6.IC.4 Impacts of Computing

> *The student will identify copyrighted and licensed software material. (a) Identify the role of software licenses, including open-source, and why they are used. (b) Compare and contrast the positives and negatives of various software licenses.*

Understanding the Standard

"Open source software" refers to programs that have been released publicly by their authors. Open-source software is a very important part of the software ecosystem, and many important pieces of software that people use every day depend on open-source resources. Authors release open-source software under a "license", which specifies the conditions under which other programmers are permitted to use their code. Some licenses are very permissive, putting almost no restrictions on use, and others are limited. One example of a permissive license is the MIT License, which essentially puts no limits on how people can use the open-source software. Other more restrictive licenses include "share-alike" licenses like Creative Commons Share-Alike or the GNUv3 license, which require people who use the open-source software under the license to likewise release their product as open-source software under the same license.

This standard is very closely related to 6.AP.4, which also has to do with open-source software and providing attribution.

Term	Definition
License	A legal document releasing a product from copyright to the public, providing details on how the product is allowed to be used
Attribution	Providing credit to the author of resources that you have used in your own creative work
Open-source software	Code published for free for others to use within the limits of a license

Prerequisite Knowledge

Students should have a basic understanding of copyright and intellectual property before engaging with this standard.

Integration Opportunities

Visual Arts 6.8 Identify the role of open-source in the creation of works of art.

Music 6.8 Identify copyrighted and licensed music vs. open-source and how each can be used.

Summary of a Lesson

Chances are that when students write code, they will be using snippets of code from other people. Have students provide attribution to the resources they used in code "comments" (notes in a program which are ignored by the computer). You can also have students provide attribution for images, quotes, and other material they use in their program. For example, if a student created a game that plays out the events of the Salem Witch Trials, they can incorporate primary sources and provide attribution either in the game or in the code for the game. Have students find the license the work they are using is released under if appropriate, and explain what they need to do to comply with the license. You may need to provide student-friendly versions of these licenses for them to use for this purpose.