The Incorporation of Digital Journalism Education

by

Sarah Muller

A creative component submitted to the graduate faculty in partial fulfillment of the requirements

for the degree of

MASTERS OF SCIENCE

Major: Journalism and Mass Communication

Program of Study Committee:
Kelly Winfrey, Major Professor
Jan Lauren Boyles
Doug Smith

The student author, whose presentation of the scholarship herein was approved by the program of study committee, is solely responsible for the content in this creative component. The Graduate College will ensure this creative component is globally accessible and will not permit alterations after a degree is conferred.

Iowa State University

Ames, Iowa

2021

<u>Dedication</u>

This research is dedicated to the hardworking journalists who covered the year of 2020. It is for the journalists who listened to the heart-wrenching stories of those impacted by the COVID-19 pandemic, who were tear gassed while covering marches for racial equality, who were arrested while doing their jobs, who held those in positions of power accountable, and for those serving their communities one day at a time.

Table of Contents

List of Figures

__Introduction__

As of the spring semester 2021, the Iowa State University's Greenlee School of Journalism has four courses that specifically deal with "digital" components. However, those courses either handle editing software, such as Adobe Studio, or provide instruction on how to use electronic equipment, such as video cameras. As the world of communication pushes toward digital platforms, the Greenlee School must adapt its curriculum to include important topics such as search engine optimization, analytics, algorithms, e-newsletters, digital media ethics, content management systems, and more.

Through this creative component, I lay out five lesson plans that could be implemented in current Greenlee courses that address the topics previously mentioned. These lessons range from structured lectures to informal discussions. Each lesson contains learning objectives, reading and videos, a description of the lecture material, and an assignment for students to complete. While the lessons are centered around journalism, all of the materials are inclusive to advertising and public relations students and their needs in the field.

If an instructor is inclined to implement the material from this paper into their courses, it's important that they confirm all of the content is still relevant and accurate at the time it is taught. The world of digital journalism is constantly changing, and the curriculum needs to reflect that. Examples provided should be updated with more relevant information, and any guidelines surrounding social media and website tools should be confirmed.

The lessons in this paper rely heavily on the experiential learning model (Kolb, 1974). This model encourages students to not only be educated through traditional learning structures but take real-world examples and apply them to their education. That is why I am encouraging

the use of guest speakers when teaching these topics. The Greenlee School of Journalism has an

extensive list of alumni who are currently working in their respective fields who can provide

vital insight on these lessons.

Literature Review

Changing World of Journalism

What are news outlets willing to do to avoid becoming irrelevant? This is the raw question asked by Singer (2008) and other researchers who are looking into the shift that media conglomerates are making. The answer they all come to is digital media. In recent years, researchers have extensively recorded the response from news outlets as they adjust to the online atmosphere. Journalism itself remains relevant, as it's pivotal in America's society. However, the mediums in which the reporting is published are becoming more competitive. Herther (2019) refers to the internet as the fourth pillar of democracy. She explains that while the journalism world fights on how to proceed, the digital space will continue to develop regardless of how fast media outlets catch up.

The Pew Research Center's (Grieco, 2020) findings show that newspaper employment dropped by 51% between 2008 and 2019 in the United States. Meanwhile, broadcast television saw a slight rise in employment, and digital-based websites increased their employment by 117%. Other research from the Pew Research Center (Mitchell, 2018) states that 34% of Americans want to get their news from social media, websites, and apps. This is an increase from 28% two years prior. Studies state that online is the dominating field for news consumption for Americans between 18 and 49 (Mitchell, 2018). Looking past the numbers of Americans relying on digital media for news, Pew Research also finds that the user experience is of extreme importance. A 2019 study found that 82% of subjects valued the ease of using a local news website (Mitchell, 2018).

Some business managers find the attraction to digital media because it's less costly. The expenses dwindle to the cost of a domain name, renewal, and registration. This is minuscule compared to the printing costs of a hard-copy or the operations and equipment of broadcast (Rooksby, 2011). Yet, the journalism world continues to dwell on how to transition a traditional newsroom into the 21st century. Evans' (2016) research interviewed executives at national news organizations on how they're approaching the digital frontier. One of the executives said:

> According to a Senior Executive at the Public Media Futures Forum, station managers have been throwing a lot of 'spaghetti against the wall,' but there has been no strong 'culture of regular change' in many stations or at National Public Radio (NPR) itself. (Evans, 2016, p. 287)

Another concern discovered in Evans' (2016) research was that the news outlet couldn't plan extensively since the world of digital media was changing so rapidly. One senior executive said that the rate in which tablets and smartphones were adapting were causing "our head (sic) to explode" (p. 287).

Meanwhile, digital journalists are having a difficult time keeping up with trends as well. Digital journalists, like others in the newsroom, are being forced into becoming a jack-of-all-trades. They're expected to write the articles, edit videos for the website, organize the homepage, post on social media, monitor analytics, and more. Moller Hartley (2013) reminds us that while reporters have specific beats they specialize in, digital journalists have to be prepared to write about any subject at a moment's notice. Garcia-Aviles (2016) explains that the jack-of-all-trades system doesn't work because it's not sustainable.

Anderson (2011) empathizes with the stress that comes with being a digital journalist. While newspaper editors have to worry about the layout of the print product one time every day,

digital journalists are reconstructing the layout of the website's home page multiple times throughout the day to increase performance. Producers only have to be concerned about their show's deadline, but digital journalists have extremely demanding deadlines since the hunger for information online is never-ending. Singer (2008) says that digital products are never finished and constantly fluid, unlike print products and newscasts.

There are multiple stress points when it comes to transitioning a media outlet to a digital-first mindset. Research confirms the certainty of audiences' reliance on digital media. Executives have expressed their frustration, trying to figure out how to connect with users. Digital journalists are being stretched thin.

Journalism Education

Instruction around journalism practices has been criticized since the beginning of the industry, according to Anderson (2014). He claims that before digital media caused confusion amongst educators, there were already debates on how to teach journalism. As a collective, researchers found critical errors and gaping holes in journalism schools across the country, but they hadn't come to a conclusion on how to repair the institution. Miller (2013) wrote a first-hand account of touring journalism schools with his son, who was a prospective student. After observing some of the top schools in journalism, Miller said,

> There was a distinct lack of emphasis on digital marketing and publishing techniques. As an example, we were shown a nicely equipped newsroom, which is great, but most students aren't going to be working in a conventional newsroom. I'm not suggesting the schools shouldn't be teaching basic skills, but they need to be emphasizing blogging, content marketing, and online publishing alongside more traditional methods -- and the student tour guides never mentioned those. (p. 32)

Multiple authors echo his concerns. Westlund and Lewis (2015) explain that journalism schools need to integrate traditional editorial skills with technical necessities. The industry has often thought of the app developers and social media publishers as separate industries from their editors and journalists. However, there has to be an integration where the two concepts can blend together. Nikki Usher (2016) explains that digital journalists could come in the form of what she calls "hacker journalists" or "Journalist 2.0." The hacker journalist has a journalist's education but has the skills of a hacker or programmer. They can create data visualizations or translate information into a digital platform. The idea of a hacker journalist introduces the requirement to run the technology aspect of the newsroom. Understanding code, the back-end of websites, and the functionality of digital platforms have also become a requirement for digital journalists. Digital journalists also have to be marketing professionals when evaluating analytics and translating their purpose to the newsroom and the sales department. Essentially, digital journalists are a hybrid of skills that newsrooms have not needed until recently.

Usher's (2016) idea of a hybrid journalist is just one model of what journalism institutes could be preparing for the industry. The question remains: How can higher education institutions develop courses focused on digital journalism? Garcia-Aviles (2014) said that students wouldn't understand the standard required by the industry until they step into the newsroom. More specifically, he calls out digital journalists for needing to learn from their peers in the industry in order to comprehend what will be expected of them. Other researchers have a more hopeful outline of what courses could be implemented to expand their school's curriculum. Bright (2020) suggests a slow integration of classes on coding, social media, artificial intelligence, digital technology like 360 videos, and whatever else may come into the digital atmosphere.

A study conducted by Du and Thornburg in 2011 examined the difference between journalism educators and journalism professionals on where they believe digital education should go. Both groups were provided a list of digital subjects and which ones should be a priority in the classroom. Professionals favored Photoshop, web layout, user experience, and HTML. Educators prioritized audio reporting, audio editing, soundslides, and search engine optimization. Professionals also wanted students to learn more about working under pressure and adapting to new technology. It should be noted that of those surveyed, 8% of educators said they hadn't worked in a newsroom with digital integration. Du and Thornburg (2011) say, "this suggests some level of unfamiliarity with real newsroom routines among the instructors" (p. 227). Some studies have already implemented pilot classes to see how they would resonate with students. For example, Belmont University started a digital storytelling class that found success in training students to create websites through HTML and CSS while using video and audio components (Lee, 2019).

The transition from a traditional curriculum to a modern curriculum won't be easy. Webb (2015) suggests that the change would have to come from the top down. Administrators have to see the value in changing the program in order for the overhaul to be a success since they're the ones that set the tone for the department. The faculty doesn't have enough influence to make the change on their own. During a self-determined amount of time, the journalism school needs to reassess the courses it's offering to verify the classes are still relevant. Some institutions conduct this process every three years, while others can take decades to re-evaluate. Webb (2015) said the self-auditing phase is where the digital journalism initiative can die because it becomes a circus of meetings, administrators and faculty will doubt the value, or the influence of an individual can derail the project. In addition, concerns about the balance between new media and

traditional practices can cause a rift between educators. Some may feel the need to defend the core foundation of journalism education through reporting, photography, and ethics courses, and do not acknowledge the value in digital content (Berkowitz, 2017).

Accreditation could help with pushing institutions further through the digital journalism process, but it's not promising. The Accrediting Council on Education and Journalism and Mass Communications has one value that attributes digital components. According to the ACEJMC's handbook (2020), the institution must "apply current tools and technologies appropriate for the communications profession in which they work and to understand the digital world" (p. 15). This is extremely vague and has no indicator on how to measure that goal. The standard holds no substance when it doesn't specify what practices to integrate. Webb (2015) address this when she says:

> To its credit, the ACEJMC now includes among its criteria "instruction, whether on- site or online, is demanding and **current** [ACEJMC's emphasis], and is responsive to professional expectations of digital, techno-logical and multimedia competencies." The ACEJMC is already working to emphasize applied research that informs the practice as a criteria for tenure and accreditation. Currently, there is no incentive or reward for iteration or to significantly modernize journalism programs within a reasonable timeframe. (p. 23)

While she gives the ACEJMC credit for emphasizing current practices, it still lacks specificity. Even though Webbs' comments were made five years ago, the accreditation council hasn't improved their guidelines around digital education for journalism schools. If accreditation programs are behind on implementing digital practices, how are we to expect our journalism schools to keep up?

Experiential Learning Theory

The Experiential Learning Theory is one of the most relatable learning theories in the journalism education field. David A. Kolb (1974; 1984) developed the concept as a tool that breaks down the learning process for students. There are four stages to the Experiential Learning Theory. The first stage presents the students with a new experience: concrete experience, reflective observation, abstract conceptualization, and active experimentation. In the second stage, they will think through the experience and have initial reactions from it. The third stage allows them to reflect on the experience and consider how they've learned from it. The fourth stage enables the student to apply what they've learned.

Kolb (1974) explains that the Experiential Learning Theory stretches past the classroom and into the student's everyday life. It is not meant for one discipline or practicum, but for students to use throughout their life when presented with a new scenario. While Kolb's theory has only been named in recent decades, it's one that's been used in practice since the dawn of humankind. Experiential learning is supposed to be applied to "social and physical environments" (Kolb, 1974, p. 40). Experiential learning also embraces interpretation and experimentation and can result in creativity. Students should be allowed to analyze the message and be open to its application in the way they see fit. Finally, the Experiential Learning Theory encourages the development of the learning process. It should be continuously developed, as Kolb explains. The educational experience cannot remain linear and stagnant.

The Experiential Learning Theory bridges the gap between the classroom and real-world experience. It provides a safe space for students to learn and grow while still having the safety net of the educational environment. This is why the Experiential Learning Theory holds an important place in higher education journalism courses. Wrenn and Wrenn (2009) emphasize

that the classroom setting and real-world experience are both equally valued, "While experience is a great teacher, it cannot replace what can be best taught in a classroom and vice versa" (p. 258).

Researchers have found vast success in applying the Experiential Learning Theory. A study by Trolian and Jach (2020) finds that the engagement of students, and even faculty, increases when using this theory. Findings indicate that students were more engaged with tests, assignments, course content, research, and extracurricular activities. It enhanced their motivation inside and outside the classroom. The elements of this paper will continue to show the value in executing the Experiential Learning Theory in not only digital journalism courses but also journalism schools generally.

Digital Journalism in the Greenlee School

Iowa State University's Greenlee School of Journalism currently has four classes available, primarily for undergraduate students, that address digital topics. The following is a list of the classes and their descriptions according to the Greenlee School of Journalism's (2020) website:

- Digital Video Production (JLMC 307) - Creation of video productions for use as communication tools in advertising, promotions, short documentaries, and public relations. Technical and artistic fundamentals of video production, including planning, scripting, shooting, lighting, and digital editing (para. 9).
- Digital Storytelling (JLMC 315) - Identify and critically evaluate multimedia elements in journalistic storytelling. Produce audio, photographic, and video story

packages for a variety of outlets. Choose and work with appropriate digital tools. Learn economic, social, and ethical issues that influence media today (para. 14).

- Introduction to Digital Publishing (JLMC 316) - Digital publishing and beginning techniques in layout, photo editing, and vector artwork. Application of visual principles to design print projects (para. 15).

- Publishing for Mobile Devices (JLMC 317) - Creating, designing, and publishing content for mobile devices through use of industry-standard tools. Exposure to animation and HTML (para. 16).

The term "digital" in these courses is used liberally. As further research will show, the classes may be deemed "digital" because they use computer software but don't necessarily contribute to broader digital journalism concepts. For example, Introduction to Digital Publishing and Digital Video Production focuses primarily on the Adobe Suite, including Photoshop, Illustrator, and Premiere.

After prior research during my time in the graduate program, my classes while in the program, and my personal experience as an undergraduate student at Greenlee before transitioning to a digital role in the industry, I have identified five topics that should be taught at the Greenlee School of Journalism. The lessons that follow identify key components that communications professionals handle on a daily basis. The ideal way of teaching these lessons would be through the experiential learning theory (Kolb, 1974), so students can be exposed to the realistic ways they may approach these topics.

Project Background

As an undergraduate student at the Greenlee School of Journalism, I expected to take courses on journalism ethics and reporting. Through my time at the Iowa State Daily, I found a love for digital journalism. During my undergraduate career, there weren't courses at Greenlee exclusively for digital journalism. Digital journalism education continued to prove to be an issue when I entered my job in the journalism industry at KCCI TV. I decided to return to Greenlee for my master's to expand my understanding of digital journalism education.

For Greenlee's graduate degree, there were no classes in the program that exclusively specialized in digital journalism. Therefore, I relied on the flexibility of my professor's assignments and independent studies. Over the summer of 2020, I conducted a pilot survey of Midwest journalists about the current climate of their newsrooms. The survey asked about educational backgrounds, responsibilities, and the ways their department interacts with the rest of the newsroom. During the fall semester of 2020, I took a course that allowed me to interview Greenlee alumni. The professor gave me permission to ask questions regarding their digital journalism education at the school. This prompted me to conduct three in-depth interviews, approved by the Iowa State's IRB, with Greenlee alumni during the spring 2020 semester and focus on their digital journalism education. The participants came from various communication fields, including photography, sports, and management. These interviews informed the content of this creative component. The participants were selected due to their high involvement in Greenlee's extracurricular activities and their journey between college and their careers.None of the three specialized in digital journalism, and they did not see themselves actively working with digital components when they were in school. However, all three now work with the digital sides of their businesses.

Through my creative component, I have examined the current course offerings to see what the school is providing in digital journalism education and where the school could add additional digital education. In looking at the current courses, I examined what topics they addressed and how those lessons would translate into the professional field. The majority of Greenlee classes focus on traditional journalism such as reporting, journalism ethics, photography techniques, and newsroom expectations. There are four courses that are labeled digital classes, but only address editing software training.

Based on the interviews I conducted, examination of Greenlee's current course offerings and my own education and experiences, I've identified five key components that should be added to the undergraduate curriculum in order to enhance a student's skills before entering the workforce. The common themes are the basics of digital journalism, search engine optimization, algorithms, analytics, and digital media ethics. The paper outlines five lessons that each could provide one week of material for a three-credit class. The majority of information used to produce the lessons in this paper comes from my graduate research and my professional career. As the digital editor at KCCI TV, I've learned these lessons firsthand in the newsroom, at professional conferences, and while working with my corporate office.

It's important to note that the lessons in this creative component are a skeleton for what the lessons should look like. As previously outlined in the literature review, the world of digital journalism is growing, and education should grow with it. The current state of digital platforms and examples used may change within months or years of implementing the lessons. The lessons should reflect the current state of digital journalism.

The lessons are focused on digital journalism elements. However, most of these subjects have already been approached by business schools as they pertain to public relations and advertising which would make these lessons easy to adjust for students in those majors. The lessons provide examples that pertain to non-news organizations to be more inclusive to Greenlee's public relations and advertising students.

Lesson: Digital Journalism 101

Rationale:

Communication strategies have needed to take a digital approach over the past few decades. Traditional-aged undergraduate students have been raised in a digital era, but they still need to be introduced to how various tools are being used in the workspace. While they've become savvy in the ways of social media and digital software, this lesson should set their expectations on what the current industry will be using and how it will be used. In a study conducted by Du and Thornburg (2011), journalism programs were found to have a deficiency between their digital teachings and what the journalism field was expecting of their employees. Furthermore, their study found that professors did not have the proper background knowledge about digital journalism to teach about the current tools being used in the industry. S.K. Evans (2016) explains that news outlets feel a desperation to keep up with the digital needs of the audience. Through this lesson, students will be introduced to a series of digital elements that they may face when entering their career field. This course will allow them to have familiarity with the different tools that are common across companies and organizations.

Learning Objectives:

Upon completing this lesson students will be able to:

- Identify the key tools used in digital communications.

- Understand the purpose of a content management system.

- Identify the purpose of an e-newsletter.

- Construct an e-newsletter.

- Identify third-party digital tools.

● Understand how different social media platforms are used.

Reading and Video Materials:

Before the course, students should read and watch the following materials:

● Newton, C. (2016, Oct. 28). Why Vine died: Closing the loop. *The Verge*.

https://www.theverge.com/2016/10/28/13456208/why-vine-died-twitter-shutdown

● Hughes, D. (2019, Aug. 26). The rapid rise of TikTok. *Digital Marketing Institute.*

https://digitalmarketinginstitute.com/blog/the-rapid-rise-of-tiktok

For the course, instructors need the following materials:

● Captain Gizmo (2020, May 18). Most popular social media platforms 1997-2020.

[YouTube video] https://www.youtube.com/watch?v=ihnUg0_eS8Q

Key Terms:

● Content Management Systems (CMS): A website builder that allows content creators to

upload to the website without using first-hand software coding.

● Online Analytics: Data gathered about the platform's audience and their behaviors online.

● E-newsletters: An online bulletin produced for a subscriber base and sent via email.

Instructor Lecture Content Material:

The following section provides an explanation of content to be used by the instructor in

adapting the lecture to their class.

Content Management Systems

Content management systems, otherwise known as CMS, are used at nearly every business and organization. A CMS is a user-friendly way to organize a website and post on it. CMS allows a content creator to upload to a website without having to produce coding or have software engineering expertise. However, most content management systems allow users to also alter the coding of its backend if they so desire. Some of the most common CMS companies that students may be familiar with are WordPress, Wix, Omni CMS, and Joomla. Most of those companies are built for smaller businesses and organizations. They take pride in providing a simplistic user interface for someone to build a website. These companies provide a linear process for businesses to choose their own template to work from. The users will then work off of a dashboard for their content creation.

Larger companies will typically code their own CMS. For example, large media corporations like Hearst and Gannett, will use the same CMS for all of the brands they own. For example, if we compare the websites of KCCI TV in Des Moines and KETV in Omaha, both owned by Hearst, we can see they have the same layout since they run off of the same content management system.
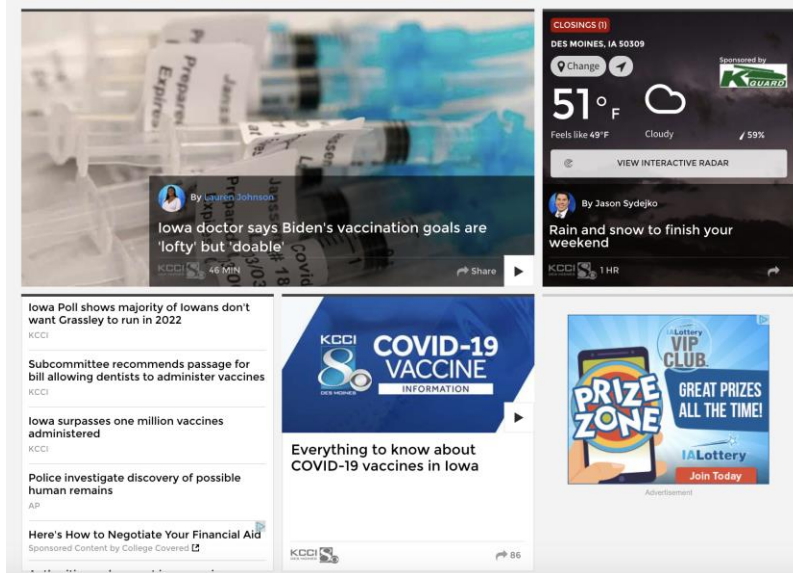
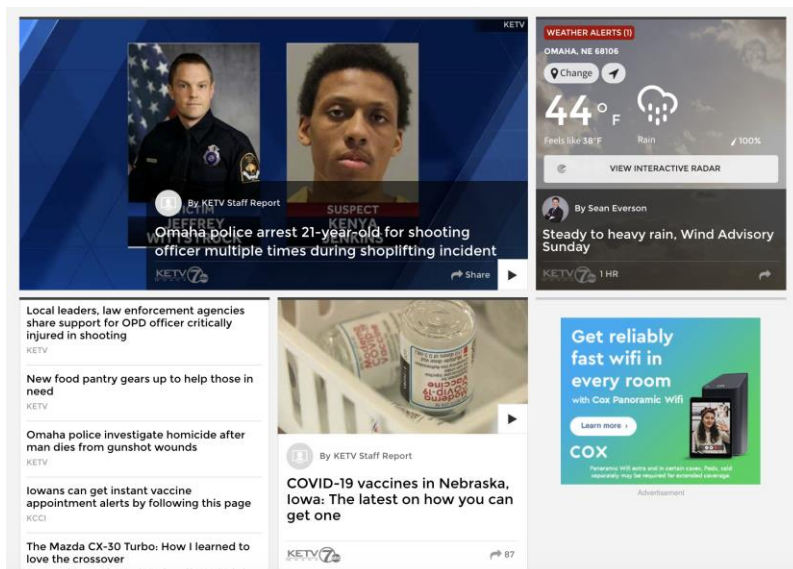*Figure 1 KCCI Homepage (2021, March 17)*

Figure 2 KETV Homepage (2021, March 17)

The same can be said for Gannett's publications. Gannett owns both the Des Moines Register and AZCentral, formerly known as the Arizona Republic. If we look at their websites, we can see they're nearly identical in layout.

Figure 3 The Des Moines Register Homepage (2021, March 17)

Figure 4: The *AZCentral* Homepage (2021, March 17)

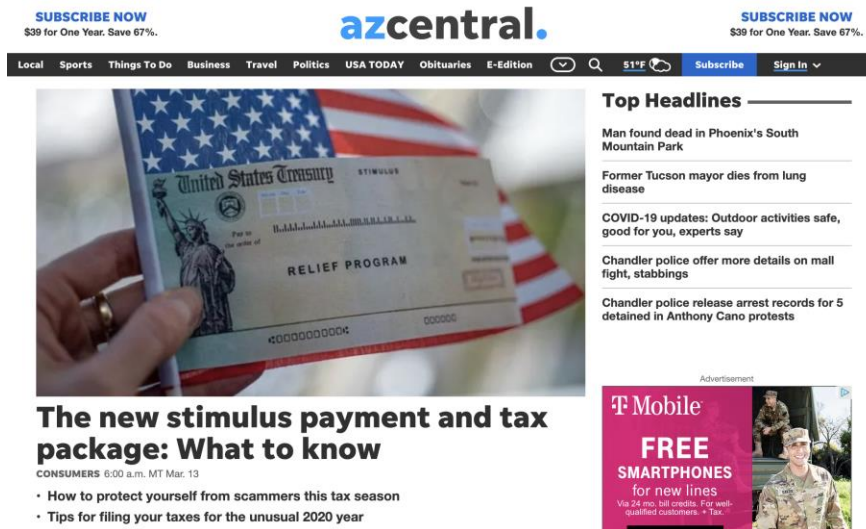*Figure 4 The AZCentral Homepage (2021, March 17)*

With this said, there are chances that a media outlet will have a slightly different layout than others owned by its corporate office. Since Hearst owns brands in newspapers, television, and magazines, the magazine websites will differ from the television websites. This has to do with the type of content they're providing and their target audience.

No matter what communication field a student goes into, it's important to understand the CMS used by the business or organization. When working in promotions, public relations, and advertising students will need to know what their website is capable of when collaborating with a client. Most news outlets require their journalists, photojournalists, editors to upload content to their website.

Social Media

The next digital tool used by businesses and organizations are social media platforms. While many may believe they know exactly what goes into managing organizations' social media accounts, they are operated very differently from personal accounts. Businesses and organizations will have a style guide and/or social media policy that helps guide their brand and decision making when it comes to posting on their social platforms. Whether the business is journalism, advertising or public relations-based a lot of the practices take root in marketing techniques.

The YouTube video "Most Popular Social Media Platforms 1997-2020" (Captain Gizmo, 2020) provides visualization of social media trends over more than 20 years.

Some of the most common platforms students may be familiar with are Facebook, Twitter, Instagram, Reddit, Snapchat, Pinterest, and TikTok. It's important to note the sudden changes in recent years to social media. While Facebook has been around since the early 2000s it has catered and evolved to its users' needs. Therefore, businesses need to also cater and evolve to the users' needs by changing with the social platforms.

Facebook was originally built for college-aged students to connect with others. However, it's transformed into a multi-faceted platform with Facebook Watch, Facebook Live, Pages,

Groups, Facebook Marketplace, Stories, and more. It went from being a platform for posting

pictures of someone's breakfast to live streaming the attack on the U.S. Capitol to millions. As

the social media platforms adjust, so do the communication opportunities. Media companies are

taking their shows online and grabbing at the opportunity to engage with users in real-time

through comment sections and live-streams. Breaking news tabs have allowed news

organizations to send alerts to social media users. Journalists are adjusting the way they reach

their audiences through the latest social media trends and technology.

Instagram, which is owned by Facebook, took a similar direction when executives

realized it needed to expand outside of pictures and videos (Constine, 2016). They expanded to

stories after the popularity of Snapchat introduced short-lived content. Instagram Live was

brought in after seeing the plurality of live streams on Facebook. With the introduction of

TikTok and audiences craving short, consumable videos, Instagram introduced "Reels."

Not all social media platforms have been able to keep up with the demands of their

audience. Vine was a video social media platform that allowed users to post 6-second clips. It

was originally a blogging platform. However, founders were surprised when it wasn't used for

daily blogging but instead as a creative challenge to fit content into a short span of time. In 2012,

Vine brought in $30 million. In 2013, when the app allowed users to record while using the

front-facing camera, the app exploded. By 2016 it was a cultural phenomenon, hosting memes

and iconic internet moments. In the article "Why Vine Died: Closing the Loop" by Casey

Newton (2016), they cite the app's inability to expand its platform to more features as the reason

for its downfall. Vine was failing to find new ways to make money and subsequently was bought

out by Twitter and dismantled.

On the opposing side of trends is Musical.ly, which became TikTok. Musical.ly originally was created in 2014 as a video creation app. Bytedance launched another version of Muscial.ly which was named Douyin to users in China (Hughes, 2019). However, in 2017 it was introduced as TikTok across other countries. Bytedance then bought and merged Musical.ly to create what we know today as TikTok. The platform became a video sharing medium primarily for Gen Z (Hughes, 2019). It re-vamped the idea of viral videos. The platform has become a place for daily blogging, memes, and even news updates from national news outlets. However, it's important to note the numerous privacy concerns surrounding TikTok. Former President Donald Trump attempted to have the app banned from the United States due to concerns that the Chinese government was taking advantage of the user's information (Allyn, 2020).

TikTok isn't the only organization with privacy concerns and issues around its platform. Facebook and Twitter have faced backlash from the public and the government on their use of algorithms to dictate what users see on their newsfeeds, as well as their handlings of false information, otherwise known as "fake news."

Third-Party Resources

If a business is trying to utilize all the social media platforms and reach each of their audiences in different ways, how can they go about doing that? There have been many third-party resources created, even directly from these social media companies, to assist with monitoring and publishing content. Twitter has developed Tweetdeck which allows users to monitor multiple Twitter accounts, schedule tweets, publish content, react to content, monitor hashtags, and more. A similar tool from Facebook is the Creator Studio. The Creator Studio allows Facebook users to schedule content, post across accounts, edit video content, and more.

Since Facebook owns Instagram, users can connect Instagram accounts to Facebook pages and post across both platforms in the Creator Studio.

Businesses and organizations use website and social media analytics to help them make decisions about how they interact with their audiences. Most CMS have an analytics tool attached to its software, but there are third-party resources available. Google Analytics and Parse.ly will monitor website analytics, from users to pageviews to times on page. Meanwhile, CrowdTangle is an analytics tool built by Facebook for its users. CrowdTangle allows users to compare the analytics of their page's posts to their competitors.

E-newsletters

The last digital tool to be addressed is e-newsletters. E-newsletters are digital bulletins sent to a subscription list via email. When approaching an e-newsletter, businesses need to decide if they need one, who their target audience will be, and how often it will be released. Some newsletters are free to sign up for, while others require a payment which allows recipients to get exclusive content. The business needs to decide how it will be inviting users to sign up for its e-newsletter subscription and set expectations for the user on what they will be receiving in the newsletter.

At this point in the lecture it will be helpful to show a variety of e-newsletters ranging from nonprofit organizations, news organizations, and private companies.

Figure 5 Online News Association's E-newsletter Jan. 27, 2021

Figure 6 Hy-Vee E-newsletter March 17, 2021

Figure 7: Need 2 Know March 16, 2021

1. COVID-19: LATEST DEVELOPMENTS

AstraZeneca is strongly defending its coronavirus vaccine after more European countries paused its use, citing a handful of reports of blood clots -- about 40 in the 17 million doses administered. Germany, France, Italy and Spain have temporarily halted the shot, even though the continent is now fully in the grip of a third wave that's being driven by new variants of the virus. In the U.S., the CDC is warning of another surge as airports have filled back up with Spring Break travelers. The TSA has been screening more than 1 million passengers a day since last week for the first time in a year. **AP**

Figure 7 Need 2 Know E-newsletter March 16, 2021

Our ridiculous fundraiser is back!

A masterpiece awaits!

Due to popular demand, our Poorly Drawn Pets fundraiser is back! For a $25 donation, we'll draw your pet. The catch? We're a whole lot better at caring for animals than we are at drawing them. We can't promise what your drawing will look like, but we know it'll be memorable!

Event Starts:
10 a.m. on Tuesday, March 16, 2021 (CDT)

Submission deadline for drawings:
Midnight on Thursday, March 18, 2021 (CDT)

SEE EVENT DETAILS

Participate on Facebook

Figure 8 Animal Rescue League of Iowa E-newsletter March 15, 2021

It's important to note that e-newsletters are inviting and visually appealing to users based on the content being featured. There should always be a call to action, whether that's directing people to a link to an article or asking them to participate in a social media campaign that is linked in the newsletter. For certain businesses where it applies, there is room for promotional and advertising content to be displayed in e-newsletters. Always make it clear what part of the newsletter is advertisement and what is organic content. Users should be drawn into the e-newsletter in their inbox by the subject line, so be creative, but on brand with your text. The e-newsletter should always have an option visible for the user to unsubscribe. It's typically toward the bottom in fine print along with the newsletter's copyrights.

E-newsletter Assignment:

Assignment:

- Goal: To create a company or organization's newsletter

- Task: Students will select a company or organization to build a newsletter for. They will produce a one-page e-newsletter containing at least three pieces of content from the business or organization's social media and/or website. Students may design it through a page document or the editing software of their choice. While producing the newsletter students should consider the following:

  ○ What is the primary audience of this e-newsletter?

  ○ What is the purpose of this e-newsletter?

  ○ What grabs the audience's attention when looking at this e-newsletter?

○ What would the subject line of the e-newsletter be in order to get the audience to click on it?

○ What is the call to action in this e-newsletter?

○ Is the content in this e-newsletter concise yet informative?

Grading:

Students will receive full marks for the assignment if they provide the following:

● Product: The student made a one-page e-newsletter for a company or organization using the company's content to achieve a specific goal.

● Audience: The student considered the company or organization's audience when developing the e-newsletter. They took into consideration the audience's wants, needs, and limitations when producing the content.

● Content: The e-newsletter's subject line is attention-grabbing to the user. The visuals used are appealing and relevant to the other content in the newsletter. There are at least three pieces of content in the e-newsletter. The e-newsletter's material is concise yet informs the audience or tells the audience where to find more information. There is a clear call to action for the audience to take such as clicking on a link, donating to a cause, or contacting a person within the company.

● Branding: The overall themes and message in the e-newsletter are consistent with the company or organization's brand.

<u>Lesson: Introduction to Analytics</u>

Rationale:

Analytics has long been used as a marketing and business tool for organizations to make decisions about their audience. With the expansion of social media and websites, data mining has entered real time with online analytics tools. Online analytics are often used to determine how a company decides to engage with its audience. Amanda Bright (2018) lists analytics as a crucial component to courses that should be taught in journalism and communication classes. Jane B. Singer states that news organizations should put "most, if not all," of the news online (2008). This means that news outlets would have to rely on web analytics to hear from their audience, instead of print subscriptions or ratings. Even in fields of marketing, public relations, and advertising, there is a digital focus to see if the content is resonating well with its audience. During this lecture, students will learn how analytics work, common features in analytics reports, and how to conduct an analytics report.

Learning Objectives:

Upon completion of this course students will be able to:

- Understand the purpose of website analytics in a business setting.

- Be able to read or produce an analytics report.

- Define key analytics terms to identify data collected by analytics software.

- Outline potential problems or solutions in analytics reports.

- Ask critical questions as it pertains to the use of analytics for a company or organization.

- Understand the current status of social media analytics in the top three social platforms.

Reading and Video Materials:

The following video is for the instructor's use during the lesson:

- Kentico Xperience. (2015, April 20). What are web analytics, and how do I use them? [YouTube video] https://www.youtube.com/watch?v=mCiOQyFX8Nw

Key Terms:

- Web Analytics: Data gathered about the platform's audience and their behaviors online.
- Content Management System: A website builder that allows content creators to upload to the website without using first-hand software coding.
- Users: Individuals who visit the website.
- Session: A group of user interactions with the website that take place within a given time frame.
- Pageviews: The number of pages on the website that are viewed.
- Bounce Rate: The percentage of users that entered the website, had one page view, did not interact with the website any further, and left.
- Exit Rate: The rate in which a user ends their session on a page.
- Reach: The number of users exposed to a piece of content.
- Impression: The number of times a piece of content was displayed to the target audience.
- Engagement: The number of times a user clicked to engage with the content. This normally happens through comments, likes, and shares.

Instructor Lecture Content Material:

The term "analytics" is widely used across marketing and business to describe the data mining process. However, we will be looking specifically at website analytics and social media analytics. Online analytics have a variety of purposes depending on the company's goals. Overall, analytics allows a company or organization to listen to the needs of its audience or customers and be able to cater to them. It's important to note that some analytics tools call them "insights" instead of "analytics."

In the news industry, web analytics have been a hidden gem since the integration of digital tools. For a long time, news organizations have focused on ratings and subscriptions. However, web analytics offers real-time feedback to what consumers are looking for on a minute-by-minute basis. Not only do news organizations use analytics to help make editorial decisions, but they will also choose what platforms to publish on, what mediums to use like video, photo, or text, and they will even choose what time to publish the content. Web analytics can also help secure sponsorships for news outlets. For example, if a news outlet's morning podcast has high numbers among businesswomen between the ages of 25 to 35, the outlet may show those numbers to a potential advertiser.

Advertising, marketing, and public relations firms will use this to also get a sense of their demographic. If they are attempting to hit a key audience with their content, they will review web analytics to see if they're completing their goal. If not, they may need to reapproach their content in a different way. For example, if the project was named a specific title, consider changing the name to attract more of the audience it was intended for. If it was a series of videos for a marketing pitch, consider changing it to a photo series. The company should be using website and social media analytics to help them listen to what their audience wants.

The YouTube video, "What are web analytics, and how do I use them" by Kentico Xperience (2015) introduces a specific web analytics system. This provides an example for class discussion.

There are many different web analytics tools. Most commonly, a content management system will have a web analytics tool built into its service. For example, WordPress offers its users basic analytics, like how many webpages their website is receiving and what pages are gaining the most traction. This is one of the easiest ways to access analytics because it already has access to the website. However, some of these services may not give enough depth for what a business needs. They also may charge extra for more information about their audience.

Another commonly used tool is Google Analytics. This digital tool is meant for e-commerce and small businesses. It's catered toward being used for businesses selling products. However, many small news outlets or community organizations will use this tool because it includes the fundamental information about their audience that they want to use. Because it's created by Google, the website has very good insight on how the website is acquiring views from other sources like search engines or social media. Other commonly used third-party analytics tools include Bitly or Parse.ly.

There are a number of software packages that can produce analytics for a website. However, when small companies or organizations use a third-party website analytics tools like Google Analytics, Bitly, or Parse.ly, they will need to run the terms and conditions of the third-party source with their company's legal team. When allowing software to have access to a company or organization's website, there may be privacy concerns. It's best to run the terms and

conditions by a legal team to confirm there will be no issues when using their service.

Sometimes, larger companies and organizations will have their own analytics tools.

No matter what website analytics tool a company uses, most of the assets in the tools are the same. We will now go through common terms that are used to describe the information companies find when using web analytics. The first terms, "users" and "new users," are very similar and self-explanatory. Users are the individual people who visit the website. New users are individuals who have never visited the website before, and this is their first time on the website. Many organizations work on building the "new users" numbers to increase exposure. However, other organizations may find value in observing "users" in comparison to "new users" so they can analyze their recurring and loyal users.

Sessions are defined by Google Analytics as "a group of user interactions with the website that take place within a given timeframe" (para. 1). If, in one day, I click on a website and view three articles before exiting the website, that will be one session. If later that same day, I revisit the website and read some more articles before exiting the website, that will be two sessions. Since sessions are determined by a timeframe, there are many variables that can conflict with the data. For example, if I click on a website and leave the tab open for hours, how will that impact the company's website analytics? Analytics tools have taken this into account. Each analytics tool may vary, which means companies should look at the terms regarding their sessions' data. Google Analytics will end a user's session if there has been 30 minutes of inactivity or if the time hits midnight. Sessions should always be equal to or greater than the number of users. If one user enters the website, there will be one session started. If the number of sessions is drastically larger than the users, this means people are returning to the website. One way to confirm this is looking at "sessions per users" or "average sessions," which will tell how

many sessions users are creating in a day, or whatever allotted time was created for the analytics report (i.e., two days, a week, a month, etc.).

Pageviews is how it sounds: the number of pages a user views. Pages on a website can include the homepage, the "about us" page, and blog posts. For the news industry, each article will be considered a separate page. One aspect of pageviews to look into for a company's website is if each photo in a photo gallery is considered one individual pageview or if the gallery itself is a pageview. For example, if a photo gallery contains ten photos and a user clicks through all of the photos, it may produce ten page views for the company's website.

Many people get sessions and pageviews confused, but Figure 1 can help dissect it for us. For this example, we will be using a news website. If we click on a New York Times article from Facebook and read it before leaving the website, we have created one session and one pageview. If we click on a New York Times article from Facebook and read it, then click on a different article suggested for us from that original article before leaving, we will have created one session and two pageviews. Suppose later the same day we have another article suggested to us on Facebook, and we decide to click on it. We will be starting our second session of the day and adding one new page view to the website.

Web creators want to have people stay on their websites for as long as possible. Analytics will typically track the average time of a session or the average time on a page. One thing many digital journalists consider when looking at the average time on a page, especially when it comes to articles, is if that is a realistic amount of time for the person to consume the content. If the average time is 30 seconds on a specific article that takes at least two or three minutes to read, then many digital journalists will ask, what is causing people to leave the page early?

Sometimes, digital journalists will add video or photos to the article where some may be exiting or change the wording of the place where readers are losing interest.

The final commonly used analytics are bounce rates and exit rate. Bounce rates typically come in the form of a percentage. It's the number of people who enter the website on that page and then immediately exit the website from that page. In terms that we already have learned, it would be one session, one pageview. This is common for articles on a news website. If the user finds an article from social media, they will click on the link which enters them into the news website, read the article, and then click out of the news website. A good analogy is comparing bounce rates to hot potato. The user is not holding onto the website for long. The data will not be considered a "bounce" if the user enters the website on the article, then finds another article they want to read before leaving the website: one session, two pageviews. Businesses want the bounce rate to be as low as possible because they want people to view more content on their website. Each organization or company will have different goals for what that threshold will be. An exit rate determines the rate at which the pageview was the last page visited by the user before they exited the website. Use Figure 2 for an example.

How can we lower exit rates, and more importantly, bounce rates? An easy way to keep users on the website and viewing other content is to show them what else the company has to offer. Hyperlinking to additional content in articles allows users to see related content to the current subject they're consuming (Figure 3). Some websites allow for widgets to encourage users to click on pages similar to the content they're currently viewing. (Figure 4).

King said House Minority Leader Kevin McCarthy's decision to pull King off of all congressional committees last year deprived Iowa's 4th Congressional District of equal representation.

Figure 9 Hyperlinking Example from KCCI TV (2021, March 13)

Figure 10 Widget to Recommend Related Content Example from KCCI TV (2021, March 13)

While we have covered only a few of the data points that are collected by web analytics tools, it's important to see how some of these points can be used cohesively. When observing analytics, if a page has a high bounce rate and low average time on page, both of these factors conclude that users are not consuming that content. If a website's homepage has a high pageview count and there are multiple sessions per user to that page, it's safe to assume that people are organically coming to the website for news or information on a regular basis.

Website analytics aren't the only analytics to consider. Social media analytics are a valuable complementary tool for a business. Of the primary social media platforms (Facebook, Twitter, and Instagram), Facebook has the most detailed web analytics available. However,

they've had a history of regularly glitching. Instagram is owned by Facebook, so they have some analytics tools available as well, as long as the account is registered as a business. At this time (Spring 2021), Twitter has the least detailed analytics system of the three primary social platforms.

The three primary data points to know are reach, impressions, and engagement. Reach is the number of people who saw the content. This could be from shares, seeing that a friend commented on the post, or it being displayed on a user's newsfeed or timeline. Impressions are the number of times that the post was displayed and generated for a person's viewing on their timeline.

Engagements are the number of times that the content is interacted with. What do those interactions include? Typically, they will include likes, shares, and comments. For some platforms, they will include if a person clicks on a link or clicks play on a video. The company will need to review the different platforms' policies on what they consider an interaction.

Just like website analytics, there are third-party social media analytics tools such as CrowdTangle. CrowdTangle, a tool built by Facebook, allows businesses and organizations to track their social media analytics. Not only can it track a business' social media analytics, it can compare that business' social presence to its competitors. Users can formulate groups of pages it wants to track and work in comparison to. For example, a Des Moines news outlet such as the *Des Moines Register* would want to compare their work with KCCI-TV, WHO-TV and WOI-TV. However, CrowdTangle is only for Facebook, and does not use analytics collected by Twitter.

There are many ways to improve website and social media analytics that depend on the organization's goals and the capacity of the project. One way is to maximize search engine optimization by using different keywords in headlines or tags. Also, maximize social media algorithms. Algorithms are coding that generates user's newsfeeds, which are changed by the social media company constantly. In my newsroom, a rule of thumb is that fast news works best in the morning, lighthearted or visual news works over the noon hour, and deep or long-form storytelling does well in the evenings. Finally, the company or organization must be flexible in reapproaching projects if they do not do well. If specific content is not performing well, it normally means that the audience does not want that content in that form.

Many communications companies and organizations will release analytics reports on a regular basis. They may be released monthly, weekly, or daily, depending on the goals of the company and the purpose of the analytics reports. Traditionally, analytics reports will show some of the key data points, sometimes displayed in a graph form, and bullet points or small paragraph of what is performing well, what is not performing well, and what may influence the numbers in the upcoming reports.

Analytics Assignment:

Assignment:

- Goal: To produce an analytics report for a news organization.
- Task: Students will produce a one-page analytics report using the analytics numbers attached. The report will be for reporters and editors at the fictional news organization the Iowa Chronicle. This report is the daily numbers for the website, so students should provide a brief analysis of the numbers to help add perspective on the day's traffic.

Students will need to provide an analysis of what the daily website analytics mean for the news outlet and what changes should be made to the website or current articles to improve their website traffic. Students should consider the following questions when producing their report:

- What should editors/reporters know about the current state of the website?

- How can the team improve the website traffic for the day?

- What are some of the positives you see in the numbers?

- What is the audience interested in?

- How can the team build off of the momentum of a successful story?

- What could be added to stories to strengthen the audience's engagement?

Report for Monday, March 14, 2021

Top Page Title	Users	Pageviews	Bounce Rate	Exit Rate
Iowa Chronicle Homepage	4,530	10,998	15.6%	10.7%
Resources on COVID-19 Vaccines	2,339	3,849	49.8%	38.5%
Photo Gallery: Cyclones Win Against Kansas in NCAA Tournament (15 photos)	1,980	24,822	2.4%	10.8%
Police investigate shooting at apartment building in Ames	1,409	1,499	78.5%	80.9%
ISU announces plans for the 2021 Spring Graduation Ceremony	1,256	1,548	55.3%	66.7%
Governor Kim Reynolds announces new education bill	972	983	95.8%	97.6%

Grading:

Students will receive full marks for the assignment if they provide the following:

- Product: The student provided a maximum of one page giving an explanation of the web analytics provided.

- Areas of strength: The student was able to identify areas of the website that was performing well such as the organic traffic to the homepage, the high interest in COVID-19 vaccines, the returning visitors to COVID-19 vaccine resources, the low exit rate on the resources story, the high engagement of the photo gallery, and more.

- Areas of improvement: The student was able to outline where the website was underperforming such as the high exit and bounce rates in the story about Gov. Kim Reynolds and the shooting and ways to improve those issues by using hyperlinks, changing headlines, adjusting search engine optimization keywords, and gathering more relevant information in those articles.

- Audience: The student kept the report brief, but provided information for editors and reporters to use while approaching the rest of the news cycle for the day.

Lesson: Introduction to Algorithms

Rationale:

Social media companies have garnered attention in recent years about how they use their algorithms to curate content for their users. It's raised questions of ethics and privacy, especially in light of its impact on recent political elections. Users, news outlets, and even government officials have begged tech companies like Facebook and Twitter to pull back the curtain on how their algorithms work. While the battle continues to rage between the private companies and the public using their services, media outlets are left somewhere in the crossfire. S.K. Evans (2016) interviewed multiple large media companies about reaching their audience during a digital age. One of the participants said it's like throwing "spaghetti against a wall" and trying to see what sticks (p. 286-287). For nearly a century, news outlets were the gatekeepers of information, but now that they have to use social media platforms to reach their audience, there may be an additional gatekeeper. Recent events have shown the struggle between media organizations and social media companies when they go head-to-head as gatekeepers of information. This lesson explains what algorithms are and how they've been impacting media organizations. The discussion-based class allows students to think about the different roles news organizations and social media companies play in our society.

Learning Objectives:

By the end of this lesson, students will be able to:

- Define algorithms.
- Understand the Gatekeeping Theory.
- Identify the complications that come with the use of algorithms.

- Identify the relationship between algorithms and false information.

- Discuss the current state of algorithms and how it's monitored.

Reading and Video Materials:

Before taking this class, students should watch the following video:

- TED. (2020, Jan. 20). How can we protect truth in the age of misinformation? [YouTube video] https://www.youtube.com/watch?v=-7ORAKULel4

Instructors should use the following resources during class:

- Big Think. (2018, Dec. 18). How news feed algorithms supercharge confirmation bias | Eli Pariser | Big Think. [YouTube video] https://www.youtube.com/watch?v=prx9bxzns3g

- NBC News. (2018, June 26). How Instagram's algorithm determines what your feed looks like | Mach | NBC News. [YouTube video] https://www.youtube.com/watch?v=RlXG4qeAZ2E

- Starrs, J. (2018, April 10). Mark Zuckerberg's Senate hearing, in three minutes. *The Washington Post.* https://www.washingtonpost.com/video/politics/zuckerberg-apologizes-as-senators-question-facebooks-data-practices/2018/04/10/6b711144-3cf7-11e8-955b-7d2e19b79966_video.html

Key Terms:

- Algorithms: "is commonly used nowadays for the set of rules a machine (and especially a computer) follows to achieve a particular goal" (Merriam-Webster, 2021, para. 4). As it

pertains to social media, algorithms are a sets of software coding that gathers content for users to view on their timelines or newsfeeds.

- Gatekeeping Theory: "Gatekeeping is the general term for the role of initial selection and later editorial processing of event reports in news organization. News media have to decide what 'events' to admit through the 'gates' of media on the grounds of their 'newsworthiness' and other criteria. Key questions concern the criteria applied and the systematic bias that has been discerned in the exercise of the role" (McQuail, 2010, p. 558)

- Bots: "Bots are pieces of software intended to perform simple, repetitive, and robotic tasks. They can perform legitimate tasks on social media like delivering news and information- real news as well as junk - or undertake malicious activities like spamming, harassment and hate speech. Whatever their use, bots on social media are able to rapidly deploy messages, replicate themselves and pass as human users" (Howard et al., 2017, p. 1).

Instructor Lecture Content Material:

The term "algorithms" seems to be one that a lot of people have heard, but not many understand. People tend to know it has to do with social media and why they see what they see on their platforms. However, it has an extremely controversial history and continues to be a topic of discussion. Engineers who work for social media platforms have developed coding that helps to automate content from other users for an individual's timeline or newsfeed. The algorithm takes into consideration what the user has engaged with, what their interests are, and what may make them engage with their app further. The Guardian Editor-in-Chief Katherine Viner put it

best when she said that "Facebook has become the richest and most powerful publisher in history by replacing editors with algorithms" (Viner, 2017, para. 38).

While algorithms seem to be a cost-effective way to tend to the masses, it isn't without its shortcomings. Social media platforms have constantly changed their algorithms, sometimes in a matter of weeks and sometimes in months. The algorithm is only known by the social media company and it dictates what posts perform well and what posts don't perform well. Content creators, whether influencers, businesses, or news outlets, have tried to conquer the algorithm over years. They will post at specific times to get the largest audience or use specific hashtags that are trending to garner attention.

There are a few rules of thumb that news outlets have used when posting their content to social media, which usually relates to the audience and time of day. Quick, hard news does best in the morning, when the audience is waking up for the day and getting ready for work. Over the lunch hour, light-hearted content and visually based content does best as typically people are looking for a break from their job. In the evenings, long form storytelling does best when people have more time on their hands and are settling down for the night. Some businesses and organizations, like large publishing companies, have liaisons with social media platforms who explain what is trending well and will answer any questions for the company. For example, Hearst Corporation, which owns 360 media businesses, has a contact at Facebook who can assist them. But a majority of organizations and businesses have to play a guessing game when it comes to social media algorithms.

The most consistent aspect of social media algorithms is its inconsistency, specifically Facebook. Twitter has had a primarily linear approach to its newsfeeds, priding itself in being a

timely, fast-pace platform. At the beginning of its creation, Instagram was purely linear by showing posts based on the time it was uploaded. Since Facebook took over Instagram, it now uses a curated approach to assembling timelines and feeds.

YouTube video How Instagram's algorithm determines what your feed looks like, (NBC News, 2018) shows the development of Instagram's algorithm overtime as well as the elements that the algorithm considers when curating content.

Discussion question: What assumptions has the algorithm made about you that you believe are correct based on what the algorithm shows you?

To further discuss algorithms, it's important to acknowledge the Gatekeeping Theory. This theory was developed by Kurt Lewin (McQuail, 2010), a Polish born psychology researcher who created the theory in the early 20th century. The theory claims news outlets are the gatekeepers of information to the general public. As an analogy, researchers personified the theory as a middle-aged male editor called "Mr. Gates" who looks through story ideas and says "yes," or "no," to them. The theory implies there is one gatekeeping entity, which more recent researchers have disproven. They have found other forms of communication, besides news outlets, are gatekeepers as well, such as public relations, advertising, influencers, etc.

Discussion question: With the gatekeeping theory in mind, could social media platforms be considered gatekeepers? Why or why not?

If the social media algorithm is vying for their users' attention and it's trying to curate content that is what the user wants to see, there is a risk of confirmation bias. The most obvious example of this is when it comes to political issues. If an anti-vaccination user continuously engages with anti-vaccination content, the algorithm will continue to feed the individual content

that aligns with that point of view. The algorithm is told by its programing it should get the user to continue to engage with the app as much as possible, so it will not provide pro-vaccination content to the user. This is also known as "filter bubbles." This concept, developed by Eli Pariser (2012), claims that there have been so many filters put into the user's algorithm that the user is isolated. The user is unable to see content outside that bubble.

YouTube video "How News Feed Algorithms Supercharge Confirmation Bias" shows Eli Pariser speaking on the "filter bubble" theory (Pariser, 2012).

Discussion question: Do you believe that there are certain filter bubbles on your accounts? If so, what do you think they are?

Now, what happens with the algorithm when a user frequently interacts with false information? Will the algorithm continue to show the user false information, especially if it pertains to their filter bubble? This has been the topic of conversation among government officials, news entities, and social media in recent years. It primarily came up after the 2016 election when the term "fake news" became mainstream. It's important to note that "fake news" is not a new concept. Misinformation has been around since the dawn of communication. We can see it in the 1800s with yellow journalism and in the 1900s with war propaganda. But we're seeing a "wild west" type of behavior happening on social media because it is not monitored.

Prior to class students should watch, How we can protect truth in the age of misinformation | Sinan Aral (TED, 2020) to see and understand the reach of misinformation on social media.

The video of Sinan Aral confirms research that shows false political news "diffuses farther, faster, deeper, and more broadly than any other type of false news" (4:02, TED, 2020). It

also found that false news providers didn't have many followers, were less active on the platform, followed fewer people, and had not been a user on the social platform for long. This contradicts what we know to be true for social media algorithms. So, why is false information being shared so much on social platforms? Sinan Aral calls it "a novelty hypothesis" (5:05, TED, 2020) whereas people are drawn to novelty content and want to share novelty content. Aral says, "it makes us seem like we have access to inside information" (5:21, TED, 2020).

Bots are pieces of software intended to make simple and repetitive actions. Sometimes they take the form of a user profile that looks real but is run by a software. Many like to blame bots for the spread of social media, but Sinan Aral's research claims that bots spread fake news just as much as real news. So, a majority of the responsibility falls on the users and the algorithms.

During the 2016 election multiple "fake news" articles were published on social media outlets. Data collected by Allcott and Gentzkow in 2017 found that fake news websites received the bulk of their website traffic from social media platforms. Furthermore, during the 2016 election, potential voters were more likely to be exposed to pro-Trump content than pro-Clinton articles. This raised many questions about how algorithms, specially created by Facebook and Twitter, influenced the election. Facebook claimed that it worked with journalism professionals and academics to prevent the promotion of false information on their platform. In 2018, they provided a feature attached to posts to allow users to flag misinformation but took down the feature soon after (United Nations Educational, Scientific and Cultural Organization, 2018).

The social media platforms began cracking down on their algorithm. However, this only caused reliable news sources to get caught up in the algorithms. Social media companies have

not revealed how algorithms distinguish real from false news. This has caused reliable news sources to be fighting the algorithm to be seen in the same ways that false news sources are. Both types of news are getting caught up in the traps of the algorithm. It has many news organizations asking who is fact checking the algorithm's behaviors when it marks false news and real news incorrectly and places the content on users' timelines or hides it from users. Meanwhile, government officials became increasingly concerned about the influence of social media on the 2016 elections. The social media companies wanted to self-govern, but lawmakers felt policies should be put in place to prevent instances like the 2016 election when fake news may have influenced the outcome. The Senate Judiciary Committee has held multiple hearings with the CEOs of Facebook and Twitter in the aftermath (Starrs, 2018). However, the primary issue that was faced was the generation gap between the legislators questioning the tech moguls and their understanding of how the internet works. Social media, algorithms, and web behaviors were so foreign to the lawmakers that the conversation didn't result in any substantial changes.

Watch the *Washington Post* video recap of the 2018 Senate Judiciary Hearing (Stars, 2018) to show how the questioning happened.

After the 2020 election, Facebook CEO Mark Zuckerberg and Twitter CEO Jack Dorsey, had to meet with the Senate Judiciary Committee to provide a report on how their platforms were conducted during the election. Dorsey said that Twitter observed the 16 days around the election and marked 300,000 tweets as being misleading (Bond, 2020). However, Brandwatch (2020) claims there are approximately 500 million tweets sent daily. This averages to approximately 6,000 tweets per second. During the 16-day timeframe, there was an average of about 8 billion tweets. The 300,000 tweets Dorsey said were flagged as misleading aren't a considerable representation compared to how many tweets containing false information were actually posted.

Meanwhile, Zuckerburg did not provide numbers but took pride in Facebook's voter registration campaign (Bond, 2020). The campaign linked users to credible voting information. This continues to show how far behind social media companies are in the battle against false information. In the meantime, news organizations are at the mercy of big tech companies and how their algorithms operate in order for news organizations to strategically publish true and reliable information.

Discussion question: How should social media companies and the government proceed in order to combat misinformation on social platforms?

Social Media Assignment:

Assignment:

- Goal: To conduct an experiment with a piece of content on social media.
- Task: Students will conduct their own experiment while posting on a social media platform. Before approaching the project, students will come up with a hypothesis of what they believe the outcome of their social media post will be. They will then create content, post the content on the platform of their choosing, at the time of their choosing and with the hashtags or keywords of their choosing. Students will observe the engagement of their content and decipher how they believe the algorithm and their choices in the experiment influenced the outcome. The content must be appropriate and avoid false or misleading information. Students will provide a two-page report on their findings. Students should consider the following in their report:
  - What was the content the student produced?
  - What was the purpose of the content?

○ What intentional decisions did they make about their content to maximize its

performance?

○ What platform did they post it to and why did they use that platform?

○ What time frame did they use to monitor their content?

○ What were the results of their content as it pertains to comments, shares, likes,

etc.?

○ What did they learn from this project?

Grading:

Students will receive full marks for the assignment if they provide the following:

● Product: The student provided a report, minimum of two pages, that outlines their

hypothesis, their methodology, their results, and what they learned from the project.

● Methodology: The student put careful consideration into the steps of their experiment,

providing reasoning behind the choices they made for platform, content, timing, hashtags,

and more.

● Hypothesis: The student had a clearly stated hypothesis for their experiment. In their

paper, they were able to outline whether that hypothesis was proven true or false after the

experiment was tested.

● Learning: The student had tied in what they'd learned from the lesson's content into their

hypothesis or their methodology. They provide examples of what they learned about

social media, users, or algorithms from conducting the experiment.

Lesson: Introduction to Search Engine Optimization

Rationale:

Audiences are craving information and able to get it at the tips of their fingers. Many turn to search engines, more specifically Google, to ask questions, whether that's about local businesses or news events happening in the world. In 2020, the Pew Research Center conducted a study on how Americans made big decisions. They found that 81% rely "a lot" on their own research to make a decision and 94% turn to digital resources to do the research. Google is one of the digital tools cited by the Pew Research Center in this study. One research subject was quoted as saying, "my instincts. My wisdom. Google… my gut feelings." Much like social media algorithms, content creators should have an understanding of what contributes to a search engine's algorithm so that they may provide information that allows their content to be shown accordingly. This lesson will help outline ways students can define trends on search engines as well as how to develop their websites in order to gain more traffic from their target audience.

Learning Objectives:

After completing this lesson, students will be able:

- Define search engine optimization.
- Identify what components contribute to search engine optimization.
- Understand how to work with keywords and keyphrases as it pertains to search engine optimization.
- Operate Google Trends.

Reading and Video Materials:

Before this class, students should watch the following video:

- TED. (2015, Dec. 7). The moral bias behind your search results | Andreas Ekström. [YouTube video] https://www.youtube.com/watch?v=_vBggxCNNno

Key Terms:

- Search Engine Optimization (SEO): "the process of maximizing the number of visitors to a particular website by ensuring that the site appears high on the list of results returned by a search engine" (Oxford Dictionary).
- Algorithm: An algorithm is defined as "a process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer" (Oxford Dictionary). As it pertains to social media, algorithms are sets of software coding that gathers content for users to view on their timelines or newsfeeds.
- Keywords or Keyphrases: These are terms that help the search engine's algorithm define how to categorize and prioritize the content it's attached to.
- Content Management Systems (CMS): A website builder that allows content creators to upload to the website without using first-hand software coding.
- URL: The address to a webpage

Instructor Lecture Content Material:

Search engine optimization, otherwise known as SEO, has become a very common term when it comes to online marketing and communications. Search engine optimizations is defined by the Oxford Dictionary as "the process of maximizing the number of visitors to a particular website by ensuring that the site appears high on the list of results returned by a search engine." To understand search engine optimization, we need to look at how search engines work. Search

engines such as Google, Bing, and YouTube use algorithms to prioritize what users see when they search a topic. An algorithm is a series of coding that provides a set of rules for the software to produce a task. When it comes to coding search engines, algorithms make a prioritized list of what to show when a user types in a phrase.

Many people who work with search engine optimization, are trying to get their company or organization's website or content to the top of the search engine's list. The way they go about this is by using keywords or keyphrases. These are phrases or words that help the search engine decipher how to categorize or prioritize to best deliver what the user wants. For example, if a user types in "pizza" to Google there is a vast amount of information they may be shown including: what is pizza, where does pizza come from, what's the history of pizza, how to make pizza, and does pineapple belong on pizza. By adding more keywords or phrases to the search, the user will receive a more specific search result. If the user searches, "pizza places in Ames," the search engine will kick out restaurants and bars that offer pizza. However, the websites had to contribute keywords or information that allowed the algorithm to correlate their website to "pizza places in Ames."

So, how do companies and organizations know which keywords to use? This can be difficult because of the ever-changing landscape of how people discuss topics, as well as how the organization's audience will view the topic. If looking at the COVID-19 pandemic there were two keywords used by Americans when talking about the virus: coronavirus and COVID-19. At the beginning of the pandemic, the search results for "coronavirus" were much higher because that's how it was referred to by mass media and government officials. Scientists quickly corrected the public that the strain they were concerned about was the COVID-19 strain of coronavirus. This got quickly shortened to "COVID." When looking at the Google Trends data

surrounding the use of coronavirus versus COVID, there is a visible switch in which term gained

popularity. Somewhere between May and June of 2020, users began to search "COVID" more
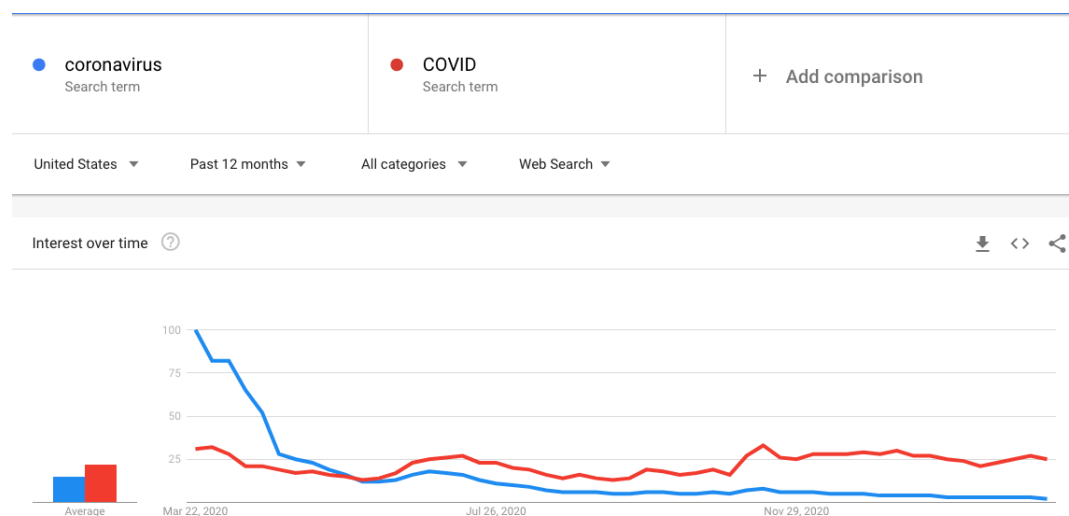
than "coronavirus." See Figure 1.

Figure 11 Google Trends compares the use of the term "COVID" to "coronavirus" between March 2020 and March 2021 (2021, March 20)

But there are terms that can be used interchangeably that users may grow used to. For

example, Iowa State University can go by its full title, "Iowa State University," abbreviated title

"Iowa State," or by "ISU." If a user types in "Iowa State University" they are sure to get the

content that is related to the school. However, if the user types in "Iowa State," some of the

search results may come back with subjects related to the state of Iowa. Now, if a user types in

"ISU" there will be plenty of results related to Iowa State University as well as Illinois State

University, Idaho State University, etc. The content creator needs to be cautious of all of these

keywords or keyphrases when developing their content. The same can be said for names. While

Iowa Senator Chuck Grassley has built his political career around the name "Chuck," some may

refer to him as his formal name "Charles." When searching for Chuck Grassley or Charles

Grassley, users will have the same content catered to them because the SEO has been set up

accordingly.

There are many ways to use search engine optimization for a website. A content

management system (CMS) allows content creators to upload to a website in a user-friendly way.

When uploading, the CMS will ask for a title or headline for the content. This will be one of the

primary places for those keywords or phrases to be used. However, if the content creator only

places one or two of their keywords into the headline and has more to contribute, there are other

places to add keywords. If the content is text-based, as opposed to video or photo, there are

opportunities for the search engine to pick up keywords or keyphrases through the body of the

web page's content. Furthermore, some CMS have a tool alongside their content creation pages

that will be labeled keywords, keyphrases, or SEO. This is where a content creator can type in all

the relevant terms that pertain to the content. It is normally separate by a comma. For example,

"Iowa State, Iowa State University, Ames, Cyclones" would be how a content creator would fill

those sections. Some CMS allow content creators to customize their URL, which is the address

to the webpage. Typically, the phrases in the URL are separated by hyphens or backslashes. If

we were to customize the URL for an Iowa State University webpage, it may look like

"iastate.edu/home/keyword-keyphrase-for-SEO" or

"iastate.edu/home/keyword/keyphrase/for/SEO."

The biggest mistake a content creator can make is by using keywords or keyphrases that

are not relevant to the content just to try to drive up traffic. For example, if a journalist is writing

about a new bill in the Statehouse, but the Cyclones won a big basketball tournament, they

should not be using keyterms like "cyclone," "basketball," or "Hilton magic," just because they

know users will be searching for those terms that evening. First, this way of using SEO is dirty

and almost impolite. The users searched for the Iowa State basketball game and got the journalist's political article instead. Second, the political article will be drawing the wrong audience. A reputable organization wants to be reliable and consistent, therefore their keywords, keyphrases, and SEO behaviors should be as well.

There are some third-party tools to help analyze what keywords and keyphrases are being used. The primary one is Google Trends. This tool is free and generated by Google, the largest search engine in the world. When first entering google trends, users can search a topic or scroll down to see the latest featured terms that have been searched. During the week of March 21, 2021, the featured COVID-19 vaccines, #StopAsianHate, and the Grammy Awards. These are all relevant to current events happening in the news at that time. Scrolling further, users can see more up-to-date searches with the Recently Trending section. It will even allow a user to see how many people were searching those terms. It also invites users to view search histories in past years. This tool is great if a user wants to do a comparison to how the search term is being used now versus in recent years.

Returning to the top of the page, Google Trends asks users to enter a term. The tool can analyze one search term or compare two search terms. The user can adjust the settings of the data including the time period, the location, the category, and the type of web search. The type of web search means if it's through links, images, videos, and shopping. Once the terms are entered and the settings are adjusted Google Trends will produce an array of data. A line graph will show the interest of the term over the period of time the user has selected.

The next category of data is Interest by Subregion. A user can analyze how this search term is resonating with audience members in different states. The category also allows the user to click within the map to get a more specific view of metro areas.

The following two categories are Related Topics and Related Queries. Related Topics are statements or phrases that are being searched alongside the keyword or keyphrase the user is analyzing. Related Queries are questions that are being asked alongside the keyword or keyphrase the user is analyzing. An example is if a user is searching about the term "flu" during flu season and finding one of the related topics as history of the flu. Related queries would be individuals searching for where to get a flu shot. One is more topical, whereas the other is based around a question.

While the website Google Trends curates the data in very consumable graphs, it also allows users to export files with that data if it needs to be reorganized for a presentation or a report. Google Trends allows content creators to have a better understanding of the behaviors of their audience. By observing these trends, content creators can know when users are searching for terms, what specific language they're using to search for their content, and what locations their searches are coming from. More specifically, the Related Topics and Related Queries gives content creators insight on additional keywords or keyphrases they should be using. If a content creator is developing content around a certain topic it may also assist their editorial choices by analyzing the Related Queries to create content that their audience needs. For example, if a journalist is writing about the flu vaccine, by looking at Related Queries, they may tailor their article to be about where to get flu vaccines that season.

Google Trends Assignment:

Assignment:

- Goal: To create a report on the best SEO keywords or keyphrases according to Google Trends.

- Task: Students will select a business or organization to help guide their decisions in this project. They will use search terms relevant to their business or organization and compare the best ones through Google Trends. Students will write up an analysis, two-to-three pages long, explaining how the company or organization should be improving their SEO and what terms they should be using. Students should use data from Google Trends to support their analysis. The reports should address the following:
    - What company or organization will your report be representing?
    - What keywords or keyphrases did you analyze?
    - Why did you select these keywords or keyphrases?
    - What did you find in the data provided by Google Trends?
    - How can the company or organization implement what you've learned from the Google Trends data to improve their website's SEO?

Grading:

Students will receive full marks for the assignment if they provide the following:

- Product: The student provided a report, a minimum of two pages or a maximum of three pages, analyzing Google Trends data around keywords and keyphrases for a business or organization.

- Methodology: The student took into consideration the company or organization's website content and the words or phrases they may be using to attract their audience. The student

has a well thought out explanation of why they tested the search terms they did in Google

Trends.

● Report: The student supports their recommendations for search term use with data

provided by Google Trends. Their analysis considers the best interest of the company or

organization and the audience.

Lesson: Digital Media Ethics

Rationale:

As the landscape of media changes, so do the opportunities. There are more ways for news organizations to engage with their audience and find unique forms of storytelling. However, it comes with its set of challenges. As C.W. Anderson (2011) points out web producers at news organizations are constantly being challenged each day to keep up with the demands of hundreds of thousands of viewers. The world of online journalism requires speed, accuracy, and transparency. As news outlets strive to reach these three needs, there are risks of errors and misjudgment. The digital world poses new ethical issues for journalists unlike traditional formats. Nancy K. Herther is quoted as saying, "Today, all traditional news media are in a state of flux, and the eventual outcome is still uncertain" (p. 32, para. 7, 2019). Students are entering that uncertainty when it comes to potential issues they may face at the hands of social media. Through this lesson, they will be better prepared to face potential ethical issues and consider the outcomes of their actions online.

Learning Objectives:

After completing this lesson, students will be able to:

- Identify key ethical issues news outlets face when using social media platforms.
- Critically think about the behaviors online and how it impacts a news organization's credibility and transparency.
- Define ways news organizations monitor comment sections.

Reading and Video Materials:

Before taking this class, students should read the following articles:

- Farhi, P. (2014, July 24). CNN's Diana Magnay is latest reminder that Twitter can be a journalist's worst enemy. *The Washington Post*. https://www.washingtonpost.com/lifestyle/style/cnns-diana-magnay-is-latest-reminder-that-twitter-can-be-a-journalists-worst-enemy/2014/07/24/c1729b70-12a9-11e4-8936-26932bcfd6ed_story.html

- KCCI Staff. (2019, Sept. 25). DM Register investigating staffer after report on Carson King tweets. *KCCI TV*. https://www.kcci.com/article/dm-register-investigating-staffer-after-report-on-carson-king-tweets/29229911

- Ward, S. (2021). Digital media ethics. *Center for Journalism Ethics University of Wisconsin-Madison School of Journalism and Mass Communication*. https://ethics.journalism.wisc.edu/resources/digital-media-ethics/

Key Terms:

- Social media policy: A policy developed by a company or organization that outlines how the company and its employees should behave on social media platforms.

Instructor Lecture Content Material:

Over the centuries, journalists have long lived by the same code of ethics on remaining unbiased and transparent in their reporting. However, the integration of digital media has challenged the state of journalism ethics and raised additional questions. With the use of social media and content management systems, news outlets have been battling issues of hate speech and censorship. Comment sections on social media and websites are useful to allow the audience to engage with the content and create civil discourse. However, news outlets quickly discovered

that the conversations are not always civil. The first issue news outlets face are scammers and

spammers. These are people who use comment sections to post unrelated content and drive

traffic to another page or website. Their content typically contains a business scam. The second

issue is misinformation. In this scenario, users will comment false information about the topic at

hand, or they will post a link to a "fake news" website. For example, if a news outlet reports

about the COVID-19 vaccine, someone may post alternative links in the comment section that

contains false information.

The third issue that comment sections create is the idea of hate speech. When discussing

hate speech, many people like to compare hate speech and free speech. However, free speech

only pertains to the government's hand in censoring citizens. On private platforms such as

Facebook, Twitter, or a news outlet's website, freedom of speech is not relevant because it is a

privately created platform. News outlets thrive through the First Amendment, which means they

have a duty to uphold under the concept of freedom of speech. Their values are based on

allowing people to use their freedom of speech and voice their opinions. But, what duty do they

have to maintain safe and civil discourse, as well as prevent the spread of false information?

Digital editors are constantly facing the issues of whether or not to delete specific comments,

hide them, ban the user that posted them, or leave the comment up.

There are a few safety nets in place to help digital editors monitor the online chatter

through social media and the news organization's website. The first is filters. The digital editor

can set specific words that will flag comments on a website or social media. The comment will

be hidden if the user posts using that phrase or word. The digital editor can unhide the comment

if they feel it's appropriate. The most common examples are curse words or derogatory terms.

The second way to assist in monitoring comment sections is by using social media policies. Most

companies and organizations have some form of social media policy. The social media policy

acts as a guide and agreement to how the company will conduct its personal brand online as well

as how employees will behave online as representatives of the company. Social media policies

for news outlets normally have guidance on how the company will handle inappropriate

comments on their social media pages or website. For example, a social media policy may only

allow the digital editor to delete or hide comments that threaten physical harm to another

individual, uses derogatory terms, uses curse words, or publishes false information about the

subject. There are many scenarios that will need to be handled on a case-by-case basis and don't

have an obvious response to how it should be handled.

Discussion question: A news outlet posts a story about a fatal car crash in a rural town.

The article mentions the crash happened overnight and involved two young adults. The weather

was not an impending factor. Authorities have not confirmed the cause of the crash. Susan Smith

comments on the Facebook post to the article, "I heard they were drunk when they crashed! Stop

drinking and driving!" Should this comment be removed?

Discussion question: A news outlet posts a story about the COVID-19 vaccines becoming

more accessible in Iowa. The article includes all the facts about where to get a vaccine and how

the vaccines work. Mark Smith comments, "No way am I getting the vaccine. That stuff will be

the cause of cancer in a few years. This article is another fear tactic by the media." Should this

comment be removed?

As the world of digital media makes information faster to come by, it also increases the

risk of making mistakes. If a news outlet makes a post on their website and has an incorrect date

in the body of the article, it's an easy fix to make, as opposed to the print product. However,

some question whether the news outlet should just fix the error or place a correction message at the top or bottom of the article. The correction message would read along the lines of "Correction: Previously, the article stated the event was on May 1. The article has been updated with the corrected date of May 2." While this allows the reader to be informed of the change, it also emphasizes the importance of transparency. If the reader were to return to the article and see the second version without the correction, they might lose trust in the news outlet, as if the news outlet were trying to hide something.

Discussion question: Are correction messages always necessary in an article? When would a correction message be necessary, and when would it not be?

Social media outlets have relatively decent editing capabilities. If a news outlet posts content on Facebook or Instagram and misspells a word, it can be easily corrected. But as of spring 2021, there is no way to correct a tweet. This raises the question of how transparent users should be on Twitter about deleting content. Some news outlets use what could be considered equivalent to the five-second rule. If the post has been up for only a few seconds and no one has engaged with it, they will delete the tweet and repost the corrected content. Sometimes the organization will quote tweet the incorrect tweet and post corrected information.

Discussion question: If you were running the Twitter account for a news outlet, how would you handle corrections in tweets?

As mentioned previously, many organizations have social media policies. These policies address how employees, more specifically reporters, should conduct themselves online. Social media allows reporters to engage with their audience, get productive feedback, and help market

the brand of the news outlet. However, it can also be a slippery slope. When does branding cross the line into bias?

Discussion question: An example from the reading states the following, "The Ashland (Ky.) Daily Independent this month fired a veteran reporter, Ken Hart, after he used his Facebook page to critique a local car dealer's TV commercial. Hart said the newspaper acted after the dealer complained about the post and apparently threatened to pull his ads from the newspaper" (Farhi, 2014). Should Ken Hart have been fired for his comments?

Discussion question: Another example states, "MSNBC fired an unidentified employee in January who used the cable network's Twitter account to get in a political dig while tweeting about a Super Bowl ad for a breakfast cereal. The tweet — 'Maybe the rightwing will hate it, but everyone else will go awww: the adorable new #Cheerios ad w/biracial family' — brought a rebuke from the Republican National Committee and an apology from MSNBC" (Farhi, 2014). Do you agree with the actions taken by MSNBC to fire the employee and issue an apology?

A local example of this issue is the case of the former *Des Moines Register* reporter Aaron Calvin. In 2019, Calvin was writing a feature article about Carson King. King had spurred a fundraiser for the University of Iowa Stead Family Children's Hospital after his poster at College GameDay went viral. In Calvin's background research of King, he found racially insensitive posts from when King was 16 years old. King publicly addressed the posts before the article was published. While there were many who questioned King's posts, there was a large majority that questioned why Calvin dug that far into King's past in order to do the article on him. After the article was published, users dug into Calvin's history and discovered offensive posts that were published by Calvin in recent years. Not only did readers call for Calvin to be

fired, but they raised questions about how Calvin was hired when the posts in question should have been found in a simple background check. Leadership at the *Des Moines Register* quickly announced Calvin was no longer with the newspaper and that they were "revising our policies and practices, including those that did not uncover our own reporter's past inappropriate social media postings" (Gothner, para. 6, 2019).

Discussion question: In the case of Calvin and King, should Calvin have gone back nearly eight years into King's social media for a story about his fundraising campaign?

As champions of the First Amendment and freedom of speech, how much can journalists actually use their own voice? These limits have been tested through social media and the examples the lecture has given. However, journalists have identities too. There are journalists of color. Journalists who are immigrants. Journalists who are members of the LGBTQ+ communities. When do these journalists need to remain unbiased online, and when can they post about parts of their life that has to do with their identities? During the summer of 2020, protests broke out across the country demanding racial justice in light of the many shooting deaths of Black people by white police officers. It was ignited after the death of George Floyd in Minneapolis. Many journalists of color spoke out in light of the events but also had to report about what was happening.

The Minneapolis Star Tribune spoke to Black journalists about their feelings while covering the protests. Adrienne Broaddus, an anchor for KARE TV, said, "you can't afford to let emotions get in the way. I think about people who work in hospitals. They're surrounded by death, but they have a job to do. They keep moving forward. My role is the same. And that's

tough. I used to get migraines back in the day. When Floyd died, they returned. That first week, I didn't sleep much" (Justin, 2020, para. 8).

Mukhtar M. Ibrahim, founder and executive editor of the Sahan Journal in Minneapolis, said, "When I was out on the streets covering the protests, it was inspiring to see a lot of young Somalis on the front lines, wearing their hijabs. That definitely gives me hope for my daughters" (Justin, 2020, para. 20).

Brandi Powell, anchor and reporter for KSTP TV, said, "my experience as a Black woman, I believe, allows me to be more nuanced in my coverage as a journalist during this historic moment. They prompt me to ask people deeper questions, so viewers can understand the long-standing pain and challenges Black communities face locally and across the country" (Justin, 2020, para. 23).

During this time in journalism, questions were asked about what are universal truths and feelings versus what is bias? It's easy for everyone to agree that terminal illnesses like cancer are awful. If a journalist tweets, "cancer sucks," that may not be considered bias. While a vast majority of people would agree that racism is egregious, why is it bias when a reporter tweets, "Black Lives Matter." The term "Black Lives Matter" at its base shouldn't be that shocking of an opinion. But the term has been politicized with the additions of "blue lives matter" and "all lives matter," which has made it polarizing.

Discussion question: How should reporters and journalists decipher the difference between universal truths and biases? When is it appropriate for a journalist to voice their own feelings and opinions?

Discussion Assignment:

Assignment:

- Goal: To provide an example of an ethical dilemma as it pertains to digital media in an online discussion forum and have conversations with other students about the dilemma.

- Task: Students will find a scenario, either from a case study or an online article, of an ethical dilemma that communications organizations are facing now due to digital platforms. Students will post the scenario in an online forum to share with other students and provide a way they would handle the situation if it were them. Students will also include the potential outcome if they respond this way, being able to foreshadow any future issues. Students will be required to provide feedback on at least two other students' discussion posts to garner conversation on these subjects. Each student is expected to act civil in their responses.

Grading:

Students will receive full marks for the assignment if they provide the following:

- Product: The student posted a scenario of a dilemma in the current state of digital media and provided two responses to other students' posts.

- Ethical priorities: In their initial post, the student was able to explain why they would handle the scenario the way they did, taking into consideration professional ethics in the industry. They also outlined potential backlash that may come in response to their actions.

- Civil discourse: The student was able to engage with other students in the discussion board with respect and understanding, especially if they do not agree with other students' opinions.

Conclusion

The lessons outlined in this creative component can easily be integrated into current courses that Greenlee regularly provides. Listed below are the courses in which the lessons could be added:

- Digital Journalism 101: JLMC 201, JLMC 242, JLMC 302, JLMC 310, JLMC 317, JLMC 406

- Introduction to Analytics: JLMC 317, JLMC 406

- Introduction to Algorithms: JLMC 101, JLMC 240, JLMC 317, JLMC 406, JLMC 460, JLMC 462

- Introduction to Search Engine Optimization: JLMC 201, JLMC 302, JLMC 303, JLMC 317, JLMC 406

- Digital Media Ethics: JLMC 101, JLMC 240, JLMC 346, JLMC 406, JLMC 460, JLMC 462

Once these lessons have been properly introduced into Greenlee's curriculum, there is a great opportunity for growth within the program. The next step would be to expand the lessons into 8-week or 16-week courses. Some digital components have more material that can be taught than others. A suggestion from alumni interviewed this spring is for some of the digitally focused courses to be mandatory. The research subjects said they didn't see the value when they were in college but would have appreciated them now as working professionals. Greenlee should not only outline the benefits of digital journalism classes to faculty but also to students.

Moving forward, Greenlee should include questions regarding digital education and digital components in their exit interviews with students. With the digital field changing rapidly,

the school will need to adjust the areas of focus that some of these subjects touch on. Instructors should also be updating the content and examples to be relevant and timely. The current status of some of the issues addressed in this creative component could change in the near future, so instructors should be providing the latest data and information.

Citations

Anderson, C. W. (2011). Between creative and quantified audiences: Web metrics and changing patterns of newswork in local US newsrooms. *Journalism*, 12 , 550–566.

Anderson, C. W. (2014). The sociology of the professions and the problem of journalism education. *Radical Teacher*, 99, 64-68.

Accrediting Council on Education Journalism and Mass Communication. (2020). *Journalism and Mass Communication Accreditation Booklet*. https://www.acejmc.org/policies-process/nine-standards/

Allcott, H. & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives*, 31(2), 211-236.

Allyn, B. (2021, Feb. 26). Why is Facebook launching an all-out war on Apple's upcoming iPhone update? NPR. https://www.npr.org/2021/02/26/971367875/why-is-facebook-launching-an-all-out-war-on-apples-upcoming-iphone-update

Allyn, B. (2020, Aug. 6). Trump signs executive order that will effectively ban use of TikTok in the U.S. *NPR*. https://www.npr.org/2020/08/06/900019185/trump-signs-executive-order-that-will-effectiVely-ban-use-of-tiktok-in-the-u-s

AZ Central. (2021, March 17). *Homepage*. AZ Central. https://www.azcentral.com/

Association for American Colleges and Universities. (2010). *Integrative and Applied Learning VALUE Rubric*. https://www.aacu.org/value/rubrics/integrative-learning

Balkhi, S. (2020, July 21). How to reduce your website's exit rate (4 strategies). *WP Rocket*. https://wp-rocket.me/blog/reduce-exit-rate/

Baya, A. (2020). Journalism education in today's fast-paced media environment. *Professional Communication and Translation Studies*, 13, 3-13.

Berkowitz, D. (2017). Book review: The SAGE handbook of digital journalism. *Journal of Communication*, 67, E1-E3.

Brandwatch (2020, Jan. 2). 60 incredible and interesting Twitter stats and statistics. *Brandwatch*.

https://www.brandwatch.com/blog/twitter-stats-and-statistics/

Bright, A. (2020). Making instant adjustments in online journalism education: Responding to continuous needs assessments in asynchronous courses." *Online Learning Journal*, 24(2), 245-253.

Bright, A. (2018). A qualitative look at journalism programs in flux: The role of faculty in the movement toward a digital curriculum. *Teaching Journalism and Mass Communication*, 8(2), 1-10.

Bond, S. (2020, No. 17). Facebook and Twitter defend election policies to skeptical senators. *NPR*. https://www.npr.org/2020/11/17/935981334/facebook-and-twitter-defend-election-policies-to-skeptical-senators

Captain Gizmo (2020, May 18). Most popular social media platforms 1997-2020. [YouTube video] https://www.youtube.com/watch?v=ihnUg0_eS8Q

CrowdTangle. (2021). www.crowdtangle.com

Constine, J. (2016, Aug. 2). Instagram launches "stories," a Snapchatty feature for imperfect sharing. *Tech Crunch.* https://techcrunch.com/2016/08/02/instagram-stories/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAACDoIRZXWkvBr1vbRyva7sybJxaFK7MfAMrtctUO3o7kX2GsokciNEKLrndC_dS27TaaSnREmoh04_W_psRKioXRQLgf1HVvqosFbxufzduBS4GuMgxRd6B8VKIhlgx1TZqD3Cl6V2xJi-u_3iKcR2sl0tiyGLB0pH1Ch9tgHsjJ

Des Moines Register. (2021, March 17). *Homepage.* Des Moines Register. https://www.desmoinesregister.com/

Du, Y. R. & Thornburg, R. (2011). The gap between online journalism education and practice: The twin surveys. *Journalism and Mass Communication Educator*, 66(3), 217-230.

Evans, S. K. (2016). Staying ahead of the digital tsunami: The contributions of an organizational communication approach to journalism in the information age. *Journal of Communication*, 66, 280-298.

Farhi, P. (2014, July 24). CNN's Diana Magnay is latest reminder that Twitter can be a

journalist's worst enemy. *The Washington Post.*
https://www.washingtonpost.com/lifestyle/style/cnns-diana-magnay-is-latest-reminder-that-twitter-can-be-a-journalists-worst-enemy/2014/07/24/c1729b70-12a9-11e4-8936-26932bcfd6ed_story.html

Franklin, B. (2016). The future of journalism: Risk, threats and opportunities. *Journalism Studies*, 17(7), 798-800.

Garcia-Aviles, J. A. (2014). Online newsrooms as communities of practice: Exploring digital journalists' applied ethics. *Journal of Mass Media Ethics*, 29, 258-272.

Greenlee School of Journalism. (2020). Journalism and Mass Communication (JLMC) courses and program. *Iowa State University*. https://catalog.iastate.edu/azcourses/jl_mc/

Grensing-Pophal, L. (2010). Social media: Journalism's friend or foe? *ECONTENT*, 24-28.

Grieco, E. (2020, April 20). U.S. newspapers have shed half of their newsroom employees since 2008. *Pew Research Center*. https://www.pewresearch.org/fact-tank/2020/04/20/u-s-newsroom-employment-has-dropped-by-a-quarter-since-2008/

Gothner, C. (2019, Sept. 26). Reporter no longer with *Des Moines Register* after Twitter controversy. *KCCI TV*. https://www.kcci.com/article/reporter-no-longer-with-des-moines-register-after-twitter-controversy/29256319

Google Analytics. (2021). analytics.google.com

Hermann, A. K. (2017). J-School ethnography: Mending the gap between the academy and journalism training? *Journalism Studies*, 18(2), 228-246.

Herther, N. K. (2019). The rise of data journalism and its impact on libraries. *Online Searcher*, 26-32.

Howard, P, Kollanyi, B., Bradshaw, S. & Neudert, L. (2017). Social media, news and political information during the U.S. election: Was polarizing content concentrated in swing states? *COMPROP Data Memo*, 1-6.

Hughes, D. (2019, Aug. 26). The rapid rise of TikTok. *Digital Marketing Institute.* https://digitalmarketinginstitute.com/blog/the-rapid-rise-of-tiktok

Justin, N. (2020, July 4). "Floyd story got personal for Black journalists. *Minneapolis Star Tribune*.
https://www.startribune.com/floyd-story-got-personal-for-black-journalists/571607492/?refresh=true

Kasia. (2019, Sept. 24). Web session- How do they work? Google Analytics guide. *Delante*.
https://delante.co/web-sessions-how-do-they-work/

KCCI TV News. (2021, March 17). *Homepage.* KCCI TV News. https://www.kcci.com/

KCCI Staff. (2019, Sept. 25). DM Register investigating staffer after report on Carson King tweets. *KCCI TV*.
https://www.kcci.com/article/dm-register-investigating-staffer-after-report-on-carson-king-tweets/29229911

Kentico Xperience. (2015, April 20). What are web analytics, and how do I use them? [YouTube video] https://www.youtube.com/watch?v=mCiOQyFX8Nw

KETV News. (2021, March 17). Homepage. KETV News. https://www.kcci.com/

Kolb, D. A. & Fry, R. (1974). Toward an applied theory of experiential learning. *MIT Alfred Sloan School of Management*, 33-57.

Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development*. Englewood, NJ: Prentice Hall.

Lee, H. (2019). The classroom-community connection design: An instructional approach guided by service-learning and dual system of vocational education and training to improve journalism students' workplace readiness and civic engagement. *Visual Communication Quarterly*, 26, 52-57.

Lewis, S. & Westlund, O. (2017). Reconsidering news production: How understanding the interplay between actors, actants, and audiences can improve journalism education. *Global Journalism Education in the 21st Century: Challenges and Innovations*, 409-428.

McQuail, D. (2010). *Mass Communication Theory*. London, UK: Sage Publications Ltd.

Merriam-Webster. (2021). Algorithms. Merriam-Webster.
https://www.merriam-webster.com/dictionary/algorithms

Miller, R. (2013). Journalism schools need to look to the future, not the present. *Media Redux*, 32.

Mitchell, A. (2018, Dec. 3). American still prefer watching to reading the news and mostly still through television. *Pew Research Center*. https://www.journalism.org/2018/12/03/americans-still -prefer-watching-to-reading-the-news-and-mostly-still-through-television/

Moller Hartley, J. (2013). The online journalist between ideals and audiences: Towards (more) audience-driven source-detached journalism. *Journalism Practic*e, 7(5), 572-587.

NBC News. (2018, June 26). How Instagram's algorithm determines what your feed looks like | Mach | NBC News. [YouTube video] https://www.youtube.com/watch?v=RlXG4qeAZ2E

Newton, C. (2016, Oct. 28). Why Vine died: Closing the loop. *The Verge*. https://www.theverge.com/2016/10/28/13456208/why-vine-died-twitter-shutdown

Pariser, E. (2012). *The Filter Bubble.* New York City, NY: Penguin Random House.

Pew Research Center. (2019, March 29). Easy-to-use websites top the list of important digital features for local news. *Pew Research Center*. https://www.journalism.org/2019/03/26/nearly-as-many-americans-prefer-to-get-their-loc al-news-online-as-prefer-the-tv-set/pj_2019-03-26_local-news_1-12/

Rooksby, J. H. (2011). Beyond the press: Collegiate journalism's uncertain future. *Chronicle of Higher Education*, 57(38), 35.

Singer, J. B. (2008). Five w's and an h: Digital challenges in newspaper newsrooms and boardrooms. *The International Journal on Media Management*, 10, 122-129.

Starrs, J. (2018, April 10). Mark Zuckerberg's Senate hearing, in three minutes. *The Washington Post*. https://www.washingtonpost.com/video/politics/zuckerberg-apologizes-as-senators-quest on-facebook-data-practices/2018/04/10/6b711144-3cf7-11e8-955b- 7d2e19b79966_video .html

Steensen, S. & Ahva, L. (2015). Theories of journalism in a digital age: An exploration and

introduction. *Journalism Practice*, 9(1), 1-18.

TED. (2020, Jan. 20). How can we protect truth in the age of misinformation? [YouTube video] https://www.youtube.com/watch?v=-7ORAKULel4

TED. (2015, Dec. 7). The moral bias behind your search results | Andreas Ekström. [YouTube video] https://www.youtube.com/watch?v=_vBggxCNNno

Trolian, T. L. & Jach, E. A. (2020). Engagement in college and university applied learning experiences and students academic motivation. *Journal of Experiential Education*, 43(3), 317-335.

Turner, E. & Rainie, L. (2020, March 5). Most Americans rely on their own research to make big decisions, and that often means online searches. *Pew Research Center.* https://www.pewresearch.org/fact-tank/2020/03/05/most-americans-rely-on-their-own-research-to-make-big-decisions-and-that-often-means-online-searches/ct-tank/2020/04/20/u-s-newsroom-employment-has-dropped-by-a-quarter-since-2008/

Usher, N. (2016). *Interactive Journalism: Hackers, Data, and Code*. Champaign, IL: University of Illinois Press.

Viner, K. (2017, Nov. 16) A mission for journalism in a time of crisis. *The Guardian.* https://www.theguardian.com/news/2017/nov/16/a-mission-for-journalism-in-a-time-of-crisis

Ward, S. (2021). Digital media ethics. *Center for Journalism Ethics University of Wisconsin-Madison School of Journalism and Mass Communication*. https://ethics.journalism.wisc.edu/resources/digital-media-ethics/

Webb, A. (2015). How to make j-school matter again. *Nieman Reports*, 18-25.

Wrenn, B. & Wrenn, J. (2009). Enhancing learning by integrating theory and practice. *International Journal of Teaching and Learning in Higher Education*, 21(2), 258-265.