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Leadership Letter for Global MIL

Data Representation and Media Literacy

Representation is at the heart of media literacy: how is information represented to us through media? How do we represent ourselves most effectively through media, enabling us to participate more fully in society?

As representation happens more and more frequently through infographics and through the use of data which are ever-more available, the old notions of media literacy being most relevant to the social sciences and to language arts classes is fast becoming an anachronism. More than ever, we need an understanding of statistics and data to interpret and to communicate with the charts, graphs and data sets that come with every-day discussions. Mathematics and science have always been relevant to applying media literacy, but there is now a true urgency to providing students and adults with the fluency they need to put media literacy to use in evaluating quantitative as well as qualitative information.

Traditionally, U.S. high schools have required college-bound students to take courses in algebra, geometry, trigonometry and calculus in math, while requiring biology, chemistry and physics in science. Today, many educators, parents, and community members are advocating to replace calculus courses with statistics, and there is also a general call for providing computer science or "algorithmic thinking" courses that can provide a basic knowledge of how search engines work; how websites are constructed or how software is written.

As one example, website interfaces are merely the glossy lipstick that covers databases that are capturing and quantifying every click and every piece of information that users enter, and without a knowledge of how these tools work, both consumers and producers of media are disadvantaged and unable to participate fully in understanding the virtual world.

In this issue, we feature interviews with leaders of two leading data-centric organizations: Map Business Online and Data for Democracy. These interviews provide a quick look into how data – and the math behind it – drives product development and industries, as well as policy formation and legislation.

Interview with Geoffrey Ives, President, MapBusinessOnline.com

Geoffrey Ives is the President of [Map Business Online](#), a web-based business mapping software developed and published by SpatialTEQ, Inc., and used by a variety of businesses to organize and analyze their business data geographically.

Center for Media Literacy (CML): Technology has really expanded the way that companies use business mapping data to make decisions on how to grow their enterprises, serve customers and increase profits. During your career, you have seen exponential growth in the field. How did you get started, and what are you doing now?

Geoffrey Ives (GI): Well, I've worked in the geospatial software business since 1998 when I worked for DeLorme, a company in Maine that does mapping - paper maps, digital maps and devices. I headed up their professional sales team for a while, and then started leading the team at SpatialTEQ Inc. and MapBusinessOnline.com. Now, I'm the president of Map Business Online, and I spend a lot of my day looking at marketing and sales data and talking to our customers. Our customers are primarily large and small businesses using our cloud-based mapping tools for sales and marketing activities. We provide what we call "business mapping tools" to all sorts of businesses throughout the US, Canada and the UK.

CML: Can you provide a bit more information about the geospatial software business?

GI: Yes, geospatial is basically an industry dedicated to things based on location, so it can be looked at as software that helps people to navigate. Geospatial tools also help organizations view their business from new perspectives by visualizing their location data. It includes personal navigation, or GPS devices that people use to collect data in the field. It's quite a large industry, and it has an impact all over the world in all sorts of applications.

CML: As technology advances, it seems like that field is growing even more.

GI: It truly is, and people find new ways to utilize it. For instance, third world countries now use geospatial software and devices to help identify land-use issues –using satellite data to help with agriculture and combat hunger. There are so many applications outside of only business mapping, which is what we do. It's a very vibrant industry.

CML: Before we move on to business data mapping, can you tell me a bit more about how exactly a third world country might use geospatial information to deal with hunger?

GI: There are people who are experts in that field. But, in general, by using satellite imagery and comparing imagery over an area year after year, it's possible to analyze the impact of climate change, over-fertilization and how well specific crops grow area by area. Once you have that data, you can better understand what you need to do to make the best out of what you've got. Developing countries can use this technology to more efficiently deal with issues like food and energy needs, population concerns and infrastructure.

CML: Having that information visible on a real-time map no doubt yields much better results much faster than having to interpret numbers on a spreadsheet and it gives a completely different perspective on the information. That applies to business data, as well, correct?

GI: It sure does. It exposes trends visually – things that are taking place on the ground that you might not necessarily see from a spreadsheet.

CML: Interesting. Let's talk about the kinds of businesses that use your services. Who are your clients?

GI: They tend to be businesses that use software to control order processes, sales and marketing, customer relationship management software, etc. They use MapBusinessOnline.com to visualize what's happening in their enterprise. They are able to take a spreadsheet of addresses or latitudes and longitudes, plot those points on a map, and turn that into a visualization of what their business is all about. They might take sales numbers and turn them into a map by zip code, and color shade specific zip code areas to identify where sales are growing, and where they are not.

There are a large variety of types of companies that use our tools. Every one of them imports data, views it on a map, and then makes decisions about what they've got to do to improve their business. They also use the software to plan clientele work in the field. For example, a home-medical company can use it to plan homecare operations on a day-to-day basis, by creating maps that identify areas of highest need.

CML: The link between your work and media literacy skills is very clear because businesspeople need a process of inquiry in order to evaluate the data.

GI: That's true. In terms of process, we always try and start with what is it you really want to achieve with any map you create. Whether it's for marketing, sales or strategic planning, you want to understand what it is you want to achieve with this map, and bring in as much location-based data to it as possible then communicate by making that map "easy on the eyes" so people who are viewing it understand what your map's intent is. You've always got to keep your audience in mind as you create visualizations. Perhaps your audience is the C-suite in your company. If it's your boss and a couple of VPs, and they're interested in specific data and information, it's going to be a no-nonsense meeting. They will want to know bottom line numbers. They're not going to want to see a lot of "fluff" on the map. So, in that case, you

want to make sure your map has the right level of detail, and it's not distracting. Whereas when we're talking to a call center team about territories in the field, and who is responsible for each area, that's going to be a very different style of map.

CML: You mentioned an example of a medical company. What kind of data would a company like that be mapping?

GI: We've got many elderly people living in our world today. People are living longer, but many more are developing dementia. So, you've got big homecare needs out there. I've sat in at some of the homecare companies' offices and watched how they plan their days. It is one of the most chaotic, unpredictable processes I've ever seen. The managers who direct staff in the field in a homecare company have a big challenge on their hands. They need to stay on top of all their staff locations, where each employee starts their day, and what their skill sets are. They can visualize this much more easily by creating color coded points and placing them on a map. Then they need to send staff members to see patients who need help. Meanwhile, they have to ensure that they do not violate any HIPAA rules about patient privacy at the same time as they're viewing all of this data, and then they have to ensure that staff members get from point A to point B to point C in an efficient manner. Our maps help them actually organize their days, so that they can manage all of this on an automatic basis. That leaves them more time to focus on the real emergencies, which happen frequently in the homecare field. They view their day as a whole picture—their whole "theater of war," if you will – the first thing in the morning. Red dots represent emergencies in the field. When needed, they can clear the rest of the map, and just focus on those. Or, if they want a visual assurance that somebody actually went to that patient's home and did what they were supposed to do, they can get that kind of spatial affirmation by looking at a map that's been updated by the staff in the field. A lot of that has to do with GPS devices, even cell phone devices, that can help bring that information to the center. It's crucial when there is so much to manage, and people's lives and health depend on their work.

CML: Let's say there's an emergency in the field. Would a field staff person be able to deal with the emergency and then update the map remotely so that office staff is aware?

GI: A lot of medical business systems are starting to implement that sort of two-way communication across networks so that maps can be updated by field staff, and central control can see what's happening in the field. That kind of implementation happens more with nurses and doctors, whereas lower-skilled workers are managed more directly. But, two-way communication is definitely where things are headed.

CML: It's interesting that, when people think of maps, they still imagine a static picture. But what you are helping people to create are maps that move in real time.

GI: Yes, and maps that bring that kind of awareness can offer direction to any type of business. That's where maps are heading today.

CML: What else can people perceive on today's new maps? What other kinds of data can they gather to help them make smart business decisions?

GI: Imagine you own a sales organization, and you're selling to only a section of the country. You're at that "make-or-break" point in your strategy where you've got to expand in some way and really grow your business. It's important for you to look at your business data on a map to get a sense of where things are happening, and more importantly, where they're not happening. You can bring in datasets of competitors, datasets that compare various years' sales data, and where all of your salespeople are located and then build zip code profiles. When you understand what works in a given zip code based on demographic or economic factors, you can use that to determine the next target audience for your product or service. Once you've established the zip codes where your business does the best, you can look for similar zip code profiles around the country, which you identify as your best targets for your marketing and advertising dollars.

Or, imagine that insurance companies that employ 50 people or less are your target market. You get an insurance industry dataset, import it into a MapBusinessOnline.com map, and you view those establishments by zip code all around the country. Then you build a "heat map" where you can get a visualization of just your sweet spot insurance customer (50 employees) in clusters in areas you should investigate. That could inform you that you need to hire sales reps in certain areas, or build a facility in a certain state. You can save money by choosing to only do a direct mail campaign in "hot" areas, instead of wasting dollars and resources to reach out to the whole country. You can decide: "Before I dig into the whole USA, I'll focus on these segments that appear to be really rich with opportunity."

CML: Really, it sounds like what you are providing is a tool to enable business people to do a better critical analysis of the business landscape and make wiser decisions about where to use their resources.

GI: Exactly, and not have to spend so much up front on a broad brush or shotgun effect across the country, but to be strategic about it. Just dig into the areas that seem to hold the most promise.

CML: Would you say, in that way, it is a critical thinking tool for business people?

GI: That's what I say all the time in the blogs I write. Business mapping takes a strategic planning session and opens it up into a multidimensional view so that you're suddenly looking at year-over-year sales across the nation visually, as opposed to a bunch of data points on a spreadsheet. You can see where things are happening and make some decisions about where to go next in an organized and informed way.

CML: So, you offer a tool that is a critical thinking aid and a unique way to communicate data, so that it is more easily understood by audiences.

GI: Exactly. People love visualizing their data on a map. For 75% of our users, the very first thing they do when they access our tool is import their data directly into a map. They do that first because they want that visualization. It tells them something.

CML: Can any size business access this tool?

GI: It's available on the cloud, and pretty much anyone with access to the internet can access it from anywhere. It's also eminently affordable these days—about $300 per user. Ten years ago, that wasn't the case. It's really been democratized, it's much more available than it used to be.

CML: What are some of the technological advances that allowed it to be democratized that way?

GI: In a big way, it's the Internet with web services that really made a lot of this possible. If you're old enough to have worked the last 10 or 20 years in this business, then you saw how mapping went from a desktop application to a web-based application, and how Google Maps came along and mapped the whole world and collected all of that street imagery. GPS devices enabled a lot of data collection in the field. Part of it is just that all the data that's out there can now be brought together in one map and, as a cloud-based service, our tool presents satellite and aerial imagery, digital street maps, we've got demographic data that we've rolled on top of it, we're bringing in business data now on top of that. That's along with zip codes, count census tracts, all those kinds of things. So, there's a lot of layers that are now standardized and available through different web services.

CML: It's really amazing. Ten years ago, that wasn't the case. Or at least, like you said, there was no way it was going to cost just $300. Like so much information that has been democratized, data for mapping is now readily available.

GI: That's right. This technology can be used creatively and actively. One school teacher wanted to use our tool to set up nationwide maps that help teen activists advocate for change in their communities. She had this idea to create a map that the teens could open and see exactly who their senators and representatives are so they could contact them. The kids just clicked on the map, saw who their congressperson was and wrote to them.

CML: With so many possibilities for mapping data, I want ask about reliability of information. As we see with news and advertising, the way information is framed can lead people to make very different decisions, especially if they're not taught media literacy skills and how to evaluate information. With your business and the kind of data that you are mapping, are there things to look out for in terms of ensuring that data is coming from reliable sources?

GI: You can certainly play with numbers and data on a map. There are plenty of mapping application examples where people have been somewhat duplicitous in terms of what they've

provided. A good example of that is in real estate where if you've got a section of the city that's gentrified, and it sits right next to a section of the city that's a ghetto, then you'll find mapping utilized at those edges to show properties available in the ghetto at the prices for the gentrified section. That can be illegal, and there are efforts underway to make sure those things don't happen. That's a proximity issue where you've got one level of income compared to another level of income, and there's a gray area in the middle and people will take advantage of that. People who intend to be malicious can do some work on their data even to the extent of just making data up. They could import an entire layer that is just totally false and make a map sing to a particular desire within an audience. Data is the key, so it's important that people understand where data comes from, how recently it was updated, etc. You really have to be aware of what you are looking at. Are you looking at projections of demographics? Are you looking at actuals? Are you looking at the 2010 census or something derived from it? Everything is about data.

CML: Yes, and media literacy really focuses on a process of inquir that can be applied to many, many things – whether it's reading the news, watching advertisements, or looking at data on maps. It teaches individuals to ask: Who created this communication? Why? What techniques might they be using to capture my attention, or make certain things stick out versus others? Does your company talk with your clients about that, or do your clients generally come to you already armed with those types of skills?

GI: There are two different types of data. There's the data that comes with the mapping application – data that we've sourced and brought in. We maintain sourcing information on that – our demographic data, where our zip codes come from, where our census tracks come from, etc. Then there's the data that customers import into Map Business Online. That data belongs to them, and it's up to them to make sure that it's accurate. In general, our clients do a good job of that. But, we do see push-back from our clients on our data. We offer data from the Census Bureau. One client questioned some demographic information that showed that the number of college graduates in the Seattle area was greater than the number of high school graduates. He was claiming that the data had to be totally wrong. But, when you dug into it, you found that there were companies, like Microsoft and Amazon, that have settled in that area and brought a lot of well-educated people into those zip codes. So, you have to be able to think and process logically before you jump too fast and blame the data.

Going back to the home medical company application, you've got to be careful with what to bring into a shared map view because, if you've got patient data, then you've got to comply with HIPAA/patient privacy laws. If you violate HIPAA, it could cost your company a lot of money. So, processes must be developed internally to protect the people who need protection. Also, there is certain information that you just don't want out there. You don't want to put people's credit card numbers into datasets that could end up on a map.

CML: Really, we are all putting so much data out into the information landscape these days, and it's being used in all kinds of ways that people are not necessarily intending.

GI: That's right. None of us know what could be happening with any of this data. So, when anybody puts data into Map Business Online, it's encrypted. We can't access their maps. If somebody calls me up and says, "Hey, can you look at my map?" I can't. It's protected with all sorts of walls. Privacy is a top priority.

CML: What are some techniques business people use to make the most of the maps they create with your software?

GI: People love to use colors. But, if you use a lot of bright colors and contrast, that can be jarring to the eye. We recommend keeping things simple to make your main points clear and avoid distractions. Heat maps are a good technique because, they are really eye catching. So, start your presentation with a simple map, and then wait until the peak of the meeting to present a heat map that shows where all the new opportunities lie. That kind of technique is impactfu and can really get your audience excited about the future.

CML: Your clients are really data producers, as well as data consumers.

GI: They are. They're going into business situations and have to creatively use maps to lay out their perspective to their audience. They have to do it wisely. Creating a data map for an accounting firm is different than creating a data map for a company that makes children's toys. Maps need to be designed to speak to your specific audience.

CML: The tool you provide really does require users to have skills to make wise decisions.

GI: Bottom line, that's really what the tool is for. It's for making better decisions. You make decisions based on data and, with this tool, visualizations of that data against an accurate and compelling map. Fifteen years from now, we may have even better ways of visualizing layers of data. As time goes by, it's just going to get more and more interesting.

Interview with Renee DiResta, Data for Democracy

Renee DiResta is the Policy Lead for [Data for Democracy](), an informal community of about 3,000 data scientists and other concerned members of the community.

Center for Media Literacy (CML): Would you please tell us more about Data for Democracy?

Renee DiResta (RD): Data for Democracy is an informal community of about 3,000 data scientists and other concerned members of the community. We stay in communication via Slack channels, where we organize specific projects. Members work on all sorts of data-for-good ideas that range from fighting misinformation to reducing traffic fatalities. We partner with many entities, including cities, nonprofits, the media, etc. Some examples include the City of Boston, the City of San Diego, Social Works (Chance the Rapper's organization), Princeton's Gerrymander Project, Bloomberg, data.world and ProPublica.

CML: And what is your primary role at the organization?

RD: I work on forward-facing policy communications. That includes mapping data across social media and advising Congress on how bots and fake accounts are being used to manipulate social media. The data that I and other Data for Democracy members discover is communicated to lawmakers and others who have the potential to influence policy and need solid awareness of the data around this issue.

CML: Who are the volunteers who work on Data for Democracy projects? Why do they get involved?

RD: Many are data scientists who want to work on social good projects. Their work is beneficial to many audiences – from policy makers, to nonprofit organizations, to the public. Projects vary, but all aim to provide sound data that can be used for wise planning and decision making. Our members work on everything from providing datasets on medical spending so people can better understand who their tax dollars are helping, to collecting, analyzing and modeling data related to immigration to support the work of organizations working on immigration law and related issues. Members want to do something interesting, network with other people and meet others who work in their field. Data for Democracy offers them an opportunity to get in there and do something that they find fulfilling while they polish their skills, or learn new ones.

CML: So, you combine networking with work that is socially positive?

RD: Exactly. I'm able to ask, "I'm looking at this problem or this dataset. Have you seen anything about it?" There's usually at least one other person who's had that interest in the past and is up for a collaboration.

CML: Was Data for Democracy started by someone who works in the data field?

RD: Yes, it was started in 2016 by Jonathan Morgan, who is founder and CEO of New Knowledge, a company that uses AI to protect businesses from disinformation attacks and defend public discourse. He started it because, after the 2016 election, he felt that there weren't enough ways for people to connect and make a difference. He created Data for Democracy as a space where people could go to participate, work with each other, and to offer help and services to communities, governments and individuals.

CML: Tech and data companies are really coming under fire recently. The Zuckerberg congressional hearings, use of data by Cambridge Analytica, concerns about what data platforms and apps are collecting …

RD: There is concern about what information social networks are gathering about users. The idea that this passive data collection is a form of surveillance is an idea brought up a lot by privacy advocates. They're very concerned about what these companies know about us and how that's used to target us or to do things that people might be uncomfortable with if they understood the full extent of what the companies know about them. Some of the points Chris Wiley, the Cambridge Analytica whistleblower made are: "Why does a crossword puzzle app need to know your sexual orientation? Why does it need to know where you live? How is the crossword puzzle app ostensibly making your user experience better by knowing these things about you?" These are very, very fair points.

CML: Yes, and one of the core things that media literacy education teaches is to analyze and be inquisitive about messages – to ask questions about who is creating this messaging and why. That also applies to analyzing who is gathering your data and why.

RD: Right, exactly. Why is it being collected? There are some people – especially younger people who've grown up on the internet – who already kind of assume that everything they do is logged, that they're tracked everywhere, and there's no reasonable expectation of privacy at this point. I've been on the internet forever. I can't even imagine the sheer number of things I have authenticated with my Facebook account, or the number of times that older family members have probably played some silly game that gathered up my data as part of it. Some people are very deeply concerned about that. Others feel that this is just the way the internet is. I think the tension between those two points of view is something that we're seeing a lot of in the conversations that are taking place today. People are exploring what norms we want to form around these issues. How should we think about what platforms collect and why they collect it? How concerned should we be?

CML: You work on the policy side of things. There are very differing points of view when it comes to what should be legislated and how far legislation should go. Are there areas where there is agreement?

RD: Transparency is something where I think most people are aligned. They know they are being tracked – most of us assume that's happening. But why, and what will the information be used for? With General Data Protection Regulations (GDPR – a 2016 regulation in EU law on data protection and privacy for all individuals within the European Union) in particular, the right to opt out, the need for granular protection, and the right to delete one's data – these are the sorts of things that have spawned conversation, particularly among privacy activists here in the US around why Americans don't have the same protections on platforms. There are debates about whether there should be universal rights for all citizens of the internet, rights to remove your data, and so forth. I think the extent to which this is going to be universal or how it's going to be handled from country to country is very much an evolving conversation right now. But, there's a lot of debate about who GDPR helps because the costs of implementing systems to be GDPR compliant are so high. Occasionally, arguments are made that, by implementing or requiring GDPR, the inadvertent effect is to increase how entrenched Facebook, Google and other large companies are, because they're better able to bear the cost of the regulations.

CML: GDPR affects the EU. What regulations exist in the US?

RD: I can tell you what's in the pipeline, but there's really not a whole lot of actual legislation right now. Senators Amy Klobuchar (D), Mark Warner (D), and John McCain (R) introduced the Honest Ads Act in 2017, which aims to improve disclosure of political ads - who's paying for them, who's behind them, etc. Its aim is to bring social platforms into compliance with the same kind of disclosure frameworks that other forms of media work within. So, TV and print already have to publish this information. Previously, the argument that Facebook and others made was that it was too difficult to display that information in internet ads. That was in the "olden days," when online ads were the size of a postage stamp. But now, in the era of in-stream, ads take up the same amount of space as a regular post does. So, Facebook can no longer make that argument and has opted to support the Honest Ads Act.

CML: On TV and in print, there are other disclosure challenges, such as when political ads say "this message was sponsored by," for example, "The People for Fair Taxes." But it's really difficult to determine what industries or individuals are behind that organization.

RD: Yes, that is another issue. Citizen's United, "corporations are people and entitled to free speech," etc. But, social networks are even further behind in terms of disclosure because they have absolutely no requirements. So, at a minimum, the Honest Ads Act would level the playing field.

CML: Legislating for transparency is something most people welcome. But, when it comes to

new policies and new regulations concerning information and data, some become concerned about potential censorship. What are your thoughts on that?

RD: The conversation around censorship comes up most often in the context of content moderation. When platforms are moderating, should they have the right to take down content? What are the disclosure frameworks they should operate within? I believe that moderation is necessary, and that moderation is not the same as censorship, provided that it is done within a transparent, rule-based framework. In fact, it's absolutely critical to a well-functioning public sphere on the Internet. I am not a free speech absolutist. It's unfortunate, actually, that the conversation around moderation has been turned into a debate about free speech. That lacks nuance and ignores the realities of communication on the Internet. Often, when the First Amendment is cited, people overlook the fact that internet platforms are governed by their terms of service, not the First Amendment. These are private platforms. They have the right to moderate as they see fit and, most of the time, they try to do so in ways that align with their terms of service, which is generally available to the public. People opt-in to the terms of service when they choose to use the platforms. For example, when you choose to use Facebook, you subject yourself to Facebook's moderation policy and, similarly, YouTube's moderation policy and Twitter's moderation policy.

Should there be a universal standard of moderation? I think that's an interesting question. Should there be an Internet code of conduct? Is there a way to make moderation more standardized and less ad hoc? Those are valuable and interesting conversations to have. But, the idea that a platform demonetizing you or down-ranking you on a recommendation engine is censorship – I believe that is a misuse of the term.

CML: But, it is crucial that moderation rules are consistent across users?

RD: Right, consistent and transparent. Could the platforms be more transparent about moderation? Yes, absolutely. Recently, Facebook released a new set of public guidelines about how they're thinking about moderation. This is the work that a lot of activists have been pushing for. If you have an appeals process and make it more transparent, moderation would seem less heavy-handed or arbitrary.

CML: We really are confronting quite a balancing act when it comes to online platforms. Where do the rights of the businesses fit? Where do the rights of users supersede that?

RD: These platforms are monopolies. If someone doesn't like Facebook's moderation or privacy policies, there really aren't very many other places they can go. And, the platforms have become almost like utilities – crucial to our businesses, communication, etc. The platforms are also businesses, so it's an interesting challenge. Their true customer is the ad buyer, not the user. So, the question becomes,"What will users tolerate?" They also have to be concerned with continuing to be a viable business for the ad buyers. There is some conversation around whether we should expect some of these platforms to change to a

subscription model at some point.

CML: Students of media literacy learn to question who is actually "the customer." Facebook users often complain when they see a change in their page format, etc., because they perceive themselves as Facebook's customers. But, they're not. They're not paying for Facebook. It's the people producing the ads that are. So, who is the company really serving? Sometimes people misperceive whether they are the customer or the product. Once they realize that, it may change their perspective on their experience with the platform.

RD: That's true. It's a different paradigm.

CML: Is there legislation in the works to deal with misinformation or disinformation?

RD: The government really has a hard time restricting any type of false data or information. They are not involved in the moderation loop, so it is up to the platforms to do their own moderation. But, the devil is in the details. First of all, platforms are indemnified from the content that's on them under a legal framework called the Communications Decency Act Section 230 (CDA 230). That act exists because, otherwise, people would have the right to sue platforms out of existence just because somebody posted something unflattering about them. This indemnification has been in place since the early 1990s when the companies were just starting. The challenge now is that CDA 230 gives platforms the right to moderate but, in many cases, they have chosen not to moderate. Changing the norms around how to apply CDA 230 is one way to deal with some of the issues platforms are experiencing. But, there's no way to legislate that information on the Internet must be true. That would be a First Amendment violation. People really do have the right to lie. So, a better solution is to lean on the tech companies, so that they do something about problems. They're always saying they don't want to be arbiters of truth, and that they don't want to wade into debates that would alienate some percentage of their users. Honestly, they're not qualified to wade into that anyway. But they can be arbiters of information integrity. They can stop or take down clearly manipulative campaigns, not because the content is factually accurate or inaccurate, but because the actor pushing the narrative is inauthentic. For example, when content is pushed by a bot or automated account. Even if the narrative is false or divisive, the question becomes, "Is this an authentic narrative that real people are pushing, or is this a manipulative narrative in which they're using automation, or they're trying to game a recommendation algorithm? So, thinking about it at a higher level than just the content alone is really important.

Some laws to tackle bots have been crafted at the state level. It's a question of determining the best regulatory options that don't have unintended consequences. But the definition of a bot is incredibly broad, and you don't want to be stifling innovation because you didn't properly define the term "bot." It's a matter of technologists working in tandem with lawmakers to think about the best possible forms of regulation.

CML: That is extremely challenging, since what is possible with technology is changing all the

time. So, how do you avoid unintended consequences when there are future developments that we can't even wrap our minds around today?

RD: That is difficult. You want to make sure that you're not inadvertently, through overbroad definitions, stifling some form of innovation or people's rights. There is debate happening now over laws that were put into effect to remove the CDA 230 protection related to sex trafficking. The challenge for the platforms is that they often can't tell whether a woman posted it herself and is voluntarily engaging in sex work, or a person is being trafficked. The new laws create legal liability for them rather than doing selective, voluntary takedowns or takedowns in tandem with law enforcement. So, the platforms' response has been to delete all escort-related ads. That has angered the sex worker community, where people feel that they have just inadvertently been caught up in this conversation and now must go back to more dangerous ways to work.

CML News

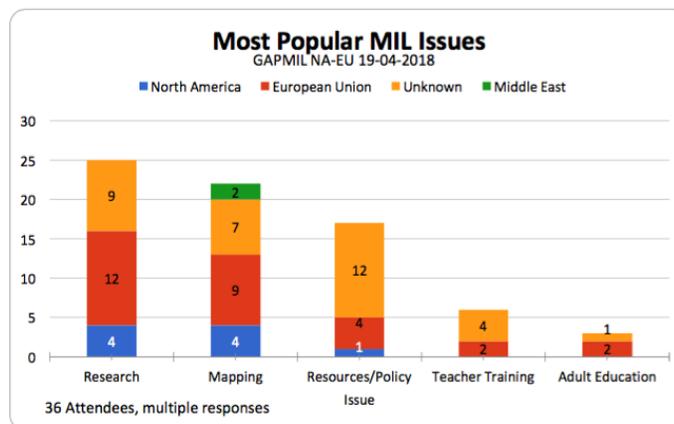**Is Media Literacy a Prerequisite in the Digital Age?**
WISE recently published an issue focused on Media Literacy. In the selection of articles, specialists bring their insights and perspectives to the role of media literacy in the digital age. CML's Tessa Jolls contributed to the issue: *What is Media Literacy and How Should We Teach It?* Find the articles here:
https://www.wise-qatar.org/special-focus-is-media-literacy-a-prerequisite-in-the-digital-age

International Media Literacy Research Symposium
The Symposium, organized by Belinha De Abreu and Vitor Tome, was held April 20 in Lisbon, Portugal. CML's Tessa Jolls presented on "Using an Evidence-Based Framework for Community Empowerment," featuring longitudinal study results evaluating CML's Empowerment Spiral Framework.

GAPMIL NA and EU also held their first Chapter meeting in Lisbon on April 19. Thirty-six attendees discussed the "state of the art" for MIL in Europe and North America, and identified their priorities for action during the meeting; see notes.

Most Popular MIL Issues
GAPMIL NA-EU 19-04-2018
■ North America ■ European Union ■ Unknown ■ Middle East

36 Attendees, multiple responses

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 nutrition and 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 communication that demonstrate scientifically that media literacy is an effective intervention strategy in addressing critical issues for youth.
http://www.consortiumformedialiteracy.org

Resources for Media Literacy

Data and Media Literacy Resources

Teach Statistics Before Calculus: Teachers Speak
Ted Talk by Arthur Benjamin, 2014   2,331,688 Views:
https://www.ted.com/talks/arthur_benjamin_s_formula_for_changing_math_education

Statistics or Calculus? Do Both!
Learn and Teach Statistics by Dr. Nic, Jan. 2013
https://learnandteachstatistics.wordpress.com/2013/01/21/stats-or-calc/

Who Needs Calculus? Not High-Schoolers by James Markarian. Wall Street Journal, May 2018
https://www.wsj.com/articles/who-needs-calculus-not-high-schoolers-1526338152

Calculus Is So Last Century by Tianhui Michael Li and Allison Bishop. Wall Street Journal, March 2016.
https://www.wsj.com/articles/calculus-is-so-last-century-1457132991

Support Our Schools – Think Globally/Donate Locally
ODT is making it possible for people to donate maps and geography materials to their local schools and educators at a greatly reduced rate. For more information, go to
https://manywaystoseetheworld.org and search *Support Our Schools.*

MediaLit Moments

Ask the Experts
Some journalists have recently taken it upon themselves to seek a more balanced male/female citing of experts when reporting on important subjects in the news. According to *Who Makes the News?* ([GMMP 2015](#)), women are quoted as experts or spokespersons only 20% of the time. This has gone relatively unnoticed for decades due to a scarcity of women in certain fields, but now with more and more women in science and technology, there are many female voices to include in the coverage.

Read three news reports on science or technology and identify the quoted experts.

AHA! Journalists choose who they quote as experts!

Key Question #1: Who created this message?
Core Concept #1: Media messages are constructed.
Key Question #3: How might different people understand this message differently?
Core Concept #3: Different people experience the same message differently.
Key Question #4: What values, lifestyles and points of view are represented in, or omitted from this message?
Core Concept: #4: Media have embedded values and points of view.

Materials: Access to articles online and/or printed, pens or highlighters to tally names within the articles. Read this opinion piece to help prepare and explain the activity.
https://www.nytimes.com/2018/05/13/opinion/women-sexism-journalism-conferences.html

Activity: Ask your students to read three different articles in science or technology (i.e. artificial intelligence, neuroscience, robotics, space exploration…). Students can read printed articles, or read online using a tally sheet. Circle or tally the expert quotes and share with the class.

What were the results? Are the results surprising? Why or why not? If the class discovered that one gender was quoted far more often, does it matter? Why or why not? What can be done about it? Who chooses what's included or omitted? Use the Key Questions/Core Concepts in your discussion.