What's Next: The Future of Military Technology

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☰	WHAT'S COVERED

In this lesson, you will consider the future of technology. Science fiction writer William Gibson once wrote, "The future is already here -- it's just not very evenly distributed" (NPR, 1993). When new technologies are developed, it tends to be the wealthy who get them first. In many cases, though, we can see how even before wealthy civilians get new technologies, the military has them. If we want to look at the future of technology, it may help to look to what the military currently has. Specifically, this lesson will cover:

1. The Future of Military Technology
2. Lessons for the Future

"The world's militaries are taking advantage of the many new tools at their disposal—and there are even bigger plans for future militaries."

Kristen Houser

📋	BEFORE YOU START

How do you think military technology is likely to evolve over the next ten years?

1. The Future of Military Technology

We can expect that the way we fight wars and defend the United States in the future will continue to evolve, just as it has in the past. New military technologies are also sure to lead to innovative civilian applications that could have a big impact on all of our day-to-day lives.

Let's take a moment to review what we've learned about the role skills have played in the changing face of warfare and the military.

Our main focus in this unit is on how technology has played a role in American history. In this challenge, we've seen the importance of the military's ability to innovate with both weapons and defensive technology. At the beginning of this unit, you read about the strategic importance of "not fighting the last war," and keeping up with the best available technology continues to provide a strategic advantage.

In this challenge, we also saw how technology involving communication has provided a strategic advantage

for today's military. We're a long way from the carrier pigeons of World War I, and the ability of military personnel, strategists, and commanders to communicate instantly over long distances has played an important role in recent conflicts.

The military will continue to be on the forefront of technological innovation—not just inventing new technologies, but very quickly adapting technology for use across many different areas of the armed forces. Agility plays a large part in both responding to new threats and adapting military technology for civilian purposes.

2. Lessons for the Future

Countries today are working to contain threats not only from potentially hostile nations, but also from terrorist organizations. Rather than the trench-filled fields of past wars, the battlefields of the future might be urban centers under attack from hackers, their utilities and communications grids shut down. Weapons of the future could be biological or chemical, or even computer viruses. At the same time, traditional weapons remain a threat, and large stockpiles of nuclear weapons still exist from the Cold War arms race.

Meeting these challenges will require faster and more accurate technology like new sensors and computer algorithms to analyze data from around the world. It's easy to see how these advanced systems for collecting information remotely could help with new smart-home and smart-city designs, improved communication technologies, and any other number of tools that incorporate data.

We're all familiar with one new technology that's already altering both military strategy and civilian life: drones. A range of drone technology is changing how military leaders defend offshore bases, strategic targets, and soldiers. Jane Mayer, a New Yorker writer who has covered the use of military drones, has noted that these new weapons were "much more than just a breakthrough in technology—they were also a new frontier legally, politically, and morally" (McKelvey, 2011). As technology rapidly evolves, we also need to maintain an agile mindset to understand the larger implications of what the technology can do—and in this case, how it changes the nature of warfare itself. Although they are controversial, drones can target enemies more precisely, minimizing risk not only for U.S. soldiers but also for allies and civilians on the ground.

Drones have radically changed the way tasks can be accomplished remotely. Amazon is currently testing package delivery right to our doorsteps via delivery drones. Drones with heat-sensing can make search-and-rescue missions faster and safer. Visual arts like photography and filmmaking are being transformed by the new perspectives and capabilities that drones give to artists. As the example of drones shows, technology innovation is based on a problem solving mindset, and once an innovation is made, we often find there are many applications for it.

The military will continue to innovate when it comes to the methods and technology they use to defend the United States. Technology tools like artificial intelligence, machine learning, sensors, and advanced communication systems are very likely to play a role in military intelligence and operations in the future.

📋 SUMMARY

In this lesson, you learned that the **future of military technology** will continue to be innovative, and its effects will continue to make their way into everyday life. The history of military technology, and the roles that problem solving and agility have played in that history, provide important **lessons for the future**.

Best of luck in your learning!

Source: Strategic Education, Inc. 2020. Learn from the Past, Prepare for the Future.

REFERENCES

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