

CMS.636/855 (Spring 2022):

Extending the Museum

Tuesday & Thursday, 3:30 - 5:00 PM, Room: 56-167

Instructor: Kurt Fendt, office hour Tuesdays 2:00 - 3:00 PM or by appointment, email: fendt@mit.edu



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. 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, 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 museums at MIT, 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 emerging forms of visitor engagement, often

spearheaded by digital media. The pandemic has only increased the urgency for change. Mobile apps 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 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, demonstrations of tools and techniques, hands-on project work time, virtual (and some in-person) visits to 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 participate in class discussions on readings, engage in technology explorations, attend (online) guest lectures, project presentations, and review sessions. This semester, the class will be conducted entirely online in a mix of synchronous class sessions and asynchronous online work. You are expected to complete assignments before class (post your reading comments, project updates, etc. typically by 10:00 AM on Tuesdays and Thursdays), and to contribute actively and thoughtfully in class discussions.

Occasionally, students annotate readings using the tool Annotation Studio and regularly contribute weekly reading comments, museum reviews, as well as project updates on the course's GitHub site. Graduate students are expected to complete additional reading assignments and lead 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 project will have to be completed along with a design document by the end of the term. Further details will be communicated in class.

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, 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. Unexcused absences result in a lower grade. There will be no final exam in the class.

Students will be annotating selected readings using the web-based tool *Annotation Studio* (Link on Stellar). In addition, students post weekly reading comments, and project updates on our Github site: [CMS636.github.io](https://github.com/CMS636). For each class, a student is responsible for leading the discussion on the assigned readings, graduate students will be assigned additional readings (see syllabus, assignments, and Stellar).

The Stellar site for the class is at:

<https://learning-modules.mit.edu/materials/index.html?uuid=/course/CMS/sp22/CMS.636>

Project work for this class includes working with digital objects, digital spaces, technologies such as Augmented and Virtual Reality interfacing with digital artifacts, metadata, and extracted data 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.

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 (Version 1 - February 1, 2022)

Week	Topics, Readings, Assignments
Week 1 February 1	Rethinking the Museum, Introduction <i>In-class Activity:</i> Memorable museum experiences
February 3	The Museum as Holistic Experience: Lascaux IV <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 G: At the Foot of the Hill, pp. 128-139
Week 2 February 8	History of Museums – Collecting & Curating: For Whom by Whom? <i>Readings:</i> “What is a Museum?”, in E. & A. Alexander, Museums in Motion, 2nd ed. 2008, pp. 1-19 G: Stephanie Bowry: “Before Museums: The Curiosity Cabinet as Metamorphe,” in: <i>Museological Review</i> 18 (2014), pp. 30-43 <i>Assignment:</i> Evaluate and present an online museum of your choice (more details in assignments)
February 10	Field Trip & Guest Speaker: Deborah Douglas, Director of Collections & Curator, Science & Technology, MIT-Museum <i>Readings:</i> “Enhanced Critical Curation”, in Digital_Humanities, pp. 32-34 <i>Assignment:</i> Curate an (online) exhibition with five personal objects that tell a story Formulate questions for museum curators and experts, start conducting interviews

Week	Topics, Readings, Assignments
Week 3 February 15	Enhancing the Visitor Experience - New technologies: AR/VR, 360 degrees Discussion of Final projects <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 <i>Assignment:</i> Develop ideas and concepts for final projects.
February 17	Guest Speaker: Tamiko Thiel, AR/VR Artist (TBD) <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
Week 4 February 22	Student Holiday
February 24	Final Project Selection & Group Formation The Museum as Space: Architectural, Social, Public, Physical/Digital <i>Lit:</i> Thomas, Nicholas. <i>The Return of Curiosity: What Museums Are Good for in the 21st Century</i> . London: Reaktion, 2016. <i>Assignment:</i> Digital curation via scraping and APIs ; first presentation of concepts for final projects.
Week 5 March 1	Collecting & Curating: For Whom by Whom? Open Access, APIs <i>Lit.</i> Salgado, M. (2009). Designing for an open museum: an exploration of content creation and sharing through interactive pieces. Helsinki: University of Art and Design Helsinki; 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; Lubar, Steven. <i>Inside the Lost Museum, Curating, Past and Present</i> . Cambridge, MA: Harvard University Press, 2017. <i>Assignment:</i> Present results of API access/scraping, explore virtual & augment technologies
March 3	The Museum as Experience: Spaces for Making & Learning <i>Readings:</i> TBD
Week 6 March 8	No Class - Student Holiday
March 10	The Museum as Space: Architectural, Social, Public, Physical/Digital <i>Readings:</i> TBD <i>Assignment:</i> Presentation and discussion of revised final project, detailed review of concepts, spaces, technologies, and designs
Week 7 March 15	Designing Experiences: Approaches of Design Research and Design Thinking <i>Readings:</i> Anna Baccaglini: <i>Multi-Sensory Museum Experiences: Balancing Objects' Preservation And Visitors' Learning</i> , Chapter 1: <i>Museums' Use of Collections and Visitors' Learning Experiences</i> , pp. 1-16 (incl. Introduction). G: Chapter 3: <i>Integrating Multi-Sensory Experiences into Museums</i> , pp. 23-34 <i>Assignment:</i> Project work and feedback session
March 17	Guest Speaker: Kristen Gresh, Museum of Fine Arts, Photography Curator <i>Reading:</i> Whitelaw, M. (2015). <i>Generous Interfaces for Digital Cultural Collections</i> . <i>Digital Humanities Quarterly</i> , 9(1). <i>Assignment:</i> Presentation of updated/refined project concepts, results from further research, in-class critique, short write-up of project progress (Github)
March 22 & 24	Spring Break

Week	Topics, Readings, Assignments
Week 8 March 29	Museums and Storytelling <i>Readings:</i> Bruce Wyman Scott Smith Daniel Meyers Michael Godfrey, Digital Storytelling in Museums: Observations and Best Practices, CURATOR, October 2011 <i>Assignment:</i> Revision of project concepts, designs and technologies, AR Exercise
March 31	Exhibitions Beyond the Physical Object <i>Readings:</i> TBA
Week 9 April 5	AR/VR - New Approaches to Exhibition Design and Visitor Experience <i>Readings:</i> TBA
April 7	Rich Interfaces & Accessibility <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) Getraut Koch, <i>Augmented Realities</i> , in: Digitization: Theories and Concepts for Empirical Cultural Research (New York, Routledge, 2016, 230-247) <i>Final Projects:</i> Initial designs and mock-ups, technical approach, updates, critique
Week 10 April 12	Final Projects Results from audience research, technology updates, short write-up of project progress (Github)
April 14	Smart Heritage: AI and the Museum <i>Readings:</i> Lauren Styx, How are museums using Artificial Intelligence, and is AI the future of museums? Museum Next, March 28, 2019, https://www.museumnext.com/article/artificial-intelligence-and-the-future-of-museums/ ; 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) <i>Assignment:</i> Explore Harvard's Metalab Museum AI Projects (https://metalabharvard.github.io/projects/curatorial-aigents/)
Week 11 April 19	Final Projects Presentation of functional/design prototype
April 21	Museum and the Other: Multiculturalism <i>Lit.</i> Kevin Coffee, Cultural inclusion, exclusion and the formative roles of museums, Museum Management and Curatorship, Volume 23, 2008 - Issue 3 <i>Assignment:</i> Review of design concepts and project deliverables
Week 12 April 26	Final Project - Presentation of updated versions Enhanced functional prototype/designs, short write-up of project progress (Github)
April 28	Final Project - Presentation of beta-versions <i>Assignment:</i> Discussion and revision of final projects, review with museum counterparts
Week 13 May 3	cont.
May 5	Final Project Presentations Public Presentations of completed projects (tentative)
Week 14 May10	Final Project Presentations Public Presentations of completed projects (tentative), Design Papers due