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The Ethical Debate Of Drone Journalism: Flying Into The Future Of Reporting

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The Ethical Debate Of Drone Journalism: Flying Into The Future Of Reporting

by

John C. Jarvis

B.S., Texas A&M University, 1994

A Research Paper Submitted in Partial Fulfillment of the Requirements for the Master of Science

> Professional Media and Media Management in the Graduate School Southern Illinois University Carbondale May 2014

RESEARCH PAPER APPROVAL

The Ethical Debate Of Drone Journalism: Flying Into The Future Of Reporting

Ву

John C. Jarvis

A Research Paper Submitted in Partial

Fulfillment of the Requirements

for the Degree of

Master of Science in Professional Media and Media Management

Approved by:

Dr. William A. Babcock, Chair

Graduate School Southern Illinois University Carbondale January 17, 2014

AN ABSTRACT OF THE RESEARCH PAPER OF

JOHN JARVIS, for the Master of Science degree in PROFESSIONAL MEDIA AND MEDIA MANAGEMENT, presented on FEBRUARY 12, 2014, at Southern Illinois University Carbondale.

TITLE: THE ETHICAL DEBATE OF DRONE JOURNALISM: FLYING INTO THE FUTURE OF REPORTING

MAJOR PROFESSOR: Dr. William A. Babcock

Unmanned aerial vehicles – a.k.a. drones – have left the realm of science fiction and are making their way into use by businesses, the Department of Homeland Security, law enforcement officials and news organizations in the United States. Their potential as a newsgathering tool is only just now being explored – but can these machines maneuver around the ethical and legislative obstacles that threaten to block their use? This paper will look at the definition of what constitutes a drone, the legal arguments for and against their use and the status of drone legislation in the United States, the pros and cons of using these machines in news organizations, and the ethical considerations for and against their use in journalism.

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INTRODUCTION

As journalists, we know the power of words. The phrase "the pen is mightier than the sword" was coined for a reason – and when the words we employ are backed up by facts and evidence gathered with all the tools at our disposal, they can have a significant impact. How then, ethically, will we use the new technology of unmanned aerial vehicles – a.k.a. drones – to wield the power of the pen to tell our stories?

To answer that question, we first have to try to define what the word "drone" encompasses. In the spring 2013 issue of *News Media & The Law,* Lilly Chapa provided this description: "Technically, any aircraft that is controlled remotely is an unmanned aerial vehicle (UAV), or drone. Most modern drones are controlled by Global Positioning System-based commands programmed through a computer. Drones can cost anywhere from \$300 to \$5 million and can be as small as a dinner plate or as large as a Cessna. They can be equipped with a variety of tools, including cameras, GPS trackers, infrared sensors and weapons" (Chapa 2013).

In the book "Media Ethics: Issues & Cases," co-written by Philip Patterson and Lee Wilkins, the authors make the case that "moral systems are not synonymous with ethics. *Ethics begins when elements within a moral system conflict* [italics in original text]. Ethics is less about the conflict between right and wrong than it is about the conflict between equally compelling (or equally unattractive) alternatives and the choices that must be made between them" (Patterson & Wilkins 2011).

A group with a focus on the future of drone journalism has made it its mission to keep the attention on ethics. The Professional Society of Drone Journalists, which

formed in 2011, bills itself on its website as "the first international organization dedicated to establishing the ethical, educational and technological framework for the emerging field of drone journalism." The organization's founder is Matthew Schroyer, a drone expert who works for a National Science Foundation grant at the University of Illinois. In a July 2013 interview posted on the website of International Human Press (http://www.ithp.org/articles/droneexpert.html), Schroyer said he has developed a preliminary code of conduct for drone journalism. His hope is that the code will be interactive at some point, so members of the society can alter the code to keep up with developments in the drone journalism field.

The code lays out the additional responsibilities that drone journalists take on when controlling these unmanned vehicles, and it also emphasizes the potential risks of operating UAVs in populated urban areas as the speed, range and size of these machines undergo further development. Being able to take aerial photographs when reporting on a story makes a drone a valuable resource, but in this regard the code also warns that the chance for abuse – especially when it comes to matters of privacy and safety – is also increased.

NEW TECHNOLOGY FOR AN OLD IDEA

Aerial newsgathering is nothing new, noted New York media lawyer Nabiha Syed in a May 3, 2013, *Slate* article titled "Privacy Concerns Shouldn't Ground Journalism Drones." Syed, a visiting fellow at the Yale Law School Information Society Project, detailed how, in 1906, a commercial photographer named George R. Lawrence hoisted a 46-pound camera into the air above San Francisco with the help of 17 kites and steel wire to take panoramic shots of the earthquake and fire devastation in that city. Fastforward five decades, to 1958, and television news reporter John Silva altered the media landscape even further through his use of the KTLA 'Telecopter' in Los Angeles – ushering in the modern reality of live traffic updates (and car chases, too) to the city's residents (Syed 2013).

But whenever the subject of drones comes up in American society, ethical conflicts and controversies invariably seem to follow. Consider the uproar regarding Americans' privacy when Amazon's Jeff Bezos announced Dec. 2 to CBS's "60 Minutes" correspondent Charlie Rose that his company aims to someday use "octocopters" to deliver packages to customers (Rose 2013).

The drones do not have pilots sitting in front of a screen to fly them to their destination, Bezos said. Unlike a remotely piloted aircraft, these devices use GPS coordinates to zero in on their landing sites. His announcement prompted members of Congress to introduce legislation to deal with this potential invasion of privacy. U.S. Rep. Ted Poe, R-Texas, had this to say not long after Bezos' interview: "Think how many drones could soon be flying around the sky. Here a drone, there a drone,

everywhere a drone in the United States. ... The issue of concern, Mr. Speaker, is surveillance, not the delivery of packages. That includes surveillance of someone's backyard, snooping around with a drone, checking out a person's patio to see if that individual needs new patio furniture from the company" (Horsey 2013).

What the drone movement has going for it, however, is historical record: Many of the technological advances in cars and planes that Americans enjoyed after World War II can be directly traced to advances made in the war effort against Germany and Japan. In this same way, the conflicts in Iraq and Afghanistan have helped fuel the advances in the unmanned aircraft industry. Armed drones still are being used for to eliminate terrorists overseas, but the unarmed civilian versions of these machines are now available to any hobbyist (or journalist) with the money to spend on them.

AT PRESENT, THERE'S A FUTURE

Whether Americans are ready for them or not, drones are already being deployed in within the borders of the United States. They've been in use by the Customs & Border Protection agency along the U.S.-Mexico border and by law enforcement personnel as well, bringing us closer to what the American Civil Liberties Union has termed a "surveillance society" government. Meanwhile, the Federal Aviation Administration, under the aegis of the 2012 FAA Modernization and Reform Act passed by Congress, has been tasked with integrating commercial drones into U.S. airspace by 2015. The FAA estimates that 7,500 commercial drones could be flying in national airspace in just a few years, and that number could rise to 30,000 by the year 2030, agency officials reported. The FAA is not constrained by the act to address privacy concerns related to the use of commercial drones, and FAA officials said the agency does not have the authority to make or enforce any rules related to privacy concerns.

All these attempts by municipalities and states to regulate how drones are operated by media organizations could eventually involve issues of prior restraint. The First Amendment Handbook of the Reporters Committee for Freedom of the Press says that prior restraint occurs when a government agency restricts what a media outlet can publish. The FAA could be in violation of First Amendment protections of the press if it denies a news organization's request to fly a drone because of the subject matter being covered. Existing laws provide First Amendment protection to drones equipped with cameras that are engaged in communicative photography, despite the obstacles posed by considerations of property law, public safety and trespass, to name a few. The right

of free expression using drones for filming events currently is only constrained by reasonable time, manner and place restrictions, and a core justification for the right to use drones in this manner also includes government oversight.

Commercially, when the United States finally relents on the FAA drone restrictions currently in place ("if" this will happen seems a foregone conclusion), the country will have come catching up to do in the creativity department for drone uses. In the town of Northam, South Africa, at its annual Oppikoppi music festival Aug. 8-10, 2013, UAVs were scheduled to deliver cold beers to concert attendees via a parachute (Ngak 2013). At the present time, civilians and businesses in the United States are barred by FAA regulations from using drones for compensation or for hire by others, although the owner of a dry-cleaning business in Philadelphia did hit upon the novel idea of delivering freshly laundered shirts to his customers via drone as a marketing gimmick. The owner of the business, 24-year-old Harout Vartanian, told Philadelphia NBC affiliate WCAU-TV's Vince Lattanzio that he was looking for a way to grab some attention for his business, and the drone delivery idea has done just that (Lattanzio 2013). The drones are too small to carry more than a pound or two (which roughly equals a couple of shirts), so the service is not really practical. But it shows what the future might hold for like-minded business owners.

FOLLOW THE MONEY

With Bezos' Amazon, as well as with Vartanian's dry-cleaning business, part of the drive behind the expanded use of UAVs in the United States stems from nothing more than capitalistic ambition. A Bloomberg.com story written by David Mildenberg and posted online Dec. 16, 2013, examines the competition among two dozen U.S. states to win the right to open testing facilities that will determine whether drones can operate in the same airspace as passenger jets (Mildenberg 2013). In his story, Mildenberg reveals just how much is at stake, financially, for companies such as Amazon that enter into the drone arena. Almost a quarter-million UAVs are forecast to be in use by the year 2035, according to a study by the U.S. Transportation Department, and less-stringent regulations could lead to the creation of 70,000 jobs over the next few years. Mildenberg also revealed details from a report drawn up by the Teal Group Corp. – a Fairfax, Virginia-based aerospace research company – that predicts expenditures on civilian and military drones worldwide will total \$89 billion during the next decade.

Even with all that money being spent, drones still have the potential to save news organizations even more precious cash in the long run. Matthew Waite, director of the drone journalism program at the University of Nebraska-Lincoln, told Chapa that the helicopters used by morning television programs to report on the rush-hour traffic jams are a huge waste of money. The money spent on the maintenance of the aircraft, plus fuel and insurance, in addition to the pilot's salary, can make the yearly cost hover in the millions. But, for a whole lot less money, these same news programs could buy and fly a drone with a camera that could do the exact same job.

As these UAVs have begun to show their potential as useful tools that can be wielded by journalists and non-journalists alike, there has been an attempt to ease Americans' fear of drones. One such effort involved the Association for Unmanned Vehicle Systems International's three-day trade fair at the Washington Convention Center Aug. 12-15, 2013 (Bennett & Koseff, 2013). The event, which took place less than a mile away from the White House, featured more than 500 exhibits whose main intent was to show how these pilotless machines and other robotic inventions can participate in law enforcement maneuvers, search-and-rescue operations, traffic control, the sale of houses and real estate, checking remote and inaccessible areas for pipeline problems and forest fires, and much more.

A D(R)ONE DEAL

The use of drones by journalists already is a *fait accompli* – something that has already been done and cannot be undone – and reporters overseas have offered up tantalizing glimpses of the future of drone-enhanced journalism. For example, a video on CNN's website, shot from a drone and narrated by reporter Karl Penhaul 10 days after Typhoon Haiyan ravaged the Philippines in early November 2013, showed what the people of the community of Tacloban, Philippines, had to deal with in the storm's aftermath. The video in which Penhaul appears, titled "A bird's eye view of Haiyan devastation," could be considered a glimpse of the future of journalism – and that same video footage would be completely illegal to shoot in the United States at the present time.

What makes drones so appealing to journalists is that they give reporters access to the sky. That's something that was not nearly so accessible before these machines made their presence known. To get aerial shots used to require a helicopter, a hot-air balloon or an airplane, all of which are dependent on others to operate and cost money to use. The downside of using drones, especially in populated areas, is that they can come crashing down on the very citizens they were sent up to look down on. In two such recent instances, a drone crashed into skyscrapers in midtown Manhattan and fell to a sidewalk, while another drone spun out of control and crash-landed into a crowd at a bull-running event in Virginia (Kaufman & Somaiya 2013).

Here in the United States, journalism students are experimenting with how to use UAVs to gather information for stories. At the University of Missouri's School of

Journalism, students are taking courses that are designed to teach them how to operate drones for news reports. In a story by ABC News' Colleen Curry, journalism professor William Allen said the university has a class in which journalism students are cutting their teeth on the use of "J-bots," which is the term he used to describe these "journalism robots," or drones. The students are using the J-bots to take drone-based photography and video, all in an attempt to see if the machines will be useful to their chosen profession. Because of FAA restrictions, these journalism students can only use their drones in rural areas, limiting their subject matter to agricultural and conservation stories, Allen said (Curry 2013).

Schroyer, in a story posted Nov. 19, 2013, on the SPDJ website, used a drone to capture aerial footage of the devastation in Gifford, Ill., after an outbreak of severe weather swept across the nation's midsection. His article noted that the video was shot with remote-controlled helicopter that has four motors and can be bought online. A camera capable of shooting 720p video was attached to the drone, and the video footage was transmitted to an Apple iPad on the ground. (He noted, too, that the iPad also was used to control the drone.) Schroyer said he believes that his story represents what drone journalists are capable of doing through the use of these low-cost systems (Schroyer 2013).

Lest anyone think Schroyer was running afoul of FAA restrictions on drone use by shooting his video, he added a disclaimer at the end of his story that said the drone's flight followed the protocols laid out in FAA advisory circular (AC) 91-57. The FAA document, dating from June 9, 1981, addresses the subject of "model aircraft operating standards." The advisory circular encourages voluntary compliance with safety

standards outlined for operators of model aircraft. Some of the operating standards set for model aircraft operators in the document include the selection of an operating site for the aircraft that keeps a "sufficient" distance from populated areas, and a caution not to fly the machine any higher than 400 feet off the ground. The full text of the advisory circular can be found online at

http://www.faa.gov/documentlibrary/media/advisory_circular/91-57.pdf.

Waite, who worked for the *St. Petersburg Times* (which changed its name to the *Tampa Bay Times* on Jan. 1, 2012) and Politifact, told Chapa that he envisions a time in the not-too-distant future when news organizations have several of these UAVs at the ready to use during breaking news, such as a traffic accident or a house fire. The device could be sent out and flown over the news scene, where it could take a photograph or video and let the workers in the newsroom evaluate whether the story warrants further involvement.

THE FLIP SIDE

Chapa's fairly succinct descriptor for these flying machines may not be that easy to apply to all of this burgeoning technology. A Future Tense event that took place May 7, 2013, at the New America Foundation in Washington, D.C., invited speakers to discuss "The Drone Next Door." (Future Tense is a project of Slate, the New America Foundation and Arizona State University that looks at the implications of new technologies, and Torie Bosch is its editor.) In a story about the event, Bosch identified half a dozen hot topics that were debated by the speakers in attendance. What characteristics qualified one of these devices to be called a drone drew comments from Michael Toscano, president and chief executive officer of the Arlington, Virginia-based Association for Unmanned Vehicle Systems International. It's his belief that the use of the word is inaccurate to describe a flying machine in which a human in in control of the system, Bosch reported (Bosch 2013).

Another speaker at the event, Daniel Rothenberg, said drones have become a catch-all for many different forms of surveillance technology, from people wielding video-capturing cell phones to security cameras in buildings – and everything else in between. The word "drone" is an inaccurate term for these machines, said Rothenberg, a professor of practice at ASU's School of Politics and Global Studies. He maintained in his conversation with Bosch that the machines are neither good nor bad in and of themselves; it's the way they are used that leads us to describe them in those terms. He also noted that drones are the face of the future – and that face can instill fear and foreboding in some who don't know what the future holds.

Yet another Future Tense participant, ASU's Brad Allenby, wondered in an article posted online April 30, 2013, why Americans are so worked up about the possible privacy risks posed by drones when our society has been exposed to far more serious and wide-ranging breaches by other technologies. Allenby – the Lincoln professor of engineering and ethics at ASU, and a professor of civil, environmental and sustainable engineering – penned an article for *Slate* in which he argued that the mountains of data being amassed by Internet behemoths Facebook and Google (as well as tech giants Apple and Microsoft) pose a far greater danger to Americans' privacy than do drones (Allenby 2013). It also should be noted that Allenby wrote his article in April 2013, months before the Target data breach fiasco that could have affected up to 110 million shoppers at its stores, but he was prescient enough to mention that financial institutions that possess consumers' credit-card data could have a "far more caustic" effect on privacy than drones. And that's not to mention the growing ability technology has given all of us to record almost everything going on around us today.

WHAT SHOULD WE CALL THESE MACHINES?

Jay Stanley, a senior policy analyst at the American Civil Liberties Union, pointed to the use of the word "drone" as the source of the trouble. He said proponents of the technology would prefer that these machines be referred to by the term UAV (for "unmanned aerial vehicle") or UAS ("unmanned aerial system") to accurately describe the whole system, from the vehicle itself to the person on the ground controlling it – and the communications connection that links the two (Stanley 2013). Using these acronyms, Stanley said, is one way to distance the unmanned (and unarmed) devices deployed in civilian settings from the deadly attacks carried out by the Central Intelligence Agency and U.S. military via Predator and Reaper drones.

At the website of the Drone Journalism Lab, established by the College of Journalism and Mass Communication at the University of Nebraska-Lincoln in November 2011, there is a post dated Nov. 14, 2013, that shows the width and breadth of the debate over what definition fits when someone says "drone." The headline for the entry reads, "Why we argue the word drone is meaningless," and it links to a story written by David R. Arnott of NBC News that tells how Syrian rebels were showing off a government drone they claimed to have brought down. The Web post encourages readers to click on the link to the report about the captured drone. It reveals that what the rebels brought down was an unmanned aerial vehicle with a camera attached to it. The machines are readily available online and sell for around \$500, he said, so trying to equate that device to the unmanned aircraft used by the U.S. military to launch missiles

in the course of its antiterrorist operations shows the problems inherent in such a definition.

In the United States, the conflict over drone use involves First Amendment and Fourth Amendment freedoms, possible issues of prior restraint by the federal government, privacy issues with regard to new technology, and state and municipal legislation to rein in what can be done with these machines. Clearly this is a complicated issue, with no immediately obvious answer as to what is "right."

The *Christian Science Monitor's* website features an article dated April 1, 2013, that was written by Jack L. Amoureux and sports the headline, "Are U.S. drones ethical?" Amoureux, a visiting assistant professor of politics and international affairs at Wake Forest University, wondered in his article if it is ethical to use drones anywhere. The possibility that an armed drone could someday hover over the heads of Americans in their own backyards might finally spur a debate about U.S. drone policy, he said – especially if it makes those same Americans think about how citizens of other nations feel about these lethal machines buzzing through their airspace (Amoureux 2013).

Amoureux, in a separate opinion column on the *U.S. News & World Report* website titled "America Is Asking All the Wrong Questions About Drones," noted the legal maelstrom surrounding drone use by saying that opposition to them now revolves around the constitutional rights enjoyed by U.S. citizens. This opposition has led to calls for more regulation of domestic drones, he wrote, especially in light of the fact that the administrations of both George W. Bush and Barack Obama have shown how easy it is to legally justify controversial policies (Amoureux 2013). These legal debates can ultimately serve as a distraction from pressing ethical questions.

PRIVACY CONCERNS

The use of drones as a surveillance tool by journalists and law enforcement officials has stirred up privacy concerns at the state level, drawing efforts by legislators to limit their use in 43 of the 50 states as of Jan. 22, 2014, according to information posted on the American Civil Liberty Union's website by advocacy and policy strategist Allie Bohm. Of those 43 states, nine have enacted drone legislation, and bills were still active in five more (Bohm 2013). But because these drones are being operated in public, there's not much in the way of U.S. privacy laws that prevent their use. The Fourth Amendment provides the "right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures." But is that enough in the face of this technological advancement?

For some, including the *Guardian's* Glenn Greenwald, it isn't. In an online article posted March 29, 2013, under the headline "Domestic drones and their unique dangers," he wrote that the spreading use of domestic drones for surveillance purposes has not engendered concern among civilians because their use can be equated to the same type of work that police helicopters and satellites perform (Greenwald 2013). That attitude is a sorely misinformed one, Greenwald said, adding that the ACLU's 2011 report on domestic drone use makes that abundantly clear.

Greenwald also noted how American writer Howie Klein has been following the flow of money from the drone industry to members of Congress in an attempt to influence the political response to the use of UAVs in the United States. Those political

contributions, Greenwald wrote, have helped squelch congressional action on domestic drone legislation.

LEGAL CONSIDERATIONS

The prospect of a federal law governing the use of UAVs in the United States is a bridge too far for some. Margot E. Kaminski, in an article published in the May 2013 issue of the *California Law Review Circuit*, wrote that the use of drones by non-public entities constitutes the most difficult pieces of the privacy puzzle. Kaminski, executive director of the Information Society Project, a research scholar and a lecturer in law at Yale Law School, said that laws governing the use of civilian drones could restrict the ability of private citizens to conduct legal information gathering. Laws that restrict how drones can be used will offer up privacy concerns as the stated purpose behind them, but she contended that the laws still will constitute restrictions on free speech (Kaminski 2013).

Kaminski added that courts have not determined yet whether privacy rights or free-speech rights will ultimately win out in this debate, and it also remains to be seen how privacy and speech interests interact. She advocates a "drone federalism" approach to legislation, where states take the lead in enacting privacy regulations for UAVs. This will allow for what she terms "necessary experimentation" on how to balance privacy concerns with First Amendment rights.

The issue of invasion of privacy is at least a century old in our American society. Case in point: M. Ryan Calo, director for privacy and robotics at the Center for Internet & Society, wrote an article for the *Stanford Law Review* that considered the role of drones in the privacy debate surrounding these machines. In his article, posted online Dec. 12, 2011, Calo noted that Samuel Warren and Louis Brandeis had a good idea of

what a violation of privacy looked like when they wrote their 1890 article "The Right to Privacy." The "yellow journalism" that employed the use of "instantaneous photographs splashing pictures of a respectable wedding on the pages of every newspaper" was their way to represent a world where technology ran rampant (Calo 2011). It was the reason they gave to advance the cause of privacy law in the United States.

In his article, Calo said drones could provide the impetus to refine privacy law to fit modern-day realities, since it's not too far-fetched to imagine a time when everyone from hobbyists to policemen could be using UAVs. It will be up to privacy advocates to ensure that privacy rights are not further eroded.

ENTRENCHED RESISTANCE

Public radio reporter Scott Pham, in an article posted online July 28, 2013, at the website Mashable.com, wrote down what he thinks is the most obvious use for drones in journalism: covering events that pose the most difficulty for photojournalists on land, including public protests and natural disasters (Pham 2013). Pham, who noted that he played a role in getting the Missouri Drone Journalism Program (a collaboration that involves the University of Missouri's Information Technology Program, the Missouri School of Journalism and National Public Radio member station KBIA in Columbia, Missouri) off the ground in 2012, harbored a hunch that Americans' resistance to drone use within their country's borders could be worn down by showing how UAVs could be used for good instead of evil. But Pham reported that he misread the situation regarding drones. In particular, he said he deeply underestimated the drone skeptics, including members of the Missouri General Assembly who introduced legislation to ban the use of UAVs in the Show-Me State. Pham acknowledges that the use of drones in American is a very controversial topic, but he said he had hoped that people would not be threatened by the use of a drone by a public radio station, which he regards as one the least-threatening entities that could deploy one of these unmanned machines in civilian airspace.

The Missouri bill says that no person, group or organization, including journalists and news organizations, will be permitted to use an unmanned aircraft to conduct surveillance of any individual or property without consent. In a separate article, Pham called the bill "anti-free speech, anti-journalism and altogether backward."

Akin to pouring salt into an already open wound, the FAA sent a letter to the drone journalism programs of both the University of Nebraska-Lincoln and the University of Missouri, spelling out different standards that the schools would have to follow to fly their unmanned aircraft. This standard, designed for public entities, requires a "Certificate of Authorization" for any outdoor flight of a drone – a process that can take a minimum of two months to complete, reported Yahoo News' Rob Walker in a story posted online Aug. 28, 2013 (Walker 2013). Walker's story noted that the new FAA hurdle makes turning out even a timely feature story much more difficult than it should be, especially in the context of an academic semester. Walker, who described the process as a "blunt regulatory instrument," said the FAA missed out on a chance to advance the use of drones in a responsible fashion. To bolster his argument, he pointed out the abundance of unauthorized drone experimentation that is taking place with increasing frequency, which is completely the opposite of what these news programs are attempting to do.

AN ABUNDANCE OF CAUTION

Part of the resistance to the widespread deployment of UAVs appears to stem from the surreptitious nature in which they can be deployed. After all, people sunbathing in their own backyards can be filmed by a cameraman flying aloft in a helicopter just as easily as by a drone – and with the exception that the aircraft cannot be less than 500 feet off the ground, where private property protection ends, there is nothing illegal about that cameraman being up in the sky. (The U.S. Supreme Court, in the 1946 case *United States v Causby*, ruled 5-2 that the ancient common law doctrine that land ownership extended to the space above the earth "has no place in the modern world." Justice William O. Douglas' opinion noted that, if the doctrine were valid, "every transcontinental flight would subject the operator to countless trespass suits. Common sense revolts at the idea.") U.S. citizens have not voiced the same level of concern – or outrage – about security cameras in department stores, banks or even public streets, so is the real impetus for all this new drone legislation spurred by a fear of potential abuse by journalists and the government?

Schroyer, in his International Human Press interview, said that people have every right to be cautious about drone use, but the rules and regulations being formulated in the state legislatures – and even down at the municipal level – sometimes doesn't grasp the reality of the situation. He did add, though, that states are passing good laws that allow for the use of drones by law enforcement personnel only when those agencies obtain a warrant.

The recent controversy about drones – and the ultimate impact they will have on journalists and American society as a whole – has been spurred by the use of weaponized UAVs against suspected terrorists in countries such as Afghanistan, Pakistan, Somalia and Yemen. These Predator and Reaper drones, which are manufactured by General Atomics and operated by the CIA and the U.S. military, have grabbed headlines internationally in America's ongoing war on terror. The use of these drones for airstrikes on suspected terrorists has resulted in civilian casualties, even as U.S. officials insist that the attacks have eliminated terrorist threats.

Could these UAVs be weaponized for certain uses in the United States?

Information obtained by the Electronic Frontier Foundation in response to a Freedom of Information Act lawsuit against the federal Customs & Border Protection agency shows that idea is not as far-fetched as it sounds. In a 2010 "Concept of Operations" report for its drone program, obtained through the EFF's FOIA lawsuit, the CBP noted that it has considered equipping its drones with non-lethal weapons designed to neutralize "targets of interest," according to information posted in a weblog by EFF senior staff attorney

Jennifer Lynch. Lynch noted in her post that this is the first that anyone has heard of a federal agency proposing to use weapons in a domestic setting (Lynch 2013).

OVERSEAS CONCERNS

Overseas, where U.S. combat missions target religious extremist groups such as al-Qaida and the Taliban, the debate regarding drone technology takes on a lethal tone. In these foreign countries, drones are viewed as harbingers of death and destruction. For example, information found Dec. 22, 2013, on the website of the Bureau of Investigative Journalism estimates that, in Pakistan, between 2,534 and 3,642 people have been killed in 380 drone strikes since 2004. Of those killed, the bureau estimates that between 416 and 951 of them were civilians. Similarly, information on the website estimates that, in Yemen, anywhere from 283 to 412 people have been killed in 57 to 67 airstrikes, of which the civilian casualties number between 27 and 71.

These overseas casualty reports that stem from UAVs with ominous-sounding names bring to mind reports of CIA detention programs with "black sites," where suspected terrorists could be subjected to "enhanced interrogation" far away from the prying eyes of the press, as well as the policy of "extraordinary rendition," which U.S. officials began using after the 9/11 terrorist attacks to apprehend suspected terrorists and move them from one country to another. *Fast Company's* Neal Ungerleider wrote in an article posted online Feb. 6, 2013, that drones still occupy a place in the American psyche that is bounded by assassinations, terrorist attacks, and unintended deaths and injuries to civilians overseas (Ungerleider 2013).

In a May 6, 2013, article for *Slate*, Rothenberg wrote that the debate over drone use encompasses much more than the surgical strikes to eliminate terrorists and the potential privacy threats that some experts foresee in the United States (Rothenberg

2013). It also includes how the UAVs have become symbols of the disorder, uncertainty and threats that surround us in a rapidly changing world. To Rothenberg, the greatest challenge we face in our society is how to conduct the debate over this emerging technology in a way that acknowledges the very real fears some people have about these machines. From this learning experience, he said, will come a better, more educated way to regulate drones.

ETHICAL CONSIDERATIONS

So, assuming Waite is correct in his prediction, what are some of the ethical models that can encompass the complexities of using drones in journalism?

One ethical approach that merits consideration is Aristotle's "Golden Mean," in which the virtue of something can be found between the extremes on either end. In the case of drones, one could make the argument that the extremes range from no restrictions at all on domestic drone use – a kind of "anything goes" scenario – all the way to an Orwellian "Big Brother"-style clampdown on any drone use whatsoever. With the number of state legislatures that are considering (or have enacted) some sort of drone legislation, any solution to be found is likely to fall somewhere in the middle between the two extremes – but that solution will take on a patchwork appearance without some form of overarching regulation from the federal government. That being said, this ethical approach has real potential to help shape the debate regarding drone use, as private citizens, law enforcement personnel and legislators hammer out agreements on what can be considered justifiable uses of UAVs. The problem with Aristotle's "Golden Mean" is that it relies on individuals to act virtuously and not simply follow a set of rules (or a political donor's contributions). Unfortunately, what qualifies as a virtue in one individual may not be a virtue in someone else, so what some may see as an altruistic use of UAVs in the United States may be seen as a massive intrusion into personal privacy by others. There may be no way to find common ground this way.

German philosopher Immanuel Kant's categorical imperative also could be considered as a potential alternative to address the ethical debate surrounding drones.

His ethical model could be described as "acting as though your choices could be considered a universal law." This approach differs from Aristotle's "Golden Mean" in that it places the emphasis on the actions each individual takes, rather than the individual. In other words, it takes the focus of acting in an ethical manner out of the realm of the individual and places it instead on what the individual does. Kant's "categorical imperative" placed at its center the concept of duty. If a person feels that his or her action is dictated by duty, then that action is both moral and ethically correct.

Kant's approach seems to be best suited for members of the military, who are expected to follow orders from their superiors without question. It could be adapted for use by journalists who are considering how to tackle the drone issue, but with such a rapidly changing set of criteria that defines what a drone is in today's world, such a rigid view of what is "right" may not be possible to achieve – at least not in humans. But in machines such as UAVs, what once was considered science fiction may actually be looming on the technological horizon. A Georgia Institute of Technology professor named Ronald C. Arkin has developed a hypothesis for lethal weapons systems on the battlefield that could be ethically superior to human soldiers, wrote Don Troop in the Chronicle of Higher Education (Troop 2012). Troop's article (titled "'Moral' Robots: The Future of War or Dystopian Fiction?") details how Arkin, a professor of robotics and ethics, has developed algorithms for an "ethical governor" that could someday dictate to a drone or other robotic device whether to shoot (or hold its fire) in a battle environment. The actions of these machines would follow the rules of war that would be agreed upon by international law. Arkin's mention of lethal robots (including drones) sounds eerily

similar to the world envisioned in the science-fiction "Terminator" movies, where cybernetic organisms are sent back in time in an attempt to wipe out the human race.

Troop's article also highlights the thoughts of Noel Sharkey, a professor of artificial intelligence and robotics at the England's University of Sheffield. Sharkey pointed out that the Geneva Conventions require that newly developed weapons systems undergo testing during the development process to guard against inadvertent harm to civilians, but no such requirement exists for systems designed strictly for surveillance. Until the 9/11 terrorist attacks in New York and Washington, D.C., surveillance was the name of the game for Predator drones, Sharkey told Troop – but, once those attacks took place, the CIA and the Air Force moved quickly to equip these unmanned aerial vehicles with Hellfire missiles. This creeping militarization of surveillance technology may be the very thing that's creeping out Americans when they think of drones zipping through the skies they sleep under.

A third way to approach the drone debate would be to advocate John Stuart Mill's utility principle. Mill, an English philosopher, was a proponent of 18th century philosopher Jeremy Bentham's ethical theory of utilitarianism, which can be described as "the greatest good for the greatest number of people." In other words, he emphasized the outcome of an ethical situation over an individual's ethics or the actions of an individual. In their book "Media Ethics: Issues & Cases," Patterson and Wilkins described how utilitarianism can make some people happy while, at the same time, it can make others miserable (Patterson & Wilkins 2011). For Mill, both outcomes could be valued at the same time; this delicate balancing act, by its very nature, forces discussions regarding the effects on those involved in a particular situation.

Utilitarianism has much to offer in this drone debate; after all, its ultimate goal is the "greatest good," and that is what a great deal of journalists strive for in their profession. But it's also worth noting that Bentham, who inspired Mill, was also the same philosopher who came up with a unique idea for a prison: the "panopticon." Bentham's prison was a place where inmates could be monitored at all times, but they would never be able to see the prison officials who were capable of keeping them under constant surveillance. This could be a representation of how utilitarianism, taken to its extreme, could trample on the rights of a societal minority.

A fourth ethical model for considering the use of drones in U.S. civilian airspace is communitarianism. This approach, according to book authors Patterson and Wilkins, puts the outcome of individual ethical decisions in the spotlight, where they are evaluated based on how the decisions will affect society as a whole. The communitarian approach means that journalism must be part and parcel of both the economic and political systems with which it coexists. Thinking as a communitarian makes it possible for journalists to analyze whether what they consider "news" is a proper mechanism for the community in which they work to grow and transform itself.

In communitarian thinking, values such as altruism and benevolence have just as big a part of any ethical discussion as the elements of loyalty and truth telling, and cooperation among individuals yields desirable results that were once thought to be possible only through competition. It is through this idea of cooperation and benevolence that a middle ground on the issues of privacy and press freedom can be worked out, according to Harvard University professor and American political philosopher Michael J. Sandel, since the word "community" describes for

communitarians what they have as citizens (Sandel 1982). It quite literally is a core part of their societal destiny.

CONCLUSION

All of these ethical models offer different ethical approaches that journalists can analyze for the best way to deploy drones (and the technology that goes with them) in a responsible manner within newsgathering organizations. Drones represent the latest, but certainly not the only, technological advance in our profession that has raised issues of privacy, morality and ethics in American society, and it's up to us, as journalists, to find an ethical system that allows media to use these machines in a manner that benefits mankind.

On that point, Waite, in an opinion column posted Dec. 11, 2013, on Al Jazeera's website www.aljazeera.com, wrote that the Society of Professional Journalists' Code of Ethics directs journalists to "seek truth and report it, minimize harm and be accountable" (Waite 2013). This code, and others like it, can be adapted fairly easily to address the use of drones in journalism, he said. Professional journalists conduct their business ethically, and although that doesn't mean they won't mistakes (they will), the fact that they are voluntarily willing to operate under a code of ethics at all proves that the alternative for our society could be much worse.

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