



Using EAASI to Expand Access at Yale

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Yale Library

Software Preservation and Emulation Unit at Yale Library



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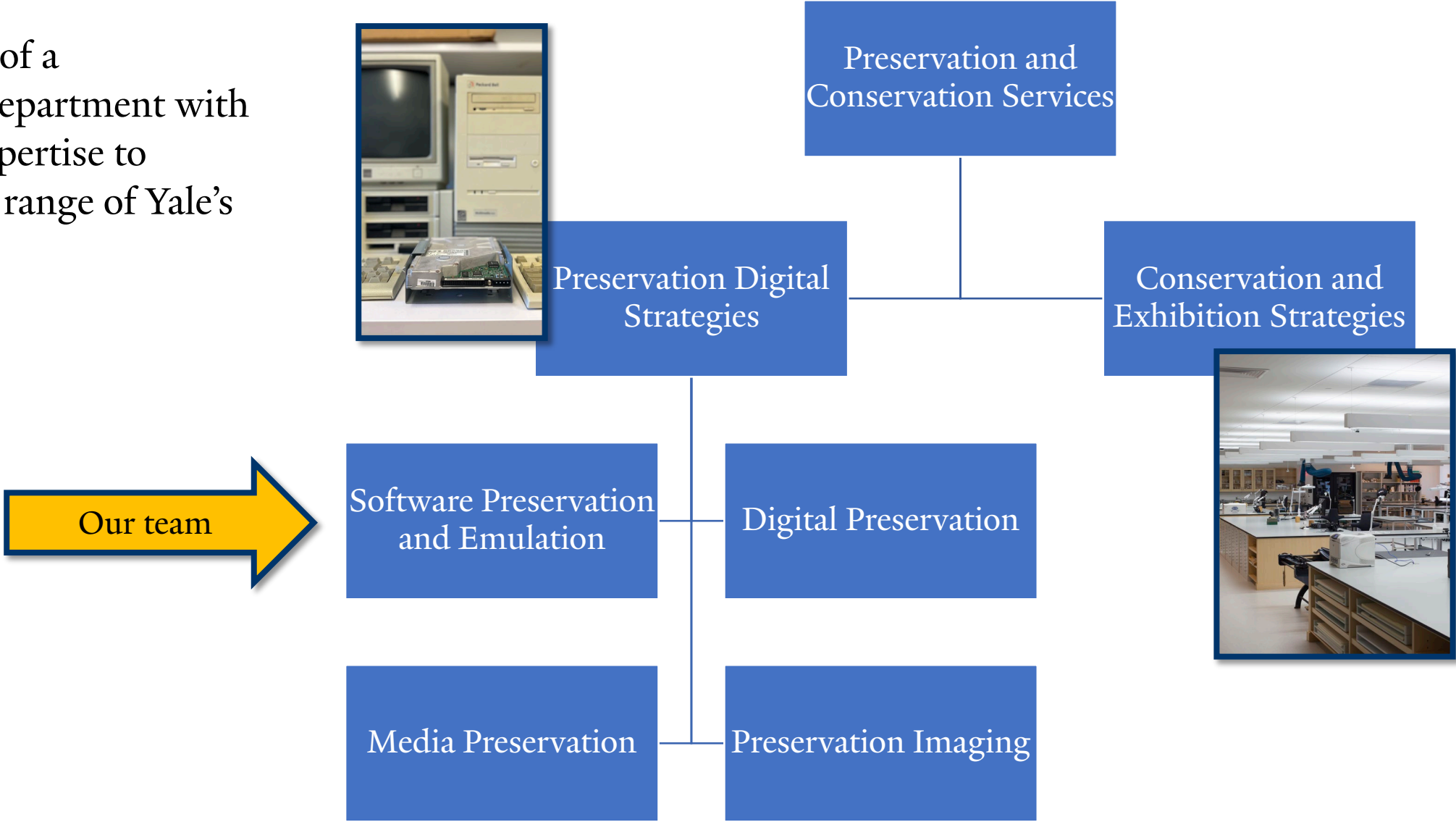


Say hello!

softwarepreservation@yale.edu

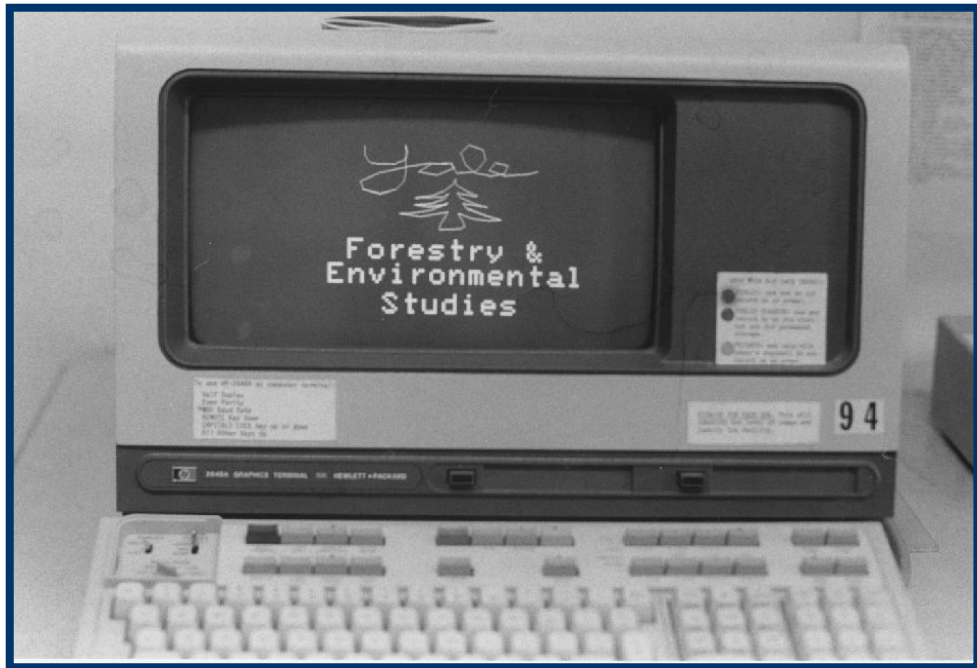
Preservation and Conservation at Yale

Our team is part of a comprehensive department with programs and expertise to preserve the vast range of Yale's collections



Software Preservation and Emulation Unit Mission

We use software preservation and emulation to preserve and expand access to digital collections that advance teaching, research, learning, creativity, and practice.



Software Preservation and Emulation Unit Vision

We explore, articulate, and champion inclusive pathways for ensuring access to software-dependent histories and futures.



What We're Doing

- Operationalizing emulation workflows that bring born-digital collections to life for faculty, students, and researchers – using emulation in classrooms
- Building practices for preservation treatment of software and software-dependent content in Yale Library collections
- Designing services to support research software and data constituencies on campus
- Leading the product roadmap and development for the EAASI emulation platform



Learn more about our work:

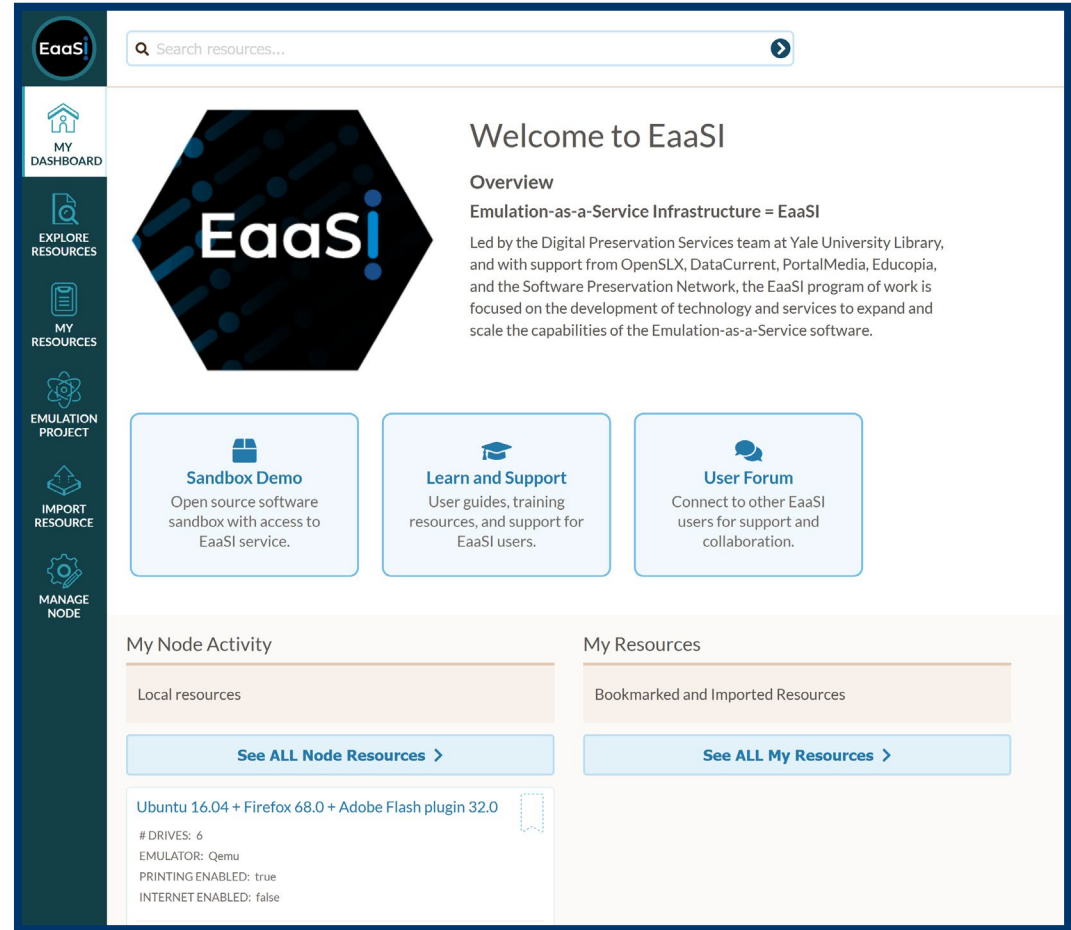
<https://guides.library.yale.edu/softwarepreservationandemulation>

What is EAASI?

- Software platform designed to support interactive, controlled access to digital collections by making emulation *easier*

Users of EAASI:

- Yale researchers who seek to access digital collections (students, faculty, scholars, etc.)
- Yale Library and museums staff who support collections and researchers
- Our team manages EAASI's software product roadmap and configures emulated computing environments containing legacy software to meet the needs of Yale's collections and researchers



The screenshot shows the EaaSI dashboard. At the top left is the EaaS logo. Below it is a search bar with the text "Search resources...". A vertical sidebar on the left contains navigation icons for "MY DASHBOARD", "EXPLORE RESOURCES", "MY RESOURCES", "EMULATION PROJECT", "IMPORT RESOURCE", and "MANAGE NODE". The main content area features a large hexagonal EaaS logo. To its right is a "Welcome to EaaSI" section with an "Overview" heading and a paragraph describing the program. Below this are three blue-bordered boxes: "Sandbox Demo" (Open source software sandbox with access to EaaSI service), "Learn and Support" (User guides, training resources, and support for EaaSI users), and "User Forum" (Connect to other EaaSI users for support and collaboration). At the bottom, there are two sections: "My Node Activity" showing "Local resources" and a "See ALL Node Resources >" button, and "My Resources" showing "Bookmarked and Imported Resources" and a "See ALL My Resources >" button. A detailed node configuration is visible below "My Node Activity": "Ubuntu 16.04 + Firefox 68.0 + Adobe Flash plugin 32.0", "# DRIVES: 6", "EMULATOR: Qemu", "PRINTING ENABLED: true", and "INTERNET ENABLED: false".



Learn more about EAASI's ongoing development:

<https://guides.library.yale.edu/softwarepreservationandemulation/eaasi>

Expanding access at Yale: Instruction using EAASI

Current practice: Born-digital collections are not frequently requested (3 access requests fulfilled via EAASI since 2021)

Challenge: How do we encourage Library patrons (students, faculty, and others) to request born-digital (and software-dependent) materials, and support them when they do so?

Strategy: Scope our focus to classroom instruction. We're collaborating with instructors to support access to born-digital collections via EAASI, in hopes that demonstrating the value of these collections and EAASI in classrooms will lead to more born-digital requests overall.

Aligned with our mission and vision statements: Using software preservation and emulation to expand access to digital collections, exploring inclusive access pathways.

Expanding access at Yale: Instruction using EAASI

- What types of challenges do we encounter as we pursue instruction via EAASI
 - Technical challenges
 - Legal challenges
 - **Most pressing: People-related challenges, like relationship-building, establishing trust, agreeing to bring people together to try something new**

Instruction using EAASI at Yale: A selective timeline

- **February – August 2025:** Met with Instruction Task Force members, created a minimal communications strategy, sent outreach via Teams and email to instructors, held two facilitated brainstorming sessions for Special Collections instructors
- **September 2025:** Sent direct outreach emails to individuals and small groups who had expressed interest in EAASI, offering to brainstorm further. Outreach was sent both from SPE staff and from Beinecke Education team.
- **October 2025:** First class! From direct outreach, connected with student in a graduate Film and Media Studies seminar. Used EAASI to support Laurie Anderson's *Puppet Motel* (1995), an interactive CD-ROM, held in circulating collections. In November 2025, held a reflection session for this classroom experience open to all Library staff.
- **February 2026:** From direct outreach, identified an undergraduate Global Affairs course for our second classroom session. Demo'd selected born-digital materials via EAASI for curator, instruction librarian, and professor.
- **April 2026:** Second class! Used EAASI in the Global Affairs course to support a collection of Word documents from the L. Paul Bremer III papers in Yale Special Collections.

Expanding access at Yale: Instruction using EAASI



Foundations of Film and Media Studies, October 2025



Historical Approaches to Global Affairs, April 2026

Instruction using EAASI: 1995 Interactive CD-ROM



Foundations of Film and Media Studies, October 2025

- Graduate-level film studies seminar, ~20 students
- Connected with this class via a student who was familiar with our work
- Evening class session typically used for film screenings was used to provide access to the art work on-campus
- We provided simultaneous access to the work, so all ~20 students would need to be able to access the work at the same time without technical issues
- Pre-prep included meeting with student facilitators and course faculty member to preview the game, identify goals, and assign roles and responsibilities
- "It provided the opportunity to try out software I would never be able to have experienced otherwise"

Instruction using EAASI: Early 2000s Word documents

- Undergraduate Global Affairs course, ~20 students
- Class is an annual "special collections-intensive" course, connected with us via direct outreach from Beinecke Education unit
- Provided access during a scheduled Special Collections session alongside other paper special collections materials
- Two groups of four students accessed materials, one group at a time for 15 minutes each
- Pre-prep included meeting with the class' assigned Instruction Librarian, the collection Curator, and professor to preview materials, set expectations, see if we could meet teaching goals



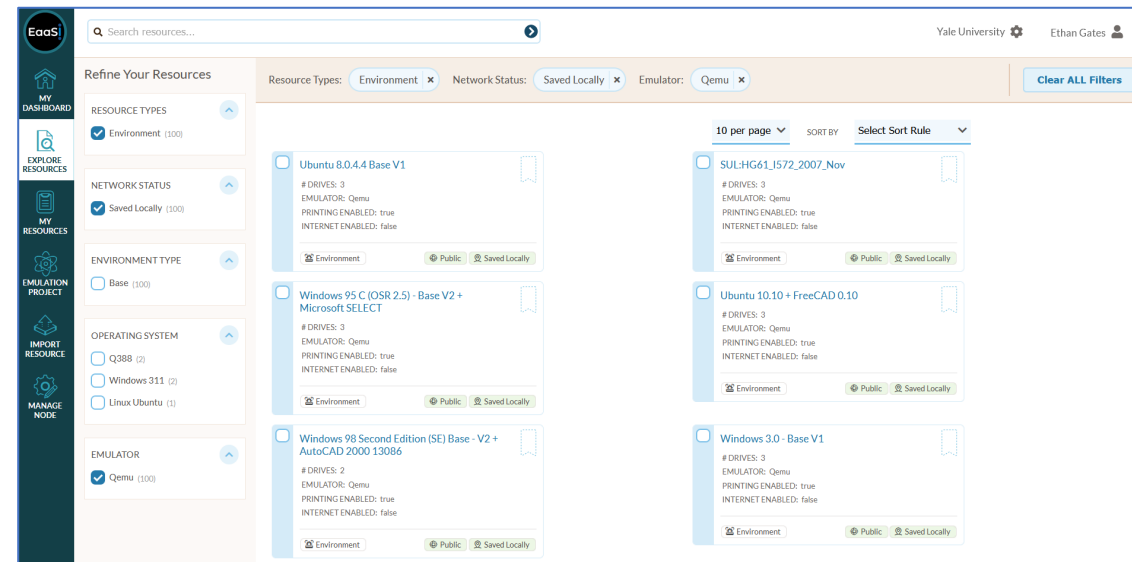
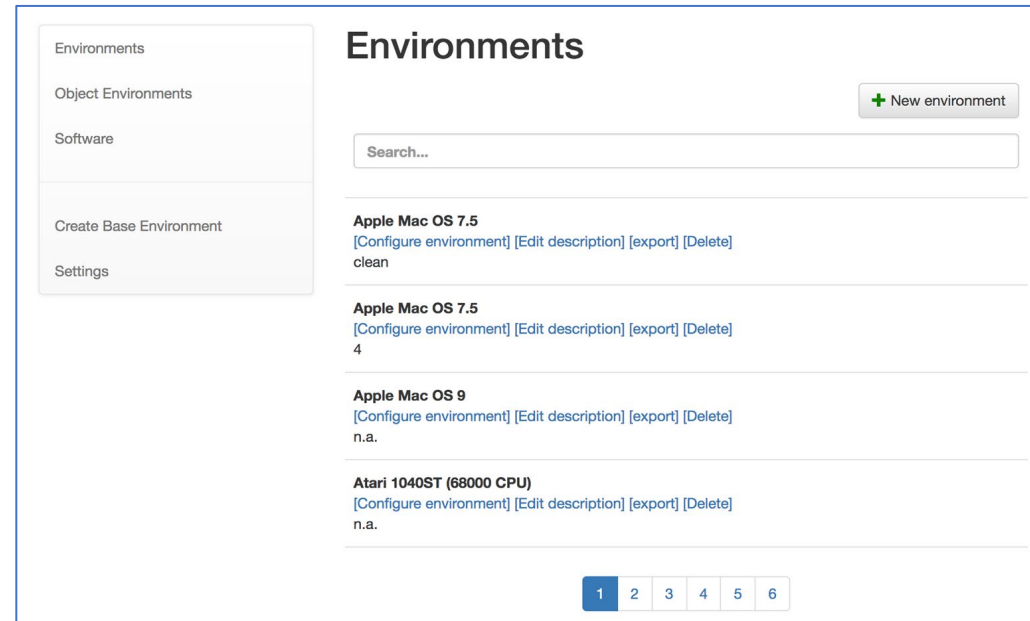
Expanding access at Yale: Instruction using EAASI

- Each classroom session we've supported has been different (including classes that haven't used EAASI)
- We learn more every time we support a class and collaborate with instructors to understand their vision and goals
- Reflecting on our experiences allows us to build a platform that can meet the needs of our user communities, and help us work toward our own mission and vision

Embracing Limitations

Platform usage during grant-funded period (2018-2024):

- Advocacy tool
- Designing and prioritizing new features and UI



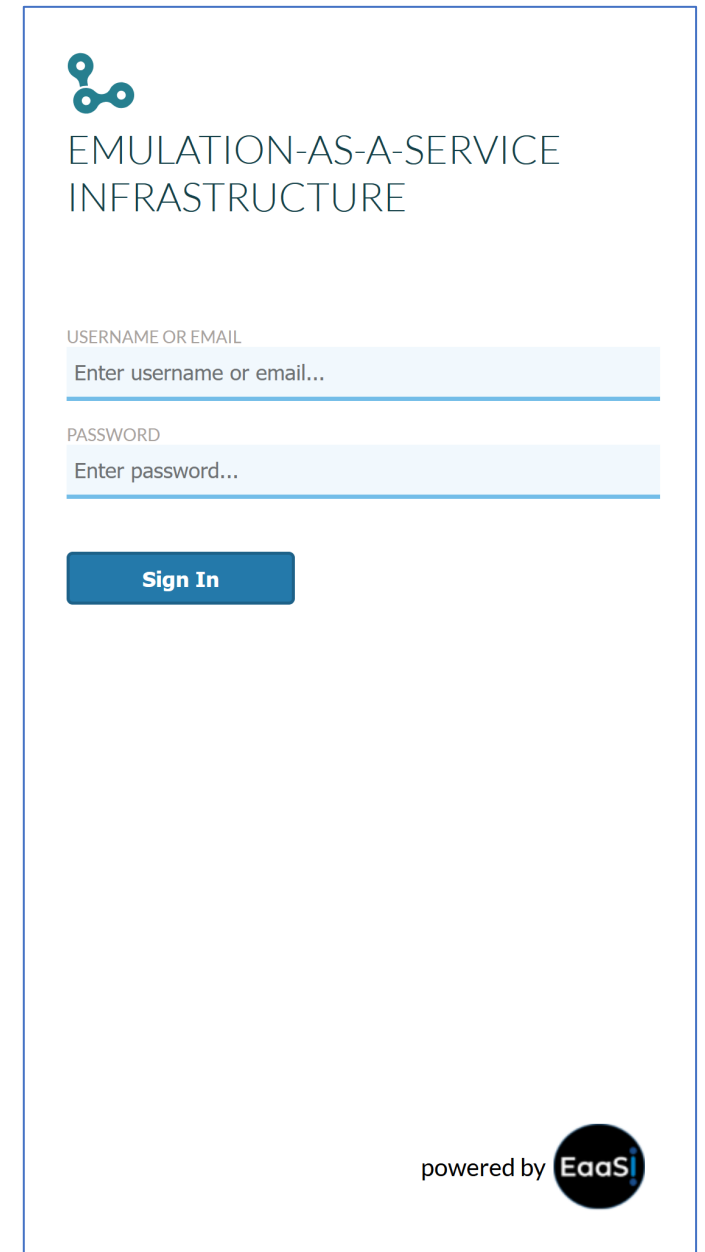
Embracing Limitations

Can students log in with SSO?

On the roadmap, but not right now. Accounts have to be individually generated per user.

Can we share emulated computing Environments between individual accounts?

More granular sharing options are on the roadmap, but right now would have to “Publish” them – in this case, making collection material more widely available than intended or desired.



The screenshot shows a login interface for 'EMULATION-AS-A-SERVICE INFRASTRUCTURE'. At the top left is a logo consisting of three blue circles connected by lines. Below the logo, the text 'EMULATION-AS-A-SERVICE INFRASTRUCTURE' is displayed in a sans-serif font. There are two input fields: the first is labeled 'USERNAME OR EMAIL' and contains the placeholder text 'Enter username or email...'; the second is labeled 'PASSWORD' and contains the placeholder text 'Enter password...'. Below these fields is a blue button with the text 'Sign In'. In the bottom right corner, there is a logo for 'powered by EaaS!' which includes a circular icon with the letters 'EaaS!' inside.

Modeling the Move from Research Project to Operations

As we transition from years of grant-driven research and development to ongoing, operational services, we're realizing that one of the most powerful ways we can nurture the **global** field of software preservation and emulation is by doing this work **locally** here at Yale --

by building service models and templates that make it easier for other practitioners to move through the challenges of relationship-building, establishing trust, and bringing **people** together to try something new.

Every Object an Orchestra...

...and every orchestra a community of people.



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