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Leadership Letter for Global MIL

Artificial Intelligence: A New MIL Application

As artificial intelligence (AI) becomes more and more of an influence on everyday life – witness how algorithms are constantly guiding our decisions by omission more than commission – it is more and more important to understand what AI is, how it works, and how it affects us, both positively and negatively. As with any technology that eventually becomes ubiquitous, the early days of adoption are fraught with people's fear and trepidation. We are experiencing this hyperventilation today in regards to Artificial Intelligence: the robots are coming to take over the world! The algorithms are pernicious and discriminatory (and sometimes they are)! AI will take away our jobs! AI will make humans obsolete! And on….

But when we look at AI as any other technology breakthrough, it's apparent that it's a tool, a construction, a human invention that is awesome, not awful – in other words, we should be in awe some of the time, and not full of awe all of the time when it comes to AI or any other technology. As a tool, AI is an extension of ourselves, an extension of the human brain that cannot substitute for the human brain, but can vastly augment it. Like a pencil that frees us from drawing in the dirt on the ground, with a form of AI called Natural Language Processing, AI frees us to exponentially increase our "reading" of texts and documents, so that we can identify the common threads that inevitably exist across the texts produced across the generations and across continents.

These readings can add up to identifying a narrative that's present not just in one book or play or article – but across thousands and tens of thousands and even millions of books and plays and articles. What an exciting possibility, to be able to "read" the story of a culture or of a market or of a society! Yet this is what's possible today through AI, in this new era of being able to delve into a nearly infinite amount of data only previously imagined in the social sciences.

So while we as humans try to wrap our minds around algorithmic thinking and our everyday experiences with YouTube and Instagram and Twitter, there is a scientific world emerging that is taking storytelling and narratives to a whole different level, and acting upon these findings in more informed ways that were previously impossible, all thanks to AI.

Media literacy is about making meaning, ultimately, and yes, it is the combination of the Text plus the Context that allows us to make meaning from a Message. In this new day of AI and the emergence of societal narratives that can be read through AI, media literacy has as important a role to play as ever. We invite you to read this issue of Connections, where we feature interviews with leading thinkers in their fields, Ben Hunt from the U.S. and Jussi Okkonen from Finland.

Interview with Ben Hunt

Ben Hunt *is the Chief Investment Officer at Second Foundation Partners, a consultancy for large institutional investors, and the author of Epsilon Theory, a newsletter and website that examines markets through the lenses of game theory, history and nature. Over 100,000 professional investors and allocators across 180 countries read Epsilon Theory for its fresh perspective and novel insights into market dynamics. In prior positions, Ben has managed a billion dollar hedge fund and served as Chief Strategist for a $13 billion dollar asset manager. He has a Ph.D. from Harvard University, was a tenured Political Science professor, and has co-founded three technology companies. Ben spends lots of time on a family owned farm, which inspires many original ideas on the parallels between human and animal behavior.* www.epsilontheory.com

Center for Media Literacy (CML): Ben, your work with Epsilon theory has a direct connection to our work with media literacy: we want people to make wiser choices in their lives and to act upon those choices, using information at hand. And we want to encourage the understanding and skills and habits of mind that make those wiser choices possible.

Ben Hunt (BH): That's right. People have to take responsibility for their choices; it's individual decisions that ultimately drive social systems. Yet whether it's in politics or in investing, people's decisions within these social systems are going to be impacted – sometimes to a larger degree and sometimes to a lesser degree – by narratives and stories. In Game Theory, we call these stories "missionaries tell."

   A quick example of "missionaries tell" is that, when the CNBC talking heads from Federal Reserve come on, they don't just announce the news, they don't just say okay, the unemployment rate last month was 3.9%. They don't just state a fact. Instead – and in the amazing thing, with visualizations you literally get a picture of every politician, every central banker literally shaking their finger at you. Because what that means when they shake their finger at you along with their words, is just like literally shaking their finger at you. They're not telling you unemployment rates 3.9%, they're telling you how to think about 3.9%.

   What does it mean that the unemployment rate is 3.9%? That's what a narrative is. It's not the fact, it is how do you think about that fact. What does that fact mean to you as an investor? That's the narrative, and that's where there's a conscious effort to try to communicate a context to you and instill that context in you, so it's being able to see the world in those terms and not the world of facts.

In a world of communications construction, that's what I like to call Fiat news. The same way we have fiat currencies, or currencies that are created, we have news that is created with the presentation of opinion as if it were fact.

CML: Yes. It's putting context around whatever the supposedly "fact" is, so that's what you're thinking of as the narrative around it.

BH: That's right.
There's nothing evil or nothing good in this; it's just part and parcel of what it means to be a social animal, which humans and bees and termites and ants are. I don't think it's any accident that these are the four most successful species on the planet, because we swim in this ocean of communication we are truly hard-wired to respond to the communications of these species. It's not good or bad; It just is. We've had some developments in technology – in raw computing power – over the last four or five years that helps us analyze and measure this sea of communications that we all swim in.

CML: As that computing power is becoming more powerful and there is more information that can be processed through technology, the implications are just enormous. There's this idea of artificial intelligence and how the computer is smarter than we are (which I personally don't agree with), and there's no question that computers are able to do a whole lot more processing.

BH: I agree with you wholeheartedly that the notion of AI is not that AI is some super brain. That's an anthropomorphism of what is the strongest power that AI has – that AI is NOT some human super brain.
The power of AI is that it is able to perceive aspects of the world differently than the human brain. The AI that I think is particularly applicable to studying this ocean of communications is called natural language processing (NLP).
NLP developed out of research/white papers that were written 20-25 years ago. The basic idea is that if you can train a machine to read a machine – if you put more memory and processors into – the machine can read enormous amounts of text simultaneously.
It can compare every word and every piece of text to every other word and every other piece of text and create this gigantic matrix of comparisons. And that's something that the human brain just can't do. And in fact, non-human brains couldn't do it either until about four or five years ago, when we developed just enough raw computing power to put this to work. So it's not that the AI behind natural language processing is some super brain – it really is a very simple brain.
That simple brain been trained to do one thing: to read. But it can read in ways so it can perceive the written word in ways that humans just can't. And so what humans can do with that, is to apply fairly simple matrix algebra calculations to "see" the written word – the world of communications – in a way that just wasn't possible before with human brains.
That's what I think is the real power for this simple brain – not that it's some super brain that makes decisions or tells us what to do. Instead, it is a very focused brain that allows us to see our world for good and for bad in ways that we couldn't see it before.

CML: Yes. It's a powerful brain extension, you might say.

BH: That's right. That's the way I like to explain it. The invention of these technologies is like the invention of the telescope. Galileo decides that instead of using the telescope to simply look out on land, he would use the telescope to look at Jupiter. Or Venus. Or the Earth's moon. He's using this instrument, the telescope, to see the world in an expanded way, that couldn't be seen before.

In the case of NLP, we're seeing the social world, through communications, to see in ways that weren't possible before. We now have opportunities in the social sciences, because of NLP, that we never had before. We could never analyze communications like we can now; we could never analyze patterns of behavior like we can now. We can now systematically analyze the social systems in ways that we never dreamed of in the past.

This ability to see the world of social communications, like all scientifically advances, can be used for good or for ill. We all know that we are influenced by media. And we all know that we have both rational and cognitively-biased issues with how we perceive the world of communications.

Being able to visualize the patterns and being able to measure and understand these communication forces that are acting upon us -- I think that's very much a positive. That's very much a way of our becoming aware of, and one hopes, improving both our own personal and more community-based ways of absorbing the messages that we are barraged with.

But I will also tell you that this technology can be used by the message pushers, so that now they can test and measure what's effective in mobilizing public opinion or your personal opinion in one way or another. So it's like all technologies, it is a sharp tool. And it's a sharp tool that can be used to improve our own self-awareness and that of our communities with a greater awareness of the world we live in, but it's also a sharp tool that can be used by those who want to influence us for their own ends.

CML: Let's talk about how that NLP can be applied for example, to your idea around narratives and about how that influences us in our decisions.

BH: I'll start with a couple of old sayings from the world of poker or card play. And one of those great sayings is, when you're playing poker, you're not just playing the cards, but you're also playing the player. So you don't just play the cards, you have to also play the player.

And what we mean by narrative is this whole notion of playing the player and knowing that other players are playing you. So in the game of poker, it's your bluffing. It's your bidding. It's your bets. That's how one communicates – and that takes place in every social interaction that we have as human beings in not just playing cards, but playing politics or playing markets. These are all games – albeit games with important consequences.

And so game theory has a lot to teach us here, and there's an element of game theory that's called the common knowledge game. This goes back to John Maynard Keynes writing in the 1930s, when he was applying these ideas to markets. There have been a lot of writings about it since; you can look it up on Wikipedia – the common knowledge game – but this is the game that really is the rule kit for how our

communications to a group can influence that group. It's not random; it's not by chance; there are real principles and rules that we can understand about how the common knowledge game – about how playing the player – works.

What I think NLP does, is it lets us put some actual empirical data behind the game theory, so that we can in fact measure and see how we are being played through the use of words and communications. We need to understand how we are being played, because there's another saying in poker which is applicable. That saying is 'if you sit down at the table to play and if in the first 30 minutes you don't know who the sucker is at the table, it's you.'

This is just the world we live in as human social animals, but the goal is to not be the sucker at the table, the goal is to understand that you are playing the player, and others are playing you, and if you just take that in that thought, it allows you to create some distance, so that you don't take the words and the messages – whether the messages are from governments or corporations – into your own heart, you don't take them as "truth" with a capital T. Once you're able to see the way these narratives and messages are constructed and presented, this helpful critical distance is more possible.

This mindset, and new information, really helps one create that healthy distance between yourself and the government and corporations. I'm not proposing a tinfoil-hat conspiracy here; I am saying that, in recognizing and being able to visualize how you are being played, it is healthier for your individual freedom of mind and your freedom of your autonomy.

CML: Exactly. Because there's always an agenda in any communication, and recognizing that and again, accepting it, doesn't mean the agenda is good or bad. It just means there always is an agenda. That's something that we have to accept. And we also have to accept that as a player in life we're being played. We are acting and engaging, and we are being acted upon and engaged with. We have to know ourselves, because inevitably our own perceptions will be challenged by others who see things differently. Ultimately, only God knows the facts and the truth; only God is omniscient, if you want to look at it that way. In our world, there is no perfect information, but we can still believe in truth.

BH: That's right. I believe in truth with a capital T. And I think that one can get close to that truth in science. And certainly, I think religious faiths give you a path to that truth with a capital T. But I think you're making mistake if you're looking for truth with a capital T in any sort of social system.

Whether you're talking about the social system of politics, whether you're talking about the social system of investments, whether you're talking about any social system at a very large scale, like national politics or national markets, I really don't believe there is truth with a capital T in our social systems. And again, that's neither good nor bad; it just is wise is to have a recognition of that.

CML: Yes. Using your poker analogy, what we're trying to do is play the odds and to try to come as close to that truth with a capital T as we can, given the social system, given that idea that we're playing the player and the players playing us.

BH: This is not some new idea; this is an ancient idea. This notion of critical thinking is what Socrates talked about, when he talked about the surface and the use of words to obviously confuse. It is incumbent on us to teach what we call critical thinking, or what we used to call understanding rhetoric and communication and how one approaches thinking about questions about the world. It's not a new idea, but it's somehow been lost in our educational system where I think so much of the focus is on regimentation as opposed to teaching children and ourselves to think critically.

CML: Yes, and so much of education is devoted to imparting content knowledge rather than teaching how to think critically. That's where we're trying to go with media literacy, to get across this idea of representation and how representation affects our perceptions. I saw the illustration that you use of Magrite's painting of a pipe, where he notes in French on the painting, "This is not a pipe." That's when I knew that we have some common goals.

BH: That's wonderful! Lots of artists and writers understand this point, and it's at the core of what we call postmodernism. And unfortunately, postmodernism itself becomes awash with all of these $10 words that serve more to obfuscate than to clarify, but everything really gets back to Plato and his analogy of the cave.

CML: How then can you achieve that critical distance, so that you're not the sucker? If you are successful and have that critical distance, then how do you identify these narratives? How does it add up for you, as someone who's looking to see what those trends are and what those stories are, that we're all responding to?

BH: Seeing is believing, and that's really true. Again, the human brain has been hardwired and we've been socially trained for this, for good reason. Somebody can tell us a theory but if we can't see it, if we can't visualize it, it doesn't connect with us as easily or as well or as strongly. The bond is not as strong. That's why I think it's so crucial that we're now able to visualize and show these narratives or memes.

Memes or narratives are living organisms: they are born, they grow, they live, they may reproduce, they may have offspring and then they grow old and they die. Being able to see them, to visualize them is as important for understanding narrative theory as being able to see microbes is important for understanding germ theory.

Think about these new technologies as a telescope. Think of them as a microscope. As an example, germ theory existed, it was an established idea – but until you were able actually to take a slide and put a drop of dirty Thames River water on it and put it under the microscope, you had no idea that there's a whole world that's alive in there. Until you could do that, until you could see the germs, the theory didn't click, it didn't connect. These new technologies are going to be extremely helpful at getting people to achieve critical distance.

Because now we can actually see it; we can write and publish about the visualizations of narrative, just lik we were able to see microbes. So people say, "Oh, now I get germ theory. Now, I understand what's going on in the natural world."

I think the same thing happens with achieving of critical distance in the social world, as opposed to the natural world.

CML: Can you give an example of the process that you go through as you look at some of these narratives. What do you look for and how do you translate that?

BH: Sure. We conduct an unstructured search or analysis that utilizes this new computing power. All that means is that to visualize a narrative, we're not putting our own human biases into the picture.

We think or feel intuitively that we're being impacted by what we read on Facebook or, in the world of investing, investors are impacted by what we read in the Wall Street Journal or what we see on CNBC or what we read in the Financial Times.

Well, what if we took off all of these messages that are pushed out through these media megaphones or platforms – and we can do this now – we have all of these messages now available in machine readable form. In effect, we say, "Yes, let's make a slide of that, and let's put it under this natural language processing microscope and let's see what's there, and let's see what's there today versus what was there a week ago and a month ago and three months ago." We keep our personal biases out of the search. We do the search because we're curious about what the narrative looks like, using the machine and the power of these new AI technologies. The NLP can compare all the words and all the grammars and all the structures, and it can read them simultaneously so that it's not my human brain reading 10 articles and forming an opinion. Instead it's the non-human brain reading 10,000 articles simultaneously and saying, I have no opinion about this, but what I can do is, I can cluster and I can organize; I can show you the strength and the commonalities and the sense of different common threads that link some of these articles together, and it is exactly as the name says, natural language processing.

"Natural" meaning that we're not ascribing any rules or any things that we think are good or bad it is language and it's just sheer processing power to compare it. So that's what we're trying to do and I think it itself creates a bit of critical distance in the analytic process itself, which I find is so helpful, both in showing what I'll call neutrality I mean, neutrality and a sheer kind of political sense. This is not something that is a tool of one side or the other. On the contrary, it shows that both sides are naturally doing this. They have been for thousands of years it's just that everyone's doing it now.

So we see it everywhere because it is so effective to use these tools of words to try to influence our behaviors.

CML: I'm remembering a consulting firm out of Great Britain from many years ago that did trends forecasting. And of course, it was very crude compared to what you're talking about, because they would employ readers who would identify certain topics or words in articles from newspapers or journals from maybe several different countries and then they would track the frequency of mentions in some of these newspapers or journals or whatever the medium might be, and then they would see where the trend was going. Then they would provide reports to their clients and sometimes be able to forecast

whether a trend was on the incline or on the decline, and then the client company might make some decisions on that basis.

And so in some ways you're doing the same thing using more powerful technology. Again, you're looking to have that critical distance so that you can be analytical about it, and then you're trying to get as close to the real situation as possible so that you better decisions are possible.

BH: These are old ideas and what's new today is the sheer processing power that we can bring to bear upon identifying the trends. I was writing my dissertation on analyzing trends 30 years ago, and I would hire undergraduate students to go read newspaper editorials. So NLP is a very old idea packaged in new technology; for many years, we have known that we are being influenced by messaging and the communications of others and we have been seeking ways to identify and measure those influences.

I find that that once you give people the vocabulary for identifying narratives, once you give people a set of tools where they can see narratives happening around them, people start seeing narratives everywhere. It is almost like giving somebody a vaccine; that critical distance is something that we as sovereign individuals all strive for, and so it's not that you're asking people to act against their self-interest or even their perceived self-interest. Once you give people a vocabulary for this, and once you give people some really simple tools for it, it acts as a vaccine. Some people have more immunity than others, but they still develop more resiliency against efforts to turn them into the sucker at the table.

CML: We're trying to encourage skepticism to use information in people's own best interest and in the best interest of their community.

BH: E.O. talks about the development of what he calls "altruism within groups" and it absolutely exists. People try to make decisions for their own self-interest, and also altruistically for the interest of their group, whatever their group may be.

And it is something that we are hardwired to do, and it's yet another reason why giving people the vaccine, the vocabulary and the visualization of these communication narratives makes a big difference. This critical autonomy has a concrete immediate impact on not just our own personal autonomy, but the welfare of our group of our community.

CML: Can you give us an example of how you're applying NLP to your work as an investment advisor?

BH: We have a website called Epsilon Theory, and the Epsilon is from an investment term. When investing, Alpha is your idiosyncratic special skill, which is very rare in public markets. Beta is the price movement of markets in general, which you have no control over but that you can participate in, plus Epsilon, which is the error term in any of these econometric formulas. So your investment returns are supposedly the result of Alpha plus Beta.

And the reason I'm calling our work Epsilon Theory is that what we're describing as these rules of behavior, these rules of communication in the ways that we as social animals are influenced – that's not error, that is no longer an indescribable or immeasurable part of Epsilon. What we write about in Epsilon Theory is what was previously considered the error, but is really our behaviors as social animals, whether it's in politics but particularly in investing. Today, using superior new tools such as NLP, we can take some of the error out of our investment decisions, and that is a valuable service for our clients, for our economy, and for our society.
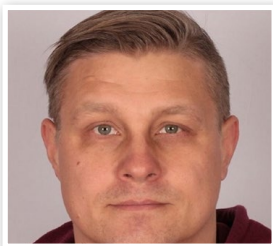
Interview with Jussi Okkonen

Dr. Jussi Okkonen works currently as Senior Research Fellow in Faculty of Information Technologies and Communication Sciences at Tampere University, Finland. The key topic in his research work is performance and productivity. From 1997 Okkonen has approached productivity and performance issues of knowledge work and knowledge intensive organisations from theoretical and practical perspectives in several national and international research projects. Due to digitalization of work environments Okkonen has put more emphasis on extended, augmented, asynchronic and spatially dispersed work and humans in digital environments. The underlying theme still is the individual and organizational performance connected to information ergonomics. Other research topics are digital learning environments, HCI and software engineering.

Center for Media Literacy (CML): Jussi, your recent research has focused on artificial intelligence and how media literacy is part of understanding what artificial intelligence is, and how it affects everyone in their media use.

Dr. Jussi Okkonen (JO): Yes, my interest in research around artificial intelligence and media literacy began through some surveys that are conducted in Finland. The first one is sponsored through the Finnish government; it is a national survey, which is called school health survey, and about 85% of Finnish pupils from fourth, sixth, seventh, and 11th grade replied to this survey.

It's very extensive, and the issues cover everything from habits regarding activity levels to food consumption, to media and also to family relations, social relations, being a teenager, etc. We can see some impact of digital device use on children's health, and that is of great interest.

The digital environment has changed a due to a number of factors. First, the performance of devices has gone up. Actually, Finnish children can use their smartphone for almost everything, because Finland has a very expansive telecommunications coverage with roaming services. Second, the smartphone penetration in Finland among 15-year olds is 96%.

Even with third graders: 72% of third graders have their own smartphone, and 99% have the possibility of using a smartphone if they wish.

Recently, when we were preparing to conduct the EU Kids Online Survey, we found that there's an important perspective missing from the survey – and what is missing is the attitudes and ideas of children regarding adaptive media and algorithms, and algorithm-driven devices and services.

I became interested in these adaptive media and algorithsms due to my perceptions of what my own children were doing. They are now eight and 13. The younger likes to play some mobile games which are "free."

I saw that there were lots of commercials, and also the games adapted to the player habits in the sense that they offer you the option to do micro-purchases or in-game purchases, so those were quite finely tuned for enhancing the playing experience in the sense if you are willing to put extra money.

My daughter is 13, and she has her own interests online in the sense that she actively seeks information on what she's interested in. She once told me that, "Dad, I googled something that is related to some music, and look what YouTube offered me."

That was a good match, what she typed into the search engine, and then the next time she went to YouTube, there was this content suggested for her. This was about two years ago. I realized there seems to be a gap in the current body of knowledge on what kind of children's attitudes there were because, for instance, regarding online privacy related to online behavior, it's mostly related to online safety in the sense that the content that is online, it's safe for the children in the sense that they don't suddenly get exposed to, for example, x-rated material or they don't see unnecessary violence or anything harmful.

On the other hand, the content they put online, it goes only to the persons it's meant to go to – for instance, to friends, not other people. With a media literacy agenda, these kind of issues have been a high priority for at least a decade now – 10, 15 years. I go back to the notion of increased performance of devices, increased performance of services. Now, it's possible to automatically tailor content for the users.

There's attention engineering going on. Children might say, "Okay, I'm aware of that." But instead of their being critical, they are actually happy that they get content that is slated to their interests. They don't have to critically think about what kind of content they should choose, but they can suss out what is offered by the service.

CML: Yes, but how can you ask for something different when you don't know to ask? That's a tricky situation because on the one hand, we do want that critical thinking. On the other hand, "How do you know what you don't know?"

JO: Yes. At least in Finland, there are some initiatives on introducing a computational thinking agenda and a basic understanding of algorithms, a basic understanding of content optimization and key concepts on how search engines work or how the internet works. This starts in seventh or eighth grade. So, at that age, children become very active online yet they also they have more of a capability for abstract thinking and some kind of experience on issues. They have been online, so it can be attached to their everyday experiences, and that's very important when you discuss these issues with youngsters.

The other issue is that their parents are concerned on all the issues affecting their children, but actually their knowledge and online skills are even poor.

For instance, the target group in an initial study we did was children from 10 to 15, and their parents are usually mid 30s to 50s. Especially for those who are older parents, they grew up in an age when there were no computers.

I remember when we were planning our survey and discussing with people with that background. Many in their late 30s or 40s said that, "Computers were introduced in mid '90s. I didn't have use of a computer, almost never, before that." People remember their first internet experiences, etc., and that happened many years ago. They have a very different kind of thinking. They have a very practical approach because for most of them, the theoretical knowledge on how things work were not discussed in school. So as long as the services are available, so long as they have access online and they can access services they want to and to find a sufficient amount of entertainment, theneverything is okay.

JO: They aren't very online literate, so their current situation might be even worse than the situation with the 15 year-olds. The children are more critical. They might say, "Don't trust anything you see on online unless you know the person." That's a very good starting point for critical approach towards online content, but it's not sufficient if we think about how the content is automatically moderated by some algorithms in service or in device.

CML: So, on the one hand, there is some evidence that there's been some success in terms of introducing critical thinking and that the young people have gotten some messages and are able to apply them, but then the other side of it is, they really don't understand how things work and what the implications of that are, and what they can do about it.

JO: Yes. You can bypass the use of optimized content. You could browse and use privacy settings, but no one wants to do that because the content becomes less attractive. The content doesn't meet your own habits or own interests. It's content for everyone, not someone.
I once did a test on what kind of search results you get with your own browsing history. I used Firefox, so there's an incognito browser mode. The results were totally different, especially in more complicated searches. I found the results more suitable for me and they reflected my previous interest. I think that if children are told, "Don't log into any services. Don't grant access to your credentials. Be anonymous when you are online," they would quite soon think that, okay, they would get something, but not similar to what they would get when they were acknowledged users.

CML: What are people willing to give away for the ease of utility?

JO: Online content, it's intangible, but it provides utility in the sense of finding content, getting enjoyment, and also it's a sort of confirmation on your own online habits that are, "Okay, I'm interested in these things and there is more and more content that resonates with my own interests." It confirms your own online identity.
Identity is very important for the users. It's like for Facebook users, so the Facebook content, it's very highly optimized. When you log into your Facebook account, you get posts of your friends or posts of your previous interests or post of the group of your peers, and all the commercials are related to that content you are

interested in. People build their own digital bubble in the sense that anything that deviates from your interests, it is automatically blocked off and instead even at least offering new ways that those are blurred out.

If you want to get something new, you have to be active, so you have to actively seek for something else when you can find fulfillment or enjoyment on the content that is automatically offered to you. Same thing is with most of the other social media application. The content is similar or somewhat similar or at least in terms of how it is classified. If you are interested in say dogs, you get more dog-related offers. If you are interested in cats, you get more about cats and less about dogs. I wouldn't call it a research circle in that sense, but actually it is research because it narrows or eliminates options.

The digital environment that is optimized by algorithms becomes black-and-white in the sense that you get all things that you are interested in and then not-so-interesting stuff is ruled out. This kind of attention engineering is possible because of the imersiveness of services. When you are provided information that you are interested in, you are most probably going to return. If it's done automatically, you don't have to do anything. You can do it very easily in very different situations.

For instance, I've been reflecting on my own social media habits. I very seldom, for instance, look to Facebook for certain value-adding purposes in the sense that, of course I'm a member of a couple of my research related groups, etc., so sometimes, I post what is related to my work, but mostly I do it for fun. For instance, in very casual situations it's very easy to get first class content that is geared toward your interest. You don't have to seek anything.

If you compare this situation to what it was like10 years ago, before Facebook, you have to look into Google, AltaVista or Yahoo, (whatever that was), and it was a very different process. You had to type and search and hope that you didn't have to browse too much to find what you wanted. It's so much easier today. For instance, Netflix is very interesting in the sense that every time you open it, it says that because last time you watched this, this might be something that interests you, so the attention engineering is everywhere.

CML: Yes. And it's reinforcing confirmation bias. It gives us some false choices because it becomes a question of, "When are you going to stop beating your wife," you know? You may not be beating your wife, but when you're asked a question in that way, you're on the defensive automatically and the assumption is that yes – you are guilty until proven innocent. Or, "you will like this content whether you have thought about it or not."

JO: Yes, and we need to think about what we can do so that we have hope. The first option is that to give the power to companies and do nothing. For someone, that might be okay. They might think, "We are enjoying ourselves and if it's not harmful, it's okay."

And then, there's education. For instance, at schools, teachers are interested on how to prepare youngsters to be critical towards all the content, not only in the sense that content is useful for entertainment but also in the sense of what they do,

what kind of information they are using in life or for their schoolwork. It is something that is already discussed in third, fourth grade, at least in Finland, where students are required to get several sources or references and to be critical.

In many cases, the issues are recognized, but the issues are being addressed in the official school hours. Now, the media literacy discussion should be extended to leisure in the sense that most of the online activities of children and teenagers are leisure-related. That's why more attention should be paid also on the technology and how that technology affects the content people are receiving or getting from different digital environments.

CML: Amen to that. One of the points that you made in your article was about how this kind of education builds social capital?

JO: From a social capital perspective, it's about two issues. The first one is recognizing and understanding the role of technology in sharing schemes online. We need to understand how the technology works with sharing and with recommending other sources and content.

Also, the technology needs to better represent the stakeholders' interests. Technology affects the actions of all participants, and It's very different from the synchronous communication. For example, having a text message conversation is interactive, and so is deciding to take (or not) a voice call because you recognize your counterpart.

You can see content online that has been posted there a year before, but everything around could have been changed a lot ever since.

The second issue with social capital is that there should be some kind of cognitive perspective about the actors in digital environment. Those who are active users, they have to be knowledgeable on who they are around and why they are around, so this also draws attention to the role of technology. It's not only to people online, but the technology has also role in moderating the content in the sense that what you see is based on your previous choices and it will affect your future actions also.

CML: What other thoughts do you have about what we can do to address this enormous gap in the knowledge about technology versus the usage of it?

JO: Parents and educators have a key role to play, and media literacy needs to be explicitly taught. Attention engineering is discussed to some extent but not very explicitly. Currently we are doing basic research on these issues and we are using our network to disperse the research results amongst the professors in education, and to the teachers from fourth to seventh grade because we have quite, I would say, realistic approach to this.

Children become active in fourth or fifth grade, and they start to seek more and more information and they start to make their own choices. That is the point of action in the sense that then these issues should be discussed with them because then they have their own experience on the topic, but their habits are still not set. I say from 15 or older,

teenagers are almost lost in the sense that they already have their fixed habits and fixed habits are very hard to change.

Teachers have lots of content to cover, but with these topics, they can be very easily integrated in everyday schoolwork. I would say that there should be explicit agenda with teaching these skills by integrating them into everyday teaching, without being "preachy." Being online – it's like a natural state of being for people, and that needs to be acknowledged and utilized as part of everyday learning.

CML News

GAPMIL North America, a UNESCO-inspired initiative, is having three brief meetings in Washington DC on Monday June 24, Tuesday June 25 and Thursday June 27. Find the details here, and join the MIL community!

http://www.medialit.org/global-alliance-partnerships-media-and-information-literacy-north-american-sub-chapter-meeting

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CML is pleased and proud to add Guillermo Orozco Gómez to the pioneers we have interviewed for the Voices of Media Literacy Project. See his compelling story here:

http://www.medialit.org/voices-media-literacy-guillermo-orozco-gomez

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A new article by CML's Tessa Jolls examines how new community norms, driven through social media, calls for new ways of looking at how student expression should be encouraged and guided on school campuses. This article was published in: *Marketing, Communication, Technology and Innovation in MIL Cities*, edited by Drs. Mitsuru Yanaze and Felipe Chibas Ortiz (University of Sao Paulo Press, 2019). ISBN 9 7885572 052290 This book addresses life in MIL Cities, which are smart cities that integrate social responsibilities and goals of human development with new technologies such as blockchain and AI.

Contact chibas_f@yahoo.es for more information.

Infographic

The Text and the Context = the Message

This new CML Infographic explains in short form how both a text and the context surrounding the text add up to a media message. The Text is the media product itself – a video, an audio recording, music, and advertisement, a textbook, in other words, the content that is conveyed through a variety of forms, from print to video to internet-based communication channels.

The Context is what we bring to the Text as an audience that engages with the text: our feelings, our prior knowledge, our cultural understanding, our values, lifestyles and points of view. The Context is all about us as the audience, and what we bring to a message, and how we make meaning from the message or media product/Text. Without us, the Text has no meaning because there is no one to make meaning from the Text – the Text cannot operate in a vacuum.

And so it is the Text and the Context combined that make a message, because the Text and the Context must work together within us, within the audience or users, to be meaningful. All messages are constructed through the combination of the Text and the Context, and that is what makes communications complex and fascinating and ever-changing.

When we do analysis of the Text, we do Textual Analysis: we seek facts, we describe the content, we observe, we gather evidence. When we do Contextual Analysis, we make inferences, interpretations, opinions, and conclusions – in other words, we allow our feelings and our own biases and human judgment enter into our interpretation of the text and its meaning.

More Media Literacy Infographics are available on the CML website.

About Us...

The Consortium for Media Literacy addresses the role of global media through the advocacy, research and design of media literacy education for youth, educators and parents. The Consortium focuses on K-12 grade youth and their parents and communities. The research efforts include health education, body image/sexuality, safety and responsibility in media by consumers and creators of products. The Consortium is building a body of research, interventions and communications that demonstrate scientifically that media literacy is an effective intervention strategy in addressing critical issues for democracy: http://www.consortiumformedialiteracy.org

CONSORTIUM
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Uniting for Development

Media Literacy Resources

Epsilon Theory: The Epsilon Theory website is a rich repository of current and previous commentary that features sophisticated analysis and deconstruction of current media narratives:

https://www.epsilontheory.com

This article by Dr. Jussi Okkonen explores Artificial Intelligence and Media Literacy from an education perspective :

https://link.springer.com/chapter/10.1007/978-3-030-11890-7_82

Recent article with EU Kids Online survey data from Finland; the survey was conducted through the work of Tampere University:

https://yle.fi/uutiset/osasto/news/nearly_half_of_kids_in_finland_face_harassment_online/1079876

Recent article on Finland's education system and how Finland is making progress in addressing fake news:

https://edition.cnn.com/interactive/2019/05/europe/finland-fake-news-intl/

George Gilder is a long-time philosopher, investment advisor and technology guru whose latest book on new technology frontiers is noteworthy:

https://www.amazon.com/Life-After-Google-Blockchain-Economy/dp/1621575764

YouTube and Amazon both have collections of videos and books featuring popular author Yuval Noah Harari, who has commented extensively on artificial intelligence and its implications.

https://www.amazon.com/s?k=harari+yuval+noah&i=stripbooks-intl-ship&crid=G01CB79JF0J3&sprefix=harari%2Caps%2C259&ref=nb_sb_ss_sc_2_7

Seeing the Pitch: Techniques of Persuasion in Action

What is being told? What is being sold? These are two questions that even young children can learn to sort out, and such sorting is essential to critical thinking and decision-making. We are faced with sales pitches each and every day, yet we often don't think consciously about what decisions we are making and why. Although life would become too complicated to be actively conscious of the process we use when we are choosing red shoes or green shoes to wear, it is still important to have some awareness and practice – occasionally – for what the process of choice entails, so that we can improve our track record of making wise choices that better fit our needs.

CML has identified 10 Techniques of Persuasion that are often at the core of sales pitches – whether those sales pitches are coming from social media influencers or from advertising messages that are clearly labelled. Seeing the pitch is essential to catching the pitch and even to making a pitch!

AHA!　　　This is how I'm being sold!

Grade Level: 3-6

Materials:　Varied pictures or magazines with pictures to be torn from the magazine.Tape or pins.

10 Posters or signs that show one of the 10 Techniques of Persuasion:

• Humor (Funny or crazy images)

• Macho (Strong, tough, powerful. May have weapons!)

• Friends (Groups together, smiling, buddies, pals, friendship)

• Family (Mother, father, children or family. Intergenerational, possibly)

• Fun (Everone is happy, smiling and laughing.
Images of fun times by self too, or with others)

• Nature (Outdoor settings. May or may not include people)

• Sexy (Emphasis on physical, usually female, perhaps with revealing clothing or flirting through attitude or body language)

• Cartoon (People or animals as drawings or animation, often humorous)

• Celebrity (Influencers or athletes, musicians, politicians, "stars")

• Wealth (Expensive or elegant places and things.
Big houses, new cars, jewelry, designer clothing, etc.)

ACTIVITY: Discuss with students what persuasion is – how persuasion is voluntary, and how persuasion is geared towards meeting our own needs, so that we want to do something or try something or change our minds about something. Give some examples of what persuasion is in everyday life.

Then, talk about the 10 Techniques of Persuasion and show an example. Tell the students that it's important for them to be able to identify techniques of persuasion, so they know whether they are being "told something" or "sold something." Give them photos or magazines to use, and ask them to find examples of each of the 10 Techniques of Persuasion, and to tape or pin the examples they find to the posters or signs which label each of the 10 Techniques.

After students do their labelling of the photos, show each poster or sign area and discuss what students found – and let the students talk about why they made their choices and what "pitch" they see. Ask the students to find any examples that don't fit very well, and ask them to tell why they don't think the example is a fit for a particular Technique of Persuasion. Ask them which Technique might be a better fit, and why. There is a lot to be learned from the discussion and from each student's perceptions. Ask students if they have learned from each other, and what they have learned.