

Introduction to the BitCurator Software Environment

Discussion questions to pair with the screencast

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Description

These discussion questions can be used to encourage student engagement with the BitCurator screencast, [Introduction to the BitCurator Software Environment](#). The questions can also be used for discussion accompanying a live demonstration, a guided hands-on exercise, or independent exploration of the BitCurator Environment.

Learning object type

Lesson plan/materials

Learning objectives

This learning object might be used in a lesson to satisfy the following learning objectives:

- Determine the technical requirements and dependencies for installing open-source tools to process born-digital materials.

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- Advocate for the use of community-built and -supported open-source tools in digital curation.

Screencast

<https://youtu.be/Y8PbP32Y4D0>

Discussion Questions

These discussion questions can be used to encourage student engagement with the BitCurator screencast linked above. The questions can also be used for discussion accompanying a live demonstration, a guided hands-on exercise, or independent exploration of the BitCurator Environment. Video timestamps are included in parentheses, where applicable.

1. The BitCurator environment is a specialized distribution of the Ubuntu Linux operating system. What is the role of an operating system? How is it different from an application?
2. Why is the BitCurator Consortium distributing a whole OS environment rather than just sharing individual applications?
3. What are similarities and differences between this Linux operating system and MacOS or Windows?

Answer Key

*These discussion questions can be used to encourage student engagement with the BitCurator screencast linked above. The questions can also be used for discussion accompanying a live demonstration, a guided hands-on exercise, or independent exploration of the BitCurator Environment. The questions **(in bold text)** ask students to analyze the social and technological context of the BitCurator Environment and the tools packaged in the distribution. Example answers are given (in regular text), though some questions are subjective and answers may vary, depending on the knowledge of the student and the scope of the class. Video timestamps are included in parentheses, where applicable.*

The BitCurator environment is a specialized distribution of the Ubuntu Linux operating system. What is the role of an operating system? How is it different from an application?

The operating system (e.g., Linux, Windows, MacOS, Android, iOS) is a foundation of software that other applications run on top of. The OS is system software that manages various computer resources, including hardware and software. When applications interact with hardware or other applications, they don't do so directly, but instead make system calls to the OS's kernel. This supports reliability (less likely for single applications to crash the system), security (malicious actions can be more contained), and multitasking (users can run an arbitrary set of applications on the same computer). The OS also provides ways for users to interact with the computer, either through a command line interface (CLI) or graphical user interface (GUI).

Why is the BitCurator Consortium distributing a whole OS environment rather than just sharing individual applications?

The BitCurator Linux distribution is designed to be an entire desktop environment through which users perform a variety of digital curation tasks. It allows us to take advantage of many useful features that are built into the free, open-source Ubuntu Linux OS. It also has a variety of pre-installed and configured tools, desktop folders, and customizations (e.g., controls over mounting of devices, context menus that appear when you right-click on files) that are not part of standard operating

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systems, including standard Ubuntu Linux. It can be run as the native OS on a partition of a computer or as a virtual machine (VM) on top of another OS. You could also install and run many of the individual tools individually, but this wouldn't provide the full desktop environment, and some of the tools have not been ported to Windows or Mac.

What are similarities and differences between this Linux operating system and MacOS or Windows?

After viewing the video, students could share numerous observations about how the environment is similar to or different from what they're used to in other operating systems.

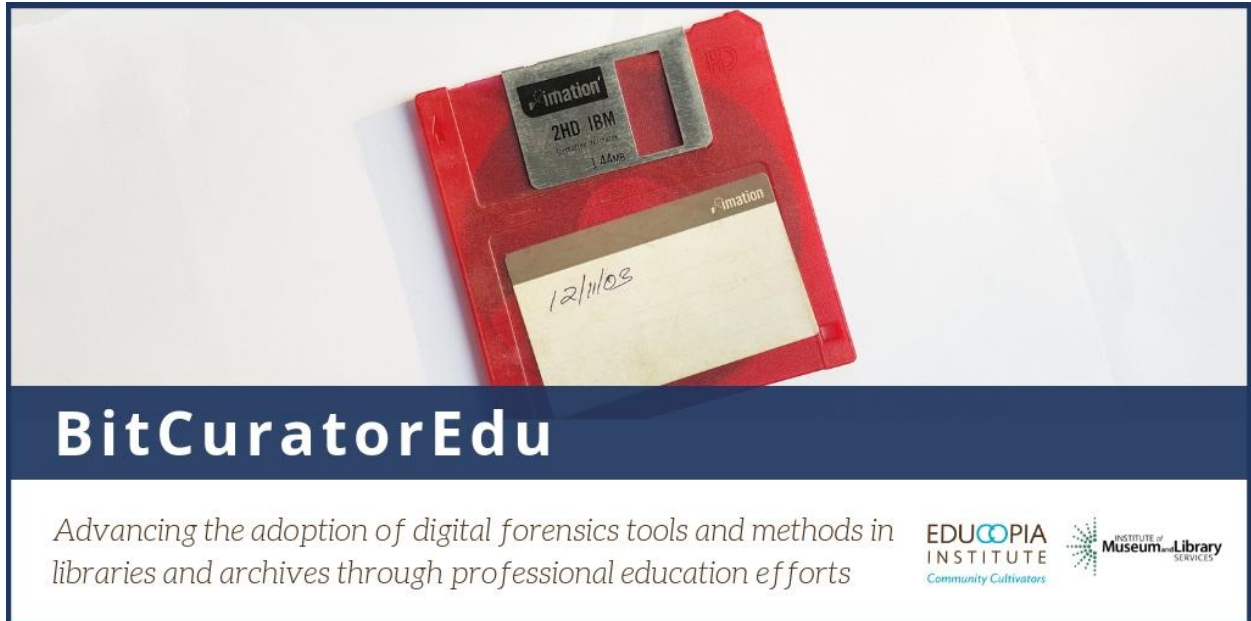
The Ubuntu Linux OS is free and open source software (OSS). This means that there's no charge to use the software and the source code is publicly available. OSS licenses allow anyone to adapt that source code to develop other, derivative software. It also allows members of the user community to contribute code (improvements, bug fixes) to be incorporated into the code base.

Tools and Resources Mentioned in This Document

BitCurator Environment:

<https://confluence.educopia.org/display/BC/BitCurator+Environment>

Ubuntu Linux: <https://ubuntu.com/>



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Most resources from the BitCuratorEdu project are intentionally left with basic formatting and without project branding. We encourage educators, practitioners, and students to adapt these materials as much as needed and share them widely.

The [BitCuratorEdu project](#) is a three-year effort (2018-2021) funded by the [Institute of Museum and Library Services \(IMLS\)](#) to study and advance the adoption of digital forensics tools and methods in libraries and archives through professional education efforts. This project is a partnership between [Educoxia Institute](#) and the [School of Information and Library Science at the University of North Carolina at Chapel Hill](#), along with the [Council of State Archivists \(CoSA\)](#) and several Masters-level programs in library and information science.