

ACADEMIC TECHNOLOGY NEWSLETTER

for the Faculty of Arts & Sciences

INSIDE:

Outreach and Events

Whether you need an Intro to Canvas Session, a consultation on using technology in your teaching, or want to learn more about digital tools and methods, we've got you covered. [Pages 6-7](#)

What's new this year

We have been working with a host of new tools, pilots and technologies. [Pages 3-10](#)

Spaces and Places

The FAS has been transforming teaching spaces and they're being used in exciting ways. [Pages 2-5](#)



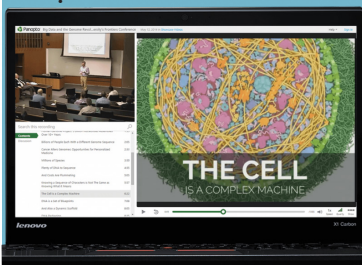
ABOUT US :

Academic Technology for FAS supports the use of technology for teaching and learning throughout the Faculty of Arts and Sciences. Our services include helping you get the most out of your course website, providing evaluation, training and ongoing support of digital tools and methods, and even developing new applications to meet your pedagogical needs.



A NEW TOOL FOR LECTURE VIDEO

Panopto's features and reliability have made it the right choice



After successful pilots in various size classes last year, Panopto will be the new lecture video tool for 2019 - 2020.

Teaching staff and students will enjoy the speed of delivery, the reliability and a host of additional features.

[More on page 7](#)

In Yard digs, there's an app for that



Come next fall, web links will allow viewers to probe archaeological finds from Harvard's earliest days

HARVARD YARD'S BURIED HISTORY

The Archeology of Harvard Yard has gone online and onto your phone.

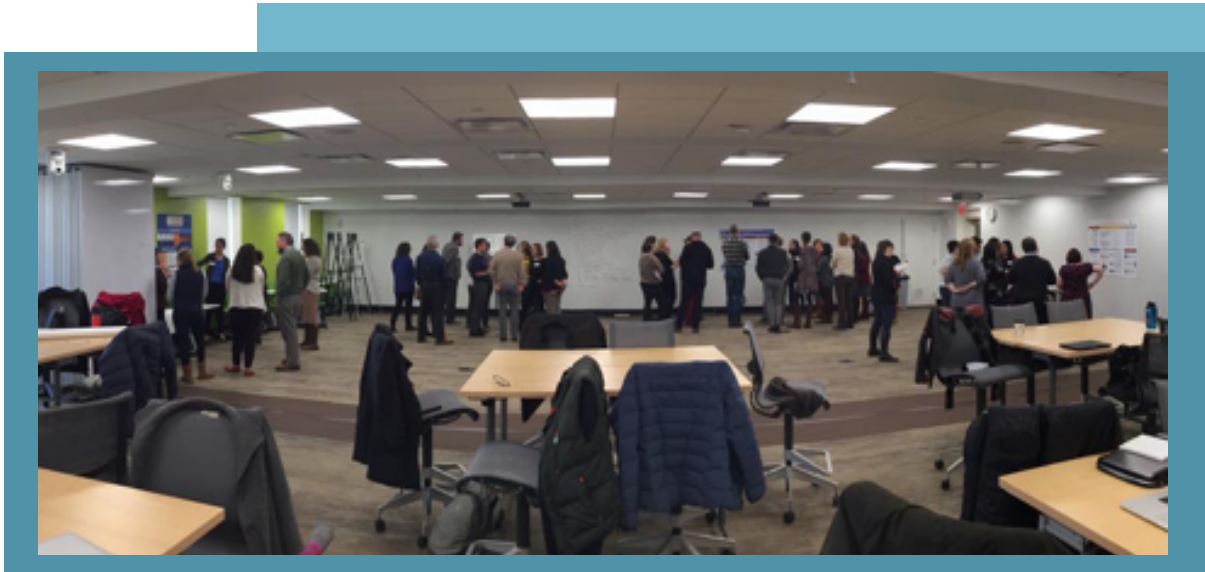
[More on page 7](#)



NEW LEARNING SPACES

Many halls and classrooms have undergone major changes.

[More on page 7](#)



The flexible space Longfellow Hall 319/320 at the Harvard Graduate School of Education where the event took place, featuring four poster presentations.

LEARNING DESIGN AFFINITY GROUP

Last academic year, the Harvard Initiative in Learning and Teaching (HILT) affinity groups for Learning Design and Learning Data & Analytics held a joint event focused on “Evidence of Learning”. The event took place at Longfellow Hall 319/320, the Harvard Graduate School of Education’s flexible learning space, and included more than 40 participants from several Harvard schools. The format consisted of a combination of lightning talks and gallery walks around posters, a “talks-plus-walks” approach that one participant called “an effective springboard for talking with colleagues.” Encompassing a wide range of educational settings and contexts -- from an online professional development program for early education leaders at HGSE, to an introductory Life Sciences undergraduate course, to teaching library research competency skills (and much more) -- each presentation shared a story about a learning design that captured evidence of learning, and how this method/process/technique could transfer to other contexts across Harvard.

MODERN HEBREW STUDENTS “ESCAPE THE ROOM”

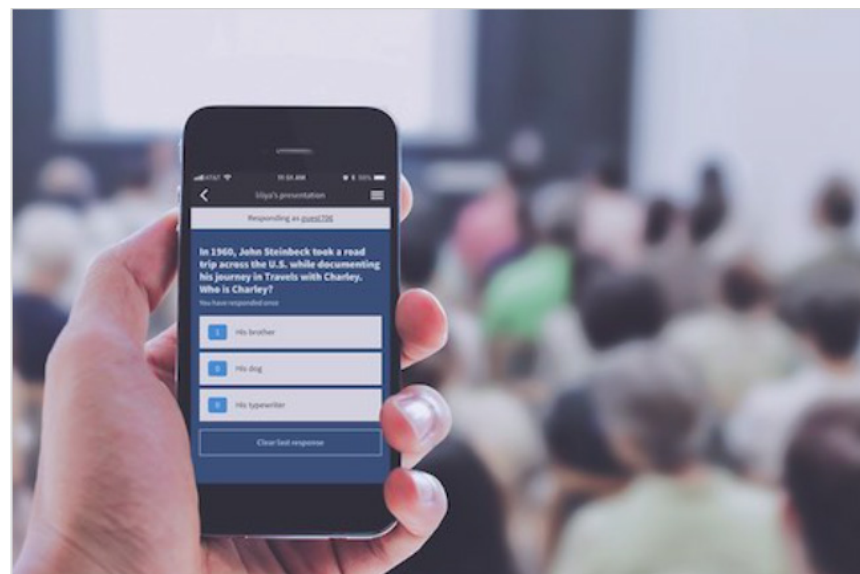


Last Fall, Academic Technology partnered with Dr. Irit Aharony and Osnat Aharoni in the Modern Hebrew Program to create and pilot an Escape Room activity. This groundbreaking project engaged three groups of Modern Hebrew students in active learning based on their particular level of language: Advanced Modern Hebrew (third year) students developed the game, The Advanced Seminar (fourth year) students tested the activity and provided priceless feedback, and Intermediate Modern Hebrew (second year) students participated in the final activity. Participants put together text, audio, and video clues until they were able to solve a series of puzzles as a team and “escape the room”.

The Bok Center was another key partner, hosting the activity in their Learning Lab and assisting in the assessment and revisions.

ACTIVE LEARNING

Polling can be a great way to make class time more interactive and engaging. Gauging students' understanding of concepts taught in the course and stimulating debates with opinion questions are two examples of the many use cases for this technology.



INTERESTED IN USING ACTIVE LEARNING?

AT-FAS has a lot of experience with polling and response systems. Contact us for a consult: atg@fas.harvard.edu

Poll Everywhere

Poll Everywhere is a third-party, web-based polling tool that allows participants to text their answers with their cell phones or to respond via any Web-enabled device. In 2018, Harvard made premium-level Poll Everywhere accounts available to FAS faculty and staff, greatly increasing opportunities for active learning activities in the FAS classroom, as well as in staff meetings and other events.

Since being made available to the FAS, Poll Everywhere has steadily increased in use. AT-FAS has con-



sulted with several courses that either had previously utilized Turning Technologies clickers for active learning activities, or were incorporating active learning tools for the first time, including Music 2, GenEd 1038, Gov 97, Hist 14 and 1054, and MCB 186.

Turning Technologies

Turning Technologies clickers, supported by AT-FAS in collaboration with Cabot Science Library, have been used in several FAS classes, as well as in other interactive meetings and events. Students in classes using Turning Technologies



CLICKER CHANGES

Harvard's Poll Everywhere license has made the premium version of this online tool available to FAS faculty and staff. In light of this change, and of decreased usage of physical clickers, AT-FAS and Cabot Library have agreed to retire the Turning Technologies clicker service at the end of 2019. AT-FAS will still provide instructors who are interested in using physical clickers with assistance connecting with Turning Technologies and integrating TurningPoint Cloud with their Canvas course website.

could check out clickers for the semester from Cabot, while instructors utilizing the service could check out receivers from AT-FAS.

Courses that have recently used Turning Technologies clickers for gauging understanding and increasing active learning activities include CompSci 121, MCB 80, and Stat 100, although the latter two have since switched to Poll Everywhere as their active learning tool of choice.

In addition, AT-FAS has also supported the Undergraduate Council (UC) over the last two academic years. 50 clickers checked at Cabot each term were used for anonymous voting during monthly meetings where, per UC policy, electronic devices are banned.

LEARNING SPACES

Last summer, Science Center Lecture Hall C and Lecture Hall D were taken offline to upgrade the aging HVAC infrastructure. This downtime provided an opportunity to successfully perform some interior renovations to the halls. The scope of work included improvements to the audio system, acoustics, lighting, seating, carpeting, and millwork.



HALL B



HALL A



HALL A

For additional information on additional past and future classroom renovation projects, please visit the FAS Learning Spaces Website:

<https://learningspaces.fas.harvard.edu>

HEDERA
reading that fits
<http://hederaproject.org>

HARVARD
DEPARTMENT OF THE CLASSICS
ACADEMIC
TECHNOLOGY
for the FACULTY OF ARTS & SCIENCES



1944 form: filiae
2316 form: filiam
4716 form: filius

1346 lemma: filia

filia -ae f.;
filius -i m.

Commented Texts • Lily. Ad Urbe Candia

Proca delide regnat. In Numitorum atque Amulium procreat, Numitori,
qui interja maximus erat, regnum venarum Silvius gentis legal. Plus tamen
via ponat quam voluntas patris aut verecundia anatis: pubis fratre Amulius
regnat. Adis sceleris socius: stirpem fratris virilem interemit, fratris filiae
Reae Silvius per speciem honoris cum Vestalem eam legisset perpetua
virginitate spem partus admittit.

Total Tokens	55	43
442%	0.2%	7.9%
15.8%	11.6%	17.2%

Is ea id
Moral Class

Show Familiarity

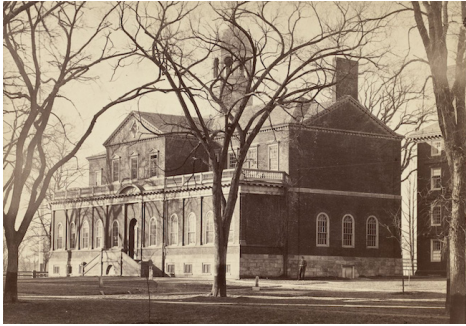
A reading tool for teachers, students, & lifelong learners

Project funded in part by a grant from the Harvard Initiative for Learning and Teaching

The Hedera project is a partnership between AT-FAS and Ivy Livingston, Preceptor in the Classics Department. Hedera is an online vocabulary database and readability gauge for language teaching and learning. Users can maintain a custom list of known vocabulary and analyze any text to see what percentage of words in it are known. The application helps teachers identify or create materials for their own students that meet the guidelines for readability established by research into Second Language Acquisition (SLA). Hedera also empowers learners themselves to develop their proficiency naturally through self-selected reading that is optimally readable based on the particular vocabulary

EXTENSIVE READING IS A GREAT WAY TO INCREASE YOUR VOCABULARY. HEDERA MAKES FINDING READABLE LATIN AND GREEK TEXTS EASY.

HARVARD HALL RENOVATION AND RESTORATION PROJECT



Harvard Hall, one of Harvard's oldest and most prominent buildings, with an original structure that dates back to 1764, is undergoing an extensive exterior restoration and will reopen for classes in Spring 2020. The renovation will include a restoration of the historic masonry façade and wooden cupola, replacement of building mechanical systems and renovation of the classrooms on the first and second floors.

Because the project requires the entire building to be closed, it provides a unique opportunity to holistically re-imagine how innovative classroom design for the entire building can support Harvard's teaching and learning environments, enriching the educational experience for students and faculty alike for decades to come.

FOR ADDITIONAL DETAILS ON THE INTERIOR RENOVATION PLEASE VISIT :

<https://learningspaces.fas.harvard.edu/planned-renovations>

HARVARD YARD ARCHAEOLOGY PROJECT (HYAP)

For over a decade, sections of Harvard Yard have been opened up every other fall so that students in the College can study the history that lies beneath their feet.

The excavation is part of the Archaeology of Harvard Yard (ANTH 1130 and 1131), a two-semester course offered biennially by the Department of Anthropology and the Peabody Museum of Archaeology and Ethnology.

The Peabody Museum has displayed artifacts from this excavation in its "Digging Veritas" exhibit since 2008, and a recent partnership between Academic Technology for FAS (AT-FAS) and the Peabody is bringing the dig to life in a new, technologically-advanced way, using Omeka, an online exhibit platform, and an augmented reality (AR) application that allows users to view 3D reconstructions of the trenches and to access student-authored "object biographies" of key finds from the excavation.

The Peabody Museum and AT-FAS worked together to secure funding from Harvard's HUIT-FAS Project Review Board (PRB) to support work on this technically intricate project,



which utilizes web and mobile applications, APIs, 3D art, a Total Station, photogrammetry, and GIS to create an immersive user experience.

Because of this, and because of its reliance on multiple contributors across Harvard organizations (these include a Digital Teaching Fellow (DiTF) from the Anthropology Department, the students in the course, AT-FAS, the and the Peabody Museum), HYAP has been a case study in collaboration and teamwork.



WORKSHOPS & DROP-IN HELP

Intro to Canvas Workshop

- January 29th at 11am
- January 30th at 2pm

Drop-in Help Hours

- January 31st at 11am
- February 3rd at 11am
- February 4th at 11am
- February 5th at 11am
- February 7th at 11am
- February 10th at 11am
- February 11th at 11am
- February 12th at 11am

We host workshops and drop-in help hours in the six weeks surrounding the start of the fall and spring terms. Look for fall dates announced on our website mid-summer.

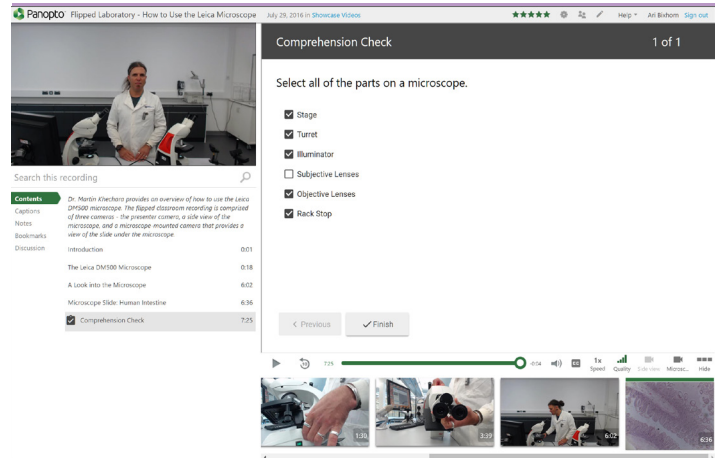
We are also happy to meet with you anytime throughout the year for Canvas questions or to discuss any of your technology in teaching needs.

We are located in Science Center, suite 142. Right inside the Oxford St entrance on the first floor (next to the Museum of Historic Scientific Instruments).

PANOPTO

FOR LECTURE RECORDINGS AND MORE

A successful pilot has become the full-fledged tool in the FAS



Need a Lecture Captured?

Academic Technology partners with Media & Technology Services from initial faculty requests, through recording, to publishing on Canvas sites and all the support between.

After successful pilots in variously-sized classes last year, Panopto has now become the preferred video tool for lecture recordings. Over 60 classes in the FAS are using the platform in Fall 2019.

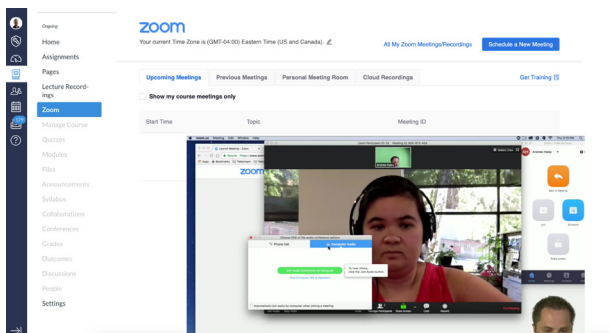
Students and faculty will enjoy the speed of delivery, the reliability and a host of additional features.

Teaching staff now have the ability to rename, organize, and share videos on an individual basis or within a certain date range. Faculty can also now record their own lecture using screen capture and a webcam, edit content online, and upload their own videos or audio files. Videos can be easily shared between classes or semesters, while rich analytics show the specific content students are watching most. Class discussions can happen within videos and embedded quizzes can be tied back into Canvas Grades.

Students can use number of features such as bookmarking, notes, captions and variable play speed. They can also quickly search a video - or a whole semesters worth of videos - for words and key phrases that were spoken or appear in slides. Students will also appreciate Panopto's ease of use on both desktop and mobile platforms.



ZOOM VIDEO CONFERENCING FOR YOUR FAS COURSE



Zoom is an easy-to-use video-conferencing tool that offers a seamless experience for collaboration across mobile devices, desktops, and conference rooms.

Zoom is now available in all FAS Canvas sites and can be used for guest speakers, distance students, conferences, remote lectures, and even as a tool to host online office hours.

To activate your Harvard Zoom account,
visit: <https://harvard.zoom.us>.



DISCOVERY SERIES TALKS IN CABOT LIBRARY

Along with partners in the library and the Digital Scholarship Support Group, Academic Technology organizes an event series which brings scholars on the frontiers of digital knowledge-making to a Harvard audience in an intimate and interactive setting once a month during the academic year.



From the Fall, Spring will be announced soon

- Envisioning Cultures in Virtual Reality** 9/11/19 at 2pm
- A.R. And Physics Learning in Maker Spaces** 10/2/19 at 2pm
- Machine Learning – How Does it Work?!?** 10/23/19 at 2pm
- Identity, Personhood and Material Culture** 11/6 at 2pm

For more Information on The Discovery Series:
<https://dssg.fas.harvard.edu/discovery-series/>

SEMINARS AND SPECIALTY WORKSHOPS

AT-FAS and its partner groups offer numerous speciality workshops. If you have missed one, note that many of these are repeated each semester or each year. For a more comprehensive list, see the last page of this newsletter.

Fundamentals of Digital Scholarship (2 days)

Feb 11 - 12
Lamont B-30

Designed to introduce participants to the core stages of digital scholarship's research workflow: the acquisition, manipulation, analysis, and presentation of data.

Sign up: <https://dssg.fas.harvard.edu>

Visual Eloquence: A Hands-On Workshop for Creating Effective Data Visualizations

Feb 27th 4-6 pm
Lamont B-30

Visual Eloquence is a participatory workshop on visualizing data and understanding the powerful role it plays in analysis and presentation for digital scholarship. The workshop will feature brief presentations, a hands-on exercise working with a dataset and visualization tools to create a visual presentation, and a discussion followed by pizza.

Sign up: <https://dssg.fas.harvard.edu>

ArtTechPsyche

March 27th 9-4:30
Cabot Library

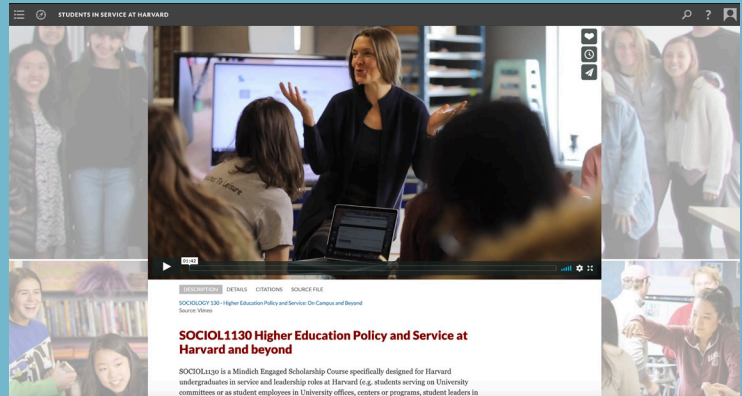
ArtTechPsyche celebrates human expression at the intersection of technology and the arts through numerous immersive digital experiences, art installations, technology demos, and visionary speakers.

SCALAR

Scalar is a free, open source authoring and publishing platform that's designed to make it easy for authors to write long-form, born-digital scholarship online.

Scalar enables users to assemble media from multiple sources and juxtapose them with their own writing via paths that take advantage of the unique capabilities of digital writing, including nested, recursive, and non-linear formats.

Academic Technology for the FAS is piloting Scalar as a Service during 2019-2020. Our installation of Scalar allows users to easily sign in with HarvardKey, create their own books, add collaborators, and upload media directly without worrying about filesize limitations.



3D SCANNING AND PRINTING

Academic Technology for FAS is now able to offer 3D scanning and printing to the FAS community.

For 3D scanning, AT-FAS has an Artec Space Spider, which is capable of producing high-resolution scans of small scale objects (somewhere between a coin and a basketball). The resulting models are accurate up to 0.05mm. Academic Technology staff have worked with the Peabody Museum of Archaeology and Ethnology as well as the Harvard Art Museums to scan objects from their



collections, and are happy to help work through the unique logistics of scanning objects in museum collections for use in your course.

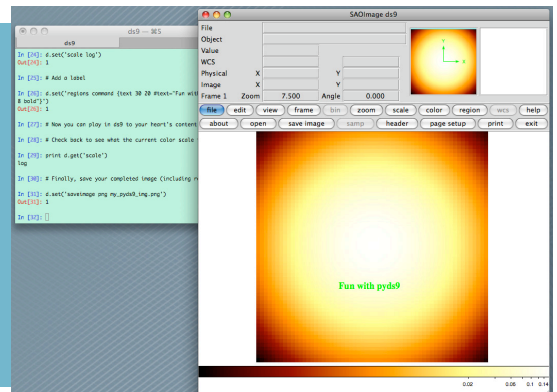
We can also print 3D models on our Prusa i3 Mk3 printer, with layer heights as low as 0.05mm. This printer is capable of printing single-color plastic objects in a wide variety of colors

We are available to advise and consult on our 3D scanning and printing services, so FAS community members only have to bring their ideas!



IRAF/RYRAF/DS9 SERVER

Astronomy 100 is an introductory course where students learn the methods and tools for observing, collecting, processing, and visualizing astronomical data. Through a series of scaffolded assignments, students learn to use IRAF/PyRAF, standard astronomical image analysis software, as well as DS9, visualization software. They also learn the basics of UNIX-based operating systems in order to access these software packages as well as manipulate their data remotely on Harvard's Cloud servers and display the visualizations on their local computers through an X11 environment.



GRADESCOPE

NAME	POINTS	RELEASED	DUE (EDT)	SUBMISSIONS	% GRADED	PUBLISHED	REGRADES
50Q Booklet	3.0	MAY 07	MAY 15 AT 9:00AM	117	100%	<input type="radio"/>	OFF
Final Exam	300.0	MAY 07	MAY 14 AT 9:00AM	290	100%	<input type="radio"/>	2
Exam 3	100.0		APR 29	288	100%	<input checked="" type="checkbox"/>	OFF
Problem Set 12, Part 2	50.0	APR 22	APR 29 AT 10:30AM	283	100%	<input checked="" type="checkbox"/>	OFF
Problem Set 11, Part 2	50.0	APR 15	APR 22 AT 10:30AM	290	100%	<input checked="" type="checkbox"/>	OFF
Problem Set 10, Part 2	50.0	APR 13	APR 15 AT 10:30AM	290	100%	<input checked="" type="checkbox"/>	OFF
Problem Set 9, Part 2	50.0	APR 01	APR 09 AT 10:30AM	280	99%	<input checked="" type="checkbox"/>	OFF

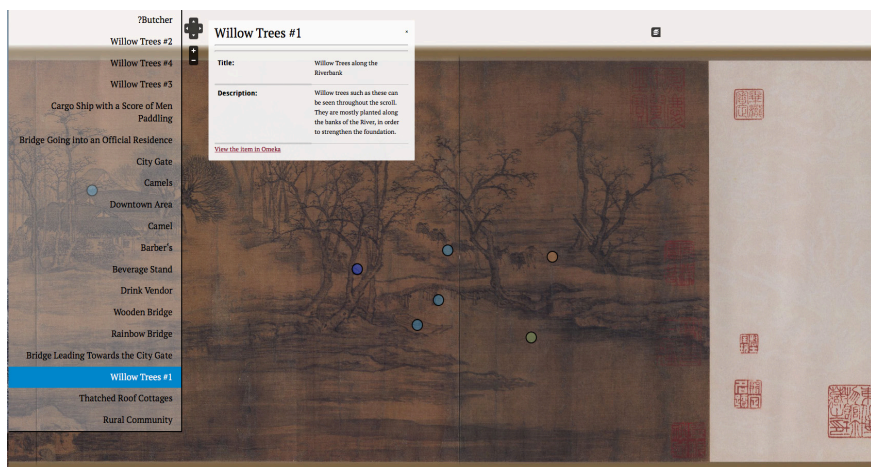
“I think Gradescope is a very good platform and I would encourage Harvard to fully support it. For large courses such as mine, it is the most efficient way to grade.”

-FAS Faculty Member

Gradescope is an LTI application that streamlines the grading of assignments while allowing instructors to provide better feedback to their students. The software is especially useful for large classes and for assignments that have a ‘right’ answer such as quizzes or problem sets where instructors typically tend to provide the same feedback over and over again, especially to students making common mistakes. Gradescope allows the grouping of similar answers at once, with the ability to reuse feedback. Additionally, Gradescope allows instructors to make rubric changes that apply to previously graded work. It also has powerful analytics and also an auto-grading feature for computer code assignments.

AT-FAS’s Gradescope pilot includes full integration with Canvas, which allows instructors to seamlessly import their class rosters into Gradescope and export grades back to the Canvas gradebook. More than 30 courses, representing more than 5,000 enrolled students, have participated in the Gradescope pilot thus far. Courses have come from SEAS, the Math department, and the Life and Physical Sciences. Feedback from pilot participants has been very positive overall.

We expect to see even more courses using Gradescope in the future.



China Local is a long-term project led by Prof. Peter Bol to document. Consisting of over 9000 photos, 400 panoramic images, and hundreds of texts documents with location data and descriptions, China Local had been hosted within a custom built application that was state of the art for the time, but the march of technology had taken its toll with outdated formats, very low resolution images, and very dated interface. Finding a new modern home for the content was, needless to say, challenging. Eventually Omeka was chosen for its ability to store and organize a large number of media files as well as to allow faculty and students to add information and create exhibits for class assignments. The 800-year-old Qingming scroll pictured above depicts scenes of daily life. Segments of the scroll have been annotated by students as part of an assignment to explain the cultural, historical, and symbolic references found there.

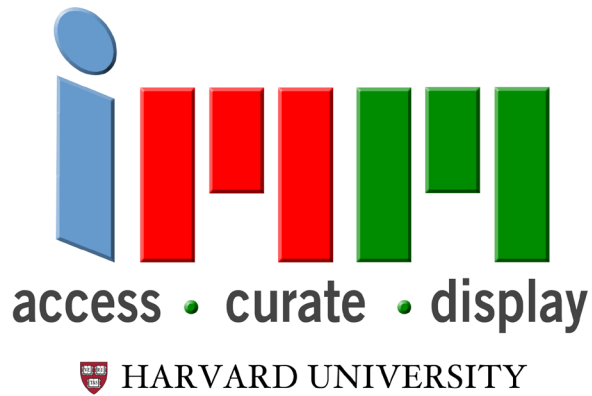
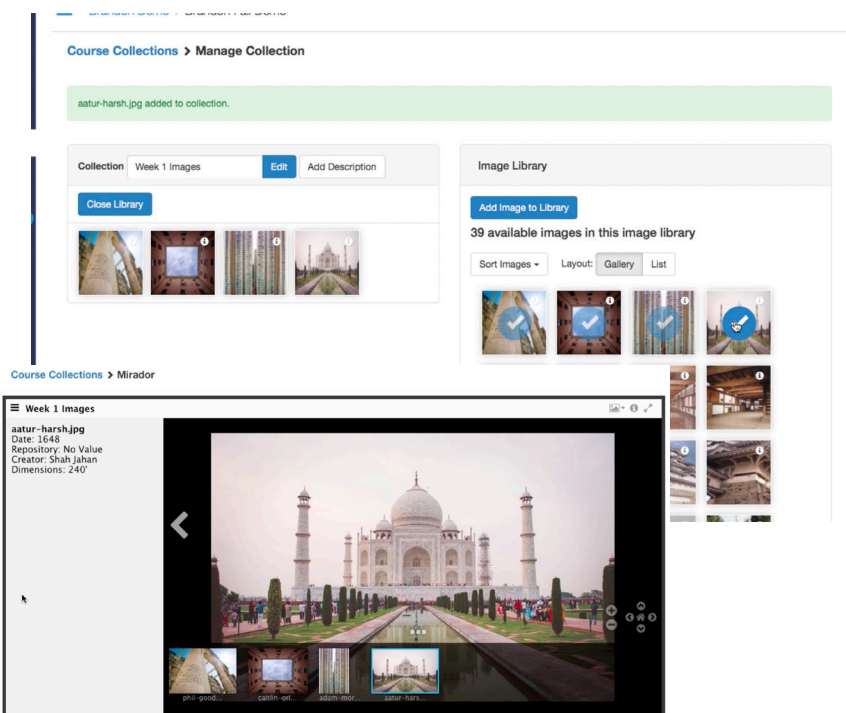


IMAGE MEDIA MANAGER IS A TOOL THAT ALLOWS YOU TO UPLOAD, CURATE, AND PRESENT COLLECTIONS OF IMAGES AND ASSOCIATED METADATA WITHIN CANVAS.



Developed by Academic Technology for FAS, the Image Media Manager (IMM) is an application that supports the creation, curation, and presentation of image collections and associated metadata.

IMM is a stand-alone application that is LTI-compliant, so it can be used directly within your Canvas course site.

IMM facilitates the creation of slideshows and side-by-side image comparison using the high-resolution Mirador viewer.

IMM utilizes the International Image Interoperability Framework (IIIF), so images can be added to collections by uploading files or by utilizing an existing IIIF Manifest URL.

Once installed, Image Media Manager is accessed from the left-hand navigation bar of your Canvas site. Further information on setting up and using the tool can be found by visiting the HUIT IT Help Portal or contacting Academic Technology for FAS at atg@fas.harvard.edu.

CONTACT US!



<https://atg@fas.harvard.edu>

Services

Consulting and Training

Academic Technology for FAS offers year-round training and consulting designed to support meaningful and innovative uses of technology in the FAS curriculum. Find upcoming workshops and other events, and contact us with questions, project ideas, or any inquiries about technology for teaching!

Multimedia

Academic Technology provides both operational and R&D support for teaching with video, 3D visualization, podcasting, mobile device experimentation, and others.

Software Development and Integration

Academic Technology provides software development assistance for teaching and learning technology needs in the FAS, and help FAS faculty members who want to integrate technology resources into a course. Academic Technology staff collaborate on these projects with students and with other groups involved in instructional support. We also help identify and evaluate third-party or commercial software for use in teaching.

Learning Space Design

Academic Technology advises on the design and creation of technology-enhanced classrooms, labs, and study spaces. We convene a monthly Learning Spaces Working Group, and regularly collaborate with the Office of Physical Resource and Planning and other groups on the design of new campus facilities.

