

Class of works: 3, 4, 5

Please renew the exemption from DMCA restrictions on installing software on cellular phones and video game consoles. Also, please extend the exemption to allow installation of software and operating systems on computing devices, including computers, digital cameras, GPS receivers, media players and recorders, etc.

These exemptions are vital to security, market place competition and education.

Many countries, companies, and individuals use electronic devices for espionage. There have been numerous instances of programming computers, phones, etc. to spy and obtain business information as well as trade or government secrets. Subverted devices may also be controlled or disabled to cause damage or disruption, or used as tools to access or disable other systems. It is essential that individuals and companies have the right to access and change the software that is running on their own devices in order to protect themselves from these threats. This may include installing software to monitor device behavior, security software, changing settings to prohibit certain sorts of behavior, or installing alternative operating systems (for instance to gain access to additional security features, or which can be demonstrated to not have back-doors built in to allow the manufacturer or foreign agents access to or control of the system).

<http://www.popularmechanics.com/technology/how-to/computer-security/digital-spies-the-alarming-rise-of-electronic-espionage>

Much of our technology is now made and programmed outside the US. Especially in countries like Russia and China, which have different standards for security and privacy, as well as possibly different national priorities. Prohibiting users from installing new software, or from investigating the properties of existing devices and software leaves us wide open to further attacks, from these countries or from others.

"I am concerned that children of today don't have enough junk to take apart. Try taking a clock apart. What do you find? A chip, an LED, and a battery. What do you learn from that, other than not to do it again?"

-Alvin Trivelpiece, Executive officer AAAS

However, if one is inclined to electrical engineering, one can learn what that chip, LED, etc. do, and how to change that operation, or use them for other things, etc. The freedom to take things apart, learn how they work, tinker with them is essential to fostering the next generation of scientists, software developers and entrepreneurs.

Allowing users to maintain and program their own devices also enables them to keep devices going, even after the original manufacturer abandons a device. This helps cut down on the amount of electronic waste.

The US is rapidly falling behind in the technology arena. Openness, the ability to find out how something works (and learn how to improve it) is vital to learning and encouraging new generations of programmers and innovators.

It is essential that we protect our right to learn what the devices we use do, find out how the devices work, and retain the right to improve upon them, including the right to reprogram them. If we do not we will become victims of technology - subject to the makers and controllers of the technology. If we continue to prohibit learning and innovation we will lose the skills and knowledge that would be needed in order to compete or even defend ourselves in the technical arena.

Michael Hanson