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Digital Image Manipulation: A Compelling Means to Engage Students in Discussion of Point of View and Perspective

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Abstract

With the importance of imagery in our culture and the increasing access to both digital images and the tools used to manipulate them, it is important that social studies teacher educators prepare preservice teachers to provide their students with opportunities to develop a critical lens through which to view images. As we strive to encourage the development of effective citizens, the critical examination of images can be an effective vehicle to help students critically evaluate a variety of sources. This paper examines historic and more recent trends in image manipulation and provides an initial framework for discussing the current issues surrounding photo manipulation in the media. Descriptions are also provided of exercises in image manipulation focused on perspective in the social studies.

In her 1977 book, *On Photography*, essayist Susan Sontag wrote, “In America, the photographer is not simply the person who records the past, but the one who invents it.” Indeed, photographs can alter and magnify historical events, as the author of the image can literally manipulate the lens with which viewers see the world. In fact, every choice a photographer makes in taking a picture involves subjectivity; from the camera angle (looking up, looking down, eye level), to the framing (what to include and what to leave out), to the moment of exposure (when to shoot and when to wait). With the availability and prevalence of software capable of sophisticated image alteration, the issue of photo manipulation provides a timely opportunity in the social studies classroom to assist students in “reading” the images that inundate them in their daily lives by dispelling an old cliché: “The camera never lies.” This article attempts to provide an initial framework for discussing the current issues surrounding photo manipulation in the media with preservice teachers, as well as a historic look back at the ways in which images have been modified since the invention of the camera.

Photo Manipulation, Past and Present

Until recently, classroom teachers were limited to pictures included in textbooks and source books and those they could pull together on their own. The countless collections of images hosted online have opened up vast new opportunities to augment instruction in the social studies. Web sites including the National Archives, The Web Museum Paris, and the National Gallery of Art provide free access to thousands of high resolution images for use in the classroom. Concurrent with this increase in access to images on the Web comes an increase in photo manipulation. On the Web and in print, photographs are “retouched” in both subtle and substantial ways. This manipulation is not limited to graphic artists or artistic directors. In fact, millions of Web surfers flock to Fark (<http://www.fark.com>) to either view or participate in the daily *Photoshop* image editing contest, in which participants download and edit the photo of the day, reposting the “retouched” image for others to enjoy. Unfortunately, less benign examples of photo manipulation abound. In political campaigns and even on the covers of widely circulated news magazines, images are routinely altered to advance a point of view.

In the last decades, use of image editing software such as Adobe Photoshop, has become what many consider the most egregious form of photographic manipulation by allowing editors to digitally enhance, change, or modify an image in a variety of ways for a variety of purposes (see Table 1).

Table 1.
Types and Purposes of Image Manipulation (Brugioni, 1999)

Technique	Purpose
Removing details (“re-touching”)	To improve appearance (remove wrinkles, slim down) or remove distracting or unwanted elements (Lenin & Trotsky example, see Figures 2 & 3)
Inserting details	Change facial features, add color to skin, add elements to a scene in order to change the tone of a photograph (Simpson and <i>National Geographic</i> examples)
Photomontage	To pair images to suggest a relationship or create an entirely new image with a composite meaning (Kerry and Fonda example, see Figure 1)
False captioning	Context of what a photograph purportedly portrays is falsified to distort the meaning (Kerry and Fonda example, see Figure 1)

Firestorms have erupted in the media over O.J. Simpson’s darkened mug shot on the cover of *Time* (1994), the realignment of the Egyptian pyramids on the cover of *National Geographic* (1982) and the digital dental work done on the couple who had just given birth to septuplets appearing on the cover of *Newsweek* (1997). While the National Press Photographers Association (1995) denounces digital manipulation in its code of ethics (as do other national journalistic groups), the use of altered images in the media presses on amidst the heated debate.

During the 2004 U.S. Presidential campaign, an image surfaced, depicting U.S. Democratic Presidential nominee John Kerry sharing a speaking platform at a protest rally with Jane Fonda in 1971 (see <http://www.snopes.com/photos/politics/kerry2.asp>).

Although authentic photos place Kerry at the rally in question, it is quite a different matter to share the podium with such a controversial critic of the war, which the composite image illustrates. Originated by a conservative group and falsely attributed to the Associated Press, the image was circulated widely on the Internet and a number of media outlets for several days before it was revealed to be a fabrication. While the swift recognition of the image as a fake probably eliminated any impact on the election, this type of manipulation and its increasing level of precision can be a powerful tool of propaganda and misinformation.

Although it may be easy to draw ethical lines against photos like this one which are outright forgeries, there is growing debate within the media as to what level of image manipulation is acceptable. Magazine and newspaper cover images are routinely altered. These alterations run the gamut from cropping and color correction changes to improving the look of the image by extending backgrounds and taking out unwanted objects and blemishes. As in the case of the O.J. Simpson cover, *Time* magazine argued that the cover was not manipulated, but rather “illustrated” (see the cover on the Blogcritics Web site: <http://blogcritics.org/archives/2005/08/31/012306.php>). It is in this grey area where the lines are becoming increasingly blurred.

Recent digital technologies make photo manipulation more efficient, less costly and more exact, but it is important to note that there is a long history of doctoring images. In 1920, during the Bolshevik Revolution, a photograph was taken of Vladimir Lenin atop a platform, speaking to a crowd in front of the Bolshoi Theater. In the original photo from 1920 (see Figure 1), Lenin’s comrade Leon Trotsky can be seen standing beside the platform on Lenin’s left side. When power struggles within the revolution forced Trotsky out of the party 7 years later he was “retouched” out of the picture (Figure 2). Using paint, razors, and airbrushes, Soviet photo artists altered the historical record by literally removing Trotsky from the picture (Curry, 2001).



Figure 1. *Lenin with Trotsky at the Bolshoi Theater, 1920.* (Click on the camera icon to display this photo linked from the U.S. News Web site: <http://www.usnews.com/usnews/doubleissue/photography/hoax.htm>)



Figure 2. *Lenin without Trotsky at the Bolshoi Theater, 1920 (retouched 1927).* (Click on the camera icon to display this photo linked from the U.S. News Web site: <http://www.usnews.com/usnews/doubleissue/photography/hoax.htm>)

While this example of photo manipulation required skilled artists and a time-consuming process of physically altering the image, current digital image editing tools, often packaged free with the purchase of a digital camera or scanner, make the process relatively easy even for children to accomplish and to achieve similar results. As a result, amateurs often post doctored images on the Web to lampoon or advance a point of view (see images of President Bush at <http://www.snopes.com/photos/bushbook.asp> and South Dakota Senator Tom Daschle at <http://www.snopes.com/photos/daschle.asp>). While humorous and often used for comedic purposes, the potential for more damaging fabrications is clear and troubling.

The Use of Images in History and Social Studies Classrooms

The increased access to images and trends in photo manipulation provide a timely opportunity to revisit the issues of historical reliability in sourcing photographs. While current K-16 students are inundated with images in their daily lives, it is not clear how effective they are at “reading” images (Werner, 2002; Wineburg, 1991). How then can educators approach the daunting task of providing students with the cognitive tools to effectively make sense of images? Below three theoretical contexts are reviewed for image use in social studies and history.

Reading Images in Social Studies Classrooms

Werner (2002) provided a framework to develop pedagogical approaches to support image-related work with preservice teachers and students, stressing the importance of teaching students to “read” images. He argues that students must be provided the authority, capacity, and community in which they can “make meaning [of images] by understanding how the parts (e.g. symbols, conventions, context) are related to the whole (e.g. message)” (p. 403). Werner differentiates between “closed” and “open” texts – essentially defining the degree to which the reader is left to interpret the meaning of a message. In order for students to effectively make meaning from “open” texts, the teacher must provide them with the opportunity and capacity to do so, encouraging multiple readings and interpretations of images. He identifies seven types of strategies employed in reading visual texts:

1. Instrumental – viewing texts as a source of information
2. Narrative – focusing on the implied storyline of a text
3. Iconic – identifying the broader issues and values the text represents
4. Editorial – inferring the artist’s judgment towards a topic
5. Indicative – inferring the implied social conditions demonstrated by the image
6. Oppositional – critiquing the implied storyline and position of the viewer
7. Reflexive – self-evaluating one’s interpretation and response to an image

As one moves down through the framework, the viewer has increased agency in reading the visual text and requires increasingly complex heuristics to effectively read the image. Finally, Werner stressed the importance of fostering a safe, open community in which students feel comfortable to offer and critique multiple readings of images. These skills are not easy or natural; teachers must nurture students in this pursuit.

While Werner provided strategies for students to read images, Hobbs (1998) offered another approach by challenging students to produce media and engage in the editorial choices that professional producers and journalists make. In this process, students recognize that images and other media have a point of view. In the study of media literacy, Hobbs (1998) outlined five basic concepts about media messages that form the foundation for developing skills, applications, and understanding:

1. All messages are constructions.
2. Messages are not representations of social reality.
3. Individuals negotiate meaning by interacting with messages.
4. Messages have economic, political, social and aesthetic purposes.
5. Each form of communication has unique characteristics.

In producing media, students not only learn these basic concepts, but apply them in creative and deliberate ways.

Use Images for Historical Inquiry

In history education, Wineburg (1991) elucidated the difficulty that even high achieving students face when confronted with “doing history” (Levstik & Barton, 2001). By comparing the analytical processes used to work with primary source historical documents employed by high school students and trained historians, Wineburg identified three heuristics in which students lagged far behind the professional historians: corroboration, sourcing, and contextualization. These three skills are fundamental in the reading of visual as well as expository texts. Perhaps most interesting, the students were far less deliberate and facile in employing these skills with the three pictorial documents in the study than with the eight written documents. He noted that, contrary to problem solving in other disciplines, there are not universal strategic schemas that can be applied to historical problems. Rather, the “expertise [of the historians] seemed to rest less on bringing the right problem schema to the task and more on constructing a context-specific schema to this specific event” (p. 83).

Wineburg’s findings suggest that analyzing images requires more than just applying a set of general questions. Instead, many analytical techniques must be utilized, all while keeping the historical context in clear view. Because of the challenging nature of this kind of work, scholars in communication theory increasingly assert the importance of the explicit teaching of visual literacy in understanding the language of images (Messaris, 1994). Just as the reader must consider context, point of view, audience, and other keys to understanding textual historical documents, one must view images in much the same way. Burke (2001) emphasized the importance of identifying and understanding the significance of the contextual clues and details evident in a painting in light of the historical context in which it is created, similar to the conclusions reached by Wineburg (1991). Like analyzing textual documents, the strategies for reading historical and contemporary images do not necessarily develop naturally and must be explicitly taught.

Images and Visual Literacy

Wineburg’s conclusions are echoed in the visual literacy movement, which stresses that nonverbal communication, particularly imagery, should receive increased emphasis in the classroom. By providing students with opportunities to work with images, they may be better prepared to be critical consumers of the media messages surrounding them (Considine & Haley, 1999; Hyerle, 1996; Messaris, 1998). Messaris (1998) noted,

Optimistically, it can be argued that, by acquiring visual literacy, people enrich their repertoires of cognitive skills and gain access to powerful new tools of creative thought. More pessimistically, it can be argued that visual literacy is useful primarily for purposes of self-defense, as a knowledge base for resisting or counteracting the baneful influence of mendacious ads, sensationalistic movies, and the like. (p. 70)

In other words, although images provide powerful visual perspectives, they also can be powerful tools of propaganda, deliberately shaping perceptions and manipulating the viewer (Jowett & O’Donnell, 1986).

Pedagogical Thinking and Image Use: Creating a Propaganda Poster

The following example of an activity with preservice teachers in social studies and technology integration methods classes explores exercises informed by Wineburg (1991), Werner (2002), and Hobbs (1998), which attempt to help students read images more

critically and employ manipulation techniques to better understand their persuasive intent. In this exercise, students are introduced to photo manipulation examples from the media, source the photos using Wineburg's sourcing heuristic, and then create their own propaganda poster utilizing similar techniques. To introduce the activity, the instructor shows students the Lenin/Trotsky and Kerry/Fonda examples discussed previously, as well as a review of the case at the University of Wisconsin in which an African American student's picture was digitally inserted into a group of caucasian students at a football game to project a greater degree of ethnic diversity (Durhams, 2000). Students are encouraged in this introductory activity to offer multiple interpretations of the images' potential purposes and techniques, aligned with Werner's (2002) approach to photo analysis. For instance, students can discuss openly whether the composite photo of Kerry and Fonda represented a narrative, iconic, or editorial depiction of John Kerry's role in Vietnam.

As a second activity, students are provided with 20-30 images from the war in Iraq taken from a larger collection of several hundred images available on a weblog titled *Conflict in Iraq* (<http://www.spokesmanreview.com/iraq/blog.asp>) hosted by the Spokane Washington newspaper *The Spokesman Review*. The images portray U.S. and coalition forces interacting with Iraqis in a variety of ways. Students are led through Wineburg's (1991) heuristic to source these images. In this approach students are asked initially to identify the source of the image, including the artist and publication outlet. Students are encouraged to make inferences about potential point of view and bias in the source of the image. The students then examine the date of the image and the corresponding historical context, encouraging students to situate the image in "a concrete temporal and spatial context" (p. 77). This initial sourcing provides an effective entry point for thoughtful analysis of the images.

Following the sourcing activity, the instructor leads the class through additional analyses of two specific photos: a photo of a U.S. soldier restraining an Iraqi as two other soldiers look on (Figure 3) and a photo of an Iraqi man kissing a U.S. soldier (Figure 4), again modeling Werner's (2002) techniques. Students at this stage are given the opportunity to work autonomously, using these techniques to "read" each photograph, allowing the instructor to gauge their understanding of the process. Students then write a short reflection paper on their individual and collective interpretation of the photographs and what they have learned in the exercise.



Figure 3. *Soldiers arresting an Iraqi demonstrator. (Click on camera icon to display this photo linked from <http://www.spokesmanreview.com/iraq/gallery.asp?postID=12425>)*



Figure 4. *An Iraqi man kisses a soldier. (Click on camera icon to display this photo linked from <http://www.spokesmanreview.com/iraq/gallery.asp?postID=8229>)*

After the discussion and writing activities, students switch from the role of consumer to producer, as suggested by Hobbs (1998). At this stage, students draw from techniques discussed in class to begin crafting their own visual propaganda focusing on the recent Iraq war. Divided into groups and randomly assigned a supportive or critical stance on the war, students carefully examine the entire collection of Iraqi War images searching

for elements that support their point of view. After a brief tutorial on *Adobe Photoshop Elements* (including cropping, adjusting brightness/contrast and selecting, copying, and pasting portions of images onto another), students create a photomontage to advance their assigned stance on the war. They are encouraged to paint a persuasive picture of the conflict in a way they find compelling. The following examples in Figures 8 and 9 represent student products from this 2-hour activity.



Figure 8. Example of pro-war collage



Figure 9. Example of anti-war collage

While several technical questions emerge during the activity, most students quickly pick up the basics and move on to more sophisticated techniques. After sharing their collages with classmates, students discuss how they approached the activity and what they learned about the manipulation of images. We used the following quote by George Orwell as a starting place for a classroom discussion, "The past was erased, the erasure was forgotten, the lie became truth." The preservice teachers are often amazed by how easily "reality" can be altered to advance a point of view. While they clearly enjoy the challenge of manipulating the images, many express a concern regarding the larger implications of widespread photo manipulation in the media. The issue of how much manipulation is too much is not an easy question to answer. In the end, the power of this activity lies in the realization that images must be viewed as a particular (conscious or unconscious) view of reality and not objective truth.

Future Directions

Social studies researcher Margaret Crocco (2001) commented,

I believe the importance of technology lies in its ability to leverage constructivist approaches in the teaching of social studies...The chief value of technology lies, therefore, in providing the leverage so urgently needed for moving social studies instruction away from passive, teacher-dominated approaches emphasizing recall and regurgitation toward active student centered forms of learning demanding critical and conceptual thinking from all students at all levels. (p. 387)

It is in this spirit, the authors hope to stimulate a dialogue on using accessible computer skills to explore image manipulation in the social studies classroom to enable students to uncover important ideas about perspective and point of view. The intent of this piece is to recognize the powerful role images play in social studies education and the challenge of sourcing images, particularly in the digital age. Additionally, we hope to catalyze new work in the area in which researchers explore not only different scaffolding strategies for critically viewing images, but also efforts at developing a scope and sequence of how teachers might address this complex challenge. Most helpful would be studies that compare the effectiveness of different pedagogical approaches engendering these skills. It would also be helpful to explore the similarities and differences in reading video as well as still images. If Lewis Hine's perspective is true, "While photographs may not lie, liars may photograph" (quoted in Burke, 2001, p. 21), it is a worthy cause to teach students more explicitly the voices that are embedded within an image.

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