on these developments.

And with it -- crucially -- and this should not be underestimated in the current environment -- comes the assumption not only that conscientious news consumers can be taught to navigate this fuzzy terrain -- but that, given the right intellectual tools, they
will naturally and inevitably embrace an enlightened, scientific, fact-based view of the world.

But what if that’s simply not the case? Or not as broadly embraced as we would wish.

Then what?

At the very least then, we’re forced to consider that the root of the problem is deeper and may be tied to a host of considerations that have little to do with our ability to discern reported fact from opinion or propaganda. But more to do with larger political and cultural forces that have gradually shaped the way we absorb and interpret information.

Among the most obvious are:

- **A growing political polarization** that can be traced to a variety of factors from the Supreme Court’s decision in Citizens United, which opened the spigots on big-money influence over elections; to a pattern of gerrymandering, which has tended to reduce the competitiveness of congressional elections and harden positions on the right and left.
- **An atrophy of middle class opportunity** and growing sense of dislocation that has accompanied the maturing of American capitalism and rise of globalization.
- **A growing disenchantment with government** and other large institutions, some of it organic, much of it actively promoted from the right.
- **And a host of changes in the wider media landscape** that extend well beyond the Internet; from the rise of cable and with it a greater segmentation of content and audience -- exhibit A probably being the rise of Fox News; to the blending of entertainment and news and with it, arguably, an attendant decline in rational discourse that Neil Postman as far back as 1985 associated with the shift from print to television as a dominant medium of mass communication.

The point being simply that there are a wider, more entrenched, longstanding set of forces that -- coincident with the rise of the Internet -- have profoundly affected the way we take in information about the surrounding world and ultimately make decisions as citizens.

Kurt Anderson, the American journalist and author, in the current issue of the Atlantic, in fact maintains that Americans are uniquely susceptible to the forces acting upon us now
because, he argues, the United States has always been prone to a certain kind of magical thinking.

In the cover story of this month’s issue, How America Went Haywire, Anderson writes:

America was created by true believers and passionate dreamers, and by hucksters and their suckers, which made America successful—but also by a people uniquely susceptible to fantasy, as epitomized by everything from Salem’s hunting witches to Joseph Smith’s creating Mormonism, from P. T. Barnum to speaking in tongues, from Hollywood to Scientology to conspiracy theories, from Walt Disney to Billy Graham to Ronald Reagan to Oprah Winfrey to Trump.

Anderson says he first noticed a more pronounced lurch toward fantasy around 2004, perhaps not so coincidentally around the time that Bush’s political mastermind Karl Rove began speaking about the ability to create our own reality and that Stephen Colbert first coined the term truthiness.

And he traces the current triumph of what he ultimately brands The Fantasy Industrial Complex to a whole variety of forces including the rise a certain brand of cultural relativism in academia and on American college campuses generally.

Importantly for this conversation, though, he argues that the accelerant that has propelled things to their current state of affairs is indeed the Internet.

Before the web, he writes, cockamammy ideas and outright falsehoods could not spread nearly as fast or as widely, so it was much easier for reason and reasonableness to prevail. Before the web, institutionalizing any one alternate reality required the long, hard work of hundreds of full-time militants. In the digital age, however, every tribe and fiefdom and principality and region of Fantasyland—every screwball with a computer and an internet connection—suddenly had an unprecedented way to instruct and rile up and mobilize believers, and to recruit more. False beliefs were rendered both more real-seeming and more contagious, creating a kind of fantasy cascade in which millions of bedoozled Americans surfed and swam.

If the Internet accelerated these tendencies, the problem appears to have suddenly metastasized over the past 12 months. What with concerns about the proliferation of fake news in our social feeds, worries about Russian manipulation of the election, and
the triumph of Donald Trump, who in many ways is the physical embodiment of the very
issues that news literacy seeks to address.

Trump is many things. But he’s a first and foremost a kind of media savant who seems
to have a visceral grasp of how to manipulate the medium, playing on or even feeding
the fake news phenomenon to play on the most deeply rooted fears and fantasies of at
least a certain portion of the electorate.

We don’t know yet whether in shattering, at least momentarily, many of the norms and
conventions of social, political and diplomatic discourse -- in challenging our most basic
assumptions about truth -- whether he has permanently altered the way we think about
fact and fiction in political life; or whether he represents a unique and aberrant reaction
in a moment in time. We’ll simply have to see.

What does seem certain, is the profound importance of the continued evolution of the
Internet and in particular, at this moment, the rise of the information platforms --
principally Facebook and Google -- but also Apple and Amazon.

True, anyone can publish these days, but increasingly, Google and Facebook play a
dominant role in determining what we actually see. Their search results and news feeds
are the modern equivalent of the front page -- establishing at least in part how we
perceive the most important issues of the day.

Facebook in particular, but Twitter too -- because they are organized around the
preferences of the individual and their followers -- allow for an unprecedented
segmentation of thought and experience, that whether by intention or not, risks
consigning us to information ghettos -- or what we’ve somewhat more benignly termed
thought bubbles.

Add to that the fact that they are first and foremost personal entertainment platforms
that also happen to be purveyors of news and you see a kind of doubling down on the
blending of different forms of content that makes Neil Postman’s concerns about mixing
news and entertainment seem almost quaint.

Finally, couple that with the fact that these platforms appear susceptible to an almost
invisible manipulation -- whether by determined partisans or even more worryingly by
malicious state actors -- and you begin to begin to see the magnitude of the problem.
Collectively, I would term these factors an *experience issue* -- a question of how news that originates from a wide variety of sources is filtered, mixed and presented to an audience that uses these platforms for a wide array of functions, many of them wholly unrelated to news.

When all of this began to loom as a public policy issue, it was initially met with a certain indifference on the part of the platforms -- a kind of spam problem that surely good engineering and a little concerted focus could solve.

Or, as concerns continued to mount, no more than a PR crisis to be contained.

Understandably perhaps. These platforms were conceived by their inventors as instruments of social good -- albeit with a commercial purpose -- designed in Google’s words “to organize the world’s information and make it universally accessible,” or in Facebook’s recently revised mission statement to “give people the power to build community and bring the world closer together.”

Couple that with a profound conviction that any *unintended* consequences of these efforts can be addressed by better engineering and better use of data -- and you begin to see why the platforms were at first reluctant to get deeply drawn into a discussion of their role and responsibility in shaping an informed society.

Just behind what I call the experience issue, are two other even more profound developments.

The first is our failure in the first twenty years of the Internet to find a convincingly sustainable model for digital journalism -- particularly at the local level.

The basics of this story are well known. And I won’t belabor them here. But as newspapers lost their near monopoly over the distribution of their content -- the bundle of advertising, listings and news coverage that was the source of their market power and profitability -- and crucially enabled them to support newsgathering at scale -- their economics began to unravel.

At the local level, in particular, where newspapers played a unique role in providing the manpower that bound communities together and held power to account -- we haven’t really found a viable digital substitute.
This unraveling takes time. But we’re approaching a point of real crisis -- with the nation’s local newsgathering manpower having been cut – practically in half – over the past twenty years. And we’re beginning to see the emergence, as Paul Farhi chronicled in the Washington Post the other day, writing about East Palo Alto, of actual news desserts.

Say what you will about the platforms control over our experience of news, if there’s less and less going into their systems, there’s less and less coming out.

It’s easy to get into a blame game here. After all, Google and Facebook alone are sucking up about 85 percent of new digital ad dollars -- leaving publishers to scrap over the remains. But I don’t think this is a particularly productive line of attack.

Technology has profoundly disrupted an earlier and now increasingly antiquated and costly method of information distribution -- just as, more than a century ago, earlier forms of technology disrupted transportation. Complaints on the part of commercial publishers that they are entitled to subsidies by the platform companies, to sustain a sometimes only loosely held public mission, but also their prodigious profits -- while understandable, are not terribly persuasive.

That does not mean, as a society, however, that we don’t have an imperative to address the unintended consequences of that disruption and ensure, collectively and with the support of the platforms -- who after all enjoy some of the highest valuations of any industry -- that the news needs of an informed and democratic society be addressed.

The third big development that we’re witnessing is the rise of artificial intelligence.

The platforms not only command prodigious audience. They not only increasingly control surfaces that define much of our experience of the world. They are sitting on immense computing power and mountains of data that when combined at scale are beginning to be harnessed to manage entire tasks that not too long ago were firmly within the province of human beings.

Witness the advent of self-driving cars. Or the music that flows out of Spotify Discover. Or Google’s ability to translate a myriad of languages on the fly.

These are transformative developments -- and yet just the beginning of what we’re likely to see in the years ahead.
Go back then to what I said at the top of my remarks. That in 20+ years of working at the intersection of technology and news -- I have never seen change occur at such a ferocious pace. I feel certain, with AI gaining important momentum, that pace will only continue to accelerate.

If you’re an engineer, the prospect of those advances may give you confidence that the unintended consequences of technological development -- the fake news in our Facebook feeds or the bogus clickbait ads that sully publishers news pages -- will be easily eradicated.

More ominously, though, I worry that the further acceleration of technological change will amplify the issues we’ve been discussing and -- importantly -- that rate of change will outpace the ability of our social institutions -- governments, NGOs, academic institutions and the like -- to react to these developments and maintain the checks and balances that allow civil and democratic society to thrive.

We see it already -- whether in the inability of most media companies to adapt to the technological changes that have swept their industries; or the struggle of journalism programs to develop curricula that genuinely address the needs of their students; or the difficulty that Congress, the courts and regulatory bodies have adapting to entirely new ways doing business.

There’s some evidence that the platforms themselves are beginning to grapple with these issues. The plight of the news business, now has the full attention of Facebook’s and Google’s CEOs. And if nothing else, they are starting to feel the heat, particularly in Europe, of simmering regulatory and antitrust enforcement, that compels them to sit up and take notice.

But it would be unrealistic to count on them to address the wider forces at play here. After all this is their business.

So how should we respond as concerned practitioners and scholars seeking to combat a new kind of social illiteracy that threatens to undermine basic democratic norms?

I see three broad opportunities, or prongs of attack, two of which are your job:
First is the continued development of academic programs that address the issue of news literacy head-on by helping students develop the wherewithal to sort fact from fiction -- a principal subject of this conference.

But simply educating students how to interpret and apply critical thinking skills to what comes AT them may not be sufficient.

Ideally we don’t want to them to simply accept as inevitable and immutable what is delivered in their feeds. But rather, as full-throated citizens to understand that they have a right to expect more. That they’re entitled to a certain level of information that is the bedrock an enlightened, informed and democratic society. This smacks of civics 101, perhaps, but in today’s environment is worth reinforcing.

Second, at a moment of such profound technological and social change, it becomes particularly important for journalism schools not simply to teach the craft of news reporting, or instill news literacy in their students. But to aggressively research, chronicle and measure the changes we’re experiencing. And to assess their impact on individuals and society as a whole so that we have the needed ammunition to act on this issue. And to do so at a pace commensurate with the changes we’re confronting.

Finally, and it certainly goes well beyond the scope of this convening, I would argue that news organizations, foundations, academic institutions, regulators, and lawmakers should engage the platforms in identifying ways that we can collectively ensure the continued viability of serious fact-based news gathering at all levels of society -- and not simply accept as a byproduct of technological advancement -- the loss of a critical pillar of democracy.

None of this is easy, nor within the power of any single individual, program or institution to bring about. And yet progress on all three fronts is crucial, if the efforts you are putting into developing a more news literate culture are to have any real impact.

Democracy depends on it.