

Maddy Newquist

Reflection on Educational Usability of Digital Sites for MetKids and the Exploratorium During COVID-19

Introduction

A museum cannot rely on its physical collection alone to entice visitors and encourage learning. Whether visitors access an institution's website to plan a visit or plan a lesson plan, it has become increasingly important that cultural institutions offer a digital experience (almost) on-par with the experience of visiting the collection and exhibits in person. For educators, this has become a priceless resource, and for the born-digital generation, a valuable terminal for a creative education process. Below, I reflect on first the MetKids platform launched by the Metropolitan Museum of Art, and then on the Exploratorium's online resources, and evaluate their user-friendliness and educational mettle.

MetKids

The Met itself is so highly curated, its collection is so extensive and far-reaching, and its permanent galleries change their contents and the arrangements of them therein so infrequently that it can easily appear to visitors not to have much of a curatorial approach at all. The MetKids platform leans into this, allowing the entire collection to be at the hands of the young visitor and so giving them tools to curate their own experience and the pieces they discover in a way that may be different than how the physical space approaches those same works. By creating a cleverly disguised advanced search of the catalog and supplementing it with videos about themes and behind-the-scenes museum tasks (asking big picture questions similar to those curators might ask themselves when curating an exhibit or gallery or even a programming event), this website allows the curatorial approach of the Met to be malleable to the interests of the visitor.

Similarly, the education role of the MetKids website is so well ingrained to the point of being almost hidden from a young visitor. Whether a visitor clicks on a work through the red dots on the landing page map (which itself offers serendipitous learning and searching) or from the time machine results, the record that comes up displays the same information. This adapted version of the main catalog layout offers similar amounts of information as the main catalog record for a work, but switches out terms that may require definition (and therefore distraction from the discovery and curiosity at hand), such as "Medium" and names of places that no longer exist (Mesopotamia, Babylon), with more familiar questions that frame the record information as answers to questions that students may find themselves already asking (or are framed in a way that a student may be familiar with a *teacher* asking), such as "What is it made of?", and adding modern place names, as well as continents, for better context (Asia: Iraq). There is also a small link entitled, avoiding condescension or any tip-off that this links to the "adult" website, "Even more information", which links directly to the full item record in the main catalog, encouraging even more serendipitous learning.

The rest of the item record, and therefore its educational value, relies on a balance of museum-provided factual information and creative/imaginative input from the young visitor, the latter

through the questions and prompts relayed in the Discover, Imagine, and Create sections of the item record. Even the prompts of these three sections, particularly of the Discover and Imagine sections, ask questions and encourage thought processes that rely on and can only be answered by the visitor's thorough examination of the record and its supplemental material. The site emphasizes reading comprehension and the application of it simultaneously, while allowing visitors to get more out of every record the more they understand how to use the platform's features; it surprised me how similar this kind of scaffolding thinking fit in with the ideology behind *Pathways to the Common Core*.

Beyond reading comprehension and pure analytical educational skills, the MetKids platform also offers a way of supplementing emotional and social development. The videos and the blog posts are told from and written by other kids and their world views; this can create an avenue for empathy and learning to see parts of this museum and the views into culture it offers from a new and/or different perspective.

As mentioned above, the MetKids website has a lot of content translated from the main collection catalog. Since the Met's main catalog is such an exemplary example of a thorough yet easily digestible information resource, it makes sense that the information would be easily adapted to a less-intensive form. The multiple ways visitors can navigate from the MetKids web pages to corresponding pages on the main website are easy to navigate and not unnecessarily hidden. The only thing that I could see as being translated poorly is the museum map; while the interactive version of the iconic 2007 map is fun for initial exploration, the lack of a legend (addressed more below) threw me for a loop, as well as my feeling that the gallery exploration feature in the main website's interactive gallery map feature is more serendipitous and conducive to discovery of unique and/or related items; nor is it a living map, where the art is constantly updated--some things the website visitors find on it and wish to see in person would not be available when they arrive. But perhaps young visitors will not find this to be the case, or find that the regular gallery map is the more overwhelming of the two, and either way parents and/or educators can more or less easily cross-reference the items with the traditional visitor's map for an actual visit.

In terms of accessibility and usability, I was struck first by the overwhelming nature of the interactive map that also serves as the MetKids website's landing page. The lack of a legend or key makes the visitor spend more time figuring out what the difference is between the red dots and the yellow dots than is necessary, all the while looking for them in a quasi-Where's Waldo drawing. Other accessibility features I noticed included English-language captions on all the supplementary videos; there is also an ability to refine results on almost every page, which helps tremendously with the initial overwhelming feeling. From a UX standpoint, however, the time machine page's color palette is frustrating.

Something I was surprised that I didn't notice until late in my exploration of the website was the lack of a search bar. Yet the use it would provide by existing on the MetKids platform felt almost negligible, as well as somewhat contradictory to the exploratory nature of the website. I also felt that one can take the risk of assuming that students and young visitors who are using the Met's

catalog to do their own research will be directed or easily be able to find their way to (if they don't automatically *begin* with) the main catalog's search page.

The rest of my personal experience with the site mainly hinged on my being impressed by how seamless it was (or at least appeared to be). While content appeared to be missing (or perhaps just in the middle of being updated for a new approach), the underlying concept was straightforward and versatile. It felt like a great way for young visitors to feel like they'd visited the museum, while also making them even more excited to go and see what they'd learned and discovered in person.

It is of course difficult not to consider how a platform such as MetKids can be useful, particularly for students, teachers, and parents, in a time like the current shutdowns of cultural (and other) institutions due to the COVID-19 pandemic. (NB: It is unclear when parts of the MetKids platform were updated and whether material was updated in response to said current events. For example, has the family event programming link always been hidden in a sidebar only accessible by clicking in at least one page into the platform? Do they assume young visitors are not interested in or have a say in whether they attend the family events the museum has available?) For teachers, the Discover and Imagine subsections of each item record offer visitors prompts towards a single goal, while allowing the visitor (or student, in this case) some level of agency in pursuing next steps. The myriad blog posts, written *by* young people, also offer great templates for writing activities; the videos can either be assigned with a written response, or a directive to record their own version using members of their family and/or objects around their home. (And while scavenger hunts are notorious in museum visit programming, the Where's Waldo aspect of the interactive map may allow for a more leisurely, less physically exhausting spin on the activity.) The different types of supplementary materials and the myriad options offered by the item record prompts also allow for young people to approach projects from many different angles, using whichever learning method is best suited for them. I think it is also useful in allowing a play aspect to come into the learning (Vgotsky; Bohn), particularly at a time when young students will be surrounded by stress that they may not fully understand.

Parents can make more use of the Create sections of the item records than teachers, I believe, which seem to be craft-based, adapting them to social distancing guidelines if needed. The map also allows for activities such as putting their kids in charge of planning an in-person trip, whether that ranges just from the young visitor identifying pieces they'd like to see to asking the young person to be their tour guide (this tour could even take place at home!).

Overall, I think the MetKids platform is an incredibly useful resource, bound to keep young would-be visitors engaged and exploring with an agency all their own.

The Exploratorium

The Exploratorium's website prioritizes exploration of its exhibits by its web visitors; so much so that the visitors are led to explore exhibits individually before the website even reveals that they are grouped thematically in galleries. But it is necessarily hard to curate scientific experiments in

hands-on institutions when they are inherently meant to be interacted with and are not usually lined up in a certain way. The Exploratorium's website leans into this by placing a big "random" button next to the "see all" option; this randomizer allows some serendipity to enter the experience of the web visitor in the way an exhibit from the corner of the far room might catch their eye in a physical space. Accessing the exhibits through the "see all" or direct search allows more agency upon the secondary webpage, where the offered filter options helps sort the stand-alone exhibits into further categories, by subcategories within the types of subjects (often aligning with familiar school subjects, to help orient younger student visitors) as well as by location, which offers educators and parents a way to help orient their young visitor to the imagined space, and helps educators foster thought processes about how these exhibits relate to one another.

The educational role of the exhibit is part and parcel with every exhibit itself; as the Exploratorium's mission is fundamentally to educate: it is not a museum, but a "[public learning laboratory](#)" and its mission is to "create inquiry-based experiences". The bulk of the institution is made up of hands-on, science-based exhibits; the few pieces of artwork installed still relate to the institution's mission of learning in intentional ways. Even if the Exploratorium's website only consisted of its exhibits' item records, the sheer amount of digestible information on each, as well as photos that demonstrate how it would be used in the physical space by visitors, more than accurately conveys the education role of the institution and the exhibits it contains. Supplementary material strikes a similar balance between thorough explanations of scientific phenomenon and learning as a fun, creative, and experimental process. Digital Teaching Boxes offer full lesson unit resources for different learning levels and grades, and an Educator Newsletter keeps teachers informed without cluttering the website.

The educational role is also inextricably linked to the exhibits' translation into online content. As mentioned, each exhibit explanation online gives a simple but thorough explanation of how it works, as well as some real world (or occasionally pop culture, like a Star Wars FX fun fact for the [Anti-Gravity Mirror](#)) context. All that is truly missing is doing the experiment itself, but some can be partially replicated. A truly impressive archive of blogs, videos, articles, audio Q&As, at-home/in-classroom crafts and other supplementary materials all serve to bolster the online content; here I think the Exploratorium's website particularly has a leg up on the MetKids platform in engaging its web visitors to replicate what the institution is trying to teach and show in its physical space.

However, the nesting of these exhibit web pages is difficult to navigate. The galleries are numbered on the visitor map along with the exhibits inside them; but there is no way to know that there are galleries at all unless you click on a specific subpage of the "Visit" tab along the main menu. Similarly, the helpful "online resources" link in the header (placed there as a result of the museum closing during the pandemic; more on that below) takes the visitor to the Learning Toolbox page, but there is no indication once on that page that it is actually one of *seven* subpages of the category "Tools for Teaching and Learning". This category can only be accessed by clicking through the "Education" tab along the main menu at the top of each webpage. The intermittent navigation clarity only serves to leave visitors to the website

wondering if there is more content hidden somewhere they've overlooked, and I can only imagine this would frustrate educators looking for learning resources and help even more frustrated.

In addition, the navigation of the physical space itself takes some adjustment. Getting used to the idea that the term "exhibit" is used for individual/stand-alone works/experiences that other science museums may call "stations" instead, but multiple exhibits exist inside a gallery (inverse of what one may find at a traditional art museum), and that "Artworks on Display" are considered an entirely separate category, is a lot to wrap a visitor's head around, and using the site itself as some sort of scavenger hunt tool in students' assigned tasks should be done with this in mind.

[In terms of UX accessibility, the website shines with contrasting color scales and clean html text for screen-reading and translation extensions.]

My experience started positively as I was hooked by the immediacy of the online resources and the amount of information provided for each exhibit. But, as outlined just above, as I realized that that immediacy didn't actually provide the whole picture of or toolbox to the resources offered by the Exploratorium, and as I realized that there was more in the museum than just the exhibits, I became increasingly confused and frustrated by the dissemination of information, and truly forgot about the exciting nature of the content itself.

That being said, the Exploratorium has very obviously mobilized its content for use during the COVID-19 pandemic. Right when you arrive on the main page of the Exploratorium's website, the familiar red bar in the header is immediately present; unlike other websites, however, rather than linking to more information about the institution's closing, it immediately offers a link to "our online resources for learning from home". It is nice to see an active acknowledgement of resources offered for this current event in particular, whereas the MetKids website seemed to carry on before, with no indication if anything had been brought to the fore in light of a need for online learning and/or exploration. Even the home page itself of the website has fully reoriented itself to focus on digitally exploring the Exploratorium and continuing learning from it from the comfort of the visitor's own home.

This COVID-19-specific Learning Toolbox provides a combination of various articles, videos, and activities. Sorted into helpful resources of "activity collections", the activities are craft-based and can be done with general school- and household supplies, making them good activities for parents and teachers both to share with students. In addition, parents and teachers can read the mature-facing articles and break them down for young students, or use them to provide information about the activities the students engage in as they engage.

Even without a direct comparison to the colorful and eye-catching MetKids platform, the Exploratorium's website is hardly inviting. However, overall, and particularly given the current state of the world, the Exploratorium's website translates its hands-on exhibit content astoundingly well into digital content, and there is no shortage of supplementary material to support at-home experiments.

Conclusion

It feels unfair to compare these sites as even beginning on the same playing field, as the MetKids platform is so specifically designed for young visitors, where the Exploratorium's website is the institution's main landing page for all visitors. However, examining these two websites and perusing their education options is a fascinating and eye-opening way of learning what these institutions think of themselves and think they bring to the table in terms of educational resources; it was surprising to see the difference between the two illuminated so clearly but from such a different angle than the one expected (i.e. the traditional art museum vs. the hands-on science laboratory). Both work within the constraints of their goals and missions of the larger institution, yet I would not have expected the Exploratorium's experiment-driven exhibits to translate into digital content and experience more seamlessly than the Met's; nor would I have expected the MetKids platform to shuck off so much of its unchanging curatorial approach to allow young visitors so much agency in navigating the online catalog. I think both could learn from the other, and I hope that this uncertain time of digital museum content creates a larger platform on which cultural institutions can more freely share and collaborate on giving their visitors digital insights and learning opportunities from their exhibits.