

## What this is

*The Innovative Instructor* is a forum of published articles ([www.cer.jhu.edu/ii](http://www.cer.jhu.edu/ii)) and a blog ([ii.library.jhu.edu](http://ii.library.jhu.edu)) related to teaching excellence at Johns Hopkins

## About the CER

The Center for Educational Resources partners with faculty and graduate students to extend instructional impact by connecting innovative teaching strategies and instructional technologies

For information on how to contribute to *The Innovative Instructor* or to read archived articles please visit

- [www.cer.jhu.edu/ii](http://www.cer.jhu.edu/ii) or email
- [cerweb@jhu.edu](mailto:cerweb@jhu.edu)

## Forum categories

### **Pedagogy Forum**

Hopkins professors share successful strategies for teaching excellence

### **Technology Forum**

Information about emerging technologies, who is using them, and why you should know

### **Best Practice Forum**

"How To" workshops on using technologies and applying innovative instructional methods

## Panopto

Brian Cole, Information Technology Specialist, CER

### What it is

Panopto is a service that enables easy video capture, streaming, and sharing. While traditionally categorized as a lecture capture service, Panopto can do much more.

### Who produced it

Panopto is headquartered in Pittsburgh, Pennsylvania. It was founded by two Carnegie Mellon University professors as an extension of lecture capture/presentation software developed there. Johns Hopkins has a contract with Panopto to provide hosting, storage, and streaming of media.

### Why it was made

Panopto simplifies the complex task of recording lectures and presenting pre-recorded lecture information. Before Panopto (and similar current competitors), recording lectures required a hodgepodge of cameras, microphones, and screen capture software as well as many hours of post processing. Panopto, on the other hand, will run on any Windows or Mac computer and can record anything the computer can "see" – screen shots, presentation slides (PowerPoint, Keynote), and video and audio sources. It packages all of these elements automatically and presents them in an easy to view format.

### Why it matters

Panopto is important for several reasons. Lectures are often dense and packed with complex information. It is not always possible to stop the lecture, repeat sections, or review. By capturing the lecture, students can review specific segments at their own pace after class. Panopto makes it easy to jump to a specific point in the recording and play that segment as many times as needed. Panopto also easily pre-records entire lectures or modules. This is useful in the context of online courses, flipped courses, or when the faculty member must miss a class.



A common concern among faculty when students request lecture recordings is that students will stop coming to class. Though this is always a possibility, our experience is that using Panopto does not negatively affect attendance, and often increases student satisfaction with lectures.

### Who's using it

More than 1200 recordings have been posted to the Panopto service by JHU faculty members and students from disciplines as diverse as physics, humanities, biology, and computer science, to name a few. These recordings have been viewed over 50,000 times with 4,000 hours of viewing in the last six weeks alone.

### How it can be used

Panopto can be used in several ways:

- **Lecture Capture:** Panopto can capture audio, video, slides, or screen activity. It can also capture just audio, just video, etc.
- **Live Streaming:** These same elements can be streamed live, with some restrictions.
- **Existing Audio/Video Files:** Panopto can be used to host and stream existing audio or video files. This alleviates storage and format issues.





Screenshot of Panopto's recorder interface in Windows (Mac is similar)

Some faculty are using Panopto simply to capture the audio from lectures (replacing the podcasting service). Most faculty use it to capture audio+slides or audio+screen activity. Faculty have used it as a quick way to pre-record a lecture for a class they will miss, or to create a module for a "flipped" class. Some faculty record short segments that explain and illustrate core concepts so that students can review them on their own time. Panopto is being used to record student presentations for review by peers. Some departments are recording Graduate TA instructors to serve as a basis for providing teaching critiques.

Lecture capture and streaming technologies are often complex and hard to use. This limits their potential. By lowering these barriers, Panopto allows instructors to focus on the best way to accomplish their pedagogical goals, rather than how to format or where to store a file.

## Where it is going

Each school will make its own decisions about supporting the JHU Panopto license. For the immediate future (2014-2015), there is a commitment from the Krieger School of Arts and Sciences and the Whiting School of Engineering full-time programs to support all faculty and students who wish to use Panopto. Based on use and feedback, this decision will be revisited during contract renewal periods.

Panopto developers are focusing on streamlining the entire process from recording to viewing. They are also putting resources into enhancing playback on mobile devices, supporting HTML 5 for browsers, and creating more robust Blackboard integration.

## How to get started

To get started with Panopto, consider the following:

- Should the recordings be publicly viewable or should they be visible to only your class?
- Do you want to integrate Panopto with Blackboard?
- What do you want to record (audio, video, PowerPoint, screenshots)?

Capturing a lecture or otherwise creating a recording requires the Panopto recorder software. This software application is small and simple, and it runs on Windows and Mac. A Panopto account is required.

Nicole Pagano is the primary administrator for Panopto stand-alone accounts: [npagano1@jhu.edu](mailto:npagano1@jhu.edu)

If you want to integrate Panopto with Blackboard, contact Brian Cole: [bcole@jhu.edu](mailto:bcole@jhu.edu)

Once you have an account or have integrated Panopto with Blackboard, you can log in, download the recorder software, and begin capturing. After capturing, the recording is uploaded to our hosted account and processed by the Panopto server. Upon completion of processing, you will be notified by email. At that point, you can set permissions to determine who can view and distribute the link. Many of these steps can be automated.

## Other thoughts

Our Panopto license allows for an unlimited number of recorders and an unlimited number of recordings. It is no longer necessary to find a server with enough space for video files, format the video correctly for all viewers, or worry about network bandwidth. You can focus on recording and capturing what will best serve your students, and leave the rest to Panopto.

## Author's background

Brian Cole,

Information Technology Specialist, Center for Educational Resources, JHU



Brian Cole works in the Center for Educational Resources as an Information Technology Specialist. Brian provides support and training for Homewood faculty on a number of instructional technologies. His background is in liberal arts and enterprise IT.