

CMS.636/855 (Spring 2023):

## Extending the Museum

Monday & Wednesday, 3:30 - 5:00 PM, Room: E28-330

**Instructor:** Kurt Fendt, email: [fendt@mit.edu](mailto:fendt@mit.edu), office: 14N-421

**Office Hour:** Thursdays 2:00 - 3:00 PM or by appointment

**Canvas Site:** <https://canvas.mit.edu/courses/19801>

**GitHub Site:** <https://cms636.github.io/>

**Slack:** <http://mit-cms-636-2023sp.slack.com>

**Annotation Studio:** Link to follow



Photo: Lascaux IV Museum, Montignac, France (2019)

This project-based Digital Humanities subject investigates the museum as a participatory public space and rethinks visitor engagement and museum education in light of digital technologies. Students develop concepts, models, and prototypes that integrate physical and digital spaces in novel ways in close collaboration with partners at local memory institutions. This semester's focus is on the newly opened MIT Museum where the class will be taught through the term. Weekly readings provide the theoretical, critical, and analytical foundations for collaborative class projects. Exploration and experimentation with technologies such as 360 degrees environments, AR and VR approaches that interface with digital assets, museum and collection-specific UI/UX approaches, contextual information, and online media lay the technical foundation for group projects. Students choose a final group project at the beginning of class to be developed throughout the semester. In this project, students will have the opportunity to work directly with staff at the MIT Museum, Harvard, the MFA, and others. Students taking graduate version complete additional readings and assignments. Digital Humanities (CMS.633/833) is NOT a prerequisite for this subject.

## Further Background

Memory institutions are currently undergoing significant changes as they are trying to rethink traditional archival, curatorial, and presentation practices in light of changing demographics and emerging forms of visitor engagement, often spearheaded by digital media. The pandemic has only increased the urgency for change. Mobile apps and interactive/immersive digital displays attempt to bring additional information and curatorial perspectives to museum objects, maker spaces seek to engage visitors in a creative museum experience, increased presence on social media enhance visibility, and expanded websites provide online access to unprecedented (and often hidden) archival riches. Memory institutions are not only embracing and adapting new media technologies and Digital Humanities methods and tools, they are also developing new ways to more effectively merge existing and new practices. Attracting new audiences and expanding the museum experience beyond the physical institution are primary motivations to experiment and leverage new technologies.

## Format and Requirements

This course consists of reading discussions and comments, demonstrations of and experimentation with tools and techniques, hands-on project work time, in-person visits to local memory institutions and collaboration on final group projects focusing on real-world issues. In addition, guest speakers and interview partners who work at a variety of Boston-area museums discuss their approaches to and challenges of creating novel visitor experiences with the class in person or via Zoom.

Students are expected to comment on weekly readings (available on Canvas) on the class' Github site, [CMS636.github.io](https://CMS636.github.io) (two paragraphs minimum), besides actively participating in class discussions, engaging in technology explorations, attending (online) guest lectures, project presentations, and review sessions. Rather than a summary of the readings, students are encouraged to focus in their comments on agreeing or disagreeing with key themes or assertions that they find provoking and would like to discuss in class, and pose questions that the class as a whole can discuss, including the use of examples, e.g. through web links to support their arguments. Occasionally, students will be asked to annotate readings using the tool Annotation Studio. Before coming into class, everyone should read and think about the other students' comments and questions in preparation for the class discussion. Taking turns, students will lead the weekly reading discussions by addressing the questions raised and discuss them in light of the online comments by fellow students.

Please complete assignments before class (post your reading comments, project updates, etc. typically by 10:00 AM on Mondays and Wednesdays).

Graduate students are expected to complete additional reading assignments and lead additional class discussions on readings and emerging museum topics. Project teams are formed at the beginning of the semester to work on a final group project throughout the semester refined by multiple review sessions. The projects will have to be completed along with a 15-page design document by the end of the term. Further details will be communicated in class.

Final project work for this class can take on multiple forms and will be discussed in detail in class. Projects can include concepts for exhibitions (physical and digital), working with digital objects and artifacts, digital spaces, technologies such as Augmented and Virtual Reality interfacing with digital artifacts, metadata, and extracted data, visitor concepts for maker spaces and community spaces, or novel ideas for complex topics such as climate change. In your final projects, you will be working in direct collaboration with curators, archivists, artists, designers, and museum curators. Main deliverable for the final class project is a detailed design paper (15 pages) and a functional prototype.

## Learning objectives

After taking this course you should be able to:

- Understand the principles of creating engaging user experiences in museums, galleries, and exhibition spaces, shaped by theoretical readings and project-based work;
- Create concepts, approaches, and implementations for novel visitor experiences in museums, including those based on practical experience with computational methods and tools as well as a basic knowledge of interaction design and storytelling principles;
- Use the theories and works presented in this course to frame and support discussions and critiques of contemporary approaches to novel curatorial concepts and visitor experiences in museums.

**Grades** will be based on the following criteria:

- Final project (40%), including design paper and prototype (digital/non-digital)
- Short projects and site reviews (15%)
- Presentations and project updates (15%)
- Class participation (10%)
- Reading comments on Annotation Studio and Github (20%)

Class attendance is required. Please inform the instructor **BEFORE** class if you are unable to attend. More than three unexcused absences will result in a lower grade. There will be no final exam in the class.

Avoid *plagiarizing*. **Plagiarism** is the use of another's intellectual work without acknowledgment. Full acknowledgment for all information obtained from sources outside the classroom must be clearly stated in all written work submitted. All ideas, arguments, and direct phrasings taken from someone else's work must be identified and properly footnoted. Use quotation marks to identify all sources of wording that are not yours. Identify sources of ideas with appropriate footnoting. Plagiarism receives an F in the subject, the instructor is required to forward the case to the Committee on Discipline. See <http://cmsw.mit.edu/writing-and-communication-center/avoiding-plagiarism/> for more information.

The WCC at MIT (**Writing and Communication Center**) offers *free* one-on-one professional advice from communication experts with advanced degrees and publishing experience. The WCC can help you further develop your oral communication skills and learn about all types of academic and professional writing. You can learn more about WCC consultations at <http://cmsw.mit.edu/writing-and-communication-center> and register with the online scheduler to make remote appointments through <https://mit.mywconline.com>. Please note that the WCC hours are offered Monday-Friday, 9:00 a.m.-6:00 p.m., and fill up fast.

## Syllabus (preliminary version)

Week	Topics, Readings, Assignments
<b>Week 1</b> February 6	<b>Rethinking the Museum, Introduction</b> <i>In-class Activity:</i> Memorable museum experiences, brief exploration of the MIT Museum
February 8	<b>The Museum as Holistic Experience: Lascaux IV</b> <i>Readings:</i> 2040: Hello and Welcome to the Future by Adam Rozan, American Alliance of Museums, Museum, Magazine 2040, November/December, 2017; Nina Simon: The Participatory Museum, 2010 Online Edition - Introduction and related TedTalk <b>G:</b> At the Foot of the Hill, pp. 128-139

Week	Topics, Readings, Assignments
<b>Week 2</b> February 13	<b>History of Museums – Collecting &amp; Curating: For Whom by Whom?</b> <i>Readings:</i> "What is a Museum?", in E. & A. Alexander, <i>Museums in Motion</i> , 2nd ed. 2008, pp. 1-19 <b>G:</b> Stephanie Bowry: "Before Museums: The Curiosity Cabinet as Metamorphe," in: <i>Museological Review</i> 18 (2014), pp. 30-43 <i>Assignment:</i> Museums and COVID-19 (more details in assignments)
February 15	<b>Guest Speaker: Ann Neumann, Director of Galleries and Exhibitions, MIT-Museum (TBC)</b> <i>Readings:</i> "Enhanced Critical Curation", in <i>Digital_Humanities</i> , pp. 32-34 <i>Assignment:</i> Formulate questions for museum curators and experts & assignment in Canvas
<b>Week 3</b> February 20	<b>Student Holiday - Monday class to be held on Tuesday!</b> <i>Assignment:</i> Curate an (online) exhibition with five personal objects that tell a story (due Feb. 22)
February 21	<b>Guest Speaker: Gary Van Zante, Curator, Architecture and Design, MIT Museum (TBC)</b> <b>Curating Photography</b> <i>Readings:</i> B. Joseph Pine II, James H. Gilmore: "The Experience Economy," in: G. Anderson ed., <i>Reinventing the Museum</i> , 2nd ed. Lanham 2012, pp. 163-169 <i>Assignment:</i> see Assignments on Canvas
February 22	<b>Enhancing the Visitor Experience - New technologies</b> <i>Readings:</i> B. Joseph Pine II, James H. Gilmore: "The Experience Economy," in: G. Anderson ed., <i>Reinventing the Museum</i> , 2nd ed. Lanham 2012, pp. 163-169 D. Dorn et al., "First-Time And Repeat Visitors: What Makes A Satisfying Museum Experience?," Conference Paper, 2014, pp. 14-20 <b>G:</b> Bernard Schiele, "Participation and engagement in a world of increasing complexity", Chapter 3, in: P. Hetland et al., <i>A History of Participation in Museums and Archives</i> , 2020, New York, Routledge, pp. 46-72 <i>Assignment:</i> Develop ideas and concepts for final projects.
<b>Week 4</b> February 27	<b>Guest Speaker (TBD)</b> <b>Discussion of Final projects</b> <i>Readings:</i> Thiel, Tamiko. "Cyber-Animism and Augmented Dreams," in: <i>Leonardo Electronic Almanac (LEA)</i> , 2011; Thiel, Tamiko. "Where Stones Can Speak: Dramatic Encounters in Interactive 3D Virtual Reality," chapter in the book <i>Third Person: Authoring and Exploring Vast Narratives</i> , ed. Pat Harrigan & Noah Wadrup-Fruin, MIT Press, Cambridge, MA, USA. <i>Activity:</i> Reports from the interviews with museum curators and experts
March 1	<b>Museum Visit: Harvard Art Museums with Curator Lynette Roth</b> <b>ReFrame - New approaches to contextualizing museum objects</b> <i>Assignment:</i> Interview museum experts
<b>Week 5</b> March 6	<b>Museum Visit: Museum of Fine Arts with Photography Curator Kristen Gresh</b> <b>Final Project Selection &amp; Group Formation</b> <i>Reading:</i> Thomas, Nicholas. "Introduction", <i>The Return of Curiosity: What Museums Are Good for in the 21st Century</i> , London: Reaktion, 2016. 7-18 <i>Assignment:</i> first presentation of concepts for final projects
March 8	<b>Collecting &amp; Curating: For Whom by Whom?</b> <i>Readings:</i> Evans, Catherine. "The Impact of the Participatory, Visitor-Centered Model on Curatorial Practice." <i>Journal of Museum Education</i> 39, no. 2 (June 12, 2014): 152-61 <i>Assignment:</i> Presentation of combined project ideas

Week	Topics, Readings, Assignments
<b>Week 6</b> March 13	<p><b>Guest Speaker: Max Frischknecht, Designer and Digital Humanist, Basel, Switzerland</b></p> <p><b>Online Interfaces for Cultural Heritage Archives &amp; Museums</b></p> <p><i>Reading:</i> David C. Brock. A Museum's Experience with AI, CHM Blog, February 03, 2022</p> <p><i>Watch:</i> Toward Cognitive Search: Machine-Learning Technology on Digital Media on YouTube</p> <p><i>Assignment:</i> Explore the Curatorial A(I)Gents at Harvard Art Museums/MetaLab Harvard (<a href="https://metalabharvard.github.io/projects/curatorial-aigents/">https://metalabharvard.github.io/projects/curatorial-aigents/</a>)</p>
March 15	<p><b>Smart Heritage: AI and the Museum, Open Access, APIs</b></p> <p><i>Readings:</i> Lauren Styx, How are museums using Artificial Intelligence, and is AI the future of museums? Museum Next, March 28, 2019, <a href="https://www.museumnext.com/article/artificial-intelligence-and-the-future-of-museums/">https://www.museumnext.com/article/artificial-intelligence-and-the-future-of-museums/</a>; Ahmed Elgamma et al. <i>The Shape of Art History in the Eyes of the Machine</i>, conference paper, 32nd AAAI conference on Artificial Intelligence (New Orleans, 2018)</p> <p><i>Assignment:</i> Experiment with museum APIs</p>
<b>Week 7</b> March 20	<p><b>Designing Experiences: Approaches to Design Research and Design Thinking</b></p> <p><i>Readings:</i> Anna Baccaglini: Multi-Sensory Museum Experiences: Balancing Objects' Preservation And Visitors' Learning, Chapter 1: Museums' Use of Collections and Visitors' Learning Experiences, pp. 1-16 (incl. Introduction).</p> <p><b>G:</b> Chapter 3: Integrating Multi-Sensory Experiences into Museums, pp. 23-34</p> <p><i>Assignment:</i> Present results of API access/scraping; presentation and discussion of revised final project, detailed review of concepts, spaces, technologies, and designs</p>
March 22	<p><b>Guest Speaker: Dora Bauer, Educator - Maker Space, MIT Museum</b></p> <p><i>Reading:</i> Whitelaw, M. (2015). Generous Interfaces for Digital Cultural Collections. Digital Humanities Quarterly, 9(1).</p> <p><i>Assignment:</i> Presentation of updated/refined project concepts, results from further research, in-class critique, short write-up of project progress (Github)</p>
March 27 & 29	<b>Spring Break</b>
<b>Week 8</b> April 3	<p><b>Museums and Storytelling</b></p> <p><i>Readings:</i> Bruce Wyman, Scott Smith, Daniel Meyers, Michael Godfrey, Digital Storytelling in Museums: Observations and Best Practices, CURATOR, October 2011</p> <p><i>Assignment:</i> Revision of project concepts, designs and technologies; Project work and feedback session; presentation of remaining Wunderkammer projects</p>
April 5	<p><b>Storytelling and AR/VR - New Approaches to Exhibition Design and Visitor Experience</b></p> <p><i>Readings:</i> Rebecca Carlsson, 'Storyteching' – how museums can use technology to tell their stories, MuseumNext, March 09 2020; CHARLOTTE COATES, How Museums are using Augmented Reality, MuseumNext, July 17 2021; Ellen Lupton, Design is Storytelling, New York, Cooper-Hewitt, 2017, Overture and Act 1 -&gt;Storyboard, 6-39</p>
<b>Week 9</b> April 10	<p><b>Guest Speaker: David Nuñez, Director of Technology, MIT Museum</b></p> <p><i>Readings:</i> J. Bard, F. Torello, "Exhibition &amp; Pedagogy. Probing Architecture's Virtual Past", in: ASCA 2019 Proceedings, 227-232; F. Torello, "History to look at: mediating architectural history for the working classes in turn of the Twentieth century Pittsburgh", in: Proceedings: 3rd AhAU International Congress 2022, 13 pages; <b>Grad students:</b> F. Torello: "UNEXPECTED PEDAGOGIES: HENRY HORBOSTEL IN ITALY, 1893", <i>ITALIAN IMPRINTS ON TWENTIETH-CENTURY ARCHITECTURE</i>, Bloomsbury 2022, 253-267</p> <p><i>Assignment:</i> Questions for Francesca Torello</p>



Week	Topics, Readings, Assignments
April 12	<b>Rich Interfaces &amp; Accessibility</b> <i>Readings:</i> Stan Ruecker et al., <i>Visual Interface Design for Digital Cultural Heritage: A Guide to Rich-Prospect Browsing</i> (New York, Routledge, 2016), Introduction, 1-25 <i>Final Projects:</i> Presentation of updated/refined project concepts, results from further research, in-class critique, short write-up of project progress (Github)
<b>Week 10</b> April 17	<b>No class - Patriots' Day</b>
April 19	<b>Museum Visit: LIST - Current exhibitions with Curator Natalie Bell</b> <i>Readings:</i> See handout
	<b>Final Projects</b> Initial designs and mock-ups, technical approach, updates, critique
<b>Week 11</b> April 24	<b>Museum and Diversity</b> <i>Readings:</i> Sara Wajid and Rachael Minott, "Detoxing and decolonising museums", in: <i>Museum Activism</i> , eds. Robert R. Janes, Richard Sandell, London, New York, Routledge, 2019, 25-35 <i>Final Projects:</i> Results from audience research, technology updates, short write-up of project progress (Github)
April 26	<b>Museum and the Other: Multiculturalism</b> <i>Lit.</i> Kevin Coffee, Cultural inclusion, exclusion and the formative roles of museums, <i>Museum Management and Curatorship</i> , Volume 23, 2008 - Issue 3 <i>Assignment:</i> Review of design concepts and project deliverables
<b>Week 12</b> May 1	<b>Final Projects</b> Presentation of functional/design prototype
May 3	<b>Final Projects</b> <i>Assignment:</i> Discussion and revision of final projects, review with museum counterparts
<b>Week 13</b> May 8	<b>Final Projects</b> Enhanced functional prototype/designs, short write-up of project progress (Github)
May 10	<b>Final Project Presentations</b> Presentation of beta-version (dry run), draft of final paper
<b>Week 14</b> May 15	<b>Final Project Presentations</b> Public Presentations of completed projects (tentative), Design Papers due