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The Imaginary Museum: Teaching Art History with Mobile Digital Technology

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Abstract

The advent of handheld digital devices has proved to be revolutionary for the teaching of art history. They make it possible to supplement, even replace, the traditional format of lecturing and communal viewing of a single screen. On their personal screens, students can enter a searchable world of thousands of virtual images: what the radical art theorist and novelist André Malraux, more than half a century ago, called "the imaginary museum." For several years, I have been experimenting with my art history classes, showing my students how to use their laptops, tablets and phones to become active viewers and collaborators.

Multiple virtual images transform the content, as well as the environment, of learning art history. Rather than being restricted to the illustrations in a textbook, students can use their devices to engage with online image sources such as museum websites, image databanks, and auction houses. Portable digital technology can turn the art history classroom into a collaborative and dynamic experience inconceivable a short time ago. Malraux himself, who believed in the power of art to transcend time and space, might be amazed at what is now not only possible, but commonplace.

Let me begin with a photograph taken in November 2014. A group of high school students in the Rijksmuseum in Amsterdam are looking at their phones instead of at Rembrandt's *Nightwatch* looming above them.



Figure 1. 27 November 2014, Rijksmuseum Amsterdam. (Photo: Gijsbert van der Wal.) Used with permission of the photographer.

"A metaphor of the times," was a common lament, as almost a thousand people copied and shared the image within a day. The photographer, Gijsbert van der Wal, later commented, "It went viral, with people often adding rather dispirited captions: today's youth is more interested in Whatsapp than they are in Rembrandt."

The public later learned that the students were using their phones to research an assignment on the painting [Molloy 2016]. It is generally assumed that the act of looking down at a phone instead of one's surroundings shows inattention, a surrender to distraction, a hopeless nullification of social and intellectual engagement. But in fact, using a smartphone tablet, or laptop can be a way of connecting privately, but actively, with the larger world of ideas and images.

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I would like to discuss some ways I make use of that private connection for teaching undergraduate art history, using personal digital devices in the classroom. My goal is twofold: to change the culture of the classroom space; and to expand the traditional materials of teaching art history from a limited group of images to the vast, ever-changing body of images on the Internet. Digital technology allows students to hold much of the known history of art in their hands: a contemporary version of what André Malraux once called the imaginary museum.

Malraux and the "imaginary museum"

André Malraux (1901-1976) used his French government position as Minister of Cultural Affairs to create an ambitious art-historical project, a multi-volume illustrated collection of world art: *La musée imaginaire* (translated, into English, as "museum without walls"). Malraux's original idea was to create a museum of scale color reproductions, to distribute for display throughout the French provinces. Since this proved unworkable, he ended up with the idea of a book

[Grasskamp 2016, 145]. The vision of photographically reproduced objects, removed from their chronological and cultural context and made available to the general public, has obvious parallels with today's world of digital images.

There are several well-known photographs of Malraux posing with his pictures, taken during a single session in 1953. In one image, he is on the floor, in rapt contemplation of a photograph of an artwork from among the many scattered around him.



Figure 2. Writer Andre Malraux poses in his house in Boulogne near Paris, working at his book *Le Musee Imaginaire* or *Imaginary Museum* 2nd volume, *Du bas relief aux Grottes Sacrees*, in 1953. (Photo: Maurice Jarnoux/Paris Match via Getty Images)

I have chosen this image because he enacts an experience common to today's users of digital technology: utter involvement, giving oneself over to a pictorial display, and to seemingly infinite choice.

Malraux's synchronic approach to the world's art was the force behind other, similar twentieth-century projects.^[1] Aby Warburg's Bilderatlas Mnemosyne (1927-29) assembled images, from disparate sources, displayed without captions on panels [Johnson 2012]. This taxonomy of universal culture expressed as a visual repository extended beyond art history; for example, the peace activist Paul Otlet created the Munduneum project of 1934, a world library system that anticipated the field of information science [Van Acker 2011]. The notion of linear order, as well as that of classification by time and place, could be undone by the leveling power of photographic reproduction on a large scale. As Stefka Hristova and others have pointed out, digital technology simply increases this capability, revealing the historiographic prescience of Warburg's cultural analytics [Hristova 2016].^[2]

The Wunderkammern or Cabinets of Curiosities amassed by European connoisseurs during the sixteenth and

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seventeenth centuries were the forerunners of museums. Along with objects and artworks of all kinds, they included reproductive prints, which functioned as collectible works of art in their own right [Impey and MacGregor 2001]. Their catalogues and archives were, in a sense, the first true virtual museums. In the eighteenth century a fashion developed for "paper museums" and "portable galleries," small-format bound books using printed reproductions of artworks [Bickendorf 2010]. These, like twentieth-century photographic reproductions, were surrogates for physical museum visits.

In adopting Malraux's phrase, I mean to evoke the virtual or latent "museum" that exists in cyberspace, based on both physical spaces and the "paper museums" or "portable galleries" of the past; the democratization of images; and the disruption of time and space which are the traditional organizing factors for the teaching of art history. I also want to call attention to the pun on "imaginary" – meaning images as opposed to actual physical objects. I can think of no better homage to the past than the borrowing of Malraux's concept for portable devices, with the enormous amount of pictorial data, and hence power, they contain.

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Museums and their digital identities: enabling the imaginary in the real.

Just as Malraux's book brought a virtual museum into being, today's museums use digital technology, after centuries of development as cultural edifices, to enhance the experience of their audiences. In describing museums' adoption of digital technology (some with hesitation, others wholeheartedly) Hubertus Kohle points out that standards of appropriateness for the consumption of art are constantly changing. Printed books were once perceived as a threat to manuscripts. In academic lectures, looking at slides of artworks was once considered "a betrayal of art... the digital file as the most universal medium ought to stand at the head of the value chain" [Kohle 2015, 317, 319]. At this point, digital technology not only controls documentation, archiving, sales, and auctions, but is a tool of cultural transformation, creating a ""change in the role of the museum curator, namely from the status of unassailable preceptor to the position of moderator, engaging with increasingly emancipated users" [Kohle 2015, 320].

Museum websites, like the Metropolitan Museum's Timeline of Art History, which includes thematic essays, are not only repositories but complex, interactive educational sites, often used by educators to supplement or replace traditional textbooks. Many museums have also opened their collections as searchable databases and created tours on mobile phones. The ongoing Smithsonian Learning Labs explore ways to help K-12 students gain access to previous inaccessible objects and engage with them in and out of the classroom [Milligan et al. 2017]. SF MOMA's app, Sendme SFMOMA, allows the public to make informal requests for types of images, using keywords, or even an emoji. MOMA then sends the user a text of an image from its vast collection. As the museum's creative technologist writes: "When you say 'Send me a landscape' you won't get 791 landscapes, you'll get a landscape chosen just for you. You may one day be able to visit your landscape in SFMOMA's galleries, or you may be the only person to see it for years to come" [Mollica 2017].^[3] While the decision of which image to send is still top-down and out of the users' control, users are still vouchsafed hidden treasures for private use.

Museums are also creating ways for museumgoers to become, in Kohle's words, "emancipated" from being passive receivers to curators themselves. On the Rijksmuseum website, users can open accounts to create their own personal galleries (*rijksstudios*) of works from the collection, using a multitude of search terms including colors, subjects, and general themes as well as chronology and medium. Images and whole *rikjsstudios* can be searched and shared among users, similar to the model of Pinterest and Flickr.^[4] The Unique Visitors platform at the Museu Nacional d'Art de Catalunya allows museumgoers not only to assemble their own groups of images but create and share tours [Basso et. al. 2017].

Combining the physical and the virtual: teaching art history

The trend of emancipating museum audiences is analogous to the changing experience of the classroom. Teachers of art history have always faced an existential challenge, as Stephen Murray puts it, "talking about what is not there — the absent work of art, represented by a surrogate image projected onto a screen" [Murray 2011]. Our currency has always been a limited version of Malraux's imaginary museum; it is inescapably based on the capability of the current image

technology, whether photography, slides, or computer-generated images [Nelson 2000].

The digital revolution within art history has progressed more quickly with research than with teaching. Less than a decade ago, many art historians were still ambivalent about the uses of digital technology even for their research, let alone for teaching [Zorich 2012]. A few years later, most art historians reported routinely using digital technology in some form [Fletcher 2015]. Yet teaching lagged behind research. Stephen Murray had already exhorted art history teachers to exploit the interactive nature of digital technology [Murray 2011]. Beth Harris and Steven Zucker, creators of the great online resource Smarthistory, have been sounding the call with greater urgency [Harris and Zucker 2015] [Harris and Zucker 2016]. They point out the lack of institutional support for, and information about, digital pedagogy, which the online resource AHTR (Art History Teaching Resources) and its journal *Art History Pedagogy & Practice* are beginning to address.

The transformation of classroom culture – as opposed to the transformation of image access – has generated more controversy. Some professors venture to predict that digital technology, and the seemingly universal availability of all knowledge, will dismantle, rather than enhance, higher education in the near future.

In this world of information abundance, why do we need to gather to centers of learning? Why do we need to listen, in person to an expert when all they have to say is freely available? Why do we need to buy a textbook of, organized, re-presented, and outdated information? Why do we need to organize learning around a single subject? Why is memorized knowledge still the key to the attainment in education when knowledge access is ubiquitous? Why do we sit and listen, by the hundreds or thousands, to what we need to learn so we can simply parrot the information back? [Martin 2017]

Along with this general anxiety about the changing culture of teaching and learning, there continues to be ambivalence in the educational community regarding students' use of personal technology in classrooms. Over the past several years, there has been a spate of articles and online forums concerning the use, or banning, of smartphones in classrooms, especially at the middle and high school levels [Barnwell 2016].

College instructors face a similar dilemma. A study from MIT, for example, shows that students, especially in large lecture halls, became distracted by their mobile devices and did less well academically [Strausheim 2016]. One teacher has cogently summarized the issue: "So, is the best learning environment one that's free from digital distractions for struggling learners — a refuge from the constant barrage of information? Or should schools adapt to the realities of a hyper-connected world in which the vast majority of students carry access to almost-infinite information in their pockets? Or is there a middle ground?" [Barnwell 2016] There is a growing consensus that if students are required to pay attention to a lecture, and they have their phones, then of course they will turn to their phones.

Much of the discussion about smartphones in the classroom is predicated on the pedagogical model of a lecture class. Many educators feel that the lecture format, where students listen to an instructor and take notes, images or no images, too easily turns them into passive receivers of information. "While superb lectures can be inspiring, research indicates that watching someone else model skills in lecture is not as effective as making students themselves practice those skills" [LaFollette 2017, 2]. Just as some educators are exploiting texting, since it has become an alternative form of written discourse [Karak and Watson 2017], many teachers of art history are experimenting with approaches to active learning [Gasper-Hulvat 2017].

What if smartphone use became a classroom activity in itself? For many educators especially K-12, the way forward is to exploit phone use, since "let's face it, resistance is futile" [Bentley 2017]. Art history has been generally underrepresented in this discourse about smartphone use. Given the dramatic changes in ideas about image access, smartphone use seems a logical extension of these changes. Art historians are encouraged: "Avoid PowerPoint in the classroom, use the web instead" [Harris and Zucker 2015]. The question would then be, how would students be getting access to these images? Communally, or privately? Both?

The imaginary museum in the classroom

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In February 2009, I began experimenting with students' access to images and how they might interact with them. I started allowing students to use their laptops in the classroom, employing their personal screens to supplement what was on the communal screen with comparisons, or extra material. For example, I would have them do targeted image searches of specific artworks as additional comparisons.

(At the time I was working in relative isolation; almost everyone at my institution banned digital devices in class, if they used digital technology at all; and among my few peers in teaching with digital technology, I was the only art historian. Most of my colleagues in art history outside my institution were extremely wary, if not hostile, about allowing students to use, or even bring, their devices in the classroom. Compounding this problem was the absence of a centralized forum for sharing digital teaching strategies, as I described earlier. I presented some of my practices for the first time in 2014. ^[5])

I began expanding the canon of classroom images more dramatically in the spring of 2010, after a visit to the Brera Gallery in Milan. While walking through a proliferation of largely Milanese artists, many unknown to me, whose work was of varying quality, I observed formulas, the constants and the variables: what patrons expected of artists; how the artists then solved problems of composition, form, dramatic and emotional interest, and introduced innovations to stand out from their competitors.

It occurred to me that this overview was a way to teach art history. While this kind of synoptic understanding can be gained cumulatively over time, by looking at objects, books, museum catalogues and so on, the *simultaneous* view of so many different objects is an important factor in understanding them in a new way. Like many other teachers of art history, I had long been frustrated with the teaching model in which students are invited to view a limited set of objects. Relying solely on this canon risks the possibility that students will think each object they see is a kind of limiting case, unique and inimitable.^[6] Instead, what if students could replicate my experience in Milan right in the classroom? Ideally, with this exposure to a great volume of artworks, students could get a sense of larger trends in art and a more nuanced understanding of artistic practice in a given place and time. What I conceived as a kind of aerial view has since been described as the concept of "distant reading," applied not only to research but to teaching [Drucker 2013] [Bender 2015].

In one of my earliest experiments, as part of a class on Baroque and Rococo art, I started by introducing a canonical image, Antoine Watteau's *Embarkation to Cythera*. I asked students to search for Watteau on Artstor.

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They became accustomed to Watteau's inventive subject matter, blending of fantasy and observation, his brushwork, choice of colors, and so on. I asked them some questions about their findings: what elements in common could they

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see? What conclusions could they come to? Their understanding of an artist's approach to his material was based on viewing the entire *oeuvre*. Since then, this full-*oeuvre* approach has become a standard part of my teaching, both in class and in online work.

In another exercise, I have students use simple image searches to find, say, thirty different seventeenth-century European landscape paintings.



Figure 4. A student using Google Image Search to survey seventeenth-century landscapes. (Photo: author)

(In this instance, from 2012, they are using Google Image Search; these days I have them use searchable museum databases, or the Smarthistory image collections on Flickr). After studying them for a while, usually around fifteen minutes, they are asked to consider questions such as: how do these landscapists integrate nature and human activity? How much of this landscape is imaginary, and how much based on observation? Could they observe any repeated formulas in composition? Choices of elements, such as trees, mountains, buildings, bodies of water? Could they find elements of classical fantasy? Naturalistic architecture? Staffage? And so on. In formulating answers, written or oral, they learn what being a professional landscape painter meant in early modern Europe: solving problems of form and composition, of depicting individuals, themes or stories, using available formulas that were deemed acceptable to buyers and colleagues alike, or trying out into something new.

I experimented with integrating old with new technologies, and communal learning with private discovery. In one early example of this integration, from 2012, I displayed Van Gogh's *Starry Night*, always a student favorite, after having made some spontaneous notes on a whiteboard about Impressionism and Post-Impressionism.



Figure 5. Students comparing Van Gogh's *Starry Night* with a sampling of eighteenth-century landscape paintings. (Photo: author)

Then I put the students in groups, to share laptops, and search for "eighteenth-century landscapes," so they could grasp the previous tradition of landscapes.

While I still provide a core group of objects every week, to create a very basic context of images for a given topic, period, or place, I emphasize repeatedly that this is a very small sampling. When supervising, or rather enabling these searches, I spend the time asking questions, helping them find images, moving all over the classroom.^[7] I tend to stand behind them rather than in front of them, viewing the same screens they do; I see them practicing, rather than absorbing, art history.^[8]

The groups then report on their findings, learning on their own what I could have shown them communally (and sometimes still do). They would report briefly in an oral presentation, though this was logistically difficult in a large class. With the adoption of visual commentary tool Voicethread in 2011, I was able to solve this problem while adding a further digital component. ^[9] Students instead added their chosen images, with commentary, to a Voicethread, which we could share online, and if I choose, on the communal screen. Voicethread searches could also be quite simple. For example, I begin by asking groups of students to choose one example each of works created in all the materials and media used in the Renaissance, include full data on the objects, and describe the use of the material.

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Figure 6. Screenshot of a Voicethread page, showing a crowsourced spontaneous "exhibit" of different materials used during the Renaissance. (Photo: author)

Having essentially crowdsourced a curated exhibit in a half hour, the students are creating course content on their own. (They are analogous to museumgoers using Catalunya's Unique Visitors platform.) Harald Klinke has observed, "Art historians used to be in the position of image recipients. With data visualizations, we have become producers of images ourselves" [Klinke 2016, 32]. Substituting the word "students" for "art historians," we can see how exploring the imaginary museum, individually, in groups, or communally, can be a powerful mode of active learning.

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Results and reflection

The outcomes of my ongoing experiments are difficult to isolate and quantify. This is because I have been combining the use of personal digital devices and broad image searches with other practices. These include having students post weekly Voicethreads to comment on readings and videos; creating "open-book" exams using problem-solving and analysis to test research skills rather than memorization; having students choose a few objects from auction websites to illustrate thematic questions.

On the whole, my classroom has become a more varied and lively environment in the nine years since I first began enhancing my teaching with interactive digital technology. My students are more relaxed; their interest has increased; their analytical skills have improved. (While there are always times when their attention will wander, they usually are too busy using their devices for classroom work to text or check news for very long.) In particular, their grasp of style is especially good; when doing "unknown" identifications on quizzes, their performance is very high. Their visual memories are apparently stimulated after several weeks of developing their digitally created banks of images. Their grades have gone up, on average from a B- average to B/B+. I look forward to refining and expanding these practices, especially in the expansive and collaborative state of art history pedagogy today.

Recently I had the rare privilege of teaching a class entirely at the Metropolitan Museum. We met once a week for three hours. We would begin by reviewing the day's assignment, downloaded from the course website on their smartphones. They would then explore the different areas of the museum, while answering a series of thematic questions and choosing objects they encountered as examples. (For the unit on the Baroque, for example: How was art affected by global trade and new scientific knowledge about time and space? How did "passions" theory, the Counter-Reformation, and the new study of classical archaeology affect the production of art? What methods and devices did artists use to express political power and reinforce religious faith?)

They consulted the museum's Timeline of Art History, the collection database. Later in the day, they gathered in a central space and worked on an in-class Voicethread discussion, based on the objects they had already encountered.



Figure 7. Students working on an assignment in the Metropolitan Museum's American Wing. (Photo: author)

(They resemble the high school students at the Rijksmuseum; they were amused by the photograph and its reception.) Near the end of the class, I turned them loose in the museum's public Nolen Library, where they could do research for their final projects.

Figure 8. Students working on their research projects in the Metropolitan Museum's Nolen Library. (Photo: author)

(Figure 8) They used books and periodicals as well as online sources. They loved this final unit of the course and were quite comfortable moving between traditional and newer technologies. In this photograph, they can be seen using smartphones, books, and a notepad.

I offer this example of my students in the museum to suggest that the private encounter with a huge proliferation of images, enabled by digital technology, need not dilute the experience of encountering objects, nor does it entirely replace earlier technologies. Rather, it encourages a form of simultaneous cognition, expanding the parochial definition of attention just as it enlarges the traditional use of a classroom.^[10] Smartphones (and tablets, and so on) can be, in Pamela Fletcher's phrase, "machines for thinking with, rather than replacements for thinking" [Fletcher 2015].

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What constitutes distraction as opposed to associative or divided thinking? How would we characterize a habit of mind enabled by personal digital devices? Surely the question of distraction involves the question, distraction from what? And in favor of what? As I began with the image of children under the *Nightwatch*, studying their screens, I will end with the image of Malraux lying on his carpet (Figure 2). Malraux, peering at the reproduced objects of world art arrayed on his living room floor, is also distracted – from his grand piano, from the drink on a tray, from the vase of tulips, objects appealing to senses other than sight – but even from the much larger reproduction propped in front of the window; and from the window itself. It is this raptness of attention to a multiplicity of images, and the contemplation of a chosen image from that crowd, that I continue to engage and guide in my students. As I refine and adjust my teaching, I continue to offer the possibility of focusing this hunger, this potential for enchantment, on art, encouraging work and play in the imaginary museum.

Notes

[1] In the early 20th century there was a general European fascination with "world art" which led to the publications of several world art series along with Malraux's [Grasskamp 2016, 88–120].

[2] Although Walter Benjamin's famous essay *The Work of Art in an Age of Mechanical Reproduction* mourns the loss of the object's "aura" or original context and meaning, these projects were enabled by photographic reproduction. See [Grasskamp 2016, 149–50], on the link between Warburg and Malraux; and [Grasskamp 2016, 42–45] on their connection with Benjamin. Writing in the 1980s, before the explosion of digital imagery with which we now live, Werner Hofmann proposed that the late 20th-century ubiquity of images was far greater than anything Benjamin might have imagined [Hofmann 1988].

[3] New job titles such as "Creative Technologist" reflect the transformation of museums through their adoption of digital platforms for audience outreach and engagement as well as archival and curatorial practices. https://www.museumsandtheweb.com/jobs-available-and-wanted/

[4] Wim Pijbes, the Rijksmuseum's forward-thinking director, describes some of these strategies in an engaging TedX talk [Pijbes 2016].

[5] "The Imaginary Museum: A Digital Approach to the Art History Classroom." Collaborating Digitally: Engaging Students in Faculty Research, Bucknell University, November 14 2014.

[6] This model has developed entirely out of the limits of visual technology before the digital revolution. It has also depended on an outdated copyright model which has done a great deal to strangle expansion of the canon in print and hence, in teaching. Revisions to this system of image "ownership" are ongoing. Museums and libraries participating in ArtStOR's IAP program (Images for Academic Publishing) enable scholars to publish their images for free. Accessed July 26 2017. In 2015, The College Art Association published its *Code of Best Practices* to help art professionals deal with the changing rules governing fair use of images Accessed July 26 2017. Meanwhile the use of OERs in teaching has become increasingly common. As Harris and Zucker put it, "For the first time in history we can reach beyond the walls of the university, and the limited distribution of academic publishers, and we can do so at virtually no additional cost" [Harris and Zucker 2015].

[7] This particular semester I was lucky enough to be assigned a classroom with movable chairs; this would be difficult in a more traditional lecture hall, where the seats are bolted to the floor, imprisoning the students and isolating them from one another. The issue of classroom design, beyond the scope of this essay, has become more urgent due to advances in digital pedagogy.

[8] I have described a similar solution, when the classroom digital projector malfunctioned before a test, in "When the projector fails," a post on the Art History Teaching Resources website [Hollander 2018].

[9] The Voicethread app permits commentary in several formats – text, audio and video – on a variety of media. Participants can also upload their own media, which gives students the chance to curate actively as well as responding with commentary to an assigned image. "Voicethread: Communicate, Collaborate, Connect." Accessed July 27 2017. The implications for pedagogy are broad. See, for example, Janice Robertson's conference talks (preserved in the Voicethread format) on Voicethread and teaching. https://www.pratt.edu/faculty_and_staff/bio/? id=jrober10 Accessed May 17, 2018.

[10] Multiple screens, for example, do not necessary impair attentiveness. See [Segijn et al. 2017]

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