Studies in Technology Enhanced Learning

Journal homepage: stel.pubpub.org

ISSN: 2753-2380

Article type
Full paper, double-blind peer review.

Publication history
Received: 4 January 2021. Revised: 21 February 2021. Accepted: 11 June 2021. Online: 18 April 2022.

Cover image
Isaac Weatherly via Pexels.



Special issue Visual literacies and visual technologies for teaching, learning and inclusion | **More at** https://doi.org/10.21428/8c225f6e.bf2afe2e

Visual literacy and fake news: Gaining a visual voice

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Keywords
Visual literacy; fake news; images; photo-journalism; civic engagement; bias; social media; power

Citation
Farmer, L. (2022). Visual literacy and fake news: Gaining a visual voice. Title. **Studies in Technology Enhanced Learning, 2**(1), 31-45.

https://doi.org/10.21428/8c225f6e.b34036b2

Abstract

Fake news images are deliberate, publicly published news intended to mislead viewers. Public distrust in news extends to visual images in the news, especially as digital images are so easy to fake and manipulate. To deal with this issue, people need to be visually literate in order to discern the veracity of visual news messages. Moreover, fake news images are more likely to minimize or negatively portray minority groups who might threaten the existing social order, although these marginalized people are less likely to produce news. Tracing the information cycle of fake news reveals steps where images can be faked in order to influence and impact consumers. Visual literacy can use the framework of a news media information cycle to empower people, especially marginalized populations, to become impactful civically engaged visual literacy consumers and producers.

1. Introduction

One could make a strong case to call this time period as much of a Disinformation Age as an Information Age. Public trust in mainstream news has fallen as polarization of information has set in, exacerbated by social media. This phenomenon extends to visual images in the news, especially as digital images are so easy to fake

and manipulate. It is also becoming increasingly apparent — and troubling — that news, including its visual aspects, is more likely to minimize or negatively portray minority groups such as people of color, people experiencing poverty, and immigrants (Grambo, 2019). The thinking is that these groups upset the existing social order; that is, those people in power. Yet these same marginalized people are less likely to produce news or impact the readership and may even be punished for speaking out (Kirtley, 2018).

This paper explores visual literacy using the frameworks of news media and civic engagement within an American context, with the intent of using education to empower learners to be civically engaged visual literate consumers and producers. The underlying concepts, though, are universal, just as visual principles are universal, but their connotations may be socially constructed.

2. Fake news

The term "fake news" has been bantered about over the last few years and was even chosen by American Dialect Society as the 2017 word of the year (American Dialect Society, 2018). To be clear, fake news may be defined as deliberate, publicly published news (i.e., current information of interest to the general public) that purports to be real and true but is knowingly inaccurate, misleading, or fabricated by its creator. Fake news is considered to be a subset of disinformation: a deliberate lie that intends to mislead its audience; disinformation does not have to be news. Misinformation is also incorrect information (and not necessarily new) but is an honest mistake rather than a conscious ruse (Tandoc, Lim & Ling, 2018).

Sadly, fake news tends to spread faster than real news, mainly because of social media users quickly creating and sharing compelling news, be it true or not (Vosoughi, Roy & Aral, 2018). In contrast, mainstream media outlets have a longer production cycle because reporters try to verify information and editors have to review and organize a sizeable body of news for publication. Unfortunately, the first piece of news about an event or person serves as the standard by which subsequent news about the same topic is judged so it is more influential (Ortiz, 2018). Furthermore, when people are confronted by news that contradicts their pre-established opinions, they are likely to hold onto their original opinion rather than to change that opinion. Repetition can reinforce belief; if fake news is repeated enough, eventually it is likely to be considered true (Menczer & Hills, 2020). Adding to the problem, news stories use images to attract the audience's attention and appeal to their emotions, which can be manipulated.

These issues of speed, attention-getting and sharing point to the key issue for fake news: false belief and acting on that belief is. When people consume fake news and think it is true, they are misinformed and can make bad decisions, such as drinking bleach to kill coronavirus or committing hate crimes. Especially when fake news reinforces an individual's pre-existing values, such as white supremacy, countering that fake news afterwards is very difficult to do (Grambo, 2019); it is more effective to disseminate the truth first, but it takes time.

The people who are most susceptible to fake news, including faked images, tend to be less educated, have less cognitive ability or reasoning skill, or have less life experience to draw upon (such as young people) (De keersmaecker & Roets, 2017). As more sophisticated software is able to create misleading images and manipulate images from reputable sources, viewers have an increasingly hard time identifying visual fake news. When determining the authenticity of fake news images, Kasra, Shen and O'Brien (2018) found that their study population evaluated images hastily and based their decisions on non-image cues rather than the content shown; the most important factor for determining an image's validity was the purported source, which image could be repurposed to make fake news more credible. In sum, if viewers are already unable to discern fake text, they are unlikely to evaluate images any better.

3. The information cycle of fake news images

Tracing the information cycle of fake news images provides a framework for determining what visual literacy skills are needed to address those images. This cycle can also reveal the power elements that underscore fake news images and their consequences. Basically, the information cycle consists of information (in this case, fake news images) creation, processing, dissemination, access, and use.

3.1 Creating fake news images

These days, almost anyone can visually record an incident or person. For that image to become news, it needs to be timely and of interest to others. Creators of fake news images may have several agendas: to get attention or a reaction, to entertain, to harm, to make money, but most of all to influence others. The context of the creation also varies: cultural, social, political, financial, religious, or scientific as examples. Regardless, the creation of a news image is an

act of power. When that power is enhanced by professional equipment, technical skill, and visual literacy, the resultant image can make a profound impact.

Photojournalists constitute the professional wing of fake news image creation. They are charged to visually capture news as it happens. Because it is considered first-hand reporting, such images are often considered more objective and less filtered than a reporter's written account. However, even when taking a still or moving image, photojournalists still choose the timing, camera features, and environmental conditions to situate the image to convey specific meaning. Photojournalists need to be visually literate to know how camera angles can convey strength or weakness, how lighting can convey health and age status, and how use of space can convey support or isolation.

In some cases, an editor or reporter may direct the photojournalist to show a particular point of view. This kind of pre-meditated bias, originating from the photojournalist or other news personnel, can result in disinformation and fake news. In either case, the decision-maker has power. Focusing on photojournalists, the majority are White/non-Hispanic; one percent identify as Black, and they are also more likely to face physical risks. Furthermore, eighty percent of photojournalists are male, and over two-thirds of female photojournalists faced discrimination in the workplace. About seventy percent of photojournalists have university degrees, and fewer than a quarter receive in-house workplace training (Hadland & Barnette, 2018). These demographics imply that white males' viewpoints and biases are more likely to be conveyed in news images.

Media outlets increasingly solicit news images from their constituents, which may provide more opportunities for different viewpoints to be recorded and considered. Certainly, provocative images shared during the Arab Spring and attacks on Blacks had power influence. Individuals who understand and leverage visual literacy can create a more compelling image. However, the creation of news images is just the start; how those images are received, processed and disseminated all figure into the ultimate product — which can result in consequential fake news, including images.

3.2 Processing fake news images

In some cases, fake news creators do not create the images but rather co-opt images from other sources, preferably from reputable media outlets who have the staff to access news events and the equipment to capture the event in compelling ways. Furthermore, if consumers of fake news do not trace the source of the images to those mainstream outlets, they may be more willing to believe the veracity of those images, unless they realize those images are being manipulated or taken out of context.

Regardless of the source, images are processed and edited in order to tell a story, to send a message. Again, with the right equipment and software, technical skills and visual literacy, many individuals can manipulate an image to convey a different meaning than the original raw footage. The simplest technique is cropping: showing just part of the picture or video: to emphasize — or omit — details, or to minimize context. Modifying lighting and re-balancing color can create a sinister, party-like or glaring atmosphere. Digital photography and related editing software have expanded image manipulation to a new degree, facilitating the elimination and addition of visual elements, even from different sources, as showcased in faked 9/11/2001 photos showing a tourist in front of the terrorist attack of the World Trade Center in New York, in movies such as *Forrest Gump*, and more recently in deep fakes that superimpose media to misrepresent a person or event (Gibney, 2017).

News production editors typically select and manipulate the images rather than photojournalists. Decisions may be based on allotted space, layout options, time limitations in broadcasts, and sequencing in the final product. The size and visibility of the image usually indicate its importance, and the image's juxtaposition with other images also conveys meaning, such as an image showing climate change next to an oil company's advertisement. In any case, these editors use visual literacy techniques to make the news more eye-catching and impactful.

As with photojournalists, overall news production personnel are largely Caucasian white males; only eleven percent of news editors in the U.S. are non-white. Moreover, twenty percent of news staff live in New York, Los Angeles, or Washington DC, and a quarter of all news employees work in the Northeast. These demographics impact decisions of news processors, reflecting metropolitan experiences and unbalanced ethnic and gendered stances (Grieco, 2020).

3.3 Disseminating fake news images

Disseminating news has grown from a local phenomenon to a global one, and the speed of dissemination now is almost instantaneous, thanks to technology advances. More specifically, broadcasting news images has a fairly recent history. Printing images used to be labor-intensive work, but electronic and digital advances have made the transmission of images a key element of news dissemination, particularly in a global society. People now expect news on demand,

which results in media outlets driven to tighter deadlines and sometimes shortcutting verification processes so that fake news images may be picked up and published more often in the rush.

Importantly, media is no longer principally a one-way communication channel. Even traditional newspaper outlets now have an online presence and facilitate user comments and contributions. More profoundly, many people are now bypassing mainstream media outlets to disseminate news broadly, including images by using the Internet, and more specifically, social media. Furthermore, images' emotional appeal and seeming credibility serves as a catalyst for spreading news, including fake news, and reinforcing existing prejudices (Mallonee, 2016).

While those who create and spread visual news, including fake news, via the Internet constitute a broader base than mainstream media outlets, they still represent people who have access to the Internet and social media, have the technical and communication skills to produce news, and visual literacy ability to convey attention-getting images. Producing news visual media is a much less common practice than consuming it. Many perspectives are not seen, as a result.

3.4 Accessing and using fake news images

Accessing news images poses fewer problems as Internet connectivity has increased, and more devices may be used to access online information. Over 85 percent of U.S. residents have Internet access. Nevertheless, several populations have less broadband access: rural, those experiencing poverty or homelessness, and incarcerated individuals. In that respect, the COVID-19 pandemic has revealed a continuing digital divide as many people accessed the Internet at work in or schools, and now do not have that option (Busby & Tanberk, 2020).

Nevertheless, online tools have propelled another significant change in disseminating fake news images: sharing and repurposing them. Social media is the most popular way to share news images, and 74 percent of U.S. adults use Facebook daily (Perrin & Anderson, 2019). Images are particularly popular in this endeavor because they can be instantly comprehended, and for fake news creators, images can be easily copied, manipulated, and repurposed to convey a different meaning within a different context. Unfortunately, in a national survey, Rainie, Anderson and Albright (2017) found that almost a quarter of Americans have shared a fake news story, often because they have read only the headline or seen the image. Those sharers did not use critical visual literacy skills to authenticate the image or evaluate within the context of the rest of the news story.

4. Visual literacy for fake news

As evidenced in the above discussion, visual literacy is needed throughout the information cycle of visual news message, both for producers and consumers. Yet Nightingale, Wade and Watson (2017) found that forty percent of the time adults could not detect a fake image of a real-world scene, and the majority could not tell what was wrong with the image when told it was fake. Several visual literacy skills are needed to discern misleading and fake news images.

4.1 Visual principles leveraged in fake news

As mentioned in sections 3.1 and 3.2, several visual principles may be used to connote certain meaning in images, and may even mislead the viewer, see Figure 1. Not only can photographers distort a person or event by the way they record them (i.e., in-camera editing), but production staff can use editing software to manipulate the image even more to send a biased or fake message.

- Shape. Rounded shapes connote softness, comfort, naturalness, and possibly weakness. Sharp shapes connote energy, danger, and a mechanical sense.
- Form. Form is the three-dimensional shape of an object. A gradual shading of a form makes it appear rounded and perhaps more organic. In contrast, flat forms may seem more austere. Lighting can impact the sense of form; a single source of a focused light can make a form seem starker and less friendly.
- Value. Dark colors can seem foreboding and light colors can feel innocent.
- Color. Warm colors (yellows to reds) can feel more energetic, while cool colors (greens, blues, purples) can feel more peaceful. The intensity of the color attracts attention and can connote an intensity of action.
- Texture. Does a surface look rough? It can connote naturalness, harshness or manliness. A smooth texture can connote calm, richness, or femininity. Lighting can emphasize texture, making seem more tactile — and weather a person's wrinkles, see Figure 2.
- Balance. The distribution of art elements impact balance. A symmetrical image connotes stability. An unbalanced image can connote energy, change, or disorder, see Figure 2.

- Proportion. People who are out of typical proportion may seem odd. For instance, when a camera lens is very close to a person, it can make that individual look distorted, such as having a large nose, see Figure 3. Camera angle can also mislead relative proportion; consider when a person holds out his hand, making it look as if he is holding the Eiffel Tower, that is actually far away, see Figure 4.
- Emphasis. A photographer can emphasize a part of an image in several ways, typically by leveraging contrasts: centering the main object, having the object take up most of the space, highlighting the object against a darkened background, and directing lines to extreme, be they positive or negative, see Figures 5, 6 & 7.

Movement. Repetitive and directional lines and shapes give the illusion of movement, see Figure 8. Digital camcorders can further manipulate movement by adjusting recording speed. Protests can appear growing or stagnant depending on the sense of movement in an image. Movement is also inferred in terms of sequencing images. In fact, traditional film technically consists of a series of still images, which could be reordered when edited. For instances, if images are

Figure 1. Image illustrating shape, form, value and color (Silhouette of tree near body of water during golden hour. Image credit: Pixabay via Pexels)



Figure 2. Image illustrating texture, balance and lighting. (Purple leaf. Image credit. Pixabay via Pexels)



Figure 3. Image illustrating camera distortion making proportions look odd (Woman's face. Image credit. Elisa Guarneros via Pexels)



Figure 4. Image of Hand appearing to hold the Eiffel Tower (Holding the Eiffel Tower. Image credit, Vincent Lock via Flickr. CC BY 2.0. https://www.flickr.com/photos/27630470@N03/4114302348)



https://doi.org/10.21428/8c225f6e.b34036b2

Figure 5. Image showing use of contrast for emphasis (Person holding a bamboo stalk. Image credit. Yaroslav Shuraev via Pexels)



Figure 6. Image showing emphasis through centering & directing lines (Silhouette of person making circles with flashlight on dark street. Image credit. Isaac Weatherly via Pexels)



Figure 7. Image illustrating emphasis (Black ceiling wall. Image credit. Pixabay via Pexels)

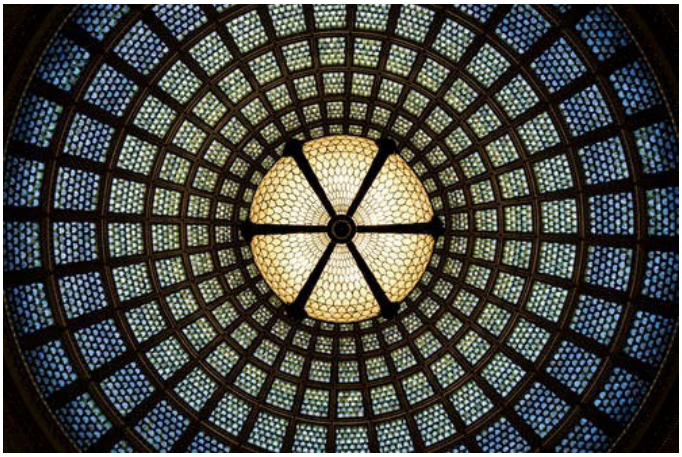
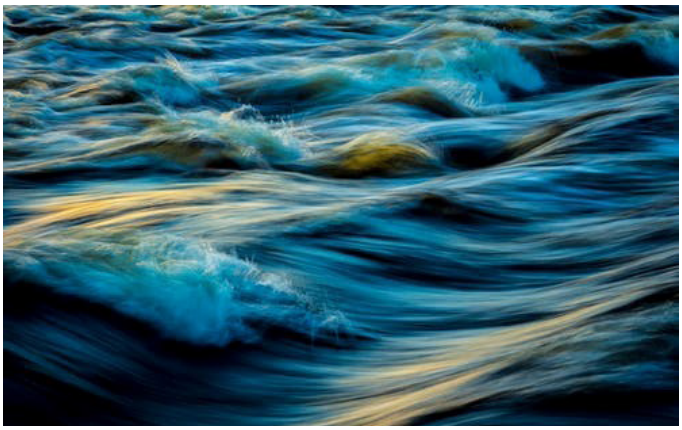


Figure 8. Image illustrating movement (Macro photography of water waves. Image credit. Pixabay via Pexels)



placed in the wrong order, they can result in misinterpretation, which might be the intent of fake news creators. Such re-ordered sequencing can even lead to mistrials when images appear to show who attacked first. By knowing these visual principles, viewers can be more conscious of how those principles impact their viewing experience and interpretation. In that respect, a good practice for news consumers is to compare pictures of the same event as published by a variety of news sources to discern content and visual patterns and spot unusual variations. For instance, a person's face might have different coloring in different publications or in association with different stories (e.g. a positive event versus a negative portrayal); while the difference might lie in a faulty printing job, the coloring might be changed deliberately to send a biased message (a good way to check the basis for instance in this case is to compare the coloring of people throughout the two publications).

4.2 Visual principles in visualizing data

Increasingly, data are presented visually to help people understand those data more easily. While numeracy is vital in order to comprehend quantitative data, visual literacy is also needed to interpret visual data accurately. Fake news creators often manipulate visual data to misrepresent them, leading the viewer to come to false conclusions that supports the creators' agenda. Here are some of the visual tricks used to present a false picture of data:

- Data: the variables to be plotted. Manipulating the timeframe, such as stopping the data before a change in the trend line; showing too few data points, such as missing data points that would change the shape of the graph; burying data by showing too much data such as a line graph of a hundred countries (e.g.

https://www.flickr.com/photos/luc/5418037955), see Figures 9 and 10.

- Aesthetics: scale of the data to be mapped. Using misleading colors, such as lighter colors to depict greater density instead of darker colors, expanding, compressing, or creating breaks in the y-axis in order to exaggerate — or minimalize — differences, depending on the message's intent, see Figure 10.
- Coordinates: plotting space for the data. Omitting graph labels; omitting the base line (usually of the y-axis), see Figure 11.
- Geometrics: shapes that represent the data. In bar graphs, using images such as bodies or trees instead of bars of the same width, thereby exaggerating the quantitative difference; varying the width of line graphs to imply greater quantity or importance; showing several pie charts simultaneously, but changing the pie size or changing the colors or legend between charts to mislead the interpretation; using the wrong kind of chart to convey information, such as using a pie chart whose pieces together total more than 100%, see Figures 12, 13 and 14.

In examining visual data, viewers should check to make sure that all graphs are accurately labelled, and that the axes are complete, starting from zero. Viewers should also be wary of visual elements that do not convey data but imply relative importance (e.g. brighter colors, heavier lines, 3D representations that do not add meaning to the data).

5. Visual literacy education leveraging fake news images

Fake news images serve as a catalyst to tech visual literacy because it offers current topics of interest to learners, and demonstrates the importance of context when comprehending and evaluating visual message. In that regard, instructors should encourage learners to share news images to critique and validate. In addition, learners should have opportunities to consume and produce visual news.

Because so much news is disseminated electronically, visual literacy should incorporate digital literacy. Indeed, digital visual literacy has become a vital interdisciplinary skill, not only because with its ease of image manipulation but also because of "the computer's ability to provide a discrete and abstract language for representing visual information ... so it can be replicated, altered, and shared in new ways" (Spalter & van Dam, 2008, p. 94). Understanding technology's production of visual messages and its impact on fake news can help inform individuals -- and foster their own civic voice and action.

Here are some beginning ways to teach visual literacy through fake news images; in most cases, the images are digitally created or disseminated.

- Identify aspects of an image that arouses their feelings, and then link those aspects to art principles

  (e.g. dark images evoke fear or sadness, close-up face seems serious).
- Identify the reason for a fake news image and what message it is trying to tell.
- Determine what information is included — and what information is omitted — in a provided fake news image.
- Provide learners with a news image, and ask them to analyze it. Then provide them with the accompanying story, and ask them to analyze it again, stating how the text impacts their analysis.
- Find images about the same news story from a variety of sources, and compare those images in terms of content, perspective, context, and message. Rank the images in terms of their relative objectivity, justifying their stance.
- Track the source of news images through reverse image tools such as TinEye, FotoForensics.com, and Google image search (see https://www.stopfake.org/en/how-to-find-the-source-of-a-photo/) for techniques.
- Research the information cycle of a news story, and create a flowchart of that process.
- Research the photographers, their demographics and background, of a news outlet. What groups are represented or missing? Discuss the differences of photographers within and across news outlets, noting any patterns that might differ depending on the media (i.e., newspaper, magazine, television).
- Ask pairs to select new story video clip, and have them each edit the clip to create a different message or perspective (e.g. conservative versus liberal, young or old).

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Figure 9. A graph that cuts off data that changes the trend over time

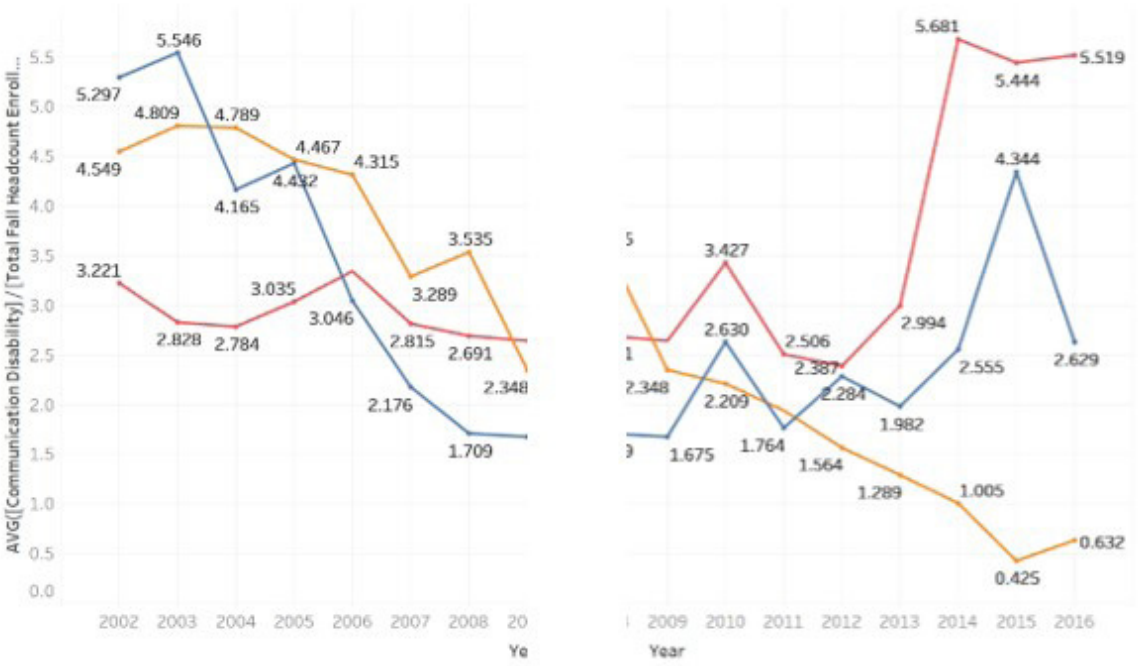

Figure 10. Two contrasting maps showing use of scale and color (Brexit, Bremain, the world did not end so dataviz people can throw shade and color. Image credit. Kaiser Fung via junkcharts.typepad.com)

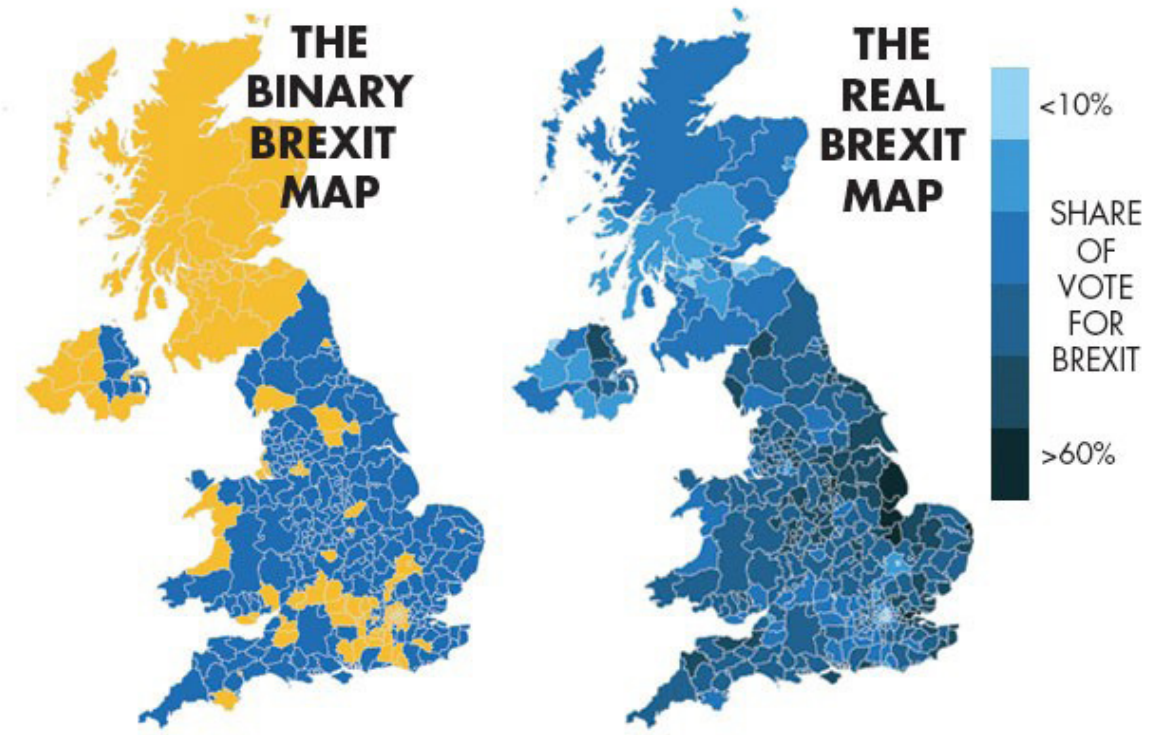

Figure 11. Excel chart showing broken y-axis

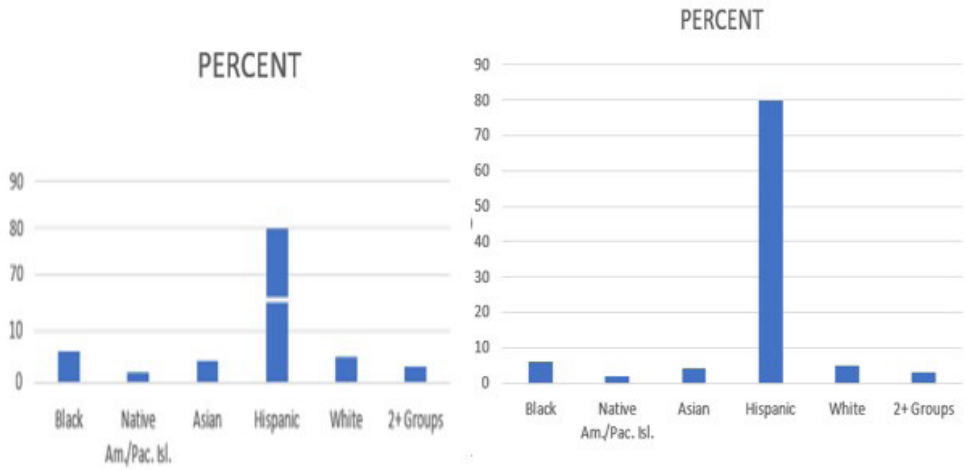

Figure 12. Misleading by varying the scale

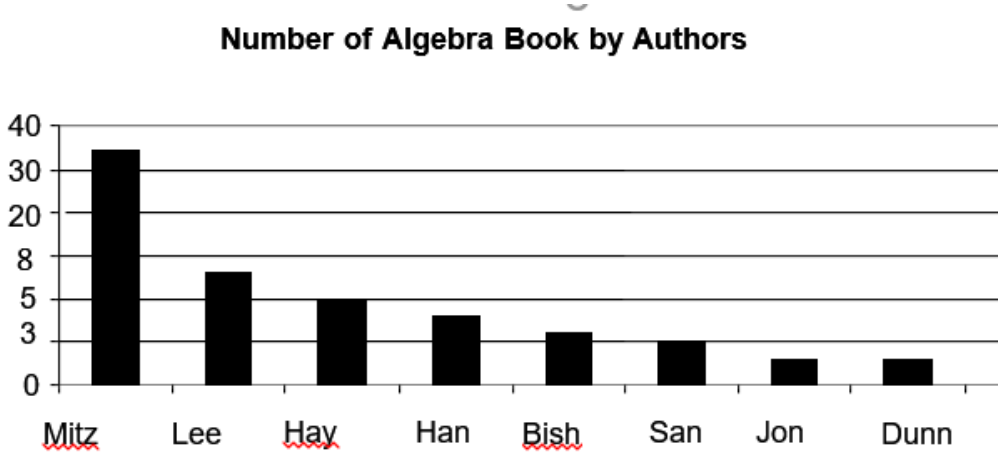

Figure 13. Exaggerating the quantitative difference with trees instead of bars

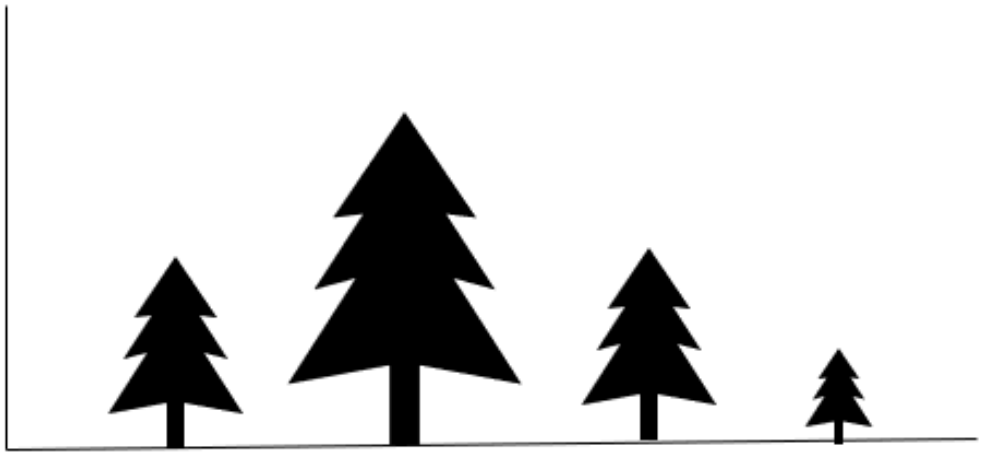

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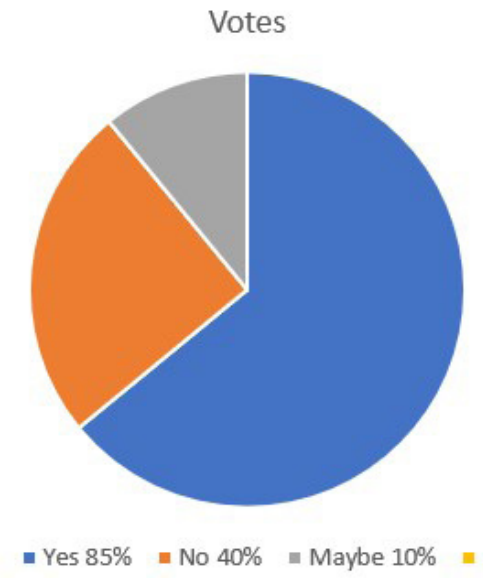
Figure 14. Misleading pie chart where total is more than 100%



- Take images of the learning environment, and then share those images. In pairs, critique each other's images in terms of the content, perspective, message, and production; then have the image maker give feedback as to the critic's assumptions, accuracy and thoroughness. As a group, share findings, and identify patterns of the images; discuss the reasons for the differences in the images.
- Analyze and compare news images for different issues (e.g. politics, racism, immigration, disease, religion) in terms of variety, messages, perspectives, production, frequency of faked images, etc.
- Find a local event, and record it visually; then share those images. In pairs. analyze each other's images and determine what makes the image newsworthy, and what visual and digital principles were used to tell the story. Then have the image maker give feedback as to the critic's assumptions, accuracy and thoroughness. As a group share findings, and identify patterns of the images; discuss the basis for choosing the news story and what to record.

Media outlets and relevant organizations also offer valuable activities to hone visual literacy skills in discerning fake visual messages in the news. A sampling follows.

- The Media Literacy Clearinghouse provides a "Is Seeing Believing" curriculum: **https://frankwbaker.com/mlc/is-seeing-believing-curriculum/**
- MIT open courseware provides a course with projects, examples, and assignments about documentary photography and photojournalism: **https://ocw.mit.edu/courses/comparative-media-studies-writing/21w-749-documentary-photography-and-photojournalism-still-images-of-a-world-in-motion-spring-2016/**
- New York Times' column "What's going on in this picture?" strips picture captions and asks students to analyze the images: **https://www.nytimes.com/column/learning-whats-going-on-in-this-picture**
- The Library of Congress created a five-part video series "Every Photo is a Story" to teach how to analyze photographs, and incorporates exercises for viewers to practice those skills: **https://www.loc.gov/rr/print/coll/fbj/Every_Photo_home.html**. Their main steps consist of: 1) closely examining the image itself, 2) researching about the researcher or publisher, 3) determining how the images were made, 4) exploring the photographer's era, and 5) interpreting the image's message or story.
- The International Society for Technology in Education's 2016 book "Media Literacy in the K-12 Classroom" includes a chapter on visual literacy, which guides learners through critical questions and engaging lessons: **https://www.frankwbaker.com/mlc/homepage-media-literacy-k12-classroom-2nd-edition/**
- While Mind over Media focuses on propaganda, some of their examples have fake elements, which viewers can evaluate: **https://propaganda.mediaeducationlab.com/**
- The Museum of Hoaxes includes a hoax photo test to measure the viewer's visual literacy: **http://hoaxes.org/tests/hoaxphototest.html**. The museum also archives hoax photos, fake viral images, and real photos that look fake: **http://hoaxes.org/**
- EAVI Media Literacy for Citizenship's website Lies, damned lies and statistics: A data literacy primer explains how to discern misleading data visualization: **https://eavi.eu/lies-damned-lies-statistics-data-literacy-primer/**
- These slides from the American Association of School Librarians explain infographics and possible misleading visualizations: **https://docs.google.com/presentation/d/1FKMh9xc_5JGOwHZmGy9ORWIrL-7WLm0WXtP8SiDwY7-0/edit#slide=id.p3**

6. Civic engagement and visual literacy

In tracing the information cycle of news images, noting faked efforts, the issue of power is revealed. News tends to favor the status quo and entities in power, and fake news

tends to accentuate that stance even more. When people feel overwhelmed with the flood of news, some of it fake images, they sometimes withdraw or become cynical. They may depend on their friends, who might not be well informed or careful in their sharing of fake news. When people think that their opinion does not count or that there is no chance of change, they may despair or give up. Others who want to voice their perspectives may be drowned in the surfeit of news, including fake images, or they might not have the skills to enter competently into the public discourse. In his study of students in higher education, Schellenberg (2015) found that "young people are not equipped with the necessary skills to engage capably in a visually-oriented society" (p. 5). As a consequence of non-participation, society is less informed.

6.1 Defining civic engagement

Civic engagement may be defined as individual and collective actions that identify and address issues of public concern with the underlying goal of improving the quality of life within a community. Westheimer and Kahne (2004) posited three models of citizenship and civic engagement, each of which each of may be linked to fake news images.

- Personally responsive citizens obey laws and keep current about news in order to make informed decisions. They do not create or share fake news images. At the same time, they might well share true news images to inform others or find some common truth which are usually more effective than direct contradiction (Haigh, Haigh & Kozak, 2018).
- Participatory citizens might send visual messages to decision makers about some social concern such as the lack of visual literacy education, or collaborate with groups for common good, such as creating infographics about discerning fake news images.
- Social justice oriented citizens seek social justice as a moral imperative, and try to effect sustainable social change through such actions as collaborating towards solutions journalism, which focuses on people's responses to social problems and the consequences of those responses. Social journalists report on the evidence that demonstrates how well the responses work — and why. The goal of social journalists is to provide a more complete picture of social issues and to drive more effective civic engagement (Benesch, 1998). Social justice oriented citizens might provide evidence of social wrong-doing or the social justice efforts of marginalized populations.

Civic engagement benefits both the community or more specific recipient of that engagement as well as the engaged individual or group. Civically engaged individuals gain a greater sense of belonging and purposefulness. They also improve visual literacy, social skills and problem-solving abilities. All of these actions result in greater social capital, that is, the value of interpersonal relationships and their resources as they contribute to society. In the context of fake news images, social capital can make or break fake news by building solidarity *against* fake news and *for* authentic news. That kind of civic engagement can improve society rather than polarize it (D'Costa, 2016). Therefore, one aspect of visual literacy education should be civic engagement: both to learn how to be an informed citizen but also to contribute to society.

6.2 Visual literacy conditions for civic engagement

Civic engagement requires cognitive ability, critical thinking, and topical knowledge and experience, along with the motivation to engage civically. Having a civic space in which to participate and influence others is also needed. These days, that civic space is likely to be online, be it media outlets or social networking channels. Within those online spaces, individuals have to identify and connect with the decision makers who can implement social changes.

Increasingly, those online channels communicate visually, so individuals need physical and intellectual access to these channels. More devices have Internet connectivity, and public spaces sometimes provide free Internet access and devices (although many such spaces closed during the pandemic). Fortunately, social media provides low-bar access opportunities, but it can be hard to be taken seriously amid the millions of participants. In that respect, joining an interest group or professional association with similar values offers a more influential venue; sometimes the fees to join an association are lower for non-industry supporters (e.g. Black Caucus of the American Library Association).

While few civics education framework or visual arts curricula explicitly address fake news, their content and activities certainly inform individuals as they encounter and deal with fake news images (Rupers, 2018). In addition, fake news can serve as a critical lens with which to approach civic concepts such as critical evaluation of information, rhetorical visual strategies, and civic-related social media use. In the process, educators should remind learners that civic engagement transcends politics; the emphasis is action for community improvement. As a study by the James Foundation revealed (Rabkin, 2017), people who participate civically in the arts tend to volunteer and exhibit social tolerance. Furthermore, those participants often credit

https://doi.org/10.21428/8c225f6e.b34036b2

community-based arts experience as significant for their personal development and identity.

Furthermore, art expands civic participation by giving voice to those who might not normally participate in public discourse, and it can bring together people with divergent opinions to work together to envision new opportunities and solutions. For instance, when marginalized people were threatened displacement, artists collaborated with the affected group to create joint art to show possible impact on the community, which led to public dialogue about the project. The National Arts Policy Roundtable (2008) reported on 21st century arts and civic engagement, asserting that arts-based civic engagement is vital for community improvement because it expresses new ways to view the world and offers a creative space to address social problems. Art increases social capital as it incentivizes cultural events and centers where people can connect and build trust, such as mural art programs and civic theater.

Increasingly, technology is being integrated into civic education, be it in formal educational settings or settings such as libraries and youth organizations that provide informal educational opportunities, including venues for new voices to express their ideas. For instance, rather than from mainstream news outlets, teens get their news online and social commentary television, and tend to distrust mainstream politics. However, two-thirds of teenagers participate at least monthly in social causes. They tend to prefer a self-actualizing approach to civic engagement such as lifestyle politics on the local or global scale, such as pollution, pay equity and gay rights (Freelon, Wells & Bennett, 2013). Technology has significantly expanded the artistic visual tools available and the means to access and broadcast visual expressions. These examples express a range of civic engagement, from taking a community art class to expressing strong opinions about social issues such as fake news images. Therefore, educators should draw upon personal interests as they encourage visually-driven civic engagement. The Center for the Study of Social Policy (2011) identified several factors that were found in efforts that engaged students: local needs, local resources, local broad-based planning, accessible and appropriate technologies, opportunities for community building and socializing, and locally meaningful content and outcomes.

6.3 Examples of visual literacy civic engagement

Arts as civic engagement and arts activism has both a short and long history. Goya's "The Disasters of War," Daumier's political cartoons, Kathe Kollwitz's charcoal drawings of war and poverty, Diego Rivera's murals, Picasso's "Guernica," Cindy Sherman's feminist photographs all exemplify impactful visual social commentary that countered prevailing narratives. Political cartoons continue that tradition, but a broader base of artists are now visually impacting social movements. For instance, the book "The Aesthetics of Global Protest" (McGarry et al., 2020) collected stories from around the world that showcase art activism: queer visual activism in South Africa; political street art in Argentina, Istanbul and Athens; photography and protest in Israel and Palestine; music videos as protest communication in Turkey. Similarly, PhotoVoice (**http://photovoice.org**) partners with social change groups to create opportunities for photography-based community participatory advocacy. Examples include health-related rights in Uganda, defending natural resources in Myanmar, sex trafficking in Britain, and migrant work conditions in Indonesia.

Middaugh and Kahne (2013) asserted that new media provides novel ways to find and share civic information, as well as organize political activities. Synthesizing their literature review of new media's role in civic learning, the researchers suggested several ways to leverage media to facilitate civic education, particularly for youth, which can leverage visual literacy:

- Design authentic learning environments: issues-based website that show steps to engage in civic action (e.g. **http://www.dosomething.org**, **http://generationon.org**); digital games to conceptualize civic issues and actions (e.g. Fate of the World, iCivics); virtual environments (e.g. Quest Atlantis, United Nation's Virtual Reality Program).
- Connect to community: mapping as community building; online youth leadership communities (e.g. Black Youth Project, **http://digitalyouthnetwork.org**).
- Support individual's civic voice: e.g. Adobe's Project 1324 (**http://project1324.com/**) for emerging civic-minded artists.
- Facilitate engagement with social justice issues: participate in web-enhanced civic issues (e.g. Bites Media: **https://bitesmedia.com/**, Civic Action Project: **http://www.crfcap.org**, Taking It Global: **http://www.tigweb.org**, PhotoVoice: **https://photovoice.org/**, YR Media: **https://yr.media/**).

Korza & Schaffer Bacon (2008) developed an arts and civic engagement toolkit for planning and designing arts-based civic engagement projects; it provides tips on leveraging the arts to foster participation, finding settings and facilitators to support engagement, and ways to assess impact. In addition, the following websites provide guidance

in facilitating arts civic engagement and activism, which can offset fake news and its misleading images:

- American Political Science Association: **http://web.apsanet.org/teachingcivicengagement/wp-content/uploads/sites/9/2017/08/II-CHAPTER-13-DEVEREAUX-ARTS-COLLABORATION-AND-COMMUNITY-ENGAGEMENT-SYLLABUS.pdf**
- Animating Democracy landscape of civically engaged arts databases and services: **https://www.animatingdemocracy.org/great-links/specialized-databases**
- American Library Association: **http://www.ala.org/tools/programming/engage-picturing-america-through-civic-engagement**
- Arts.gov: **https://www.arts.gov/impact/creative-placemaking/exploring-our-town**
- Arts Engaged: **https://www.artsengaged.com/engagement-essentials**
- Los Angeles County Arts: **https://www.lacountyarts.org/sites/default/files/pdfs/civic_engagement_planning_and_design_imagine_define_design1_key_.pdf**
- National Guild for Community Arts Education: **https://nationalguild.org/resources/resources/free-guild-resource/engaging-adolescents-building-youth-participation**
- Project for Public Spaces: **https://www.pps.org/article/artsprojects**
- Urban Institute: **https://www.urban.org/sites/default/files/publication/59186/311006-Art-and-Culture-in-Communities-Unpacking-Participation.PDF**

7. Conclusion

Fake news images about recent public events have proliferated in the media, and have revealed people's lack of critical visual literacy — and the consequences of such misleading information. In the process, the faked images have also revealed societal inequities and abuses of power. Especially as images are disseminated globally, and fake news creators manipulate and repurpose images to advance their own agendas. All people need to consciously analyze those images and their contexts in order to respond to them appropriately. People who have not been in power historically need to realize how those fake news images marginalize them. Importantly, those same marginalized people need to learn how to use visual literacy and digital skills to create and disseminate authentic images that tell their stories and move others to create positive change. All people need to participate civically because their lives depend on it, and visual literacy enhanced digitally gives people powerful visual voices that need to be seen and acted upon.

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