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New Media, An Academic Perspective

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NEW MEDIA, AN ACADEMIC PERSPECTIVE

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Introduction

The medium is, in its singular sense, dead. "A medium" is more than just one medium anymore. In the early twenty-first century, any given medium spills over to and is spilled into by every other medium. We are not a simple people here in Western society. I've seen this trend reflected in this medium by which we communicate and express ourselves, and through which we gain collective meaning in the world. In fact, we have developed a term to describe this convergence of mediums: New Media.

New Media is not by any standards a term new to the 2000s. I think it is relevant, though, because of how pervasive computers have enabled it to become, both because we have made it so and because it has made itself to us a such. As a scholar, I hope to do my best to examine what it is, how it has come to be, what critics/observers thought of it as this development was happening, what it looks like now, and where it has the potential to go in the near future. What is it? Where did it come from? What was the motive(s) for making it? What does it look like now? Where will it go from here? How can it improve? What theoretical approach should we use to address it?

So: New Media. Take a medium, blur it with another medium, combine that with other inter-media, and filter it through a single apparatus, and we get New Media. What is New Media, though? New Media, at least as I chose to understand it, is a digital, networked, interactive, ubiquitous, combination of text, video, pictures, and music (or audio of some sort). It includes, or at least has the capacity to, in itself contain, film, TV, video, radio, music, letters, telegrams, instant messages, books, newspaper, magazines, photography, drawing, the telephone, and the videophone.

New Media has taken all of the forms of traditional, "old", or single mediums up to this point, digitally combined them in some capacity or another, and augmented this effect by making it real-time, interactive, networkable, dispersible, cheap, and above all, accessible from a multiplicity of devices currently prevalent in metropolitan and suburban populations. These devices are essentially the machines or apparatuses by which we engage with this medium; we can see them as as the tools that we use to interface with it, to contribute to it, and even to help design and build it, or at least shape it in theory. These instruments are more than just computers; they are laptops, tablets, and smartphones, that are capable of accessing both a very wide, and very deep array of stored and organized information, much of it about our world and our history.

To that end, these media collectives can help us make or find meaning in the data we have stored to them about our systems, societies, cultures, actions, realities, and about our world. New Media is a medium that allows us to transcend language: web browsers can translate pages in other languages to ours in seconds, if not perfectly, then with an "accuracy" that is at least functional, if not conductive to new meanings or linguistic exchanges. We have software programs that can be used to translate our writing to other languages or even assist us in learning another language without another person as teacher or tutor.

Futurists sixty years ago only dreamed about sending information and messages with the functional immediacy that we are able to now. Besides translating, these processes also short-circuit our previous understandings of distance–geography and time itself. Information and messages sent along channels of New Media can be retrieved and received at any time. As such, New Media creates new politics about the way we organize ourselves collectively. Our communities are no longer just the people near where we live and work; they are anyone else accessing the same information that as we are, anywhere in the world. The medium affects our economies as well. New Media even now has its own currency, known as Bitcoins, which can be

exchanged for governmentally sanctioned currency. Other organizations like Square, Paypal, and Google Wallet also enable the flow of currency in ways that exceed former economic structures.

These media warp or augment our very physicalities through them. We can build tools that enable us to speak after we're gone. We can write messages that are sent only after we have died. We can, theoretically, keep posting information to news feeds once we have expired by building up a cue of posts for automatic posting at a later date. And, of course, our thoughts can be immortalized in one or many massive digital archives that have little threat of ever being deleted, lost, or compromised. Digital information has a different logic than physical or analogue information about how it can be preserved and destroyed, such as a book. Destroy the only copy of a book and the information contained in it is lost forever. Delete a webpage or video, and there still exists a digital copy, trace, or version of it indexed somewhere out in the servers of the Internet or the archives of Google. All of these are tools that we developed thus far have converged repeatedly.

Stories organize information about our world and our condition. As methods of how to record stories about the people, places, things, existence, and ideas related to us and to our own experiences in this world improve, so do the stories we are able to tell by them. New Media is the most recent refining of a medium by which we understand the world through creating, recording, and telling stories to make sense of our world. To explore my ideas further and to give the reader a sense of the work from which I am drawing, I will undertake a review of key literature in the field in the next chapters. I will then use these references as structures to place my own perspectives in on how New Media has developed and influenced our perspective of the world.

What do I want to say about new media aside that it is deserving of a critical academic perspective at the moment? I hope to show that it is inherently useful to our society's collective

forward motion. It reduces the isolation that we feel in the world by providing a common grammar through which our thoughts can be shared with others, because it serves as a functionally invulnerable archive for future reference, and because it assists in refining ideas that can move society forward in the long run.

Reviews of Essays Key to New Media History

Mythinformation by Langdon Winner, 1986

I choose to begin my first chapter by analyzing the essay by Langdon Winner, originally published by the University of Chicago Press in 1986, because it presents some drawbacks to some of the initial celebrations of new media that I have presented. These drawbacks should be considered and used as perspectives to keep in mind about the celebration of any medium. These celebrations are typical but often lose perspective with how humans actually interact with the tools that they are presented with. Simply because something is designed to be used in one way does not necessitate that it will be used in that way or in a way related to that at all. This stands especially true when discussing the political implications or the "democratizing" force of a medium.

The conclusion of Winner's the piece asserts that politically revolutionary social change spoken about breathlessly will not come about simply by increasing the prevalence and use of computers in society. His discussion begins referencing the notion presented by Ben Bagdikian in an article I will address next chapter, which was titled The Endless Chain. This notion is that owners of industry are also owners of the media and its journalists. Conglomerate corporate ownership of news media apparatuses since the mid-1900s has stood as the primary force working against the ideals of American democracy. When Bagdikian first published The Endless Chain in 1983, it was received as alarmist, and I strongly agree. Even reading it critically in 2013, his fears that corporate interests control the media and influence public opinion drastically sound quite overdramatic.

Winner's critique, following Bagdikian, has clear relevance and equally clear limits. Throughout the passage, Winner posits his premises against an undefined ideological anti-group, the "computer revolutionaries". I find this both useful and problematic for his argument.

He begins by likening the computer revolution to mid-nineteenth century European populous uprisings to the frequently mentioned coming of the Computer Revolution: "The use of computers and advanced communications technologies is producing a sweeping set of transformations in every corner of social life." (Winner 1986, 588) His section, "A Metaphor Explained," then attempts to define what it means to employ the term revolution in this discussion.

Winner says that though revolution is an overused word in modern marketing, computer users are serious about computers having the potential to cause sweeping political disruption. He then posits the questions, what goals does this revolution have, who are its architects, and via what means are these goals to be achieved? Unfortunately the computer revolution does not poses a singular spokesperson or set of definable spokespersons like many political uprisings do. I disagree with him here because I think that the executives of the biggest computing brands serve pretty effective roles as spokespeople for the revolution they are profiting on bringing about. However this may be a more recent development with computing corporations becoming more (self) aware of their influence on cultural and global trends. It is likely that in my time, we have become used to the spokespeople of computing products talk with in a vernacular that includes the goals of their products to influence the world.

Next he asks what it means to employ the term revolution critically to describe this upheaval, especially as a good. To what set of social ideals is this revolution committed to? There is also the question of which classes of society is this revolution most loyal to, who will claim "victory"? I would respond that the computer-literate, college-educated population that understands how to leverage these tools to their benefit will be able to claim the most success and benefit the most from this revolution.

The computer industries have their own inertia from the constant struggle to keep current. Winner lists that the computer-related industries are pursuing profits, market share, the intrinsic joy of invention, handsome salaries, intellectual rewards of programming, and finally, being able to own/use powerful machines. He wants to know what the historical significance of pursuing these activities will yield but mentions a concern that the computer revolutionaries are quiet about exactly what they hope to achieve through these.

His next section, "Good Console, Good Network, Good Computer" addresses how talk of the computer revolution easily provokes utopian fantasies; he addresses these fantasies directly. He begins with asking if its fair to ask a political meaning of a technological revolution and references the industrial revolution. He also mentions that no previous scholarly analogies of this sort exist, the analogies of technological developments to political developments.

"Politics, in other words, is not a secondary concern for many computer enthusiasts, it is a crucial, albeit thoughtless, part of their message." (Winner 1986, 590) The change of which they speak is both desirable and inevitable. This change replaces material production as central to our society with information services as central. The computer is stated as the new steam power. We will have easy access to large quantities of information via technical capacities, such as communication and computation. He argues that gradually this information will close the gap or even out the rich and the poor. "Widespread access to computers will produce a society more democratic, egalitarian, and richly diverse than any previously known." (Winner 1986, 590) The media system also holds significant influence on these ideas/notions of usage.

He then references the "global village," popularized in media theory by Marshall McLuhan, and how it will be fulfilled by a worldwide zeitgeist of creativity. He drops terms like "utopian promise," and "cultural renaissance," that remind me of how the Singularity is talked about in today's news media: It is something that is in the works and is coming soon and will

change everything as soon as it gets here. I don't think that things change that drastically very often. Big change happens much more gradually.

He says that according to the utopian view, each node in the great network will be equal to all of the others, the computer revolution will flatten hierarchies and restore inequalities; the disadvantaged will access social ties and join society. These last two claims I strongly disagree with. Accessing social ties is something that is hard to do if one is not invited to places where he or she is able to meet the higher classes and developing the social behaviors appropriate to these circles, which takes some practice. It takes not only meeting people in person, but also knowing how to meet people effectively in person. By saying that the disadvantaged will be able to join society, he implies that they aren't currently a part of it. I may not know what he means exactly, but from the sound of it the disadvantaged are not currently "in" our society. He hypothesizes that information will replace wealth and property will not be stratified.

Winner next addresses how democracy or democratization via technology will enable us to all collectively discuss politics on an equal level with their representatives. Even today after the 2008 and 2012 elections, there is still a lot of speculation as to how much influence social media and the internet has on the outcome of our popular elections here in the USA. Also, do we actually want to be able to hear every uninformed person's voice along with all of the informed ones? Think about the last time you witnessed or got involved with a conversation on politics over facebook or in the comments of an article online. How informed or educated did those who expressed an opinion sound to you and did you learn anything significant or shift your opinion on the topic because of it?

He cites J.C.R. Licklider to the effect that "an informational environment that would give politics greater depth and dimension than it now has." (Winner 1986, 591) But how much deeper do we want it to go before we lose sight of the light and make the issues more complex than they

need to be? Adding information does not increase the amount we as people deliberate over it. In fact, I would argue that the more information we are presented with, the less we pay attention to it. We are, after all, well into the information age – not at its beginning - which means that we have far too much information and not enough time and energy to process it all. This has implications for an overabundance of information on political affairs as well.

Winner continues by describing a giant teleconference that serves as a large long deliberation on politics including all voters, propagandists, and political action groups. In his view, this would bring a more comprehensive examination of both the issues and of the candidates.

This is where he steps back from his argument, takes a breath and thinks again at the ideas he has been talking about so breathlessly. He concedes that this would create a "democracy of machines" and that participation in the democratic process requires enthusiasm, which a machine alone cannot inspire. I argue that it would require more than a *good* computer with a *good* network to inspire exhilaration for being involved in democracy.

His next section, "The Great Equalizer" defines what Mythinformation is and follows this rational new path of thoughts: "Mythinforamtion: the almost religious conviction that a widespread adoption of computers and communications systems along with easy access to electronic information will automatically produce a better world for human living." (Winner 1986, 592)

He asserts that "computer age" utopia is unrealistic and exaggerated (Winner 1986, 592). It is called mythinformation because it contains elements of a myth, he says. Industrial societies transform into service economies. However, I think the big point that he makes here that I strongly agree with is that, "those who stand to benefit most obviously are transnational business corporations." He follows by talking about how large organizations are most well suited to reap

substantial benefits from the increased efficiency of computing technology. The large corporate conglomerates are uniquely positioned to take the most advantage of increased efficiency. This is a point that I think is especially interesting and more central to his argument than I think he realizes. I make a note to return to this point next chapter when discussing Bagdikian – who argues the same thing in greater depth by looking at which corporate conglomerates own what portions of the news and traditional media outlets.

His next point is a key question to this article and counterpoint to his earlier premises. Where is all of this democratization that computer enthusiasts speak of actually happening? Since the computer revolution started gaining traction, we've seen an enhanced centralization of control, an increase in the power for those who are already in positions of power, and more financial wealth accrued by the wealthy. These powerful groups have the finances to quickly adapt computers to their business and use them to retain their control. Winner argues that the elite are the best positioned to take advantage of new technology and to counter this, we would require a concerted effort by society at large, and I think and educated one at that. He proposes that computer revolutionaries would think that, "There is evidently no need to try to shape the institutions of the information age in ways that maximize human freedom while placing limits upon concentrations of power." (Winner 1986, 593) Then what? Then, he says, technological determinism becomes an ideal. The embrace of whatever happens to develop out of the churn of computer makers becomes necessary. This is "computer romanticism." The computer revolutionaries believe that, according to Winner, "As long as the economy is growing and the machinery is in good working order, the rest will take care of itself." (Winner 1986, 593)

He disagrees with this belief by putting together four key assumptions of how more information equals more democracy. Essentially he draws the conclusion that information = knowledge = power = democracy does not hold for computers because they cannot make us act.

Making us take action is the key differentiator between knowing and doing, between having information and using it to our advantage.

First, the supply of information does not equal a supply of knowledge. He makes the analogy that placing libraries in communities does not simply increase literacy in them. It takes people who know how to use libraries and who are willing and able to teach those illiterate how to use the library to make themselves literate. The teacher must understand and be able to inspire a student towards the pursuit of knowledge. Simply presenting someone with information does not make them want to learn it, nor does it teach them to make use of it. "At times knowledge brings merely an enlightened impotence or paralysis." (Winner 1986, 594) At this point is where he was using the term "computer revolutionaries" so much that I became exhausted with it.

Democracy is more than a distribution of information, but the belief is that a democratic public ought to be well-informed holds validity. How we define "well informed" is very subjective however and isn't addressed here.

Spreading electronic information along a universal gridwork is a democratizing step. On its own, this is a misnomer, he argues. Essentially he thinks that a network to disseminate information about political developments is not correctly a democratizing step because it is still simply information. I am skeptical about this claim because every so often, the reception of information about major political developments is enough to spur political action in communities. He addresses this exact point next. which is that willingness to *act* is required for the democratic process. It marks the difference between deliberating issues in person and logging on to a computer to receive information. A case study he describes here shows that in-person networking, face-to-face discussion is more successful towards a democratic movement than mass media advertisements.

I do agree with this case study and his premise, in fact I think there is an understated value in both face-to-face communication and telephone correspondence, especially among my and younger generations who think to text each other before calling them these days. I think face-to-face is the best context to have discussions, especially ones that may get heated from political charge, as opposed to correspondence via New Media. I have and continue to witness how difficult it is to have civil conversations via the Internet. Even disagreements with my friends via digital text-based mediums quickly become complicated if we are not able to read each other's facial expressions and body language.

To return to my skepticism about an information delivery network being democratizing on its own, simply informing someone on political proceedings may in fact spur them to ask a friend or neighbor about it. It is still a common occurrence for us to discuss the stories we read in the news media with our peers. Assuming that deliberative democracy holds value in the traditional theory of democracy, a network for disseminating information that spurs discussion on politics is democratizing in that sense.

The next premise he proceeds to deconstruct is the belief that the computer is the one equalizing tool. His counterpoint, which I think is one of his biggest and most central to his argument, is that the tool itself is not very effective unless it is part of a larger, more effective system with a larger goal. I think, with the recent events defining the Arab Spring, I would have a hard time disagreeing with him because there was a notably prevalent use of social media to spread and organize the population, but they did end up assembling in large groups to protest, not simply sit at their computers and receive and send written opinions to their government. They had to act on the information that they shared to achieve political change, and did.

He summarizes his argument very effectively from here. The way I understand it, computerization gets raised to this grand prominence or becomes our collective concrete idol of power because it assists our society in making meaning out of the information it organizes for us.

It is a noteworthy and expressive contemporary ideology, "Information itself is a perishable commodity." (Winner 1986, 596) He continues, "one finds that information in a particular form and context is offered as a paradigm to inspire emulation." (Winner 1986, 596) Here I am not sure what form he is talking about exactly though.

The most important question of the entire article is positioned here: "Must activities, experiences, ideas, and ways of knowing that take a longer time to bear fruit adapt to the speedy process of digitized information processing?" (Winner 1986, 596) In some way, he says we end up with a computer solution in search of a problem, a conviction that information processing is something valuable in its own right. The question he asks carries a rhetorical charge. His point is that even though our information processing machines have accelerated, we have not accelerated our own processes. We each remain responsible of interpreting our own activities, experiences, ideas, and thought processes into meaning in our own lives. This does not always happen as quickly as we would like, nor do I expect it ever will. Our humanity still provides an upper limit to what we may process into knowledge and how this affects our understandings of the world.

His three last points concern privacy, sociability, and political order. He proposes a serious academic study of computers because of these three areas of concern. First, privacy. He proposes that the more we use computers to do things, the more we can be tracked doing things. Who, he asks, are the ones that have access to this information and how might they use it (against us)? He talks about perpetual pervasive surveillance. The ways he talks about methods it might be used reminds me of the movie *Minority Report* (2002), where an overabundance of surveillance assists in stopping serious crimes before they occur in the first place. What becomes

of our public freedoms, Winner asks. When free speech and protesting is discouraged, compliance becomes the safer route, but maybe not the more democratic one.

Next he address sociability, having to deal with less layers of human interactions to limits reasons for people needing to get together. Because of this, "people will become even more susceptible to the influence of employers, news media, advertisers, and national political leaders." (Winner 1986, 597) Here I feel he may be contradicting his early point about how the computer is supposed to inform society collectively and instead he is implying that it prevents its democracy from ever happening by keeping people away from each other, which is in line with his later point, reinforcing his eventual thesis.

His final point about political order has to do with corporations. He points out that networks conquer space and time. Traditionally, humans, "have lived, acted and found meaning in a particular place at a particular time." (Winner 1986, 597) He shows that political units are historically optimal for humans. "But until recently, the crucial conditions created by spatial boundaries of political societies were **never in question**." (Winner 1986, 597) Emphasis added. Now, transnational corporations are able to defy being good to their geographical neighbors and sovereign hosts. They can sidestep and even influence political authority, Winner stresses.

In his summation, Winner thinks that using the term "revolutionary" should require a bit more reflection. As the trend goes now, our lack of critical thought about the influence of the computer on our society will soon be replaced, and with very little resistance, by Artificial Intelligence.

Reviews of Essays Key to New Media History

The Endless Chain by Ben Bagdikian, 1983

My reason for discussing Ben Bagdikian's essay The Endless Chain should be somewhat evident from my last chapter that addressed democratization. It ties in nicely to the discussion of democracy and corporate influence on news media. As we already heard, large organizations tent to gain greater marginal benefit from adopting computing and information technologies to increase their operational efficiency than smaller ones. We also briefly discussed that conglomerate corporate ownership of major media organizations suppresses critical journalism practices of these corporations and any potential public legislation they hope to influence, resulting in them being essentially anti-democratic.

Bagdikian's main concern with this piece is how or in what ways will new media become a part of the media business and for what reasons? He spends most of it giving numbers, facts, and stories about how large corporate conglomerates not only have ownership over much of the mainstream media and about how this ownership is problematic because it creates a conflict of interests between the interests of the public at large and these businesses, who are only interested in accruing as much money into their bank accounts as possible.

He begins laying out his premises with the numbers of corporations that owned news media in 1969 and how this is affecting American democracy. "There is an urgent need for broader & more diverse sources of public information," (Bagdikian 1983, 473) he states. He finds it alarming that the owners of industry are also owners of the media and its journalists.

He talks about how the problematic cycle of how legislation is influenced by public opinion, but public opinion is influenced by the news media, but industry conglomerates influence the news media. I believe it but am also a bit skeptical of it. To what degree are we sure public opinion is influenced by the news that we watch and how exactly do industry

conglomerates influence news media? How much agency does each link down the corporate chain actually have and how much does this differ amongst corporate conglomerates?

His concern here reminds me of the previous chapter where Winner was concerned with corporations playing fast and loose with local governments and the people who live in the same geography as these trans-nationals.

Bagdikian next takes issue with the fact that many subsidiaries of these corporate conglomerates are headquartered overseas and that the corporate owners control the news and public information. He fails to define what he means here by public information and why these corporations choose to locate these subsidiaries elsewhere. I can think of quite a few reasons, some more ethical than others.

He then makes the very valid claim that, "…What satisfies a multinational corporation is not necessarily what will satisfy society as a whole." (Bagdikian 1983, 473) This does assume, though, that a corporation can be "satisfied." How exactly do corporations measure their success, or how is corporate success measured in general? I'm skeptical that an organization designed to make money can be satiated. We may argue that their products are valuable and beneficial to society and I would agree most of the time, but I would also point out that the underlying expectation is they are owned and administered to earn profit to increase the wealth of their owners. They are tools built on this assumption, which is that they are organized around the mechanical measuring of the success of their products by the revenue gained from selling these products. They are insatiable machines that continue their processes unless they are altered or eliminated by their owners.

He allows that every news medium will have its share of smaller competitors but asks how these smaller voices can be heard. I think this question is a little idealistic because it implies that people won't even take them seriously as a news source unless they are a big name brand,

which I do not think is the case. As an admittedly ironic analogy, do people read your books if you're not a New York Times bestselling author? Yes of course they do. People will still purchase your information, or news, even if you lack a big name brand. Hearing and being taken as a credible source are two distinct things that he mistakes here.

Bagdikian makes claim that there are some checks and balances in corporate-owned news media but does not explain further or what they are really at all. He also gives that occasionally these corporations shift ownership and alignments.

From here I understand that news is a business of selling time sensitive information. He argues that the daily news is the most important at his current time, which it was back in the 1980s when this was published. Since then the newspaper landscape has shifted greatly to today. He gives a string of facts about circulation of newspapers and uses sales to asess the success of this and the magazine medium as well.

I find this slightly problematic because I don't think it is the best way to measure the influence of a news medium. How seriously the public takes your claims or how small of a grain of salt people take with your news is more important. The influences of credibility and neutrality on the reception of the news that a publication puts out, I think, are better indicators of success. In 2013 the number of comments that an article generates is more indicative of how influential an article should be. There are other metrics as well, such as facebook likes and shares.

These days the currency is ideas and the economy of how one's ideas are disseminated is more important. In that sense, one's viewpoint and method by which we tie the ideas important to us and then publish them is more important than how many people pay to hear our ideas.

How do we come back to using sales and profits as indicators of success or influence? That seems to be the intuition that corporations measure their success by, but as we have seen this is problematic because it does not take into account how it is doing the greatest good for the

most amount of people. Simply gathering financial wealth into a large accumulation does not achieve this. What is done with this financial power after it is accumulated and the idea(s) it is used to promote efficiently is what I think is more important.

Here his implication that money equals influence is true to the extent that money provides the potential for influence and later dominance over what one hopes to influence. Bagdikian next outlines the corporate structures of TV and Radio mediums like he has done with the news and magazine industries and again places a lot of stress on sales as metrics for success.

I get the feeling that most of the way these media industries are organized is the same. His point is that a couple big corporations own a majority of the media outlets and smaller companies that earn a minority of the profits own the rest. He proceeds to discuss the book industries including trade books, paperbacks, and textbooks, "Beginning in the 1960s electronics companies, sensing a trend to computerized learning, bought book companies to control content as well as hardware." (Bagdikian 1983, 478) This is a key point because it shows that our businesses have seen this "trend" coming from a long way away.

I would be interested, after reading this, to see what has changed in the book industries, especially in the textbook industry up to 2010. Bagdikian talks about how Wall Street doesn't really enjoy being invested in this strange market and neither do the book publishers enjoy watching their stocks over their shoulders.

The next industry that he addresses is the movie industry, which is mostly consolidated into large studios. He proceeds to tie up talking about all of these media industries by asserting that fifty corporations share half or more of the audience in each major medium in the 1980s. Here he gets to his so what: "It is dangerous enough that in a democracy fifty corporate chiefs have so much power over the national consciousness and that this power can be exercised in ways that serve other interests." (Bagdikian 1983, 479) This claim of power over consciousness

is a little ambiguous for my tastes and I would ask whether each corporation actually handpicks the content being produced. The owners do have influence over their corporations, yes, but how much time do they spend time in their own editorial rooms approving every single story to be published to the public?

Bagdikian constructs an analogy between monarchs of the 14th century marrying to consolidate power and American economic aristocracy. I'm not sure what he is being so alarmist about corporations owning the news media when he admits, "the degree to which the parent corporation controls the content of the media subsidiary varies." (Bagdikian 1983, 480) It sounds like they have the power to "appoint" these media leaders but differ on their opinion on how use them to their advantage or not. Bagdikian calls the media leaders the "most powerful of all," but they are generally aware that they are not to bite the hand that feeds them (Bagdikian 1983, 480). In this way, "dominant media companies are further integrated into the ruling forces of the economy." (Bagdikian 1983, 480)

Bagdikian next addresses how interlocking corporate ownership easily can cause conflict of interests when these directors of business are obliged by business ethics or law to act in the best interests of one company but damages another company that they also sit on the board of. The example he gives is of oil representatives sitting on the boards of major news media during the energy crisis in the late 1900s. He asks what are the "best interests" of the businesses overall, or what about society at large, which I think is his more important point. He states the obvious adage that no man can serve two masters.

His final argument is an in depth description of the "Endless Chain" of interlocking corporate leadership, "Today the country's major organs of public information are no longer local. Consequently, any conflict of interests is on a national or global scale, as are the consequences." (Bagdikian 1983, 480) He shows how there is a lot of interlocking news

conglomerates, how corporations control the media, and how banks control most of these corporations. He states, "The controllers control each other." (Bagdikian 1983, 482) Especially when it comes to the banks, "the principal stockholders in large banks are—large banks." (Bagdikian 1983, 482) The boardrooms of Banking, Insurance, and large nonfinancial companies generally all have the same people found in them.

In summary of his final points, businesses now control media. However I am curious that if large corporations wield the power to organize old media, then how can they also control New Media if it is allegedly so democratized.

Bagdikian goes on to explain, what I would argue, is that revenue is not a measure of success, it is a measure of organization. Temporarily the Internet may be a destabilizing or disorganizing force, but this only lasts as long as the large organizations are unfamiliar with its properties. As soon as they understand it, they can incorporate, pun intended, how to use its power to their ends. I am curious about in what ways new media will become part of the media business that Bagdikian has describes here, and more importantly for what reasons?

He describes how speed and access to high speeds will be the defining factors in who participates on the Internet. However, he poses that, "Most companies offering high-speed connections have configured them so that the ordinary users computer can receive much more than it can transmit, and they often prohibit users from running public servers." (Bagdikian 1983, 482)

In this way I understand that they are influencing the Internet as a medium to be furthering consumption of their entertainment and amusement, not as a democratizing force that empowers local organizations to wield any power that might disrupt or unbalance the existing order of their methods of amassing wealth. The less competition they have, the more of the market they can profit from.

In his final point, Bagdikian infers that the transnational corporations now own media conglomerates and through them, the Internet service providers. This is the way that these corporations will influence new media most. They will own the methods by which we gain information first and second by which information is published to the websites themselves.

This is both beneficial and dangerous to the potential of the New Media. On the one hand these corporations will have the power and organization to leverage large improvements and refinements of the medium as well as funding the large server banks and electric bills that is required to keep this medium running. On the other hand, they will most likely try to monetize as much of the medium as they can in as many ways as they can to benefit their bottom lines. Some ways of doing this is by walling off portions of the medium inside of large private networks and trying to devise ways of keeping users from needing to go outside of the wall to find alternative sources of information. In essence, they may try to colonize spaces in New Media to benefit from the figurative resources that this would gain them.

Reviews of Essays Key to New Media History

The Medium is the Message by Marshall McLuhan, 1964

Though next essay was written by one of the most influential media theorists of the twentieth century, Marshal McLuhan, I thought it would be too predictable of an essay to lead off a discussion about media with. Written around the dawning stages of computers, McLuhan's piece is influential, not only because of his astonishingly clear perspective on how media can cast a spell of ideology on its viewer, but because of how he discusses different media as having grammar.

He will discuss the use of the term, grammar as a way of defining the principles that a media carries with it by virtue of its structures and means by which information is encoded and transmitted through it. This is important to understand because I will use it in later chapters to discuss New Media's grammar.

We begin with the concept of each medium as a figurative extension of ourselves, "This is to say that the personal and social consequences of any medium—that is of any extension of ourselves—results from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology." (McLuhan 1964, 203) The things worth emphasizing in this first important point in this passage is that these technologies are extensions of ourselves, and that the technologies that cause consequences, for lack of a better word, do so by altering the scale of our affairs.

His second main point is that he claims that automation creates roles for people. This point is ambiguous to me, "Many people would be disposed to say that it was not the machine, that it was the meaning or message." (McLuhan 1964, 203) McLuhan claims that it is important that the machine influences how we interact, our relations to one another. While Automation technology is integral and decentralist, he says machine technology is fragmentary in its

influences, centralist, and superficial. "The restructuring of human work and association was shaped by the technique of fragmentation that is the essence of machine technology." (McLuhan 1964, 203)

The analogy of the electric light is then used to construct the idea of a medium without a message. A light is pure information transmitted in all directions. For any media the content of the medium is another medium. For example, the content of writing is speech, the content of print is the written word, and the content of the telegraph is print. He goes on, "What we are considering here, however are the psychic and social consequences of the designs or patterns as they amplify or accelerate existing processes" (McLuhan 1964, 203) As we develop these technologies, they will influence us into new speeds or patterns of thinking or being social.

He claims the message of any technology is the change of pattern it introduces into our human affairs. Examples he gives of this are methods of transportation and their externalities. The airplane dissolved the politic and forms of the city that the railway had influenced since the 1800s, but that was not an intended design of the airplane at its conception. Here an analogy about social media can follow. Facebook was initially designed to help college students network themselves and be an online location where college students could keep in touch with one another, a digital directory or Rolodex of sorts. It was not intended to become a new advertising medium, a dating website, a government information distribution platform, and a tool to organize political revolutions by.

McLuhan continues that what is done in the light of an electric light does not matter. These activities are the content of the light's medium because they could not be done without it. It is typical, he argues, that it is typical for the content of the medium to blind us to the character of the medium. An example of this is businesses realizing that they are in the business of moving information, which is usually what they are, as opposed to providing services or goods.

Another analogy to social media can be made here. Facebook recently realized that it was in the business of delivering advertisements to its users. Originally that was just method of funding the website, but as the website grew and the owners realized that they could use the personal information of the user's profiles to enhance targeted advertising, they made it a prominent feature for businesses looking to advertise with.

McLuhan states that the electric light is essentially a communication medium. He follows that it is pervasive and decentralized. After that he mentions that radio, telegraph, telephone, TV, light, and power all eliminate time and space factors in human association. I think this is a key point that can be easily understated. The influence of each of these can be highlighted using thought experiments that depict the world without the conveniences of each of these technologies and how we benefit from them.

Next in his writing, he constructs a series of metaphors using quotes from Shakespeare's works, to describe modern media. More recent academic approaches to it, he says, consider not only the content, but also the medium and cultural matrix within which the particular medium operates. Following this, he poses a quote from General Sarnoff and then disassembles it. "…the paradox of mechanization is that although it is itself the cause of maximal growth and change, the principle of mechanization excludes the very possibility of growth or understanding of change." (McLuhan 1964, 204) In his deconstruction, he states mechanization is fragmentation. Then he states, referencing David Hume, that there is no principle of causality in a mere sequence.

Movies, McLuhan argues, make mechanization appear sequential and vividly fragmented, "The movie, by sheer speeding up of the mechanical, carried us from the world of sequence and connections into the world of creative configuration and structure." (McLuhan 1964, 205) The message of the movie medium is one of transition from lineal connections to

configuration. In employing the term "configuration" here, he is implying that there may be more than one way to organize the content of the medium. "To a highly literate and mechanized culture the movie appeared as a world of triumphant illusions and dreams that money could buy." (McLuhan 1964, 205)

Next he mentions the inception of cubism, "...By giving the inside an outside, the top, bottom, back, and front and rest, in two dimensions, drops the illusion of perspective in favor of instant sensory awareness of [the] whole." (McLuhan 1964, 205) According to McLuhan, Cubism originally announced that the medium is the message; the moment when sequence yields to the simultaneous. Before the electric speed and total field it seemed the message was the "content". The example of this he gives is that people used to ask what painting was about.

A quote from Napoleon follows, "Three hostile newspapers are more to be feared than a thousand bayonets." (McLuhan 1964, 205) McLuhan pursues this lead back to Europe to use it as the subject of an examination on the influences of structure and organization to explore this meaning of how the media of communication influences entire cultures and countries. He references De Tocqueville and his research on the French Revolution heavily here. De Tocqueville had explained that it was the printed word that had homogenized the French nation by achieving cultural saturation, "The typographic principles of uniformity, continuity, and lineality had overlaid the complexities of ancient feudal and oral society." (McLuhan 1964, 206) I think it is interesting to note the influence of the printed word on the spoken word at this point. It shows that these technologies and our patterns of communication are influenced by the media by which we employ the patterns through.

Using De Tocqueville as a reference, He then draws contrasts between French, British, and American structures of society and government. According to McLuhan, De Tocqueville understood that typography has its own grammar in a sense. "For any medium has the power of

imposing its own assumption on the unwary." (McLuhan 1964, 206) De Tocqueville contrasted American and England by acceptance or rejection of print culture and its uniformity. England rejected print to organize their oral traditions and their culture.

A modern example of how a medium imposes assumptions is where Facebook allows its users to interact with the content of other users in three ways: by commenting on it, by sharing it to their own "friends," and by "liking" it. The latter is the easiest way to engage with content because it takes a single click of the mouse to execute. It has been noted that because Facebook does not include a "dislike" button, users are more inclined to only post about positive things to gain more "likes". This plays into the notification system that makes Facebook so addictive and reinforces the assumption that its users should post about likeable things when posting content.

"But the greatest aid to this end is simply knowing that the spell can occur immediately upon contact, as in the first bars of a melody." (McLuhan 1964, 206) McLuhan believes that knowing is enough to be aware of these mediums holding sway over our usage of them. I'm not sure I entirely agree, even as a student of media studies, I still find myself at the mercy of media every day.

Next he addresses a portion of his essay to the book *A Passage To India* and talks about how it functions as a metaphor for his argument. He describes a conflict between oral, intuitive Oriental culture and visual, rational European patterns. In the west, we have confused reason with literacy. He goes on to argue that this conflict is symbolized in the book between sight & sound, written & oral perception but we may moderate this conflict by understanding the media. He draws an analogy to the electric world being as new to us as the literate world is new to the native American. This is indicative that electronic media was very new in 1964, "mental breakdown of varying degrees is a very common result of…inundation with new information…" (McLuhan 1964, 207) In the 1960s, it seems that they viewed electric information as chaotic

indeed, "Electric speed mingles the cultures of prehistory with the dregs of industrial marketeers the nonliterate with the semiliterate and the postliterate." (McLuhan 1964, 207) His choice of language here is interesting, especially "dregs" when talking about, what I believe to be, advertisements from marketers.

McLuhan reinforces his point that the more we are aware of the effects of technology on our psyche the more we are sure where to place guilt on what causes our faults with it. The literate man, he continues as he makes an analogy, sees someone who can't conform to methods of literacy as pathetic. Another analogy is drawn with criminals, "If the criminal appears as a nonconformist who is unable to meet the demand of technology that we behave in uniform and continuous patterns, literate man is quite inclined to see others who cannot conform as somewhat pathetic." (McLuhan 1964, 207) The American stake in literacy as a technology is threatened by electric technology, he continues. "The effects of technology do not occur at the level of opinions or concepts, but alter sense ratios or patterns of perception steadily and without any resistance." (McLuhan 1964, 207) He then makes the claim that only the artist is able to perceive these effects because they play with this medium as part of their products.

McLuhan next goes into an example of how the money system changed Japan in the seventeenth century. It lead to the breakdown of the feudal government and reorganized the "sense life" of people because it is an extension of our "sense lives." I'm not sure what he means by "sense life." He goes on that the man in a homogenized literate society ceases to be sensitive to diverse and discontinuous life forms. Here he is referring mainly to people who have not been socialized to a form or structure typical of the modern age.

After, he gets technical by referencing the historian Arnold Tonybee who outlines that etherialization is the principle of progressive simplification & efficiency in any organization/technology. To get our bearings, he says we should visit a society where the

particular form has not been felt. I understand this as talking about visiting peoples who have alternate views from ours of how the world is structured.

He then discusses a dense concept, An equilibrium theory of human diet and expression, that we are striving to work at again after centuries of fragmentation and specialism. Failure of maintaining equilibrium, he says, between the strength of the techniques of communication and the capacity of the individuals own reaction has been typical/total for mankind. This in essence is discussing how the mediums of communication are powerful at imposing their principals and ideologies and how humans very typically don't have the capacities or mental acuity to be aware of this. "Subliminal and docile acceptance of media has made them prisoners without walls for their human users." (McLuhan 1964, 208) By prisoners without walls, he implies that their minds and perceptions are prisoners of the ideologies that the medium imposes.

He follows this with a quote from A.J. Lienbling: "A man is not free if he cannot see where he is going." (McLuhan 1964, 208) Essentially McLuhan sees media and especially over-stimulating, flashy, electronic media as forceful and controlling of our psyches if not approached with a sharp perception of it and a cautious, critical demeanor.

He complicates this by calling in J.U. Nef who says that societies based around one or two major staples are likely to have obvious patterns of organization. Technological media are staples or natural resources exactly like coal, cotton, or oil. Being based around a select few resources, he says, creates endurance in the population but instability in the economy.

The analogy he is setting up is presented here, "For a society configured by reliance on a few commodities accepts them as social bond as quite as much as the metropolis does the press." (McLuhan 1964, 209) This pervasive fact creates the unique cultural factor of each society. "That our human senses of which all media are extensions are also fixed changes on our personal energies, and that they also configure the awareness and experience of each one of us…"

(McLuhan 1964, 209) McLuhan finishes his piece with an example of what happens when one lives in the constant atmosphere of a medium.

The implications he is trying to lead us to here are the ways in which all mediums carry with them grammar that is the principals and ideologies that they are conceived by. These ideologies impose themselves on our consciousness as we interface with them simply by the way we must involve ourselves to extract or receive the information we are seeking from them.

Reviews of Essays Key to New Media History

Will There Be Condominiums in Data Space? By Bill Viola, 1982

This essay follows McLuhan's because of the way it builds both on his perspectives on how the medium influence us but also on how our role as audience, viewer, or user influences the way that media are constructed. Viola brings some very interesting perspectives as an artist from a little more than a quarter century ago using an early digital medium or a late analogue medium depending on how one chooses to look at it. From his very first point relating to identity and existence to his final message about the prevailing nature of humans regardless of the media we use, he lays the last piece of groundwork for my understanding of New Media.

Viola begins by describing how our existence is a continuous unbroken thread and is only seen otherwise because we sleep and because of how our systems of memory work. They give us the impression of sections or parts and the mainstream media and movies reinforce this. The interesting thing he notices is that, if things have parts, then they can be rearranged. Memory is a filter of our experiences: it edits out the mundane. In the age of information overload, the ability to forget is a prized skill. But this has also accelerated the perfection of recording technologies, he says. Viola addresses ancient memory techniques as well here. Memory systems have their own architecture, just how idea spaces have their own structure. The model of time is an unfolding linear path but data space is different. In data space, information is entered which defines a field to place calculations and binary events on. With computer graphics, this becomes an imaginary yet real space. The screen here becomes the mind's eye or a third viewpoint. However, he continues, the space must exist in the computer first.

The idea of holism came to Viola through encountering video. Computers and software technologies think in terms of whole structures. Data space is fluid where as real space is stone. "Word processors allow one to write out, correct, and rearrange the whole letter [or message]

before typing it." (Viola 1982, 465) As he was editing his video piece on a computer for the first time, he realized that the computer had a structure. Film is a present tense medium, there is no before or after. Only one frame is viewable per moment.

The historical record is a notation system of events in time, Viola states. There are symbolic coded systems for recording/playing back events or information in time. As a contrast, he gives poetry which he says has a visual system: the words and gaps appear on paper all at once as a visual summation of the poem's words. He understands our cultural conception of knowledge as building something up from zero, piece by piece. However Viola also presents an opposite perspective, the subtractive. To him, science approaches nature as though it has some grand code with a sense of purpose. Everything seems to be related and interlocking, similar to the way a jigsaw puzzle is complete; we are required to carve out our own realities.

Viola then proceeds to address the importance that he sees in structuralism. He states that the core ideas of structuralism remain important in New Structuralism and that it is vital that structuralism be reconsidered. He also mentions that Western eyes are drawn to the visual, surface appearance, and that "realism" is defined as how something appears to the eye.

Viola then addresses the conflict of realism in art through referencing A.K. Coomaraswamy: "True art, pure art, never enters into competition with the unattainable perfection of the world." (Viola 1982, 466) Coomaraswamy talks about how Western art is conceived through a frame or a window and brought to the spectator. Alternatively, Oriental image is seen in the mind and projected into space: The icon is carved or painted. It is not an idealization, but a visual symbolism. Oriental art represents a continuous condition. In contrast, European art depicts a moment.

Viola continues from here describing how art as a diagram has not left the middle ages. Western art, though, has evolved from the sacred to the profane, and has maintained its relation between architecture and image. Painting as well became spatial and architectural.

He then shifts his focus to the 1980s to talk about how the computer is merging with video. The ultimate recording technology, he says, is being developed. It is a total spatial storage place similar to the cathedral loci method for memory, but inside of a computer data field instead of the world. Next Viola discusses videodiscs and their medium properties: They contain all possible paths or branches of information for the viewer to access on the disc itself. Viola correctly assumes that soon, notions of the master edit and original footage will disappear, "Editing will become the writing of a software program that will tell the computer how to arrange the information on the disc…" (Viola 1982, 467) This includes allowing or not allowing the viewer to intervene in playback. Playback will also become simply a frequency to be altered and experimented with, and he asserts that video is now getting "intelligent." (Viola 1982, 467) The concern is expressed that soon we will find limitations not with the tools, but with the imaginations and abilities of the creators.

Viola then talks about how we are shifting away from constructing a program and to carving it out potentially from multiple programs. It proceeds from the eye and ear to conceptual structures in the brain and thought processes. The nature of electronic systems are such that an electronic signal can be an image fed into a video monitor, it can be an energy diagram fed into an oscilloscope, or it can be a sequence of sounds if it is fed into an audio system. He defines "branching" as the term used to describe data structures in video discs (Viola 1982, 468). As the audience, we are allowed to proceed at our own pace through the information on each disc.

"Even though the technology is interactive, this is still the same old linear logic system in a new bottle." (Viola 1982, 468) Viola proposes new diagrams such as the nonlinear matrix

structure for video discs. He describes this as a matrix where all directions are equal and where the act of viewing the video disc becomes the exploring of it. This is a shift into idea space, as they exist in the brain and not on a planning board.

What I think he is basically describing is the transition from hot media to cold media, terms I am borrowing from McLuhan. Each presents different expectations and assumptions. Hot media is media that you can lean back and absorb the information from, like the heat from a bonfire. Cold media is a media that requires the user to lean in to access this information, similar to how one has to lean in to get what they want out of a chilly refrigerator. Interactive technology allows its users to reach in to influence how it will present information to them. Good, well designed interactive technology walks a fine line between how much it requires users to reach in to activate it and how much it lets the viewer kick back and absorb the information without much effort. This, in a sense is what video discs and video disc artists like Viola are experimenting with when they are trying out different diagrams or structures of information presentation.

Viola continues; Now with pictures and video we are mapping the conceptual structures of our brain onto the technology. The next evolutionary step will be the area of intelligence perception and thought structures. Eventually, "everything will be irrelevant and significant at the same time." (Viola 1982, 468) He then gives an example of different neuroses mapped on to the computer.

Viola hopes that artists will get to explore new technologies and gives the example of a fashion designer using computers, "All phases of his work could occur on the same screen as digital information." (Viola 1982, 469) He will be able to "travel" in space and time (Viola 1982, 469). To me, this sounds like a horrible and boring idea because I have had many experiences of being able to do something like this and it is not as liberating as it sounds. This is the breathy speak of a "computer revolutionary" that Langdon Winner was talking about in his essay.

Viola is worried that current students and teachers will ignore technological developments, but from my perspective I don't think he had much to worry about. Artists, he continues, must also be involved with the development of new technologies to ensure that innovation and unique applications emerge. "Artists have been to different parts of the brain," he announces (Viola 1982, 469). At this point I don't' think he's making an especially educated claim for artists. In fact, I think this argument would sound the same if he were a factory worker because he would probably just replace "artist" with whatever his occupation happened to be.

Viola goes on to say that further investigation of relations are required between artificial memory systems, structuralism of scared art, and image and architecture. He goes on to champion artists by saying that it is important to turn the technology back to the prime movers of the technology as it is developed. This sounds strange to me because we as humans, are not building these technologies for any other species. If he is talking about artists specifically, I think he is incorrect in assuming that the engineers will enthusiastically hand over the work they've developed to the artists so that they may play and experiment with.

Near the end of his article, he asserts that there will in fact be condominiums in data space and that they are already there in a sense. His most important point is as follows, "Development of self must precede development of the technology or we will go nowhere…" (Viola 1982, 469) This, I think, is interesting and significant because it exposes an opinion that the human, in a metaphysical and intellectual sense, must be actively developed. Without our faculties operating exceptionally to keep us mindful of the media we are using to gain meaning and information we are informing this for ourselves on we are at the mercy of these tools we have made for ourselves and whomever's agenda they may be employed towards furthering. This also applies in a humanitarian sense because technology can only assist us each so much. Using

one medium of communication over another does not change one acting in an ethical or evil

manner if they are previously inclined to be.

Exploring further: The Storytelling Machine

How New Media Reduces Isolation

To take a step back from human nature, let us approach the development of the first humans. Quickly after language developed, humans developed the oral tradition and then the practice of painting on walls. These two together were the first media humans had of attempting to understand their place in the world, and of how they thought it was created. If we can share an idea or story about how the world was created with someone else then one has a common meaning with them. This is more true if they agree with one's story. It becomes a common understanding of how they came to be.

By recording this on a wall, they record a concrete copy that they can reference when telling their stories to others, and when telling others the meaning of what they think the world and the things in it is. These drawings could be reproduced by others; they could be used to tell the story even if the author was not around to tell it themselves. Thus was the first benefit of having a medium to transmit ideas by.

These first drawings on walls represented the things that mattered to them: the animals that they hunted for food and the people that they knew in their social groups. Note that these drawings were not geometric shapes or explorations in topology. They were not abstractions, they were of things that they knew to exist in the world. However, these drawings, the mediums of speaking and of drawing were not enough, they were limited.

Because of this, we developed writing. The oldest known use of writing was in China as divination, the attempt to gain insight into questions or situations by way of an occultic, *standardized* ritual or process. One definition of Divination sees it as a *systematic* method by which one is able to organize what appear to be disjointed, random facets of existence such that they provide insight into a problem at hand. So early man was trying to gain insight or find

meaning out of chaos, and they were doing so in a *standardized* way. The medium of divination had its own grammar in this standardization, similar to the mediums discussed previously and their grammar.

But why was divination standardized or systematic? Put simply, to provide a common structure to make sense of many meanings resulting from its processes. Oftentimes, the results or insights of these divinations were heavily recorded or documented. Early man, similar to modern man, was trying to find meaning by gathering and organizing more information about their world together and seeing what patterns they could perceive from the process. An example of this was the discovery of the cycle of different seasons and when to optimize the harvesting of crops. These meanings were easily organized into narrative or story structures to more effectively create understanding about ways of viewing the world, of knowing other cultures, and of other cultural patterns that could be passed on to future generations with ease. These stories also helped to provide the context of a group identity within which each individual was better able to locate the story of their own identity as part of a larger whole.

As Bill Viola said, our existence is a continuous unbroken thread. We maintain hold on this thread by placing the story of our identity on top of it, as a layer to discern meaning from it. Our sense of identity is understood by the story we are each able to tell about our continuous existence in this world based on the memories we retain. This is the continuous unbroken thread of your existence: the memories and the story that keeps them together and collectively coherent.

Of course memories are not perfect. This process of encoding information, storing it, and being able to retrieve it later is imperfect because it is a human process, and humans are not perfect. Even so, you would still have the ability to tell me the narrative arc of your existence, including the most influential events, the inflection points, and events of the gained knowledge and how each altered your life's trajectory. It might not be factually sound but it would get the

sense of you across. This imperfection may naturally be frustrating to us. Making sense of your identity and the identity and the identity of the culture or community you are a part of becomes easier when you have better methods of keeping track of that story and the story of the community collectively. Aside from feelings of frustration with imperfection, we also commonly struggle with feelings of isolation. Isolation, the feeling that one lacks contact with other people, has historically been considered a form of torture. Enforced loneliness, better known as solitary confinement, continues to be used as a punishment today. But even apart from this, emotional isolation is not uncommon among humans in well-functioning social networks.

These feelings of frustration and loneliness drive society to refine and develop better mediums to keep track of this information and of these stories about us and our collective communities and cultural organizations. New Media is the most recent refinement of this long progression of meaning-making mediums. Granted this is not the exclusive purpose of these mediums, but it is I think, the most significant one.

New Media at the core of my perspective is a storytelling machine. Through it, we are better able to communicate the things that have shaped our individualities and attempt to relieve feelings of emotional isolation by better illustrating and sharing what it intimately feels like to be us, with others.

I wish to revisit my definition of it again: New Media is a digital, archival, real-time, interactive, networkable, dispersible, cheap, accessible, combination of text, video, pictures, and audio that includes in itself film, TV, video, radio, music, letters, telegrams, instant messages, books, newspaper, magazines, photography, drawing, the telephone, and the videophone.

We've reached a point today, as I am writing this, where our computational technologies are able to contain the multiplicity of previously unrelated analogue media in one collective medium. We still have a very long way to go towards it being a perfect medium for us to share

meanings and common understandings of the world with, however it is a step in that direction. It will do so by providing a common and eventually universal grammar and structure. This concept of grammar and how it is employed here will be discussed next.

Exploring Further: The Storytelling Machine

Grammar and the Archive

Because New Media can be thought of as a single medium, and because it is defined by or contained within the Internet, the methods by which information is distributed along its network have largely been standardized. I acknowledge here that there is a lot lacking in my discussion of the technical aspects of New Media's ability to communicate information between computers, tablets, and smartphones. I would love to be able to provide an analysis or summary about the technical workings of the Internet and computers networked through it, however I am unable to afford the space at this time. What I hope to say nevertheless can still be discussed in lieu of this.

New Media has provided for us a common structure by which we are able to encode, store, search for, and retrieve information about the people, places, things, histories, and ideas about the world that other people have contributed to it before us.

To again reference Marshall McLuhan's discussion of the French Revolution via De Tocqueville, the catalytic medium of the French Revolution was the printing press and its industrialization due to the Industrial Revolution. The grammar, the message inherent in the medium, was the principles of uniformity, continuity, and linearity.

The principles that New Media brings as a medium to the proverbial table are the networkability, interactivity, and accessibility of its digital contents. These principles provide the framework for the digital information it contains about the text, pictures, video, and audio to be approached and altered in these ways. This is all still within the standardization of digital information, which contains or constrains the influence that this information can directly have on the outside world. This also creates a standardization of the methods by which we are able to communicate with others and a common field upon which to build programs, digital tools and

machines, to receive, interpret, and respond to and re-send this information. By extension of this, we also now have a common means by which to share stories about our individual and collective identities, experiences, and lives.

This allows us in the long run, the potential to make better meaning of the world and understand our collective place in it. Even if we were to input to the medium in a different language or in an alternate order or style than would be understood, the programs or tools would be there in the medium to translate or rearrange the information into a style that can be made sense of. To reference Bill Viola, New Media provides a common data field in which we have a set of principles by which to structure stories and information. By sharing, comparing, and observing other's stories and meanings of the world, we can collectively reduce isolation and make meaning of the world. New Media even provides us the ability to collaborate globally to gain greater knowledge by exploring and refining ideas, understandings, and perspectives with other cultures and perspectives.

In addition to this grammar, another important aspect of New Media is its characteristic of being an archive or, more specifically, both an archive and an archive repository. The archive, or the resulting information of an organization's actions can be analyzed to better understand the organization itself. The information stored in an archive has enduring cultural, historical, or evidentiary value. In this perspective, New Media can be viewed as a massive digital record of communication between large networks of humans in the last three decades at least. We are already able to, and will in the future be able to, analyze large portions of the data of our usage and actions within the medium of New Media to better understand our behaviors, patterns, habits, and overarching human natures. When I say we, I emphasize that nearly anyone with access to the internet and to a computer will be able to access this information and attempt to make sense of it. Accessibility was one of the principles of New Media's grammar and

considering this, the medium as an archive should remain accessible to those who use it. I don't state this in the hope that it will remain accessible, I state this with the confidence that even though large corporations like Google and Facebook are currently trying to wall off portions of the internet and contain their users inside of their sites, there will always me more space for the internet to expand, in order to accommodate another new website or join with a new network. Given sufficient knowledge of the structure of these walls and networks, we should always be able to theoretically access the archive.

This archive is also functionally impermeable to its information being destroyed or lost within it. Considering the speed at which Google and competing corporations archive all of the webpages and information included on them in the internet, as well as keeping it backed up to the millions of server banks around the world, New Media is close to being an invulnerable archive. In this sense, it is a much better archive than any physical archive anywhere in the world could be. A physical archive can be targeted by its geography to be destroyed if some malicious power were so inclined and powerful enough to do so. The archive that is New Media is everywhere and nowhere, similar to the multinational corporations that Bagdikian mentioned. These corporations are also likely claim ownership over the hardware and the means by which the medium continues to exist. I would think it a very safe bet indeed that the owners of these server banks would and already have put a lot of thought into making the server banks and the information that makes the medium they contain, incredibly difficult, if not impossible to damage, corrupt, or destroy permanently.

Conclusion

New Media is a digital, real-time, interactive, networkable, accessible, combination of text, video, pictures, and audio that spans the globe. It is the most refined medium by which we are able to make meaning from the world by using it to collect, access, organize, and analyze large portions of data about human actions and interactions. It functions as an archive and as a storytelling machine that carries with it the principles of networkability, interactivity, and accessibility of its digital contents. These principles allow it to get close to being able to transcend space, time, language, and culture, as well aid it in being a near-invincible archive of information.

New media will be useful towards refining our ideas but to make significant change with it we will need to establish a method of educating the next generations to use it effectively. At the moment, learning how to use social media wisely is not something that is taught particularly well in public schools. Social media literacy can be inadvertently learned through being taught to read critically and consider sources of information, but even then, it still has great potential to miss the mark. Given enough experience and the right approach with it, it can be incredibly powerful at telling vivid, current, accurate, and engaging stories with a collaborative feedback element from people we are already connected to and to people we have yet to connect with. It reduces the isolation that we feel in the world because our thoughts and stories can be shared with others, which I would argue, is its most important message.

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