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HOW TECHNOLOGY HAS CHANGED THE WAY
THE MEDIA COVER WARS

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ABSTRACT

The purpose of this thesis is to examine how technology has changed the way in which reporters and photographers have covered wars. Between the American Revolution and the current conflicts in Afghanistan and Iraq, the media have adapted to faster, cheaper and lighter technologies that have enabled members of the press to get closer to the action of war. Not only has the world witnessed the largest-scale embedding program to date in Iraq, but it also has quicker access to material coming from the front lines than ever before. Along with the near real-time transmission speed now possible with new technology come new questions about accuracy and decisions in coverage.
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PART 1
INTRODUCTION

The Revolutionary War started on April 19, 1775 at Lexington and Concord when Massachusetts colonists fired on British troops. That news didn’t reach New York until April 23 or Savannah, Ga., until May 31 – more than a month later¹. Today, photographers on a battlefield in Afghanistan can take, edit and transmit photographs to their offices in the United States in 10 minutes. Just as military technology has evolved from muzzle-loaded muskets to television-guided smart bombs, so have stunning advancements in technology changed not only the way journalists perform their jobs, but also the type of content they are able to produce, the volume of that content, and how quickly they can deliver it to news consumers. But along with this new technology have come new questions about the responsible use of it. Journalists and the soldiers they cover are being forced to constantly reassess, reevaluate and rewrite the rules that govern their relationship.

This evolving relationship has not always been easy. While technology has made it possible to transmit the news of battle instantly, does faster necessarily mean better? Is the context being lost that is necessary for understanding? Is the big picture being overwhelmed by the tiny yet spectacular detail? While technology has allowed correspondents an unlimited mobility to follow the troops, does depending on the people you cover for your safety make unbiased reporting impossible? If the instant communication of technology has rendered censorship largely obsolete, has it also left journalists open to the propaganda manipulations of one side or the other?

This paper will address these and other questions, and while the answers are not

always clear, it was obvious in my interviews with battlefield correspondents, photographers, editors and technology experts that journalists involved are giving them deep and serious thought.
PART 2
Civil War

Mathew Brady and his team took thousands of photographs during the Civil War – not that any newspaper readers of the time saw them in their newspapers. Brady and his crew had to drag their equipment – camera, tripod, chemicals, glass plates – into the field in a cart because it was so heavy and burdensome\(^2\). Though the Civil War was the first American war to be extensively photographed, photography during that time was still a primitive art. Photographers exclusively used the wet-plate process, which involved glass plates and a number of chemicals. The plates were prepared in the mobile darkroom, rushed to the camera on the battlefield and then immediately returned to the darkroom to be processed because, as the name implies, the chemical solution on the plates could at no point become dry\(^3\). Any of the steps, done incorrectly, could ruin the shot, and the fragile glass plates still had to be transported from the field intact before they could be reproduced. The exposure time didn’t allow for action shots, and subjects had to remain still for the duration of the exposure. Thus, photographers took pictures of the dead.

The Battle of Gettysburg was fought between July 1 and July 3, 1863, but the first photographers – Alexander Gardner, Timothy H. O’Sullivan and James F. Gibson – traveling the 67 miles from Washington to Gettysburg likely didn’t reach the battlefield until July 5, two days after fighting had ceased\(^4\). At that point, few Union dead, if any, would still have been left on the battlefield, as the victorious Union soldiers would have worked to remove their fallen fighters from the field first. Therefore, the accuracy of

\(^4\) Ibid., 27.
certain photographs is something to be questioned. Photographers in some cases moved bodies to achieve a desired composition in their photos. In other cases, the same group of dead bodies – in different photographs – was identified as both Union and Confederate soldiers. If the photo was taken in a different light, their uniforms could be construed to be Northern or Southern in the black and white photographs. Still, Americans were able to see the effects of war for themselves, in picture form, for the first time. Another tool – the twin-lens camera – allowed photographers to produce side-by-side (and wildly popular) pictures that resulted in a 3D image when gazed upon through a stereo viewer.

However, the technology didn’t exist to reproduce photos for print in newspapers using halftone blocks. Thus, what were more popular in newspapers were artistic depictions of battles that could be sketched and reproduced.

At the time, the depiction of battlefield casualties was revolutionary. But for the average person following the Civil War at the time, the technological breakthrough with the greatest immediate impact was the telegraph. The telegraph made it possible for newspaper readers to read about a battle the day after it happened – a turnaround that had previously been unheard of. Reporters could at times transmit their stories as fast as they could type Morse code, a rhythmic system of dots and dashes. Still, transmitting stories by telegraph required reporters to stick to areas where they’d be able to do so. It almost always did take more than a day to transmit a story because of issues with those

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6 Ibid., 228.
9 “Newseum: War Stories Technology.”
communications facilities\textsuperscript{10}. The military was using the same technology, and one strategy to impede communications was to cut the other side’s telegraph wires. Reporters had to compete with military officials to use a telegraph, and they feared lines would be cut before their editors would receive their stories. This led to the development of a newswriting style that summarized the most important aspects of the article in the first sentence – a style called the inverted pyramid that journalists continue to use today\textsuperscript{11}.

Another option was to send stories by mail, but that could take weeks, if it wasn’t lost on the way to its destination\textsuperscript{12}. The increasing speed of technology then put pressure on reporters to get their stories in first. In fact, most war correspondents were chosen based on their ability to use a telegraph key\textsuperscript{13}. This phenomenon contributed to inaccurate or even fabricated accounts of the war – anything to get the story before anyone else. Glorified battle stories were also a way for reporters to boost morale. Particularly as the South was losing, Confederate reporters exaggerated their side’s success while downplaying how well the North was faring\textsuperscript{14}. Wilbur F. Storey, an editor at the Chicago Times, famously wrote to one of his reporters: “Telegraph fully all news you can get and when there is no news send rumors.” Because the press tended to write overly critical or exaggerated accounts of what they saw, military commanders began to request that reporters attach their names to their stories. This led to the first bylines and the fame, or infamy, that came along with them\textsuperscript{15}.

Getting the story wildly increased the popularity of newspapers in America.

\textsuperscript{10} Michelle Ferrari. “Reporting America at War” (New York: Hyperion, 2003) 11.
\textsuperscript{12} Knightley, “The First Casualty,” 24.
\textsuperscript{13} Ibid., 22.
\textsuperscript{14} Ibid., 25.
\textsuperscript{15} “Reporting America at War,” (PBS Home Video, 2003).
Some publishers in the North realized they could sell five times as many copies of their papers if there was war coverage to be found in them. The Philadelphia Inquirer could sell 25,000 copies of an issue just to the troops. More than 600 reporters were covering the war – about 500 from the North and 100 from the South. Governments and military leaders censored reporters to avoid the possibility of giving away battle plans to the enemy. Thus, press passes and press releases began to control the media’s access.

World War I

Two of the most accomplished writers on World War I were Ernest Hemingway and Richard Harding Davis. But Hemingway wrote about it only after it had ended. “The last war, during the years of 1915, 1916, 1917 was the most colossal, murderous, mismanaged butchery that has ever taken place on earth,” he wrote in Men at War. “Any writer who said otherwise lied. So the writers either wrote propaganda, shut up, or fought.” The New York Journal’s star reporter Richard Harding Davis got to Europe in time for the German invasion of Belgium. He provided his readers with vivid descriptions of what he saw in the field, and his favorite story from the war was that in which he told of the German Army’s inhuman quality. He wrote that the German uniform was “a gray green, not the blue gray of our Confederates. It is the gray of the hour just before daybreak, the gray of unpolished steel, of mist among green trees… Like a river of

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16 “Newseum: War Stories Technology.”
18 “Newseum: War Stories Technology.”
steel [the army] flowed, gray and ghostlike”21. But ultimately, Hemingway and Harding Davis became so disgusted with the system of censorship that sought to transform their prose-like reporting to propaganda that they eventually abandoned the battlefield and went home22.

With the increasing popularity of the telegraph and the onset of the wireless telegraph, communication became easier for war correspondents during World War I. However, even though sending cable messages from abroad was quick, it was also expensive. Sending it by mail was significantly cheaper but was not nearly as fast23.

It was during World War I that the first small advances in technology began to contribute to solving one of the eternal problems of a war correspondent – how to gather the news without being killed while doing so. Cameras had begun to use plastic film instead of fragile glass plates, which simplified the picture-taking process for war photographers24. Motion-picture cameras were undergoing some major changes as well – the long-focus lens was invented and could shoot objects 600 yards away, so photographers were able to film soldiers without being in the midst of the battle25. The De Proszynski Aeroscope motion picture camera was even more innovative because it did not require a tripod. It replaced the system of hand cranking with compressed air charges or a foot pump, which allowed photographers to climb to shoot footage or to leave the camera unattended. Another useful invention was that of the stabilizing gyroscope, which allowed photographers to film over a trench while keeping hidden and safe.

22 “Newseum: War Stories Technology.”
24 “Newseum: War Stories Technology.”
25 Ibid.
maintaining the camera’s horizontal stability\textsuperscript{26}.

However, despite these technological breakthroughs that enabled reporters and photographers to wire their stories home and to take thousands of pictures and shoot thousands of feet of motion-picture film, censorship frustrated most attempts at accurate and realistic battlefield reporting. A little more than a month after the United States entered the war in 1917, Congress passed the Espionage Act. The act, which forbade the publication of any information that could be construed as valuable to the enemy, dealt a huge blow to the media\textsuperscript{27}. Nearly a year later, the Sedition Act outlawed “any disloyal, profane, scurrilous or abrasive language about the form of government of the United States, or the Constitution of the United States, or the military or naval forces of the United States, or the flag of the United States, or the uniform of the Army or Navy of the United States”\textsuperscript{28}. The United States created a public information office for the first time to create support for the war by way of press releases distributed to and published by thousands of newspapers\textsuperscript{29}. U.S. reporters were allowed on the front lines only if they were accredited. In August 1914, the British cut the German telegraph line across the Atlantic Ocean so telegrams had to be wired through London and were then censored before going to the United States, where they were often edited again\textsuperscript{30}. Though wireless telegraphs were popular among the press leading up to World War I, the Navy took over the wireless industry when the United States entered the war and the press had to go back

\textsuperscript{26} “Newseum: War Stories Technology.”
\textsuperscript{28} Ibid., 186.
\textsuperscript{29} “Newseum: War Stories Technology.”
\textsuperscript{30} Ibid.
to using cable telegraphs. Readers were left with very few hard-hitting stories or facts about the war and were deluged with feature stories. Photographs and motion-picture film of the war weren’t released to the public until the war was already over.

**World War II**

World War II brought a huge appetite for war news and a new medium to feed it: radio. Between the end of the First World War and the onset of the second, Americans had become attached to their radio sets – a phenomenon that parallels the nation’s increasing dependence on the Internet in the past two decades. The first generation of radio war correspondents went on to form the core of the broadcast news industry, which then developed into the leading television newsgathering organizations. Chief among them was Edward R. Murrow.

Murrow, working for CBS, broadcast the 1940 German Blitz from the rooftops of London, allowing Americans to hear live reports from the battlefield for the first time. It was there that he pioneered many of the radio techniques broadcast reporters still use today – delivering his reports over live sound in the background, or giving play-by-play descriptions of action not unlike today’s sports announcers would. His influential reports from London’s rooftops during the Blitz always began with his signature “This…is London,” with the notable half-second pause suggested by a former teacher with a crush on him. His reports made Murrow one of America’s first media celebrities. Some credit

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31 “Newseum: War Stories Technology.”
Murrow and his colleagues as having “invented broadcast journalism.” Murrow made print reporters take radio reporters seriously and see them as competition for the first time. Print reporters had to work to make their stories more accurate and more descriptive to compete with their broadcast counterparts. Some of his reports were so significant that they were reprinted word for word in some newspapers.

Also new to the broadcast world were newsreels, which were shown during the war and included sound. Even the atrocities at concentration camps like Buchenwald and Dachau were included in newsreels. With 16mm film, newsreel cameras grew smaller and lighter than those used during World War I. Though most of the film was shot through a pool system by the United States Army Signal Corps and Navy photographers, it exposed more than 80 million people a week in 1940 to see and hear news simultaneously.

Ernie Pyle wanted to fight in the war but was told he was too short for combat. So, he went as a reporter. Because Pyle wasn’t familiar with the ins and outs of military operations or strategy, he wrote stories about the soldiers. “One of the curious facets of the reporting of the Second World War was that the more the importance of the individual soldier was reduced by technology, the more correspondents concentrated on writing about him.” Pyle, who was constantly worried his work wasn’t good enough, won a Pulitzer in 1944. The prize lost him $100 in a bet with his editor, to whom he later

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34 Ferrari, “Reporting America at War,” 12.
35 Ibid., 12.
36 “Newseum: War Stories Technology.”
37 Ibid.
38 “Reporting America at War.”
40 Ibid., 357.
wrote a note saying he never enjoyed losing a bet more. Pyle’s work was printed in 400 American daily newspapers and in about 300 weeklies. Pyle was shot and killed in 1945 by a Japanese machine-gunner when he was reporting in the Pacific with the 77th Infantry Division.

Endrei Friedmann of Budapest, Hungary was probably the most famous photographer of World War II – though most likely know him by the name Robert Capa, which he used to make himself sound American. Because of his Hungarian citizenship, Capa was prevented by the United States government from covering World War II for the first 16 months of combat. He covered the war for Life magazine from 1942 to 1945 and was among the first wave at Omaha Beach on D-Day on June 6. Capa shot four rolls of film that he sent back by courier and by motorcycle messenger to London, where LIFE had to make four prints of each negative to pass through censors to get back to its New York office. A darkroom accident destroyed all but 11 of the images – the images that were published in LIFE’s lead story on July 19.

The Espionage Act and the Trading With the Enemy Act of World War I were still in effect when World War II began nearly two decades later, but the government largely left any sort of censorship up to the media themselves. The United States had been involved in the war for 21 months before pictures of dead soldiers were allowed in

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42 “Newseum: War Stories Technology.”
44 “Newseum: War Stories Technology.”
45 Ibid.
47 Ibid.
48 Ibid.
49 “Newseum: War Stories Technology.”
print\textsuperscript{50}. Censors held back any material that would damage morale, but most censorship was self-imposed by the press because they didn’t want to damage their side’s morale anyway\textsuperscript{51}. In 1942, President Franklin D. Roosevelt created the Office of War Information and the Office of Censorship, which oversaw mail, telegraph and radio communications in and out of the United States\textsuperscript{52}. On Jan. 15, 1942, the Office of War Information issued a “Code of Wartime Practices for the American Press,” which detailed precisely how the press should handle war coverage\textsuperscript{53}. Despite the prevalence of censorship during World War II, the American press’s coverage of it was considered the best the world had seen up to that point. There were more than 1,600 members of the press accredited by the American armed forces to cover World War II. This process was used to control the press because reporters needed both a passport from the State Department and a press pass from the War Department\textsuperscript{54}. To ensure their stories would pass through the censors, correspondents wrote articles in the first-person about their personal experiences in covering the war. Though it had been done in previous wars, it had never been done on the scale it was done in World War II – by reporters like Ernie Pyle and Walter Cronkite – and for news outlets like the New York Sun, Life and the Associated Press\textsuperscript{55}.

\textsuperscript{50} “Reporting America at War.”
\textsuperscript{51} Ibid.
\textsuperscript{52} Stone, “Perilous Times,” 279.
\textsuperscript{54} “Newseum: War Stories Technology.”
\textsuperscript{55} Maxwell Hamilton, “Journalism’s Roving Eye,” 317.
Vietnam War

In 1965, Morley Safer saw a young Marine use his lighter to torch the civilian village of Cam Ne\textsuperscript{56}. Thanks to the evolution of broadcast news during the war, the rest of America saw it too, in their living rooms and in color. With the fall of Cam Ne, so fell public support for the war.

It was “the living-room war.” Portable 16mm film cameras and lightweight audio equipment allowed television broadcast teams to travel throughout Vietnam, shoot footage and fly it back to the United States\textsuperscript{57}. From there, producers in the station could edit it and get it on TV – with the entire process from shooting to broadcast in less than two full days\textsuperscript{58}. Americans saw the war broadcast on the three major networks – ABC, CBS and NBC – in color starting in 1965, and national news broadcasts on CBS and NBC went from lasting 15 minutes to half an hour in 1963\textsuperscript{59}. Television eliminated the need for newsreels at theaters because more than 100 million Americans owned television sets, and became the No. 1 source of news in the United States, surpassing radio and newspapers\textsuperscript{60}.

Press accreditation was easier in Vietnam than in past wars and because of new technology, reporters and cameramen were able to travel with the military during the day, return with the troops and file their stories at night\textsuperscript{61}.

The military created the Wartime Information Security Program in 1971 as a means of controlling the media, but it gradually dissolved as new technology eliminated

\textsuperscript{56} Maxwell Hamilton, “Journalism’s Roving Eye,” 403.
\textsuperscript{57} “Newseum: War Stories Technology.”
\textsuperscript{58} Ibid.
\textsuperscript{59} Ibid.
\textsuperscript{60} Ibid.
\textsuperscript{61} Ibid.
the possibility of censorship on the battlefield\textsuperscript{62}. The absence of a formal declaration of war also made it difficult for the government to justify a censorship plan. Daily press briefings from the military replaced censorship, but those briefings were eventually known as the “five o’clock follies” because they were so frequently inconsistent with what reporters could see for themselves in the field\textsuperscript{63}. At the beginning of the war, reporters and editors largely self-edited as they did in previous wars and conflicts. However, that changed when the press began to challenge the basis of war in the aftermath of the 1968 Tet offensive\textsuperscript{64}. Walter Cronkite was CBS Evening News’s managing editor, and while he was not against the war from its start, one of the most memorable pieces of television coverage was his editorial against the war after the Tet Offensive\textsuperscript{65}. “For it seems now more certain than ever that the bloody experience of Vietnam is to end in a stalemate,” Cronkite said in his broadcast\textsuperscript{66}. “On the off chance that military and political analysts are right, in the next few months we must test the enemy’s intentions, in case this is indeed his last big gasp before negotiations. But it is increasingly clear to this reporter that the only rational way out then will be to negotiate, not as victors, but as an honorable people who lived up to their pledge to defend democracy, and did the best they could,” he concluded. The military went so far as to accuse the increasingly negative media coverage not only of influencing the ensuing negative public opinion of the war but also for leading to the eventual loss of the war\textsuperscript{67}.

\textsuperscript{62} “Newseum: War Stories Technology.”
\textsuperscript{63} Ibid.
\textsuperscript{64} Willis, “100 Media Moments,” 114.
\textsuperscript{65} Maxwell Hamilton, “Journalism’s Roving Eye,” 405.
\textsuperscript{66} Ibid., 406-07.
\textsuperscript{67} “Newseum: War Stories Technology.”
Gulf War

Standing on an upper floor of Baghdad’s Al Rashid Hotel, CNN’s Peter Arnett, Bernard Shaw and John Holliman covered the American bombing of Baghdad, as bombs fell around the hotel. Arnett’s report not only made journalism history, but he managed to beat the Pentagon’s announcement about the First Gulf War by almost half an hour. In the process, it made CNN — the network that had previously been referred to by other broadcast reporters as “Chicken Noodle News” — a reputable global source of news, and the lesson that other networks learned from this is that their reputations were built upon being the ones closest to the fighting when it started.

Once the war began in earnest, though, Arnett’s reportage from Baghdad proved to be the high point. Still highly sensitive over media coverage they believe cost them a victory in the Vietnam War, governmental censorship in the style of World War II returned as every form of media had to pass through censors in Saudi Arabia for a period of hours or days. The military created a press pool, in which a small group of reporters was used to cover the war for all of the press. Few reporters were permitted to report from the field, and reporters got most information about the war from military officials.

John Makely, who covered the War in Iraq for The Baltimore Sun in 2003, has been a professional photographer since 1986. Though he didn’t cover the first Gulf War, he said that photographers had to bring tanks and reels and chemicals with them, process their film, scan it or make a print, and put that print on a drum to send it. Sending a single

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68 Willis, “100 Media Moments,” 148.
69 “Reporting America at War.”
70 Willis, “100 Media Moments,” 148.
71 Katovsky and Carlson, “Embedded,” XIX.
72 “Newseum: War Stories Technology.”
73 Ibid.
74 John Makely, Telephone interview, 23 June 2010.
color image took about 30 minutes. That meant images weren’t transmitted for probably three hours after they had been shot. He said digital cameras were new, and the quality was terrible.

By the late 1990s, the media had access to satellite video phones, or satphones, digital feed hardware, night vision goggles and laptops – all technology that aided their reporting from the field, particularly in war zones. So, despite their lack of access, reporters had the necessary tools to file from remote locations with greater speed and ease than ever before.

Then-Secretary of State Dick Cheney said: “I do not look on the press as an asset. Frankly, I looked on it as a problem to be managed”.

75 Katovsky and Carlson, “Embedded,” XII.
76 Ibid., XII.
PART 3
AFGHANISTAN AND IRAQ

For the Civil War, the revolutionary new technology was the telegraph. For World War II, the radio, and for Vietnam, television. For Afghanistan and Iraq, it has been cell phones and satellite phones and digital cameras and laptops and social networking – all linked to the vast audience of the Internet. It has enabled reporters to embed with troops and file their stories from the field, not only in time for the next day’s paper but also ready almost instantaneously for the Web. It has enabled war reporters to get closer to the action and reach more people more quickly than ever before. But with all of the new technology available to reporters covering the current conflicts in which America is involved come new questions. How do they remain impartial when they’re eating, breathing and sleeping with the troops they’re depending on for protection? How do they balance speed and accuracy? How often are they able to file instantly, and how often do they deem it important to do so?

If there was one lesson the military learned from Vietnam, it was that the Ernie Pyles of the world – reporters who were friends to the military – were hard to find and that most reporters were a problem to be dealt with. But before Iraq, the Pentagon devised the largest-scale “embedding” program to date.

“The other thing was the reality of technology,” said Colonel Jay Parker. “And you didn’t have to be a journalist to have that technology. And given a choice between random people running around with cameras and trained experienced journalists, I don’t think there’s any question what…the preference among certainly the national political leadership would be.”

77 Ferrari, “Reporting America at War,” 7.
78 “Reporting America at War.”
Along with embedding though, has come a series of rules that embedded journalists have to abide by. For example, photographers can’t publish photos of injured or dead soldiers before the family has been notified, and reporters can’t give away any information that would give up battle plans and potentially compromise a mission. Rules like that are necessary because of technology that would otherwise enable reporters to publish such material instantly.

Bryan Whitman79, the principal deputy assistant secretary of defense for public affairs, was a part of the group at the Pentagon that devised those ground rules. He said in an interview that it was reporters who first approached him before Iraq and told him if a conflict did arise there that they would prefer to cover it by going out to the battlefield with the troops doing the fighting – a process that came to be known as “embedding.” When the conflict in Iraq did start, there were more than 700 journalists embedded with U.S. forces. In previous wars and conflicts, he said, they were asking division commanders to take one or two reporters into their division. But in Iraq, they were asking them to take 30 or 40 reporters. And instead of sticking those reporters with public affairs officers within the division, Pentagon officials were asking that they be placed with the company commanders and first sergeants.

The biggest challenge for creating the ground rules then was to come up with a plan that would satisfy both news organizations and the Department of Defense, Whitman said.

“From the reporters’ and the news organizations’ standpoint, it had to give them sufficient freedom to report from the battlefield in an objective, rather unfettered manner about what they were observing and seeing,” Whitman said. “And for the military, the

79Bryan Whitman, Telephone interview, 7 June 2010.
biggest concern was that they preserve operational security so that the reporting, given
the technology of today – or even as of then – that the technology that allows for almost
instantaneous reporting wouldn’t endanger or wouldn’t jeopardize the battlefield
operations or endanger the personnel that were partaking in those.”

The next biggest concern for the military was that embedded reporting not
interfere with its next-of-kin notification process, Whitman said. However, the ground
rules could not account for every situation reporters and members of the military would
encounter on the battlefield, so the rules were intended as a framework for everyone to
work under, he said.

“Some of the shortcomings of embedding is that it’s a very narrow slice of what’s
going on at the time. It can be easy to see a particular report from a particular place on the
battlefield and tend to globalize that into everything that’s going on at that time in the
conflict,” Whitman said. “And so embedding by itself was never designed to be the end-
all to reporting about the war. It was designed to complement what we could provide here
from the Pentagon … But you know, without embedding, then all you have is people
speaking to you from headquarters with maps and telling you that this is how things are
going, OK? Where if you have reporters in the field, you can independently verify these
things, too.”

However, Whitman noted that embedding may not always be the standard for war
coverage. He said that new technology has changed what the news media and the military
are capable of, adding that embedding simply would not have worked in Desert Storm the
way it has worked in Iraq.

“Go back and think about the laptop computers that existed in 1991, you know?”
Whitman said. “They had like 30 minutes to an hour of battery life. They were not hardened against the elements. They were much more sensitive. Think about the satellite equipment that was available at that time. It was much more rudimentary and very large and bulky. You could not do in 1991 what we did in 2001 and 2002 because technology wouldn’t permit you to.”

Whitman noted that the next major conflict America is involved in might call for still different coverage, based not only on time, place and location but also on future advancements in technology.

“There’s a huge impact of technology that was, until this time, it was difficult for journalists to file their stories, pictures, real-time from the battlefield,” said Drew Davis, director of Marine Corps Public Affairs at the Pentagon between 2001 and 2003 who is now the president of the American Press Institute. “Even in the Gulf War 20 years ago, the technology didn’t exist. And what did exist was controlled by the military. They had to go back to Riyadh or the Hilton to file their stories. Now, with satellite phones and digital technology, pictures and stories can be filed immediately from the battlefield, which gives a real-time aspect to it. It completely eliminates censorship as an issue, and of the 700 journalists, the Marines only sent one home who violated the press guidelines.”

After the Iraq War started, Davis got a call from the battlefield. Reporters were handing their cell phones to injured Marines, asking them if they wanted to call home. The question was, should they let them? It was a clear violation of the embedding guideline that notifications of injuries or casualties had to be embargoed. But Davis told them to let them go ahead – he’d had personal experience with this issue.

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80 Drew Davis, Telephone interview, 3 June 2010.
“I had a buddy who was on the receiving end of shrapnel from a mortar in Vietnam 40 years ago, and his parents got a telegram from the Marine Corps a couple days later saying, ‘Dear Mr. and Mrs. Barney, we regret to inform you that your son, Lt. Barney, has been wounded in the head, arms, neck, torso, legs.’ But he’d been peppered with small pieces of metal, went to the battalion aid station, plucked the metal, patched him up and sent him back to duty. But his parents thought he had been grievously wounded. So, give the kid on the battlefield the cell phone and let him call home and tell them, ‘I’m OK.’ So that was something we didn’t anticipate and made the adjustment.”

John Makely, who is now the senior multimedia producer at MSNBC, covered the Iraq war for almost three months back in 2003 for The Baltimore Sun and had a similar experience with a Marine who wanted to borrow his satphone. He was embedded with the U.S. Marines, and one of the Marines was having a hard time and wanted to call home, so Makely let him.

“And when he finally got off the phone, he came up to me and he practically had tears in his eyes and said, ‘I’ll never be able to thank you enough for that,’” Makely said. “Because his wife was, at that moment he happened to call, completely believing he was dead.”

Twelve guys in another unit had been killed instantly when an RPG had hit their amphibious assault vehicle. But because of misinformation about which unit that had happened to, the wrong families had been notified.

“So his wife fully believed for about five hours there that he was dead – until he called,” Makely said. “And it was just happenstance; he didn’t know about this.”

However, he couldn’t let everyone use his satphone to make calls home because it

81 John Makely, Telephone interview, 23 June 2010.
cost about $10 a minute. But the same technology that allowed that Marine to call his wife was what Makely used to send his pictures back to Baltimore, and it was expensive. He says he sent back between 20 and 50 images a day. Though it took less than an hour to transmit all those pictures, it probably cost $600 a day to transmit them. It took about three minutes to set up, two minutes to make the connection, and then the images would start sending.

He said that technology was about five years old when he was using it in 2003. Now, everyone who’s there uses Broadband Global Area Networks (BGAN), he said, which are easier to use and easier to get a connection. That’s more important now because when Makely was in Iraq in 2003, he was only concerned about publishing for the paper the next day. Now it’s more about publishing for online, he said, which is not always a good thing when certain news organizations or wire services emphasize speed over quality.

The biggest benefit of technology for him was that he was able to carry less gear on assignments. Aside from the convenience of not needing to check his luggage, which had his equipment in it, he was much less likely to lose gear in transit and it’s easier to be less conspicuous when he had less gear with him while he was shooting.

Having images come from such a multitude of sources now so quickly makes it much more difficult for any individual photographer to be able to make an impact with what he or she shoots, he said.

The embedding process could also be frustrating for Makely because he did not have the access to the big-picture story when he was reporting on the unit with which he was embedded.
“So what we realized was, yeah, we can shoot all this great victory we had just right here, but we had no idea whether that’s indicative of the big story,” Makely said. “Even with all the technology we had, there was no sit-down, hour-long briefing of, oh, this is how the war’s going today … So there was a very big disconnect. Our technology, I think, was greater than the information we had to send with it.”

At the beginning of the war, Makely said, it was more about getting out information about the war than about competition between different media outlets. His photographs used to appear not just in The Baltimore Sun but also in The Washington Post, The New York Times, and a number of other places, he said. But as newspapers began having stronger online presences, that attitude changed. And as more information is gathered, Makely said, the greater need there is for a good editing process.

Scott Calvert82, a reporter for The Baltimore Sun, was embedded with the 101st Airborne Division of the U.S. Army for the invasion of Iraq in March 2003. Getting his stories back to Baltimore as soon as possible from remote areas of Iraq was his biggest concern in covering the invasion. He brought a laptop and an Iridium satellite phone, wrote his stories in Microsoft Word and sent them via Microsoft Outlook. He said he doesn’t remember a time when he wasn’t able to transmit one of his stories, though he’d been told cloudy conditions could make it difficult to get a signal on his satphone.

“There were some times I think when I had to kind of go out and kind of wave the antenna of the phone around a little bit to get a good signal, but by and large, it wasn’t difficult to do that,” Calvert said. “So that worked out really well.”

He said the satphone was a bit like a block of cheese — a little bulky at about six inches long and two or three inches wide. He also said it had an antenna that screwed into

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82 Scott Calvert, Telephone interview, 2 June 2010.
place.

“So it was not a sleek device by any stretch of the imagination,” Calvert said. “And there were a couple times when I was cognizant of the fact that it could look like a gun and was sort of careful where I put it and where I was standing when I was using it, ‘cause the last thing you want in a war zone is to be mistaken for holding a rifle or any kind of a pistol or anything gun-like because somebody might shoot you.”

The only technological difficulty he did encounter was that he didn’t have a photographer with him, so he’d been given a digital camera to use himself. He was writing a lot of stories that involved individual soldiers and would have liked to be able to put faces to the names for readers at home. However, he found that he was unable to compress his photo files enough for his satphone to be able to send them. So his stories went published without photos. He also had taken a solar panel that was supposed to be able to recharge his laptop and phone, but that didn’t work either, despite all the sunny skies he saw.

“So my real challenge when I was over there was pretty mundane – it was to keep the phone and the laptop charged and, you know, when you’re on the road like that it’s not like you can just go up to some café and plug in,” Calvert said. “I mean, it was a war zone.”

Calvert ended up being able to charge his gear by plugging into outlets when his unit would stop and set up generators for temporary camp. He also found he was able to plug into inverter boxes, which were essentially power strips, in between the front seats of some of the Humvees.

“Technology had changed to the point in 2003 where, you know, we had some
pretty good tools to work with,” Calvert said. “I’m sure it’s totally different now, even though it’s only seven years ago.”

Calvert was able to fit all his gear into a backpack, and he was concerned that desert sand would get into his laptop and cause it to stop working. Though the letters were worn off his keyboard by the end of his time there, he didn’t have problems with its functionality because of the weather.

“One of the things that I found out later was that the family members of that particular battalion, and there were 700 members of that battalion, and their families were spread all over the country, but they knew that I was with that particular battalion, so they were going to the Sun’s website in big numbers just searching for any news they could get about that battalion,” Calvert said. “And while I wasn’t writing my stories for them, I know that it was a great comfort, essentially, for them to be able to read about where their sons and brothers and husbands were and what they were up to.”

Despite many people’s concern with the amount of censorship embedding could lead to, Calvert said he was able to write freely about what he saw.

“There was one time when a captain asked to read a story before I filed it, and you know, while I wasn’t really comfortable with that, I didn’t feel I could protest, so he did read it and I think he suggested a minor change,” Calvert said. “But then a major … overruled him and essentially said that they didn’t want to get into the habit of censoring. So that was the one and only time it happened, and otherwise I was able to do my job.”

While he said he doesn’t think embedding is the end-all in American war reporting, he said it is certainly beneficial to have that as an available option.

“There’s this criticism that it’s all one-sided view of the war because you’re only
getting the American side, and it’s also very kind of narrow in the sense that you’re not writing about the war itself, you’re writing about the experiences of a certain number of troops in a certain place doing certain things,” Calvert said. “But to me, that’s valuable. I don’t think there’s anything wrong with that in that they contributed to the public understanding of what was happening as sort of one component of well-rounded coverage of the war.”

As far as technology was concerned in Calvert doing his job, he particularly recalls one incident in which his location was key. Before the Army entered Iraq, at Camp Pennsylvania, which was in the middle of the Kuwaiti desert, there was one night when there were explosions in a few tents where officers had been sleeping.

“And there was a lot of chaos because no one knew for a while what was going on, but it turns out that it was a fragging incident where an Army sergeant had basically turned on his fellow Army men,” Calvert said. “And because of where I was, I was able to get that story.”

Because of the time difference, Sun readers were able to read about the fragging the next day. Other reporters ran with earlier versions of the story, which in the chaos had suggested that terrorists had possibly infiltrated the base.

“That was very definitely a function of being right there and then having the technology to get the story written and filed in pretty short order,” he said. “I think it’s certainly more immediate. And in this day and age where people demand immediacy and where there’s frankly a short attention span, I think it’s really important to be able to get the news out ASAP. So there’s that. I think that it’s much easier, is what it comes down to, for news organizations to get the stories out.”
That ease could also be a downside for reporters who jump the gun on stories and publish stories before they know what’s actually happened, Calvert said. For some people, that might be the only thing they read about a specific incident, and it could be wrong. However, he said he believes the benefit ultimately outweighs the risk that accompanies it.

“The overall premise of technology is, things keep getting faster and faster,” said NPR photographer David Gilkey, who has been covering the conflicts in Afghanistan and Iraq since 2000 for at least six months every year. “So in the beginning … the addendum would be weight and size with things that were heavy and hard to pack and move around. Now essentially everything fits in your backpack.”

Apart from the bulk of his equipment that has gotten smaller and lighter, he said he is now able to send his work almost instantaneously. Gilkey added that the gear that assists reporting abroad changed just about when he started covering the war in the Middle East 10 years ago and said everything has gotten smaller and less expensive. What is still expensive, however, is sending the information back to the United States.

“You can take a picture and have it back to the office, if you’re working quickly, in 10 minutes,” Gilkey said. “And that means getting the stuff out of your backpack, setting it up and sending it.”

However, Gilkey agrees with the Sun’s Calvert that this speed puts real pressure on journalists and can lead to accuracy problems if they don’t wait for all the facts. He said if a car bomb goes off, there’s no way to know right away whether the U.S. did it, whether insurgents did it or whether it happened because an underground gas pipe exploded. He said that news comes in layers but that news outlets have to be careful to

83 David Gilkey, Telephone interview, 26 May 2010.
follow up on initial breaking news reporting.

“If you’re always sort of concerned with the next piece of whatever the breaking news is, you’re not doing anybody the service of what actually happened,” Gilkey said. “At some point, you have to take the time to slow down and figure out what’s actually going on. It’s never as simple as it seems. And then it all leads to the bigger question of, what’s going on in general? I personally am concerned that it’s just too fast, that it’s just this race.”

He said he worries media outlets have become obsessed with getting their information out first – even if they’re only beating the competition by five minutes. The bragging rights mentality he’s seen among his friends who work for wire services may be doing consumers of the media a disservice, he added.

“I mean, who’s leading who that it’s more important to have this stuff right now?” he said. “And you see on a slow news day, they’re literally just running around, all of us, in circles sort of talking about nothing. So when we don’t have something that’s instantly updating, we’re sort of lost now.”

Gilkey said that embedding is necessary for journalists who are covering the military in the current conflicts, though that hasn’t always been the case in the past. The nature of the current conflicts dictates that foreign journalists are not viewed as objective, impartial documentarians in Iraq, or particularly Afghanistan, but as enemies.

“At the end of the day, the actual coverage of something is still exactly the same,” Gilkey said. “So, you’re still at the mercy of the events that are unfolding on the ground. There is no technology that’s going to improve that other than being able to e-mail or call people and find out about what’s happening and how to get there. I guess there’s more
communication about it through technology, but at the end of the day you still have to go do it. And that still is extremely difficult – and expensive.”

Josh Davis\textsuperscript{84}, a reporter for Wired, reported on technology the military was using in the Iraq War. He had read into the Signal Corps, which is responsible for military communications and signals, and thought it would be a great topic to write about because of the history. Technology had affected the way they did their jobs, too, because their job used to involve going to the top of the highest hill on the battlefield and setting up an antenna, Davis said.

“As the Internet era dawned, these guys now transferred from or changed from waving flags and putting up antennas to driving around the battlefield with Wi-Fi and figuring out how to wire the war,” Davis said.

His initial story about the Signal Corps turned into a larger story about the entire line and progression of military communications, from the top to the foxhole, when he realized Wired didn’t already have other war coverage plans in place. He wasn’t embedded, so he was able to move between different divisions when he needed to.

Many of the vehicles did not have built-in GPS at the time, Davis said, but the drivers wanted it so they would bring their own personal devices or have family members send them to them. They then used those to navigate the war zone, he added.

“I remember one guy said, ‘If we run out of batteries, this war is screwed,’” Davis said.

Davis said that he instinctively believes that more information is always better. But between self-censorship and official censorship, people still aren’t getting to see much of the gore that comes along with war.

\textsuperscript{84} Josh Davis, Telephone interview, 10 June 2010.
“So if you’re going to give people the minute-by-minute of war, war is about killing,” Davis said. “And we’re not showing the killing. And that obviously sounds gruesome, and God, if you did show the killing, who would want to watch it? But that kind of avoids the actual fundamental nature of what war is. So it may give people a false impression. I think people have had a false impression of war for a long time.”

After World War II, when soldiers were regarded as heroes, Davis said, and Vietnam, where a ton of gruesome images came from, we haven’t seen a ton of coverage of the gorier side of war in the most recent conflicts or even since Vietnam.

Jim MacMillan⁸⁵, a photographer who won a Pulitzer shooting the Iraq War for the Associated Press in 2004, said he used a BGAN modem and Thuraya satellite phone to transmit his photos and make calls. He said technology made it simple to transmit images but that he had to be concerned about power durability of his cameras and laptop.

While faster transmission speed can be a positive thing, he said it could also potentially contribute to social or political pressure on journalists. Now, everyone in the military from commanders to grunts on the field has Internet access. So if a subject didn’t like something that MacMillan shot, he would hear about it from them fairly quickly, he said, adding that was probably a problem that Robert Capa never experienced.

MacMillan said he has a great interest in social media journalism and noted that before the onset of many popular social media networks today, even just a few years ago, consumers of the media had to wait for a photojournalist to arrive on the scene, take pictures and figure out a way to transmit them.

“I think it’s gone way beyond what I was doing five years ago,” MacMillan said.

“It’s been amazing, pretty amazing times really.”

David Zucchino\textsuperscript{86} has been covering wars since 1982, when he went to cover the Marines in Lebanon. He’s covered more than a dozen countries with wars or conflicts since then and most recently returned home from Afghanistan this summer. He said that technology has generally made his job easier but that there aren’t any backups when it fails.

He said it takes about the same time to write his stories – or less time, since he now uses a laptop instead of a typewriter, but it takes far less time to transmit those stories. While it used to take up to hours to get the story in – whether it was through Telex or contacting someone to dictate the story – it now takes a matter of seconds once he can establish a connection back home. And with e-mail, he can more easily correspond with editors than he could by phone, especially since he is based at the Los Angeles Times, which is 11 ½ hours behind Afghanistan.

Zucchino said though there is much more information coming out of war zones now, he doesn’t know how good the information is, particularly that which is available on blogs that don’t have their own reporters doing original reporting.

\textsuperscript{86} David Zucchino, Telephone interview, 28 June 2010.
“It’s just going to continue to get faster,” Gilkey said. “I mean, you can already practically walk around with an iPhone streaming video taped to your head, right? The notion of that a few years ago was inconceivable here. And slowly but surely it’s going everywhere else.”

Calvert said he thinks there’s going to be more information coming out of war zones in the future.

“Again, provided they were in a position to have the financial wherewithal to put people into the field, to embed them and to just have them stationed in these conflict zones, there’ll be much more of it,” Calvert said. “When I was over there, Facebook didn’t exist, blogging was in its infancy, Twitter didn’t exist, and all of that has changed. I’m sure if I went over there now, I’d be doing all of that and I would have the ability to not only file photos with stories but also to do video and to sort of do the whole package.”

All of the reporting can already be done in real time, he said, so technology will simply enable a higher volume of content to be produced.

Technology has made it so that everybody can now be a reporter, said Mark Bowden, who has covered a number of conflicts, including the Battle of Mogadishu for The Philadelphia Inquirer. The series was turned into the book “Black Hawk Down: A Story of Modern War.” The most important images from the War in Iraq were those taken by American soldiers at Abu Ghraib and then virally redistributed through the Arab world by Al Qaida via video posted online, he said.

87 Mark Bowden, Telephone interview, 31 May 2010.
“I think there is a genuine conflict that arises between the interests of governance and the interests of democracy, and that’s always been the case, but I think the technology that makes all information easy and immediate is one that really challenges the commitment of our society to free flow of information,” Bowden said.

That free flow of information, though, can be confusing to consumers of the news, Josh Davis said. It’s almost too much information, he said.

“There’s so much immediate reaction to the minute-by-minute trials and tribulations of the troops that it becomes pretty roller coaster-ish,” Davis said.

Davis said it’s getting to the point, between how small both still and video cameras have gotten, and with how many bloggers there now are, that we could eventually see far more unilateral reporters covering wars in the future.

“The idea of all these kind of pundits running around and documenting things to buttress their own political views in the course of the war seems like a possibility to me – kind of almost like a scary, sci-fi possibility,” Davis said. “I think we’re only starting to see the beginning of it.”

Zucchino fears that there will continue to be pressure on reporters to produce shorter news items more quickly, which is already a developing trend. He’s worried that people who have had access to the Internet for much of their lives want their news very quickly so they can move on to the next story. But what worries him more than that is that reporters will respond to that by writing only shorter and quicker stories, neglecting to put in the work to provide depth or analysis for their readers.

John Makely said that in the near future we will likely see the capability to transmit images straight from a camera to the satphone. Laptops could be eliminated, too,
if someone can come up with a way to hook up a compact flash card to an iPhone, which has a Photoshop application that can be used to tone photos directly on the phone. There’s no reason to have “crappy cell phone pictures” anymore, Makely said, because they’re installing higher megapixel cameras that not only focus but also shoot good video on smart phones. He said the platform that is used to take the pictures will become less important, and transmission speed will become even more important.

After photos could be transmitted in half an hour, the goal then becomes 15 minutes and so on, he said. People are no longer happy with how long it used to take to transmit images, and it becomes a greater challenge, Makely said. And now, anybody can shoot pictures using newer digital cameras.

“But a lot of these cameras auto expose, auto focus, they do everything but click the button, and quite frankly, if you set the thing to shoot every five minutes and just carry it around, you’d probably have a couple of nice pictures by the end of the day,” Makely said. “If anything, it’s getting harder and harder for photographers who really care about journalism or really care about making a well-composed image to set themselves apart from anybody with a cell phone camera.”

He emphasized that the decisions photographers make become more important to set them apart from amateurs.

“Technology’s great, but you still have to know how to get access, how to get people to talk to you, how to ask the right questions, how to follow up from those first questions and still get them to keep answering those questions,” Makely said.

Jim MacMillan said he thinks journalism’s role will shift emphasis from production to an emphasis on vetting the information that’s coming in. Because we’re
already receiving information in real time, we’re just going to continue to have a greater saturation of that information, he said. Though pictures on Twitter can be great in the sense that they’re timely, there has to be someone vouching for their authenticity, he said, to pass as actual news.

“Well, it still takes a human being to take the technology into a very, very dangerous place,” Drew Davis said. “The technology won’t stop bullets or IEDs, so journalists who want to explain conflict in the future still need to go to the conflict.”

But now, they can explain conflict in real-time, and now members of the military can tell their own stories through blogs, cell phone pictures and YouTube postings, which is all new to the military. He thinks having members of the military essentially become their own reporters is OK as long as they don’t post anything that could harm the mission – which is the same concern he shares about professional journalists being on the battlefield. Soldier journalism creates an unprecedented problem from a military perspective, Davis said, which is that the private use of bandwidth has been clogging bandwidth and impeding the efficiency of tactical communications. For that reason, he said, there need to be limits.

“It forces governments to be more nimble and responsive to what’s happening in the world and crisis than ever they were before, and the passage of information in the past was pretty slow and deliberate compared to today, which gave them the luxury to ruminate and pontificate and delay and obfuscate,” Davis said. “And now they have to actually dive in pretty quickly and make tough, rapid decisions and execute.”

Davis said having news come back real-time is important, as long as journalists have the integrity to not violate the ground rules that are in place and to not compromise
operational security.

“Plus, I think that’s impossible to stop,” he said. “Look at the YouTube video postings from the Israeli flotilla, and it’s having a huge impact on diplomatic relations and world opinion, and all that is good. Truth is always good.”
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Appendix A

Academic Vita of Danielle Erin Vickery

Personal Information
Email ID: dev5010@psu.edu

Education
Major: Journalism
Minors: Spanish, International Studies & Theatre

Thesis Information
Thesis Title: How Technology Has Changed the Way the Media Cover Wars
Thesis Supervisor: Anthony Barbieri, Foster Professor of Writing and Editing

Work Experience
Dates: January 2010 – present
Title: Freelance Reporter
Description: Serve as a correspondent for a weekly publication within a 116,000-circulation daily newspaper, writing features about Delawareans.
Institution: The News Journal, Wilmington, DE
Supervisor: Rhina Guidos

Dates: May 2009 – August 2009
Title: Reporting Intern
Description: Wrote more than 50 articles in 10 weeks as a general assignment reporter for a 116,000-circulation (140,000 on Sunday) daily metropolitan newspaper.
Institution: The News Journal, Wilmington, DE
Supervisor: Alison Kepner

Dates: June 2007 – August 2007
Title: Reporting Intern
Description: Wrote more than 40 articles in 10 weeks as a general assignment reporter for a 90,000-circulation (142,000 on Sunday) daily metropolitan newspaper.
Institution: The Times Union, Albany, NY
Supervisor: Teresa Buckley

Dates: January 2007 – May 2010
Title: Senior Reporter
Description: Produced five articles per week related to university administration, campus policy, police and courts, and national and world affairs for a 20,000-circulation college newspaper.
Institution: The Daily Collegian, University Park, PA
Supervisor: John Harvey
Grants Received:
- Helene Eckstein Study Abroad Scholarship, 2010
- Marvin and Josie Krasnansky Internship Grant, 2009
- Donald E. Allen Memorial Scholarship in Communications, 2009-10
- Ostasz-Hutchison Scholarship, 2008-09
- Beauge Memorial Journalism Scholarship, 2007-08
- Annette Searson Rohrbeck Renaissance Scholarship, 2006-10
- Donald P. Bellisario Trustee Scholarship, 2006-07

Awards
- International Reporting Class Award, 2010
- Gannett Foundation Multimedia Award, 2010
- Dean’s list

Professional Membership
- Kappa Tau Alpha honor society