CASES

for the

TWENTYFIRST

INTERCOLLEGIATE ETHICS BOWL

NATIONAL CHAMPIONSHIP

HELD IN CONJUNCTION WITH THE TWENTY-FOURTH ANNUAL MEETING OF THE ASSOCIATION FOR PRACTICAL AND PROFESSIONAL ETHICS

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1. BIG FARMA

Advances in agricultural technologies have enabled tractors, combines, sprayers, and other farm equipment to gather data about soil and weather conditions, seed viability, topography, nutrients, disease history, row distance, planting depth, and other factors that influence crop yields. Individual farmers use this information about their fields to make decisions about what and when to plant, depth and spacing, and other farming practices.

In addition to farmers, giant agricultural corporations like Monsanto and DuPont have a vested interest in increasing agricultural yields, and they encourage farmers to subscribe to "prescriptive planting" technology. In prescriptive planting, the farm-equipment sensors send data not just to individual farmers, but to these corporations as well. The corporations compile the data (for a fee) and send the aggregated information to the farmers and their machines, prescribing what seeds to plant, when, at what depth, and how far apart to space the rows to produce the highest yields.

Supporters of prescriptive planting are enthusiastic about aggregated agricultural data, which they claim has the potential to greatly improve farming. For example, even within a small geographic area, soil type and rainfall can vary significantly. Seed companies can customize seed selection for individual fields based on particular soil conditions and specific seed germplasm.

Advocates also applaud technological advances that may avert a global food crisis. Growth in world population, coupled with decreasing availability of water and arable land, indicate that unless farm production increases significantly, the world will face severe food shortages in the near future.

Other observers are skeptical, however. Although the corporations assure farmers that data about their crops will be protected, some farmers fear that the information could be used to manipulate markets or gouge seed prices. There are also unanswered questions about who will own the crop data generated through prescriptive planting. There are also concerns about potential conflicts of interest, as seed companies have a vested interest in selling as much seed as possible, which might not be in farmers' best interests.

It takes companies years to develop new seed products and comply with regulatory review, but they can develop and sell data services very quickly. Proponents of prescriptive planting expect the practice to be very good business for seed companies.

2. SHOW ME THE MONEY

Minimum wage has been controversial since it was first proposed to Congress in 1935, as part of the Fair Labor Standards Act (FLSA) that was ultimately passed in 1938. Precipitated by the Great Depression, the FLSA banned child labor, set the minimum wage at 25¢ per hour, and limited the work week to 44 hours. The federal minimum wage did prevent worker impoverishment for many years, but inflation has eroded its effect over the past four decades.

Debate over minimum wage is never ending. Almost eighty years after passage of the FLSA, politicians, economists, and social justice advocates still argue about whether the U.S. should continue to have a federal minimum wage. Who does it help and who does it hurt? If kept, what is the correct level? Should it apply to all workers? Does raising the current level increase unemployment, drive businesses away, or hurt the very poor it is aimed at helping? Or, will a higher minimum wage raise the standard of living and increase buying power for low wage earners?

In 1963, Martin Luther King fought to get the wage raised to \$2 per hour so that every worker could escape poverty. That wage would translate to \$15 today when adjusted for inflation; however, today's (4 September 2014) federal minimum hourly wage is set at \$7.25 per hour, yielding an annual income of \$15,800. With economic ups and downs, and with each change of administration, the question of raising the minimum wage comes up. Indeed, the question of whether the U.S. should have a minimum wage at all resurfaces. Many states, and even some cities, have established minimum wages higher than the federal level.

Some economists and politicians argue that raising the minimum wage does a disservice to those it tries to help. They claim that businesses will resist a higher minimum wage by laying off workers, moving their businesses offshore, or just closing down. Some sympathetic to the plight of the poor claim that society should deal with poverty in a different way, such as through private charities. Most opponents of a minimum wage claim that workers are free to seek better paying jobs or to work harder to become more valuable to their employers. They argue that the market should decide the value of any sort of work to employers, just as it determines the value of those employers' goods and services. They claim that employers simply will not hire workers who are not worth the prevailing minimum wage, thus denying these potential workers an opportunity to start a work career. These critics point to teenagers as a perfect example of potential workers whom employers may feel are simply not worth the set wage.

Economists, politicians and others who favor raising the minimum wage consider failure to do so an exploitation of the poor and a moral wrong. They assert that in a perfect market economy, employers might pay higher wages to get and retain good employees. Since the market is not perfect, employees must be protected by minimum wage to prevent employers from paying artificially low wages that unjustly exploit the poor. Advocates of a decent living minimum wage offer evidence that raising the minimum wage adds more consumers to the economy and does not substantively increase

unemployment. Minimum wage advocates point to companies like Costco that demonstrate that paying employees well results in loyal, productive employees.

3. PHOTO BOMB

One of the best ways to accomplish a large or difficult task is to divide it into smaller ones and assign each to different people. This idea was expressed at least as long ago as Plato in Book Two of the *Republic*. With the rise of the Internet in general and social media in particular, people seeking to solve problems have made extensive use of what we now call crowdsourcing: putting their problem or request on the Internet for self-selected volunteers to tackle. From raising donations to folding proteins, crowdsourcing has been extremely effective.

Criminal investigators often appeal to the masses to help solve cases. Wanted posters could be thought of as an early form of crowdsourcing. But in a world where many people have digital cameras with them at all times, the level of casual surveillance has grown beyond anything people imagined even 20 years ago. A case in point is the bombing on 15 April at the 2013 Boston Marathon. According to a story in the Washington Post (20 April 2013), FBI investigators received thousands of leads in the form of eyewitness accounts, still photos, and videos that allowed dozens of investigators to narrow the search to two suspects. Meanwhile, amateur sleuths were conducting their own parallel investigation on Reddit.com, concocting theories from compiled photos and videos. In the race to be the first to identify the bomber or bombers, Internet vigilantes spread several theories, all of them, it turns out, fingering the wrong people. News media picked up on the Reddit posts and tweets, spreading images and false accusations to an even broader public. The FBI, in an effort to stave off what was turning into a witch-hunt, released pictures of their two leading suspects. Within an hour, social media falsely identified Suspect #2 as Sunil Tripathi, a Brown University student. Ironically, Sunil's parents had innocently posted information on social media to help locate him, because he had been missing since 16 March. Instead of finding their missing son, they found themselves at the center of a media circus and bombarded with hate messages.

Reddit issued an apology for its role in what had happened, and many contributors expressed regrets. According to a *BBC* story (19 April 2013), one Redditor called the discussion thread "a disaster that has done more harm than good. It ended up an epicenter of unstoppable finger-pointing and wild conjecture. And worst of all the mainstream media leapt on the information here like hungry hyenas. Unreliable crowd-sourced material plus the media's ravenous desire for fresh information has proved a disgusting mix. Let's never ever do this again."

4. FIRE AWAY

Toward the end of World War II, the Allied Forces shifted tactics from the relatively ineffective high-altitude precision bombing of military targets to low-altitude firebombing of urban areas. This new form of bombing involved dropping a combination of high-explosive bombs to break windows and incendiary bombs to start fires. Over the span of eleven days in the summer of 1943, British and American forces bombed Hamburg, Germany, multiple times in a campaign codenamed "Operation Gomorrah." During the night of 27 July, a combination of weather conditions and concentrated bombing produced a firestorm that sucked all the oxygen out of the lower atmosphere, produced winds up to 150 mph and temperatures around 1,500°F, and towered over 1,000 feet into the sky. No one had predicted a firestorm as a possible side-effect of the bombing. Over the course of Operation Gomorrah, the bombing and subsequent firestorm killed over 40,000 people, according an article about the operation in *Air Force Magazine*, 2007.

The Allies conducted a similar campaign against Dresden, Germany, during three days in February 1945, while the German army was retreating from all fronts. Previous bombing raids had been conducted against the railroad classification yards in Dresden, but this campaign targeted the inner city. On the morning of 14 February, the bombing produced a firestorm similar to the one in Hamburg, with temperatures reaching 2,700°F. German sources have the number of people killed ranging between 25,000 and 35,000. The actual number was probably closer to 45,000, according to an article called "Firebombing (Germany & Japan)," by Conrad C. Crane, on the PBS website. The attack destroyed over 90% of the city center.

In the Pacific Theater, similar bombing raids were conducted against the major cities in Japan. Operation Meetinghouse, conducted on 9–10 March 1945, killed between 90,000 and 1000,000 people, and destroyed nearly 16 square miles of Tokyo, according to the PBS website. The destruction produced by Operation Meetinghouse was particularly devastating because the buildings were densely packed together and mostly made of wood. By the end of June, over 40% of Japan's six largest cities were destroyed: Tokyo, Nagoya, Kobe, Osaka, Yokohama, and Kawasaki. The combined raids against Japan severely damaged or totally destroyed 67 Japanese cities.

On the morning of 6 August 1945, U.S. forces dropped a uranium atomic bomb (nicknamed "Little Boy") on the Japanese city of Hiroshima, killing at least 70,000 people in the blast and resulting firestorm, according to the PBS website. People died from radiation sickness for years afterward. On 9 August, U.S. forces dropped a plutonium bomb ("Fat Man") near the city of Nagasaki, immediately killing over 75,000 people. Although Fat Man was far more powerful than Little Boy, its destructive effect was limited because it missed its target at the city center and exploded above a nearby valley. These two bombs were the first and (as of now) last uses of nuclear weapons against humans.

On 9 August 1945, speaking of the terrible responsibility for using nuclear weapons, President Harry S. Truman said "We thank God that it has come to us, instead of to our enemies; and we pray that He may guide us to use it in His ways and for His purposes."

5. DRUG PUSHERS

Pharmaceutical companies spend billions of dollars annually to research, develop, and market drugs. According to the Pew Charitable Trust, the pharmaceutical industry spent over \$27 billion on marketing alone in 2012, with \$24 billion of that devoted to marketing to physicians. *The Economist* (3/2/13) reported a Deloitte survey showing that 35% of doctors accept food, entertainment, or travel from the pharmaceutical industry, and 16% accept consulting or speaking fees. The Accreditation Council for Continuing Medical Education reports that pharmaceutical and medical device companies sponsored almost one-third of continuing medical education (CME) opportunities for doctors in 2011.

Observers worry about whether physicians can be objective in selecting and prescribing drugs when they are plied with free samples, gifts, speaking and consulting fees, and free CME. PewHealth reports that distribution of a sample drug results in doctors prescribing that specific drug more often. Drug costs for patients who receive a sample are higher because doctors tend to prescribe that drug instead of a less expensive generic once the sample is used up. Further, most samples are given to insured patients, rather than to those in need, as the industry claims. Critics also worry that persuasive and persistent sales representatives (who are not trained in medicine) have highly sophisticated marketing techniques and strong financial motivation to sell their company's drugs. The Pharmedout project of Georgetown University Medical Center reports that 16% of doctors change their prescribing practices after one minute with a sales rep and 52% change after three minutes. Doctors' insistent denials of being influenced by drug reps are belied by the success of the industry's marketing efforts.

Given the complexity and ever-changing nature of medicine, some experts assert that information doctors gain from pharmaceutical companies' efforts is valuable enough to outweigh the documented higher cost to consumers and the possibility of bias in doctors' prescribing habits.

A number of health systems, including the Veterans Administration, have prohibited visits by drug reps and financial relationships between doctors and the pharmaceutical industry. The Affordable Care Act (commonly referred to as Obamacare) includes a "Physician Payment Sunshine" provision requiring doctors and hospitals to reveal all financial relationships they have with the pharmaceutical industry. Some critics of pharmaceutical marketing tactics believe even stronger limitations should be imposed.

6. STEALTH JOURNALISM

Undercover journalism exposes injustices, negligence, corruption, and wrongdoing. New York University's Division of Libraries houses a database of undercover stories dating back to 1830, which include exposés of significant issues such as the slave trade, treatment of patients in asylums, the condition of tenement houses, and political corruption. Yet, going undercover to expose wrongdoing remains controversial.

Undercover journalists contend that they are fulfilling a fundamental duty of journalism. The Code of Ethics of the Society of Professional Journalists (SPJ) states that "public enlightenment is the forerunner of justice and the foundation of democracy. The duty of the journalist is to further those ends by seeking truth and providing a fair and comprehensive account of events and issues."

In the wake of recent school shootings, some news organizations have taken upon themselves the task of testing school security. Reporters have gone into schools with hidden cameras to assess the effectiveness of safety measures.

Jonathan Vigliotti, a WNBC journalist, entered seven New York City schools in late fall 2013, without being stopped. When he attempted to enter another three, school staff asked him for identification and prevented him from wandering unescorted through the halls.

In January 2014, John Kelly, a reporter from St. Louis news channel KSDK entered Kirkwood High School and roamed the hallways for a few minutes. He went to the office, asked to speak to someone about school security, and then asked directions to the restroom. When staff noticed he didn't head toward the restroom, the administration put the school in lockdown and called law enforcement. Frantic parents came to the school after receiving text messages from their frightened school children.

Supporters defend the practice of undercover investigation of school security as responsible news reporting on an issue of great concern and significance that has helped to uncover troubling security lapses. Others decry this tactic as unnecessarily terrifying to children, disruptive of the school day, wasteful of law enforcement resources, and an alert to potential criminals that the school's security is vulnerable. Even parents have been divided on their response to undercover journalism in investigating school security. Some welcome the assessment of security measures, while others object to what they see as harmful to children and the educational process.

Likewise, a difference of opinion exists among news professionals. Some journalists urge respect for a fundamental tenet of the SPJ Code of Ethics: "Avoid undercover or other surreptitious methods of gathering information except when traditional open methods will not yield information vital to the public." Other news professionals defend the practice of undercover reporting, arguing that they would not be able to expose the truth without resorting to surreptitious methods.

7. STUDENT LOAN

Colleges tout the value of internships. Many require internships as a part of academic programs. The pressure is so great that some students, believing internships essential to their future job prospects, seek even those without either academic credit or compensation. According to the College Employment Research Institute, three-fourths of college students will serve an internship during their undergraduate career, and up to half of those will be unpaid.

Advocates of internships claim that internships provide invaluable opportunities for students to learn about the world of work and to apply their learning in a real setting. They also note that some employers use internship programs to identify potential employees, hence improving students' prospects for jobs after college.

A growing number of people criticize the use of unpaid internships. They claim that students work without pay for a whole semester or even an entire year, not only earning no money, but also paying college tuition and sometimes paying for lodging away from home and college. *The Wall Street Journal* (28 January 2009) reported that some students paid thousands of dollars to external services to help locate internships. The article points out that less affluent students do not have such opportunities. Opponents of unpaid internships also point out that some academic institutions poorly conceive and supervise internships, and they get off cheaply by not having to provide specific instruction or to use campus facilities. When internships are not carefully constructed and supervised, host companies can exploit students with menial labor that is not worth the high price students pay in time, effort, and money. Critics of unpaid internships object to for-profit companies improving their bottom lines using these unpaid workers. Unpaid interns may take jobs away from paid workers.

The Federal Labor Standards Act (FLSA), administered by the U.S. Department of Labor, sets forth criteria designed to protect unpaid interns from exploitation and to protect the U.S. labor force from displacement. Critics of unpaid internships question whether colleges and employers comply with these rules, noting that often the only rule followed is the granting of academic credit. When students serve internships without academic credit, even if located using college listings and resources, there is no oversight to assure any of the FLSA strictures are met.

8. GOOD MACHINE, NICE MACHINE...

I.J. Good, a brilliant early researcher into artificial intelligence (AI), wrote in a 1965 article, "Let an ultraintelligent machine be defined as a machine that can far surpass all the intellectual activities of any man however clever. Since the design of machines is one of these intellectual activities, an ultraintelligent machine could design even better machines; there would then unquestionably be an 'intelligence explosion,' and the intelligence of man would be left far behind. Thus the first ultraintelligent machine is the last invention that man need ever make provided that the machine is docile enough to tell us how to keep it under control."

Scenarios in which highly advanced machines threaten the survival of humanity, once the exclusive domain of science fiction, have increasingly generated interest and concern. If machines become "smarter" than humans, and capable of redesigning themselves, their evolution could quickly spiral out of control, producing what researchers now refer to as a "technological singularity." For instance, the home page of the Machine Intelligence Research Institute (MIRI) announces that the institute's researchers are trying to make sure that intelligent machines will not develop in unintended, harmful ways. MIRI researchers are focusing on the notion of a machine using principles rather than genetic algorithms (GA) to reason about its own behavior by. One might argue, however, that a superintelligent machine would by definition be able to outsmart its human nannies.

Simply building a known theory of ethics into a superintelligent machine might not ensure that it will treat us well, and may even kill us. Muehlhauser and Helm from MIRI point out in a 2012 document that, were a machine "superoptimizer" to optimize one of the familiar moral theories, the results might be far from desirable. Optimized hedonistic utilitarianism might lead the machine to hook us all up to machines that continuously administer chemical or neurological experiences; while optimized negative utilitarianism (to minimize suffering, rather than maximize pleasure), might lead it to euthanize all humans painlessly, "no humans, no suffering."

9. RAPE AND PARENTAL RIGHTS

In 2011, Jamie Melendez, 20, pleaded guilty to raping a 14-year-old girl, and was sentenced by a Massachusetts court to 16 years probation. As part of the conditions of his probation, the court ordered Melendez to pay weekly child support until the child reaches the age of 18. Melendez offered to relinquish state-allowed visitation rights if the requirement for child support was dropped. The mother asked the court to require Melendez to pay criminal restitution in lieu of child support so she would not be forced into having contact with her rapist for 16 years. The judge ruled against her request.

According the Centers for Disease Control, 18.3% of U.S. women report that they have been raped at some time in their life. Each year about 1.3 million women are raped in the U. S., with approximately 32,000 of these rapes resulting in pregnancy. In a *Chicago Tribune* article (4 September 2013), Chicago attorney and activist Shauna Prewitt noted that approximately 30% of women who conceive a baby through rape choose to raise the child. At the time of the *Chicago Tribune* article, thirty-one states allowed fathers of children conceived during rape the same custody and visitation rights as other fathers.

Pennsylvania law, for example, allows a woman either to retain sole custody rights and deny visitation to the rapist who fathered her child, or to seek child support from him. She cannot do both. Ohio law requires a woman to obtain permission from her rapist to place a child, conceived by rape, up for adoption.

10. EQUINOPHAGY

The cost of maintaining a horse that is no longer useful (i.e., one that is lame, old, or otherwise unsuitable) is high—so high that some consider it prohibitive. According to a report from the Animal Welfare Council (2006), the cost of taking care of such a horse is \$2,340 per year. The animal could be expected to live another eleven years after its productive life, resulting in a cost that could exceed \$25,000. The Unwanted Horse Coalition estimated in 2007 that there were 170,000 unwanted horses in the U.S. Options for disposing of a horse include letting it die of starvation and neglect, euthanizing it, or sending it to an equine slaughterhouse. Starvation, as a form of cruelty, is prohibited by law, but becomes the default solution when owners are unable to care for the animals. Euthanizing and burying a horse is significantly more complex and expensive than disposing of smaller animals. There are currently no domestic equine slaughterhouses. Reliance on foreign slaughterhouses exposes the horses to stressful shipping and to conditions uncontrolled by U.S. laws regarding humane treatment of animals.

Until recently, there were three equine slaughterhouses in the United States, two in Texas and one in Illinois, but all three are now closed. According to a story by *Forbes* (January 2012), the mayor of Kaufman, Texas, had waged a twenty-year campaign to get the local horse slaughterhouse shut down. The company, Dallas Crown, had allegedly caused the local citizens enormous problems. It had installed a pump to force horse blood through the town's sewer system, but the pressure of the pump burst some pipes and sent the blood into citizens' bathtubs and bubbling up onto the streets. The company grounds contained open piles of offal, which attracted vultures and flies and gave off a stench that permeated local businesses and homes.

Outside the United States, when horses are slaughtered, they mostly are destined for human consumption. According to a 2008 report from the Alberta Equine Welfare Group, over one billion people in the world eat horsemeat. In 2005, China was by far the largest consumer, (421,620 metric tonnes). Other major consumers were Mexico (84.17 t), Italy (63.29 t), France (24.54 t), Australia (19.12 t), and Japan (15.84 t). In Britain and America, however, where horses are thought of more as pets, there is a strong social stigma against eating horses.

In countries where horsemeat is consumed, it is served in much the same way as beef: as steaks, sausages, smoked and sliced for sandwiches, and so forth. Basashi is a form of Japanese sashimi: thin slices of raw horsemeat. Equine meat has somewhat higher nutritional value for humans than beef.

11. COIN OF THE REALM

In 2001, the United Nations Educational, Scientific and Cultural Organization (UNESCO) adopted a Convention on the Protection of the Underwater Cultural Heritage, intended to protect underwater archaeological finds from looters. A key passage in the convention reads "Underwater cultural heritage shall not be commercially exploited for trade or speculation nor shall it be irretrievably dispersed." Among the most common pieces of underwater cultural heritage are shipwrecks.

Sometime between 80 and 50 BCE, a Roman cargo vessel carrying over 1,000 lead ingots that were apparently destined to be turned into slingshot shot, sank off the coast of Sardinia. The shipwreck was discovered in 1988 and the ingots were removed for study a few years later. Archaeologists often learn a great deal about the technology and culture of the ancient Romans by preserving and studying such lead artifacts.

Lead provides an excellent insulation from radioactivity, but, when mined, it is slightly radioactive because it contains an unstable isotope, lead-120, with a half-life of 22 years. The Roman lead, however, having been mined over 2,000 years ago, is virtually free of radioactivity. This makes it ideal for use as a shield for certain highly sensitive detectors such as the one used in CUORE (Cryogenic Underground Observatory for Rare Events).

Archaeologists didn't want the Roman lead dispersed, but agreed to partner with the National Institute for Nuclear Physics (INFN) in Italy, which helped fund the recovery of the lead in exchange for 120 of the ingots. Researchers melted down these ingots and made a three-centimeter shield around the detector.

Other researchers have uses for non-radioactive lead, such as for Minnesota University's Cryogenic Dark Matter Search. This puts them at odds with archaeologists and the UNESCO convention designed to protect artifacts retrieved from underwater. With advances in physics research, the demand for Roman lead is only likely to grow. Archaeologists and physicists alike worry that the UNESCO convention may not resolve such disputes between competing branches of the scientific community in the future.

12. SHOT IN THE DARK

Joshua Moore, 64, and his wife, Carol, ran a fruit stand from the back of their truck every Saturday for 25 years in Rocky Mount, North Carolina. One Saturday morning in July 2006, 16-year-old Manny Harris, in a robbery attempt, struggled with Carol Moore. Joshua Moore shouted for Harris to back off. Harris backed off momentarily, but returned again more aggressively. Mr. Moore, who did not know whether Harris had a weapon, fatally shot him. Joshua Moore was charged with second-degree murder. Although North Carolina law recognized self-defense as a natural right, the trial judge instructed the jurors not to consider self defense or defense of a family member in their deliberations, and to return a verdict of first-degree murder, second-degree murder, or voluntary manslaughter. Moore was convicted of voluntary manslaughter. Moore spent several years and thousands of dollars defending himself in the courts. In 2012, the North Carolina Supreme Court overturned his conviction, finding that the trial court should have instructed jurors to consider in their deliberations, as Mr. Moore's attorney had requested, that he was defending his wife.

Proponents of self-defense laws, such as the Castle Doctrine and Stand Your Ground statutes, believe that Joshua Moore was unjustly prosecuted. As of July 2013, half of all U.S. states had a Castle Doctrine statute, which allows the use of deadly force in self-defense or to protect one's property or prevent home invasion. A fundamental principle of the Castle Doctrine is exemption of the home dweller from the duty to retreat. Duty to retreat requires persons threatened with harm to avoid using lethal force by removing themselves, if possible, from the threat. Another nineteen states have a Stand Your Ground statute, which goes beyond the Castle Doctrine. Stand Your Ground statutes protect the right to use deadly force in the face of a reasonable belief of threat to person or property, without an obligation to retreat from danger. Stand Your Ground statutes extend the right to use deadly force to any place a person has a legal right to be, not just the home.

Besides protecting innocent people who use deadly force in self-defense from physical harm, proponents point out that Castle Doctrine and Stand Your Ground statutes offer protection from litigation by assailants, or their survivors, who may sue for restitution.

Opponents of Castle Doctrine and Stand Your Ground statutes assert that such laws allow killers to go unpunished. The perception of threat can be subjective, and it is nearly impossible to determine if threatening actions were provoked or situations manipulated to create an opportunity to use deadly force under the guise of self-defense.

Markus Kaarma and his wife, Janelle Pflager, had been burglarized twice in a three-week period in Spring 2014, shortly after moving from Washington state to Missoula, Montana. Thieves took several items, including cell phones and credit cards. Frustrated that police were unable to catch the burglars, and fearful for the safety of their ten-monthold baby, Kaarma and Pflager set a trap to catch the thieves. They mounted a surveillance camera in their garage, and installed motion detectors outside. On the evening of 26 April 2014, Pflager placed a purse far inside the garage and the couple left the garage door open. Shortly after midnight, motion detectors alerted the homeowners that someone was

approaching, and the surveillance camera showed a stranger rummaging in the garage. Diren Dede, 17, was "garage-hopping," a trend among Missoula teenagers who enter garages to steal small items, often alcohol. While Pflager recorded pictures from the surveillance camera and called 911, Kaarma picked up a shotgun, went out the front door, and shot four blasts into the dark garage. When Pflager turned on the lights and saw that Dede was wounded, she and Kaarma tried to administer life-saving procedures until help arrived. Dede died later that morning, and Kaarma was charged with deliberate homicide. Kaarma's attorney said that his client, fearful of danger to his family, was justified in using deadly force under Montana's Castle Doctrine.

13. FRACKING UNDER PRESSURE

Induced hydraulic fracturing, or fracking, for natural gas is becoming an important issue in more and more areas of the U.S. Supporters cite national desires to make the country more energy independent and to motivate efforts to liberate stores of natural gas. Mineral rights holders and communities near gas fields see economic benefits of fracking.

Fracking comes with costs to the environment and societal costs that are unclear and have not been weighed against the potential benefits. Attention to fracking has also raised questions about some features of regulation of the oil and gas industry.

One such feature is the oil and gas industry's specific exemption from certain provisions of a variety of federal and state environmental protection laws, including the following federal regulations: Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Safe Drinking Water Act (SDWA), Clean Water Act (CWA), Clean Air Act (CAA), National Environmental Policy Act (NEPA), and Toxic Release Inventory under the Emergency Planning and Community Right-to-Know Act.

Oil and gas exemptions have become hot topics among those trying to better understand the impact of oil and gas chemicals, wastes, and processes on human and animal health, on the environment, and on communities. The Environmental Protection Agency (EPA) notes that in most cases the statutes exempt waste "uniquely associated with" oil and gas exploration and production operations. In other words, chemicals used and wastes produced during the process of locating and producing crude oil or natural gas are exempt from these regulations. Volumes of rules and clarifications exist to elucidate when these processes end and under what conditions toxic materials are and are not exempt from the oversight of environmental laws. Industry has a strong interest in expanding the scope of these exemptions.

For different reasons, the oil and gas industry, along with Americans interested in becoming more energy-independent, support such exemptions. The cost savings afforded by these exemptions is enormous for oil and gas companies. The EPA points out that the cost of hazardous waste compliance under RCRA alone could make many small traditional oil wells unfeasible and they would be capped and abandoned. Those who advocate national security interests view exemptions as encouragement of the oil and gas industry for domestic exploration and production.

Fracking has brought these exemptions to the public eye as new environmental and health issues arise. Fracking uses enormous amounts of water—a particular problem in drought areas. According to the Sierra Club, the fracking water contains many toxic chemicals that industry officials are exempt from revealing to the public. Fracking water must be disposed of after usage, but it contains many of those original chemicals plus additional substances released from the ground, including radioactive materials—all again protected by exemptions from public disclosure. At various stages the process releases methane that would be measured and controlled in other industries by laws from which the oil and gas industry is exempt. RCRA, which is intended to force tracking of toxic wastes "from

cradle to grave," does not apply to many fracking wastes—even when they are removed from the original site for disposal elsewhere.

Critics of fracking call for cancellations of the exemptions, pointing out fracking-related examples of air, water, and soil contamination; destruction of human and wildlife habitats; and human illness and death. The industry continues to claim that the chemicals and emissions are not toxic, that fracking companies should not be forced to reveal trade secrets, and that onerous regulations would make natural gas exploration and production by fracking unprofitable and unsustainable.

14. AFFLUENZA

Ethan Couch, a 16-year-old Texan, crashed his pickup truck into a group of people while driving with a blood alcohol level three times the legal limit. He killed four people near a disabled car by the road and seriously injured two of seven youths riding in his truck. Judge Jean Boyd sentenced Couch to a lockdown rehabilitation facility and ten years probation. He will face a ten-year jail sentence if he drinks alcohol, uses drugs, or drives while on probation.

The media fanned international controversy by picking up on defense expert testimony given by a psychologist. The psychologist claimed that Couch was the victim of "affluenza," that he was incapable of good judgment due to lack of limits set by his wealthy parents. Observers, victims, and the victims' families were appalled that Couch received such a light sentence. They claimed that the judge was influenced by the affluenza defense and allowed a spoiled rich kid's parents to buy him a pass on real punishment.

Texas courts are guided by research indicating that rehabilitation is more productive than punishment in dealing with minors who commit "unintentional" crimes. The judge's ruling is consistent with other Texas rulings. Critics of the Judge Boyd's sentencing wonder if a stricter punishment would better fit the severity of crime.

Ethan's family settled a civil suit by one teen who was paralyzed by the crash who will require lifelong round-the-clock care. Families of the other dead and injured victims have also filed civil suits for damages. In an interesting twist, Couches parents had volunteered to pay for a \$450,000-a-year treatment facility in California, but Couch was directed to a state facility in Texas. There the charges are \$260,000 a year but state tax subsidy will pay 95% of that fee leaving the parents to pay \$14,040.

15. UNRESTROOMS

One of the greatest problems facing transgendered students is safe access to restrooms and locker rooms. They are often harassed or threatened, whether they use the women's or the men's restroom, and consequently feel unsafe in either facility.

Schools are struggling with assuring the safety and rights of transgendered students. For example, Alex Wilson self-identified as a girl when she was 12. For the last five years, since she turned 21, she has been living as a woman. As a nursing student at Florida's Pinellas Technical Education Center, Alex had been using the women's restroom without incident until August 2013, when a fellow student complained to administrators. The administration threatened Wilson with arrest if she continued to use the women's restroom. She was given two other options: use either a storage closet across campus or the men's restroom.

On 1 January 2014, California's School Success and Opportunity Act (AB1266) became law. Although previous legislation prohibited discrimination, transgendered students still ended up being excluded from participating in sports, physical education classes, athletics, and other school activities, and access to restrooms and locker rooms of consistent with their gender identity. The law was necessary because some students and parents worried about children being assaulted in the locker room, administrators feared lawsuits if they allowed students with the genitalia of one sex to use the restrooms assigned to the opposite sex, and some students felt uncomfortable sharing locker rooms and restrooms with transgendered students.

With the enactment of AB1266, California became the first U.S. state to pass legislation ensuring transgendered students the same opportunity as all other students to participate in all school activities and programs. AB 1266 requires schools to allow transgendered students to use all facilities (including restrooms and locker rooms) that match their gender identity, rather than their sexual identity.

(f) A pupil shall be permitted to participate in sex-segregated school programs and activities, including athletic teams and competitions, and use facilities consistent with his or her gender identity, irrespective of the gender listed on the pupil's records (AB1266, Section 221.5).

In contrast, Utah's proposed House Bill 87 would require students either to use only the restroom that corresponds to their sexual identity (documented by birth certificate or doctor's examination) rather than their gender identity, or to use a separate restroom set aside for transgendered students that must be provided at the student's request.

Supporters of equal protection and rights for transgendered students applaud laws that remove barriers preventing transgendered students from full access to the same educational and extracurricular opportunities that other students enjoy. They point out that the discomfort of seeing people not of the designated sex in a bathroom or locker room does not justify discrimination.

Opponents to legislation allowing transgendered students to choose which restroom and locker room to use, and which sex-segregated team to join, express concern that such a law provides sex offenders an opportunity to infiltrate locker rooms they normally would not be able to access. Some opponents claim that the intent of such legislation is to use schools as a means to encourage alternative sexual lifestyles. Conservative faith-based groups argue that laws protecting or promoting the rights of transgendered individuals is incompatible with their religious beliefs. For example, Genesis 1:27 is often quoted to justify the position that anything other than adherence to the strict male-female dichotomy is immoral: "So God created man in His own image; in the image of God He created him; male and female He created them."