Guns are a challenging problem in the United States. With its origins in the 2nd amendment, firearms have become integral to the ideals of liberty and freedom in this country. While researchers have had little success finding a correlation between video games and gun violence, [1] the increased volume of all types of media content relevant to firearms has created a society that is desensitized to the issue. [2] This has resulted in a culture that normalizes the use of guns as a viable option for dispute resolution. The solution to gun violence will require a multi-part approach that addresses accessibility, attitude, and culture surrounding the gun debate.

Gun control is just another aspect in a litany of issues that have contributed to the current divisive political climate. Republicans have promoted a permissive stance on gun legislation that has been a part of successful election platforms and earned them donations from lobbyists and pro-gun activist groups. The NRA has spent almost $700,000 in the upcoming election to promote candidates who are working to defend the current systems that allow the firearm industry to reach every American home. 98% of those dollars have gone to republican candidates. [3] After mass shootings, democrats usually point to the accessibility of firearms being a major problem and push for responsible background checks to invoke control over the access to sales on the open market. The problem with this approach is that many shootings are carried out with borrowed or stolen firearms. There is no way to reliably control the mass of uncontrolled guns already in civilian circulation.

For the majority of engineering problems today, advancements in technology usually play an important role in designing a solution. Users need to know that a weapon will work every time they pull the trigger because their life may depend on it. Firearms are manufactured with tight tolerances and reliable materials so that it works when it is needed. Even as a purely mechanical device, a firearm still has the potential for failure to operate. Batteries eventually run out of charge, soldering connections that break after dropping, and software bugs all introduce additional potential points of failure in a device that must be reliable every single time. At our current state of technology, electronics are not reliable enough to make it in the hands of a police officer or soldier. At the end of the day, gun control is not an engineering problem, but a societal one.

Guns are not inherently a problem. They can be used for survival to hunt for food or to defend a home. A responsible gun owner knows how to secure his or her weapons, keep track of ammunition, and safely operate the device. The biggest issue with guns are people who seek them as a means of conflict resolution. Firearms are frequently portrayed in media and pop culture as a source of power and intimidation. People who feel marginalized in society can watch a video of a person who wields a firearm to change the outcome of an interaction and see themselves in that position. As a species, power can be addicting, and society must change the glamorous portrayal of these objects as a viable option for exercising dominance over another human being.

The first step to reducing gun violence is to limit the current use of guns. While a prohibitive tax might make bullets too expensive to use, this doesn’t fix the issue of people buying bullets without proper gun education. By adding a limited tax on bullet sales, a program can be instituted that certifies and registers people who purchase ammunition. This controls both existing guns and new purchases while preserving the gun manufacturing industry. A certification course would involve extensive training on gun safety, storage, and use to try to prevent guns from getting into the hands of those who are not the intended users. Instating a licensing system for gun ownership would provide people with more education to ensure responsible gun use and potentially slow down the flow of new guns into civilian ownership. The last aspect of education would be including a basic gun safety class as a part of mandatory high school or middle school education. This would ensure that every citizen knows the dangers and learns to respect the weapon with some basic safety procedures to keep everyone safe.

Current gun culture is resistant to the application of electronics in weapons. This is due to both tracking and the potential for government interference. While electronics have obvious potential safety benefits, many gun owners would be concerned about the government disabling a weapon in its time of need. This piece of the solution relies on an institution that can track and control guns independently of the government. Assuming that the technology advances to a point of being completely reliable in any situation, the only way to get the public to buy into a solution is if they feel some ownership in the control and maintenance of the organization. This would need to take the form of an intermediary between the people and the government. This organization could also be responsible for the classes and gun education initiatives for both tracking ownership of guns and ammunition. In the current climate, it might be difficult to see the political path forward for implementing this part of the solution, but it is difficult to find an effective solution without an effective, reliable regulating body that is impartial to both civilians and government.

The final piece of this solution to gun violence involves how guns are used and portrayed in media. If the media contained more examples of responsible gun use, the ideals of gun safety will at least have a chance to become a part of current culture. Censorship is a two-edged sword and is beyond the scope of this paper, however proper gun use needs to become a mainstream idea. If movies and video games glorified responsible gun ownership instead of portraying the firearm as a power object, culture would have a chance to adapt to the message and potentially change the way guns are used.

# Works Cited

|  |  |
| --- | --- |
| [1] | S. Cunningham, B. Engelsatter and M. R. Ward, "Violent Viceo Games and Violent Crime," *Southern Economic Journal,* vol. 82, no. 4, pp. 1247-1265, 2016. |
| [2] | *Brown V. Entertainment Merchants Assn. (No. 08-1448),* 2011. |
| [3] | Center for Responsive Politics, "National Rifle Assn: Total Contributions," 18 October 2018. [Online]. Available: https://www.opensecrets.org/orgs/totals.php?id=d000000082&cycle=2016. |