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Cover: Data consists of valuable information that enhances people’s lives and it has so many stories to tell. Media Artist Refik Anadol utilized energy usage datasets from various buildings and explored new data universes in the shape of data sculptures. ©Refik Anadol

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With Great Technology Comes Great Responsibility

2001: A Space Odyssey hit theaters in the summer of 1968, and it almost immediately became cultural shorthand for how we imagine the future.

From the unforgottably dramatic opening, with its timpani drum sequence signaling the arrival of the future, to the wagon wheel-shaped Space Station V waltzing on screen to the strains of Strauss’ “Blue Danube,” we understand the grandeur of what a technology-enabled society can achieve. But when the computer HAL 9000 goes rogue and threatens the crew’s lives, it fuels our worst fears (unrealistic as they sometimes are) about technology—in this case artificial intelligence, or AI—and the risks it poses if we’re not careful.

One key to the film’s enduring relevance is how it immerses the audience in its fictional futurescape. Thanks to 2001-esque technologies like virtual and augmented reality, museums are starting to explore the potential of truly immersive storytelling.

- The Denver Museum of Nature and Science recently opened a virtual reality (VR) arcade that can transport visitors around the world or to another planet.
- The Anne Frank House museum in Amsterdam created a VR tour of the Secret Annex, the cramped space where Anne wrote her famous diary while hiding from the Nazis.
- TeamLab Borderless at Tokyo’s Mori Building Digital Art Museum unveiled a digital museum of unprecedented scope and scale, showcasing a new generation of immersive, interactive digital art.

We know that new tech is not without risk or challenge. Fifty years after HAL refused to open the pod bay doors, many people still find futuristic AI a little creepy—but virtual assistants like Siri and Alexa are now commonplace and will only become more sophisticated with time. How do we balance privacy with productivity? How do we safely handle all of the data our devices are constantly collecting? How can museums help people embrace these changes holistically?

To navigate these challenges—and amazing opportunities—our members must be prepared. The Alliance is here to help. We explore some of these issues in the following pages and at AAM events around the country.

In September, we convened 75 thought leaders at the Detroit Institute of Arts for “Immersion in Museums: AR, VR, or Just Plain R?” Are museums still relevant physical forums when digital-native visitors experience digital-born art?

At the Pérez Art Museum Miami in November, we studied how new data analytics and predictive modeling can improve our organizations’ bottom lines—because even augmented museums need to keep the doors open and the lights on.

2001: A Space Odyssey still feels ahead of its time, even 18 years after the story takes place. But contrary to filmmaker Stanley Kubrick’s vision, the future didn’t arrive all at once. As another sci-fi soothsayer—author William Gibson—observed, the future is here, but it isn’t evenly distributed.

In the new year, let’s resolve to embrace change wisely, explore new technologies fully, and find creative ways to better serve our missions and our bottom lines at the same time. Together we can help our industry—and our visitors—step into the future, and ensure that we arrive there with our eyes open.

Laura L. Lott is the Alliance’s president and CEO. Follow Laura on Twitter at @LottLaura.
Technology and the Museum

>90% Accuracy rate of plant identification by digital neural networks at the National Herbarium of the National Museum of Natural History.

>240 Number of iBeacons at the Cleveland Museum of Art, which assist visitors with wayfinding when using the museum’s ArtLens app.

Among museum-goers under age 40, viewing original objects is 6.3 times more popular than using phones to access content.

By the Numbers was compiled by Susie Wilkening, principal of Wilkening Consulting, wilkeningconsulting.com. Reach Susie at Susie@wilkeningconsulting.com.

Sources: Smithsonian Institution; Wilkening Consulting’s 2017 Annual Survey of Museum-Goers; Cleveland Museum of Art
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**FIRST LOOK**

**Gadsden Arts Center & Museum**
“Norman Rockwell in the 1960s,” an exhibition organized by the Norman Rockwell Museum in Stockbridge, Massachusetts, focuses on illustrations he created for magazines during that turbulent decade. In 1963, the artist ended his almost five-decade-long association with The Saturday Evening Post and began to search for new artistic challenges. Rockwell threw himself into the visual documentation of social issues and current events like school integration, the moon landing, and the murder of civil rights workers.

**Dates:** Jan. 11–May 18  
**Location:** Quincy, FL  
**Learn more:** gadsdenarts.org/exhibitions/Rockwell-in-the-1960s

**The Mint Museum**
“African-Print Fashion Now! A Story of Taste, Globalization, and Style” introduces visitors to a dynamic and diverse dress tradition and the increasingly interconnected fashion worlds that it inhabits: “popular” garments created by local seamstresses and tailors across the continent; international runway fashions designed by Africa’s newest generation of couturiers; and boundary-breaking, transnational, and youth styles favored in Africa’s urban centers. All feature the colorful, boldly designed, manufactured cotton textiles that have come to be known as “African-print cloth.”

**Dates:** through Apr. 28  
**Location:** Charlotte, NC  
**Learn more:** mintmuseum.org/exhibitions

**World War II Home Front Museum**
The World War II Home Front Museum, which opened in December 2018, brings to life coastal Georgia’s contributions during World War II and recounts how this quiet region was transformed when the United States went to war. The Home Front Museum tells the story of an important chapter in Georgia’s history when residents of small communities worked together and sacrificed for the greater good.

**Location:** St. Simons Island, GA  
**Partner:** Gallagher & Associates  
**Learn more:** coastalgeorgiahistory.org/visit/world-war-ii-museum

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**What’s New at Your Museum?**
Do you have a new temporary or permanent exhibition, education program, partnership/initiative, or building/wing? Tell us at bit.ly/MuseumNewsAAM, and it might be featured in an upcoming issue.
Harvard Museum of Natural History

“The Rockefeller Beetles” exhibition features hundreds of beetle specimens from the collection of banker and philanthropist David Rockefeller. Over the span of 90 years, Rockefeller collected beetles from around the world, eventually building a personal collection of more than 150,000 specimens. The exhibition recounts the story of a man whose childhood pursuit grew into a lifelong passion.

**Location:** Cambridge, MA

**Learn more:** hmnh.harvard.edu/rockefeller-beetles

Henry Street Settlement

Marking the Henry Street Settlement’s 125th anniversary, “The House on Henry Street” explores themes of social activism, urban poverty, and public health. This permanent interactive exhibition examines waves of immigration and the challenges newcomers faced amid rapid industrialization and urban overcrowding. It also illustrates the settlement house movement and the trailblazing role of Henry Street founder Lillian Wald, who also created the Visiting Nurse Service of New York.

**Location:** New York, NY

**Learn more:** thehouseonhenrystreet.org

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National Museum of American History

“Within These Walls” centers on a two-and-a-half-story Georgian-style house from Ipswich, Massachusetts, immersing visitors in five different time periods. The museum has brought new life to this established exhibition through theatrical projections featuring animated shadows, video, text, and soundscapes to showcase the lives of five families who lived in the house over the course of 200 years. The projections depict some of the daily activities that would have occupied residents, such as taking tea or sewing to raise funds for anti-slavery causes.

**Location:** Washington, DC

**Learn more:** americanhistory.si.edu/exhibitions/within-these-walls

Halsey Institute of Contemporary Art

“Southbound: Photographs of and about the New South” comprises 56 photographers’ visions of the South over the first decades of the 21st century. The photographs echo stories told about the South as a bastion of tradition, as a region remade through Americanization and globalization, and as a land full of surprising realities. The photographs are complemented by a commissioned video, an interactive digital mapping environment, an extensive stand-alone website, and a comprehensive exhibition catalogue.

**Dates:** through March 2

**Location:** Charleston, SC

**Learn more:** halsey.cofc.edu/exhibitions

The Niagara Falls Underground Railroad Heritage Center

The permanent exhibition “One More River to Cross” features the rich stories of the Underground Railroad in Niagara Falls, the crucial role played by its location and geography, and the actions of its residents—particularly its African American residents. The exhibition engages visitors through digital media, graphics, scenic built environments, and facilitated dialogic programming.

**Location:** Niagara Falls, NY

**Partners:** Studio Tectonic, Richard Lewis Media Group, Universal Services Associates, Inc.

**Learn more:** niagarafallsundergroundrailroad.org/exhibitions/exhibit-design
Henry Art Gallery

"Between Bodies" delves into intimate exchanges and entwined relations between human and natural bodies within contexts of ongoing ecological change. Sculpture, augmented reality, video, and sound-based works blur the false divide between nature and culture and question what it means to be human in a time of global climate change and environmental transformation.

Dates: through Apr. 28
Location: Seattle, WA
Learn more: henryart.org/exhibitions/between-bodies

Greenwich Historical Society

“History Is...,” the inaugural exhibition at the Greenwich Historical Society’s newly reimagined campus, encourages visitors to reflect on the role history plays at different stages in their lives and explores the ways individuals look at, define, and interpret history. The exhibition embodies the Historical Society’s mission to strengthen the community’s connection to the past, to each other, and to the future.

Dates: through Sept. 7
Location: Greenwich, CT
Learn more: greenwichhistory.org/current

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FREE MEMBER BENEFIT FOR TIER 2 AND TIER 3 MUSEUM MEMBERS
Are We Giving Up Too Much?

It’s time to think about the ethics of museum technology tools.

By Koven J. Smith

The nature of the technology that runs museums is changing. This isn’t a surprise—the only thing constant about technology in any context is its constant evolution.

At museums, technologists once built solutions largely from scratch; now they implement and manage commercial technology. This technology supports a range of museum functions: WordPress to run the website, Medium to run the blog, Amazon to host images, and so on.

Museums can do more, and faster, with this technology, but there’s a trade-off. Museums are now in a highly leveraged position: much of their own programming and daily operations is at the mercy of these software companies.

In recent years, the problem at the core of this arrangement has been thrown into higher relief as commercial software companies have come under increased public
scrutiny. It has become clear that the stated values of these companies (connecting people, sharing ideas) often have little to do with the actual values embodied in their products (monetizing user data, invading privacy, enabling harassment, and so on).

This means that the values and principles inherent in the technology itself are more sharply diverging from the values of the museums using it. It is therefore time for a reckoning: we must now address not just the practical considerations of the technology we use, but also its moral and ethical implications. If we don’t, we risk compromising the values of the museums we serve.

**Museum Tech Evolution**

Much early museum technology, from collections management systems to early museum websites, was created directly from specific museum needs. That technology therefore embodied the values of the museums that created it: accessibility and persistence of content, transparency of methods, cooperation among institutions, respect for and support of visitor needs, and a deliberate (if not always liberal) approach to rights management. These values were, for the most part, in line with museums’ missions.

In the mid-2000s, bespoke museum technology began to give way to commercial technology, and with that change came an ethical murkiness. We were not always conscious of this murkiness, or we chose to ignore it, believing in the promise of the internet as articulated by its early (mostly libertarian) founders. The promise went something like this: because the internet is the venue for a new type of consciousness, everyone participating in it (which at that time was still a relatively small sliver of the population) would embody that consciousness. It was a short leap from “information wants to be free” to our own work.

Fast forward to the present day. If the idea of a “new consciousness”
NEW TOOL CHECKLIST

1. Find out who owns any content you're putting on a platform and have a thorough understanding of the platform provider's licensing model.
2. Know what the company providing the platform does with its user data.
3. Know what the platform does to regulate/mitigate harassment.
4. Make sure you have the ability to retain/download your content should the platform cease to exist.
5. Settle on your standards for accessibility and apply them across all the technology you use.

didn't seem laughable before, the behavior of major tech companies over the past several years—lax data privacy, tolerance of harassment, and more—has definitively put the idea to rest.

The problem is that most of the tech in use at museums is now built by someone else. We no longer articulate our principles through technology; instead, we inherit them via terms of service. As a result, museum technology now offers a fragile patchwork of often conflicting principles. We accept some user tracking on our website, but not on our mobile app. Our blog is accessible, but not our online collections. We perform intrusive tracking of some museum visitors, but not others.

At What Cost?

For many years I argued that the increased performance outweighed the downsides of these outside principles. I'm no longer confident that's the case. The work we do is in the public trust, but how much of that trust is compromised by the tools we're using? And how much of that compromise have we avoided addressing because the tools work so well?

There's no better illustration of the complex bargain museums make with commercial technology than the Google Art Project. One of the holy grails of early museum technology was the idea that the internet would digitally unite the museum collections of the world; from a single interface, you'd be able to search for and retrieve information about any object from any collection. The Open Archives Initiative; the Art Museum Image Consortium; Linked Open Data for Libraries, Archives and Museums—all of these projects tried to make this notion a reality.

And then the Google Art Project came along, making the same promise: the world's collections in one convenient search box! It fulfilled that promise in a way that made it easy for museums to participate (those that were lucky enough to be invited, that is). And it looked gorgeous.

It also killed off most of the aggregate collections efforts almost overnight. It was suddenly difficult to justify spending time on collections aggregation once Google "solved" that problem. So, outside of a handful of promising linked open data projects, museum technologists are not working on collections aggregation anymore.

Pragmatically, this is not a big deal. While many of the museum-based aggregate collections projects remained in either notional or beta stages for years, the Google Art Project actually exists. It works as advertised, it is backed by Google's marketing power, and it's relatively painless to use. It has allowed us to move on to other things.

But from a values standpoint, the Google Art Project is a stunning giveaway of authority, expertise, and raw content to an organization whose end game for museum content remains an open question. Does anyone think that Google would think twice about killing off the Art Project if it threatened the company's bottom line or public perception? If it did, the limited infrastructure for aggregated museum collections that does exist would literally disappear overnight. We also don't know what user tracking or targeting is being done, and the ownership of material submitted to the project remains murky at best. Will Google assert its right to run ads alongside the works of art?

How much control over our collective content infrastructure did we voluntarily give up in return for little more than the promise of increased website traffic?

To its credit, the Google Art Project team has worked with the
partner museums in a sincere and generous manner. But its values are not museum values—and neither are Facebook’s or Twitter’s. Recall that Google quietly removed “don’t be evil” from its code of conduct in 2018.

**What’s Next?**
I don’t mean to imply that we should go back to building everything ourselves. I don’t think that is desirable or even remotely realistic. I do, however, think we should return to those first principles from the early days of museum tech and apply them to all the tech we use, not just the tech we make ourselves. I don’t ever want to apologize to a museum visitor for being targeted by annoying ads simply because I like the way our email list software formats captions.

As a museum technologist, I’ve always incorporated the principles and values of my museum employers into my work. I have thought of myself as a builder and creative first and an ethicist second. These days are coming to a close.

Today, I’m building less, and that makes understanding the implications of the tech I’m using that much more critical. All of us in museum technology need to widen our scope beyond just caring about the practicality and utility of the tech we use and address head-on the ethical dimensions of these tools.

**Koven J. Smith** is a digital strategy consultant (kovenjsmith.com) for museums and nonprofits who has held leadership positions at the Metropolitan Museum of Art, the Denver Art Museum, the Blanton Museum of Art, and elsewhere. He offers special thanks to Greg Albers, Douglas Hegley, Andrea Montiel de Shuman, Jennifer Foley, and nikhil trivedi for their help in focusing some of the ideas in this column.
Drawing the Outlines

The next step is to enlarge and transfer the outlines of the design to the wall, using Rivera’s sketches as reference.
Handheld and Expansive

Mobile platforms help museums foster better visitor experiences.

By Deborah Howes

The opportunities to expand museum experiences through mobile devices have never been so plentiful and, at the same time, so confusing. The answers to “How much does a mobile solution cost?” or “Which system works best?” vary wildly depending on museum size and, especially, the desired experience.

In the augmented reality view of Diego Rivera’s Detroit Industry at Detroit Institute of the Arts, a handheld screen shows preliminary outlines of the mural before fresco color was applied.
Great news: people still want content! More good news: for more than 50 years, museums have been transmitting “just in time” recorded messages—a.k.a. mobile content—to convey information that would not fit on a wall panel or object label.

Listening as your eyes wander gallery installations remains a compelling storytelling experience, but the Culture Track report shows that today’s visitors seek personal meaning as well as expert knowledge. Let’s take a look at some museums that are using mobile technology to allow visitors to get all that they want from a cultural experience.

Deepening Connections to Content

Visiting the new contemporary wing at The Corning Museum of Glass in New York with your mobile device is a seamless experience. At the outset, the museum’s GlassApp automatically loads on your smartphone when it connects to the museum’s free WiFi network.

In designing GlassApp, Chief Digital Officer Scott Sayre sought a unified solution that would work on all mobile devices regardless of country, display size, or manufacturer. “GlassApp does not require our visitors to install or update anything, and the museum can easily expand the experience by linking to other responsive resources on our website,” he says.

Equally important, the clean user interface harmonizes with the gallery experience and provides many perspectives—from those of exhibition designers, educators, and glass artists to those of curators—via images, text, and videos. Best of all, GlassApp can also be used before or after a visit, allowing visitors to construct personal meaning beyond the first glance.

Innovation in mobile can also be lower tech, as the Carnegie Museum of Art in Pittsburgh, Pennsylvania, has demonstrated through its exhibition of photographs by Charles “Teenie” Harris, who photographed Pittsburgh’s African American community from about 1935 to 1975. His archive of nearly 80,000 images is one of the most detailed visual records of

In the exhibition “René Magritte: The Fifth Season” at the San Francisco Museum of Modern Art, visitors’ images appeared inside an interactive display of a composition inspired by the painter.
the black urban experience, yet it lacks important descriptive information.

To tackle this cataloging challenge, the Carnegie Museum requests help from the community. Exhibition visitors can dial a prominently posted phone number and leave a message describing what they know about the people, places, and things in the images—genius! These crowdsourced stories become important archival records as well as interpretive materials for future exhibitions.

Making Navigation Easier
Seventy-five percent of the respondents to the Culture Track 2017 study said they came to our institutions to de-stress. That’s wonderful, but could stress be a reason why others avoid museums? Do first-time visitors want to avoid looking ignorant in front of companions? Do people with physical needs fear we can’t accommodate them?

The path to reconciliation with these reluctant visitors starts with wayfinding. Getting lost is stressful, especially when looking for a bathroom, a lost child, that favorite object, or a place to rest and get some food. As our public increasingly relies on smartphones to answer navigational queries outside the museum, it makes sense to adapt these wayfinding functions inside the museum.

The Explorer app, created by the American Museum of Natural History (AMNH) in New York City, achieves “blue dot” accuracy on its interior map thanks to sensors distributed throughout the 25 interconnected buildings and support from Bloomberg Philanthropies. The app also helps the museum improve its services. “The Explorer app increases our internal understanding of how location, along with other aspects of visitor context, contributes to useful, meaningful, and even elegant museum experiences,” explains Matthew Tarr, AMNH’s director of digital architecture.

Welcoming visitors with low vision is one of the most difficult challenges to museum wayfinding. The Andy Warhol Museum in Pittsburgh partnered with nearby Carnegie Mellon University’s Cognitive Assistance Lab to pilot NavCog, an app that operates via Bluetooth beacons in the galleries. Visitors using NavCog hear navigation instructions as well as interpretive content, including descriptions of the artwork.
Desi Gonzalez, former manager of digital engagement at the Warhol, worked with visitors who are visually impaired to test NavCog. Testers said the mobile tool helped them comfortably navigate the museum, which made their experience more independent and enjoyable.

Boosting the Fun Factor

Wasn’t it gratifying to read that 81 percent of the Culture Track respondents go to museums to have fun? Th San Francisco Museum of Modern Art (SFMOMA) knows that having fun is a great way to learn something new. Its 2018 René Magritte retrospective ended with a Surrealist playground in which visitors saw their images sliced, transported, and rearranged in Magritte-like settings in real time. Visitors gleefully captured these visual puzzles on their phones and decoded them with friends and others in the galleries.

“Trying to design experiences to induce selfie is really hard and usually feels unfulfilling to the visitor,” says Chad Coerver, SFMOMA’s chief content officer. “But designing experiences that are so fun and captivating that visitors want to take selfie is a much

WHERE THE COMPASS POINTS

Indoor location-based apps can support navigation inside the museum, enrich the visitor experience, and allow visitors to research where to spend their time. While many museums have launched beta test projects, they rarely report their findings. Similarly, the development processes for successful mobile apps are not widely shared.

“After countless conversations over more than five years with colleagues about what does or doesn’t work for indoor location mobile apps, it became clear that we should get together to learn from each other, consolidate information, and identify future potential uses,” says Claire Pillsbury, program director at San Francisco’s Exploratorium.

In September 2018, the Exploratorium hosted the Conference on Mobile Position Awareness Systems and Solutions (COMPASS) to help museum professionals learn from and support each other’s work and candidly exchange results and methods. The cross-disciplinary, two-day event drew representatives from museums, universities, visitor research consultancies, and app agencies to share practices, articulate goals, and critically examine the role of mobile apps.

Conference topics and perspectives will be further disseminated via an Association for Science and Technology Centers webinar in March 2019 and a free e-publication in late spring 2019. For more information, visit exploratorium.edu/visit/calendar/compass.

At the “René Magritte: The Fifth Season” exhibition at the San Francisco Museum of Modern Art, visitors looking at one display could not see themselves appearing in the other, unless someone else recorded it.

Deborah Howes
better place to be.” Surely Magritte, the trickster, would have agreed.

The Minneapolis Institute of Art (Mia) recently released “Riddle Mia This,” a free mobile app that turns the museum into a mystery. With smartphone in hand, visitors move through the galleries looking for clues—such as matching patterns or missing story elements—hidden in the artworks, often solving these puzzles with the help of augmented reality (AR).

“Visitors love discovering new objects and learning while they play,” says Mia Chief Digital Officer Douglas Hegley.

**Transporting Visitors**

Sixty-seven percent of Culture Track respondents say they want to “feel transported.” The Detroit Institute of Arts is helping visitors do that with museum-provided tablets. Visitors to the institution’s *Detroit Industry* fresco cycle by Mexican artist Diego Rivera can borrow two types of free mobile interpretive solutions: an iPad-based, bilingual multimedia tour describing how this famous mural was commissioned and created, or the Lumin AR tour that analyzes visitor location and delivers customized AR content on screens controlled by Google’s Tango system.

Visitors lift the AR device like a hand glass to inspect the under-drawing Rivera applied to the wall before he added the colored fresco medium. Then, moving the device in any direction, they can see the entirety of the mural’s mid-process composition, just as Rivera would have seen it in 1933.

Similarly, the Vizcaya Museum & Gardens in Miami, Florida, wanted visitors to experience what the historic estate looked like before 2017’s Hurricane Irma and other recent severe storms took their toll. With support from the John S. and James L. Knight Foundation, the Virtual Vizcaya tour offers high-resolution images, documentary videos, and 3-D renderings of the campus in a mobile-friendly website to build public awareness about climate change. Whether at the museum or not, you can explore a highly responsive and exploratory visual environment—including spaces that are no longer accessible due to conservation concerns—and easily imagine an immediate future in crisis.

Immersive experiences improve as more senses are engaged. Th David Bowie retrospective, which was organized by the UK’s Victoria and Albert Museum in 2013 and concluded at the Brooklyn Museum in 2018, prioritized sound (surprise!) as the major driver of this immersive experience. Upon entering, visitors donned oversized, retro-styled headphones and small digital audio players that coordinated the music and commentary with their location. Looking at Bowie’s costumes for the Ziggy Stardust tour triggered corresponding songs from the album and relevant words of wisdom. Magically, simply moving and looking induced synesthesia: talk about feeling transported!

**Thinking Big**

Many museums make good use of clever tweets and viral video posts. That’s great, but these posts flare and die. Consider using social media to drive visitor attention to online content, including educational offerings with longer shelf lives.

The National Gallery of Art in Washington, DC, recently launched a set of Pinterest boards that link users to an extensive online American history teacher resource, Uncovering America. The Exploratorium, Museum of Modern Art, and Smithsonian Institution use social media platforms to drive enrollment and engagement in their free online courses hosted by the Coursera and edX massive open online courses (MOOC) platforms.

Harnessing the power of popular mobile platforms—where people already congregate—as well as collaborating with like-minded institutions to create content of mutual interest can further help museums achieve their educational goals. Museums that see themselves as omnipresent, lifelong sources of educational experiences—regardless of where “visitors” are located—are well on their way to success.

**Deborah Howes**, president of Howes Studio Inc., consults on digital learning initiatives, serves on the board of Museum Computer Network (MCN), and teaches in the museum studies master’s program at Johns Hopkins University. Follow her on Twitter @debhowes.
EXPLORING A NEUROSPECULATIVE FUTURE

Ashley Baccus-Clark discusses the storytelling promise of VR, her work, and what museums can do better.

Interview by Elizabeth Merritt

In September 2018, I had the pleasure of moderating “Immersion in Museums: AR, VR, or Just Plain R?,” a small convening hosted by the Detroit Institute of Arts with support from the Knight Foundation. Ashley Baccus-Clark was there to help us explore museum applications of augmented and virtual reality. Ashley is director of research at Hyphen-Labs, an international team of women of color who create meaningful and engaging ways to explore emotional, human-centered, and speculative design.

I fell in love with Ashley’s work last year at South by Southwest (SXSW) when I toured NeuroSpeculative AfroFeminism, an award-winning, three-part digital narrative that she created with her colleagues. In this interview, Ashley shares a bit about her work and its potential implications for museums.
Hyphen-Labs’ Techno Africanum-Culturist comes from the future and keeps all in balance.
“More than anything, I’m interested in the ways different fields could be greatly improved by understanding all facets of the mind, brain, and contemplative practices.”

Ashley, can you start by introducing yourself to our readers? How do you characterize yourself and your work?

I’m a Brooklyn-based scientist, writer, and multidisciplinary artist. As a black queer woman navigating spaces that typically overlook people who share this identity, my goal is to bring visibility and representation to the forefront of important conversations that are taking place at the institutional level.

Currently, I’m a member of Hyphen-Labs. We are a multicultural team of women working at the intersection of technology, art, science, and the future. We hold ourselves to a high degree of integrity and rigor in all the work we produce, whether it is a commercial or self-directed project. My two partners, Carmen Aguilar y Wedge and Ece Tankal, co-founded Hyphen-Labs in the spirit of collaboration and the cross-pollination of not only ideas, but the execution of these ideas.

When I joined the team two years ago, we were right on the verge of a tipping point in both global and US politics. We felt like we were living in the nucleus of change that was ready to explode all around us, so we created something to empower ourselves and anyone who needed to be reminded of their power. Yet, we see now that the old vestiges of power—racism, sexism, and xenophobia—continue to persist. This is why so much work remains to be done.

You earned your master’s degree in cell and developmental biology and spent several years doing brand marketing for eyeglass retailer Warby Parker before transforming yourself into a technologist/storyteller. How
does your background, and other aspects of your identity and experience, influence your work?

I've always been a storyteller; it's deeply embedded in my family and cultural history. When I was a kid, I wanted to be a neurosurgeon, so my fascination with the brain has persisted from a very young age. More than anything, I'm interested in the ways different fields could be greatly improved by understanding all facets of the mind, brain, and contemplative practices. Storytelling through art, technology, and science has been a way for us to explore the themes that resonate with us.

My fascination with the story of how things are created led me to Warby Parker. When I first learned of the company in 2010, I was intrigued by its brand story. I wanted to understand the mechanics of entrepreneurship and learn how to build a company that was boldly disrupting an entire industry and doing it with flair. After I finished grad school, I applied to be a retail advisor at Warby Parker and then worked my way up to being a store leader and then to an associate manager on the retail brand marketing team. I saw this as another facet of my education because my goal is, and has always been, to disrupt science and bridge the gap between art, science, technology, and futurism.

WHAT IS NEUROSPECULATIVE AFROFEMINISM?

Hyphen-Labs’ NeuroSpeculative AfroFeminism is a transmedia exploration told through speculative product design, emerging technologies, cognitive research, and transhumanism. It presents a multilayered possible future that transcends the constraints of the present, a realm that The New Yorker called “another plane of consciousness.”

The virtual-reality experience is the first chapter of a science-fiction story, placing you in a “neurocosmetology lab” where black women are the pioneers of brain optimization. Here, instead of ordinary braids, customers are fitted with transcranial electrodes that allow access to a surreal digital temple that blends the physical with the digital.

Get a taste at hyphen-labs.com/nsaf.html.
That is why I left Warby Parker to join Hyphen-Labs. Carmen and Ece challenge my thinking in many ways, and we are trying to set an example for how high-performing, diverse teams operate. We don’t always get it right, but we’re using our practice as a classroom. My background has been an asset because it’s allowed me to see the interconnectedness of things.

When I viewed the installation *NeuroSpeculative AfroFeminism (NSAF)* at SXSW in 2017, I was bowled over by the way you combined physical “future objects,” such as the hyperface anti-surveillance scarf, with virtual reality to create an immersive narrative. [See sidebar on page 25 for more information on NSAF.]* What are the particular strengths of VR as a storytelling medium?*

VR as a storytelling medium isn’t limited to the physics of space and time as in reality. We wanted to give our audience a sense of temporality in the opening scene in the neurocosmetology lab and then challenge that in the second scene in a 3-D, hallucinatory dreamscape. Finally, in the third scene, we returned them to their own body. We told a somewhat linear story in NSAF, but the possibilities to break with that form are endless. For this particular project, VR was appealing because we wanted to play with the physicality of being embodied (or having the audience be embodied) in the avatar of a young black woman.

*How do you want the world to be different because of the work you do?*

It’s a tall order! We want to get people to pause and consider how they engage with others around them. We are exploring stories that highlight people expressing their humanity through technology.

Before Hyphen-Labs, we were all working in fields such as architecture, engineering, and game design, where there were very few women and even fewer women of color. We don’t want other women who look like us or identify as we do to feel alone or that their voice and contributions don’t matter. We do this work because we are imagining our present so our futures have a clean slate, and to empower ourselves and others with the knowledge that we can do anything and be anything.
What has your experience with museums been like? What do you think our sector does well, or what could we do better?

For all of us in Hyphen-Labs, museums have been our second homes. From going on elementary school field trips to museums to walking through the storied halls of museums throughout the world, our experiences with museums have been an ongoing conversation. Museums create magic in that creators are made to believe that their works could be featured among the canon.

However, one thing that museums could do better is widening the lens of this canon. There are a lot of curators and artists of color who are creating art in general and using emerging technology to make critical work. But until these discussions matriculate to the institutional level in a way that really drives action, creating change on inclusion or incorporation will remain elusive.

Also, museums tend to be unnecessarily cautious around embracing new technology. How are museums engaging with young people and collaborating on installations and exhibitions with the incredibly brilliant independent curators and artists who don’t fit into the traditional structure of the museum? The first step would be to invite more diverse groups of people to convenings and partner with organizations that are working in these spaces. Another way to do this is to partner with schools to help demystify the inner workings of the museum world, because it seems inaccessible.

If you were going to create a museum, who would it be for, and what would it be like?

One museum I’d love to create looks to The Racial Imaginary Institute (TRII) as a rubric. (TRII is an interdisciplinary cultural laboratory that uses exhibitions, readings, dialogues, lectures, performances, and screenings to engage around the subject of race.) My museum would tell the story of futurism and speculation through the lens of black, brown, and indigenous people of color and women. A major focus of the museum’s exhibitions would aim to demystify the processes of the body, nature and environment, evolution, technology, and death. Every room would be an immersive experience that bridges the physical and digital. Thematically, most of the museum’s permanent collections would center on mysticism and spiritualism and how both have been subverted throughout history at the hand of imperialism and colonialism.

What’s next for you and your colleagues at Hyphen-Labs? How can our readers continue to follow your work?

We are going to continue making critically engaged work around human-centered design. This year, we’re working on some new projects and collaborating with awesome artists, researchers, designers, scientists, and writers. One of our main goals is to continue making our work accessible to anyone who is interested in engaging with it. Hyphen-Labs is currently in residence at Somerset House in London and at Massachusetts Institute of Technology (MIT), where we are the Ida Ely Rubin Artists in Residence at the MIT Center for Art, Science & Technology.

We’re always looking for partners and support to continue our work and hope to have more of these conversations in the future. Readers can follow our work at hyphen-labs.com; Twitter: @hyphen labs; and Instagram: @hyphenlabs.

Elizabeth Merritt is AAM’s vice president of strategic foresight and founding director of the Center for the Future of Museums.
By Susan Chun

The Museum of Contemporary Art Chicago has taken purposeful steps to improve accessibility—and has improved the visitor experience for everyone.

A WINNING APPROACH TO DIGITAL MEDIA ACCESSIBILITY
Accessibility in museums is a game of small ball. The term—borrowed from baseball—refers to the strategy of scoring runs by advancing around the diamond one base at a time, using base hits, sacrifice flies, bunts, and stolen bases. In small ball, a team does not wait for a home-run hitter to save the day; everyone on the team contributes.

Accessibility at museums is small ball—a patient, methodical game in which most gains are made without fanfare and major funding. It’s our strategy for improving accessibility at the Museum of Contemporary Art Chicago (MCA), and it is working.

An Intentional Commitment to Accessibility

Every month, the MCA’s volunteer accessibility task force meets to examine the museum’s accessibility efforts. The task force formed in 2015—the year of the 25th anniversary of the Americans with Disabilities Act—for a one-time audit of accessibility work around the building requested by the Chicago Community Trust. Colleagues from many departments, including visitor services, facilities, marketing, exhibitions, performance programs, design, and digital, shared what they were doing with respect to accessibility: each independently, usually with...
minimal funding, and almost always with little ado. Encouraged by the range and ambition of each other’s efforts, we decided to continue to meet. We have gathered every month since, adding members from our public programs, development, HR, security, store, and prep teams.

This unchartered group was never officially sanctioned by museum management, and task force participation is not listed on any MCA job description. But team members are proud of our reputation as one of the most productive and effective working groups at the museum. In three years, we have:

- developed a rolling three-year plan;
- written and published an accessibility values statement on our website (mcachicago.org/visit/accessibility/values-statement);
- developed guidelines for exhibition planning, touch tours, and visual description;
- created regular, recurring schedules for accessible programs in our theater and galleries;
- incorporated accessibility training into our new staff onboarding; and
- offered lunchtime workshops on accessibility for staff.

Some of our wins are small. When a wish list prepared during an early group exercise revealed that the visitor services and security staff working in exhibitions wanted to offer stools to visitors with mobility impairments seeking to rest, the learning team offered the keys to the docent closet, which has folding stools for gallery tours. Other wins are bigger: our performance team, led by former Curator of Performance Yolanda Cesta Cursach, rolled out a pioneering relaxed-performance program for our theater performances, which is being emulated by cultural organizations in Chicago and around the country. Relaxed performances are for people, with or without disabilities, who prefer some flexibility related to noise and movement in the theater. Stage lighting is less intense and theater lights are kept at a glow to facilitate patron movement. Volunteers, many of whom are members of the disabled community, are present to assist, and American Sign Language interpretation and audio description are provided.

**A Truly Accessible Website**

Another major win is our website (mcachicago.org), which is managed by Director of Digital Media Anna Chiaretta Lavatelli, along with members of the design, publishing, and new media departments. It launched in 2015, along with the museum’s new identity. The site showcases the museum’s exhibitions, programs, archives, and stories; its playful identity telegraphs the museum’s goal of extending a radical welcome to all. The digital team expressed this radical welcome by building a site that purposefully adheres to the best practices in accessible—or inclusive—design.

To build an accessible site from ground up, we worked with Sina Bahram, one of the field’s top accessibility consultants. Something he once said stuck with us throughout the process: “I believe that there’s this commonly held myth that if something is accessible, it has to be ugly, it has to look like it’s from 1990, it has to be boring, it can’t be pretty or creative. We don’t want to perpetuate this myth, because it’s wrong and it ends up hurting everybody, from designers and developers to users.” By building accessibility into the site from...
the start, we avoided the inconvenient (and sometimes costly) retrofitting that discourages other museums from fixing accessibility problems on their sites.

The commitment to web accessibility also forced us to confront areas of our production practice that we might have otherwise overlooked. Our decision to caption and provide transcripts for all videos on the site made it easy to start captioning both online and in-gallery video. This was a good decision since many visitors use these videos instead of introductory panels for our exhibitions; they now draw crowds, sometimes forcing visitors to stand outside of speaker range.

Our efforts to create a site that adheres to best practices in accessible design—and that is also generous and experimental in its accommodations for visitors with vision, hearing, or cognitive impairment—led us to create Coyote, which is both an open-source software and a project to encourage the use of visual description in museum practice. Visual description of images and objects allows visitors who are blind or have low vision to “see” museum works. Without description, museum websites, with their heavy reliance on images to tell their stories, can be impenetrable to visitors who navigate websites through software programs that read text aloud.

More on Coyote

When Bahram first raised the possibility of describing the site’s images (numbering 10,000 then, 19,000 now), the task seemed daunting, even impossible. We puzzled over how we would write, edit, and vet the descriptions in addition to how we could automate the process of pulling images needing description from our web content management system and pushing descriptions approved for publication to the website.

We also wanted to be able to store more than one description for any image to ensure that a multiplicity of voices could be collected and reflected. We studied existing software tools, and none were suitable for the task. So we decided—with about six months to site launch—to build our own, a process led by a team of developers supervised by Bahram.

That software, named Coyote after the protagonist of a Hopi Indian tale who wanted to see further than his own eyes would allow, has just gone through its second round of development. It does everything that we had originally hoped, and it is now a cloud-hosted tool, available to any museum that wants to incorporate image description into its practice with a relatively low bar to entry.

Coyote descriptions are written by staff from many departments at the MCA, all of whom volunteer their time as authors. At monthly description sprints, called “Donuts for Descriptions” (a local company that admires our work donates the donuts), curators, educators, publishing staff, retail workers, security guards, visitor service staff, interns, and colleagues from Chicago-area museums rub elbows, learn from each other, and write descriptions. Together, we have learned how to create effective and interesting descriptions, and we’ve discovered some poets hidden among us. One of our earliest descriptions, of the Kerry James Marshall painting Untitled (Painter) (2009) is still a favorite. Here is its beginning:

This portrait depicts a young woman with jet-black skin holding a long, thin paintbrush up to a colorful, messy painter’s palette. She is shown in a three-quarter pose, gazing directly at the viewer.

Her face, which is central to the square composition, stands out against a large, white canvas to her right and almost blends into the pitch-black background to her left. Closer inspection reveals, however, that her skin is subtly rendered, with various shades of contours and highlights.

A more recent brief description written by Chief Curator Michael Darling uses colorful language to describe *Tan Tan Bo Puking* (2002) from the MCA’s recent Takashi Murakami retrospective.

A fantastical landscape features a giant, multi-colored homunculus sitting on top of a hill, its open mouth revealing jagged teeth and seeping fluids, while pustules explode from other parts of its ovoid head.

As we began to share our descriptions with museum colleagues, patrons, and—most importantly—members of the disability community, we were continually asked why these descriptions were only available to people with screen readers. Our fans pointed out that the descriptions could be of interest to anyone who sometimes feels uneasy or confused in a museum. Heeding their advice, we developed a feature that allows any visitor to our website to “turn on” image descriptions. A simple toggle, underneath the site’s main left- and navigation, allows visitors to see the descriptions that have been written for website images.

The descriptions have found a life beyond the web as well. A technology innovation grant from the John S. and James L. Knight Foundation in 2017 supported the Coyote project and our idea to use visual descriptions to create fun activities for sighted and unsighted visitors alike. Last summer, we held our first Coyote scavenger hunt. Using a mobile phone interface to the Coyote database, visitors participated in a game of visual hide-and-seek featuring descriptions of works at five Chicago-area cultural organizations.

Like many of the best projects, Coyote has taken us down unexpected paths while proving the hypothesis of inclusive design: building something to be accessible to one person—in this case, someone who is blind—will most likely benefit everyone. And in creating a tool like Coyote, enhancing our website with a unique accessibility feature, and reaching out to new communities, we’ve seen a project that began its life in the museum’s technology space cross into new disciplines—education, community outreach, visitor services, disability advocacy, and more.

Throughout it all, we have used a small ball approach—patient, disciplined, and determined—to round the bases and record a win for our digital team, accessibility task force, and the MCA and its visitors. We won’t say no if a home-run hitter—a major funder—asks to join the team, but we’ll persist even if that doesn’t happen.

And we’re excited, most of all, to join colleagues from other cultural organizations in offering a radical welcome, online and on-site, to visitors with disabilities, sending the message that museums genuinely are for everyone.

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*Susan Chun* is the chief content officer at the Museum of Contemporary Art Chicago.
Accessibility doesn’t need to be difficult or expensive. Sina Bahram, president of Prime Access Consulting, provides some simple tips for museums that are starting to think about web accessibility.

**Experiment with a screen reader.** Screen-reader software is built into most operating systems. On Windows 10, type “narrator” into the search field on the taskbar or install NVDA, a free and open-source offering from NVAccess. On Mac and iOS, launch VoiceOver by pressing Command+F5 or asking Siri. On Android, the screen reader is called TalkBack.

**Check color contrast.** The “Color Contrast Analyzer for Chrome” extension is a great way to check contrast on a web page.

**Make sure web pages validate.** Validation means that a web page’s code is devoid of errors that diminish accessibility, performance, and responsiveness. The W3C has a fantastic validator (validator.w3.org/nu/). You provide a URL, or upload or paste in the code of a web page.

**Focus states and keyboard accessibility.** Perform this simple test: open a web page in your browser and use it with the tab, arrow, space, and enter keys on your keyboard. Can you perform every function on the page without using your mouse? Do you always know where your focus—the rectangular outline color that moves between elements on the page as you tab—is?

**Zoom to 200 percent.** For checking the responsive nature of a web page, zoom in to 200 percent. Are all elements, text, and other functionality still completely usable without horizontal scrolling?

**Use the WAVE accessibility checker.** This extension for Firefox and Chrome reports accessibility errors and warnings. Automated tools like WAVE can only identify at most 25 percent of accessibility violations, but it’s still a useful first step in checking for accessibility problems.

**Caption your videos.** Make sure your videos have captions and that your video players can display them. Captions make video accessible to a wider audience, understandable in loud environments, searchable in the future, and discoverable by search engines.

**Describe your images.** Provide descriptions for artworks, design objects, and other non-decorative images. WordPress and Drupal have fields for “alt text,” the text read out by a screen reader in lieu of an image.
BUILDING A FRAMEWORK

The museum sector needs to rethink digital skills—from the ground up.

By Carolyn Royston and Ross Parry
The museum—finally—is digital.

Today’s museums have collections shared through connected databases, exhibitions powered by media interactivity, partnerships sustained through online channels, research driven by information technology, and the daily activity of museum employees supported by the collaborative tools of the modern workplace.

And yet, even though museum practice and identity are shaped by digital technology, museum staff often don’t have the skill sets to match an institution’s ambitions or its audience’s expectations. Plainly put: much of the museum sector still lacks the skills it needs for the digital transformation it wants.

Consider the UK’s experience. The British government’s recent Culture is Digital report called out digital skills as “a key area of weakness for many cultural organizations.” This conclusion (and provocation) was based on studies that reached similar findings. For example, the 2017 report from Arts Council England and Nesta, Digital Culture 2017, found that digital “is still an area where the majority of organisations feel that they only have basic skills compared to their peers.”

The reasons for this shortfall in digital capability are unsurprisingly complex, but they are encouragingly graspable. Th e One by One project is currently working on a new approach to digital literacy, understanding, and development for UK museums.

A Case for Change

Today, new terms like “agile” and “iterative,” along with cross-functional and cross-departmental activities such as “design thinking,” “visitor journey mapping,” and “service design,” are part of our everyday work. Th e digital team is usually driving this change and serving as the trainers and advocates for this way of working.

New digital roles are also cutting across many functions. Th ese positions may have “marketing,”
“development,” or “education” in the title, but they are cross-disciplinary. They require not only technical knowledge, but also an understanding of how our audiences are engaging with us both on-site and virtually and how digital fits into a holistic and integrated visitor experience.

These roles are disrupting traditional organizational structures. Senior leadership needs to understand how these roles might drive strategic and organizational change. In addition, they need to determine where in the organization the digital department sits and its relationship to other departments that also have core digital responsibilities, such as CRM, marketing, IT, digital collections access, education, and development. For example, at Cooper Hewitt, Smithsonian Design Museum the chief experience officer is now responsible for digital, IT, visitor experience, and operations. It is a new role that sits across visitor-facing functions and integrates the human, digital, and physical aspects of the museum.

However, given the essential role digital now plays in delivering on a museum’s core mission and ambitions, it is vital that all staff have the appropriate skills so that they feel digitally confident. We can no longer expect digital teams or individuals to be solely responsible for building this digital fluency. Instead, it must become a strategic priority for museum leadership.

WHAT’S IN A WORD?

The early phases of the One by One project identified the need for shared terminology regarding digital skills. If museums can’t be clear on the language and definitions of digital skills, everything else becomes so much harder. One by One is currently working with the following (emerging) lexicon.

**My digital skills are made up of:**

**Digital Competency**
What I do with digital and how I am able to execute an action, typically using a digital tool.  
(For example, I am able to tweet.)

**Digital Capability**
What I achieve with digital, the context of this activity, and how able I am to complete a digital task within a specific context.  
(For example, I am able to run a museum social media channel.)

**Digital Literacy**
How I consider digital and my awareness of how my actions and tasks relate to the expectations of my professional setting.  
(For example, I am able to reflect on what social media best practice is in my sector and how I might develop my and my organization’s practice accordingly.)
Investing in the digital skills of staff, including senior leadership, is essential for museums to make informed decisions about technology use, understand the long-term sustainability and operational implications of technology tools, and meet the needs of an ever-increasing tech-savvy audience, among other demands. The investment in this training is urgently needed now.

**Pivoting to a New Approach**
Do all staff need the same training? What do senior leadership need to know? How do you keep up with new trends and technology? Who is responsible for delivering training? How do you do training when there is no time or budget? These are universal questions about digital skills training, regardless of the size or type of organization.

Launched in September 2017, the One by One project is a 30-month British national initiative that seeks to address these questions. Funded by the UK’s Arts and Humanities Research Council and led by the School of Museum Studies at the University of Leicester, One by One aims to build a shared framework of digital skills development for the country’s museum sector.

Strikingly, the project is characterized not just by the breadth of its collaboration, but also the role of scholarship as its mainspring. The consortium includes the UK’s Museums Association, the Association of Independent Museums, and the National Museum Directors’ Council, as well as key government funders and policy makers such as Arts Council England and the Heritage Lottery Fund. Influential standards bodies, such as the Collections Trust, and support agencies, like Culture24 and the Museum Development Network, bring insight and influence as well as the ability to reach people and institutions across the profession.

Alongside this unprecedented level of cooperation is the assumption that academic research can provide an objective, trustworthy, evidence-driven, creative driving force for the initiative. The university partners are exposing museum partners to new thinking, supporting them in experimental practice, and (if necessary) helping them safely take risks.

Th One by One program has been built around, and sequenced according to, the principles of design thinking. Consequently, the project’s first “empathise” phase sought to understand the current context by building a map of the existing digital skills ecosystem, in particular the demand, supply, deployment, and development of these skills in museums. Warwick Institute for Employment Research led an empirical study that involved a literature review of more than 300 reports, an online focus group, and 50 on-site interviews with museum staff of all levels in six museums.

The findings of this first phase, released in April 2018, found the following:

- museums have different practices in how digital responsibilities and skills are distributed, managed, and shared across museums;
- digital is increasingly seen as part of everyone’s skill set, and all roles have some kind of digital element;
- digital is becoming professionalized in the museum as digital roles and responsibilities become standard practice;
- as digital becomes institutionalized, museums are restructuring;
- museums are exploring, learning, and demanding new digital skills as they innovate and create with digital;
- museums are developing a deeper understanding of the digital skills, knowledge, and expertise needed as they reflect on their potential future;
museums are increasingly engaging in evidence-based digital practice as data from web analytics and social media accounts are analyzed and used in decision-making processes;

- currently there is little evidence that museums are systematically assessing and identifying digital skills needs;
- there is little evidence of in-house formal training around digital skills or digital literacy; and
- there is evidence of an assumption that “digital skills” relate to a specific set of technical competencies.

Following this mapping of the current museum digital skills ecosystem, the project’s second phase, the “define” phase, sought to understand how we articulate the digital skills that we need in the museum sector. From March to August of 2018, Culture24 led a nationwide consultation within the museum profession, driven by an open online survey, a #MuseumHour Twitter Q&A session, and a series of daylong workshops across the country involving more than 50 practitioners from a range of museums, universities, and cultural agencies.

Presented at the UK’s Museum Association national conference in November 2018, the findings of the project’s second phase showed that:

- museums need a response to digital skills development that is person-centered, purposeful, and useful;
- museums do not need a single list of digital competencies, but instead the means to allow users to understand (and define) digital skills generally, to set strategic priorities, and to plan and track proficiency;
- museums need a consistent set of terms and definitions around skills that differentiate between competency, capability, and literacy; and
- museum employees need support in developing different digital skills for different parts of their jobs, within appropriate organizational conditions, through the appropriate activations, and using appropriate tools and resources.

Midway through its 30-month initiative, One by One is validating and

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**WHAT ABOUT US?**

At the AAM Annual Meeting, May 19–22, 2019, in New Orleans, we will hold an open forum on digital literacy for US museum professionals. At the forum, we will discuss the applicability of the One by One project to US museums and how the findings from the UK could inform the development of a similar digital skills framework for the US museum workforce. Register for the Annual Meeting at annualmeeting.aam-us.org.
exploring these needs in the third and fourth phases of its design thinking. At the center of the project is a network of digital fellows, one embedded in each of six partner museums: National Museums Scotland, Derby Museums, the National Army Museum, the Royal Pavilion and Museums Brighton and Hove, the Museum of London, and Amgueddfa Cymru—National Museum Wales.

The fellows are leading research interventions, each of which pursue a different need identified in the project’s current findings. For example, fellows are working with their museum partners to explore how the museum can nurture a culture in which museum staff and volunteers easily understand the opportunities and parameters of their individual context in order to develop their digital skills; how the museum can help staff members identify and use the digital skills they’ve got, improve where they need to, and understand the impact on themselves and beyond; how the museum can jumpstart adaptable conditions and skills that will enable all staff to work digitally; and more.

The digital fellows bring resources, creative thinking, and experimentation to the museums, becoming advocates and thought leaders—within and beyond the institution—for a new approach to digital skills development.

By the spring of 2020, One by One will share its collectively built and owned digital skills framework with the UK museums sector. At a national skills summit in December 2019, hosted by Arts Council England, we will release the new definitions, principles, tools, and resources we’ve developed, which will be available to the whole sector.

We hope this project will help museums develop a workforce that has the skills to match their institutions’ digital ambitions.

Carolyn Royston is the chief experience officer at Cooper Hewitt, Smithsonian Design Museum in New York City. Ross Parry is a professor of museum studies at the University of Leicester in the UK and the One by One project lead.
In January 2019, Rebekah (Becky) Beaulieu and Evans Richardson IV began their five-year terms as the newest members of the Accreditation Commission.

With a career that traverses art museums, historic site administration, and academic museums, Beaulieu is looked to as a leader in these communities. She is the director of the Florence Griswold Museum—an art gallery and historic house with 13 acres of gardens and grounds in Old Lyme, Connecticut. Previously, she spent several years at the Bowdoin College Museum of Art in Maine as the assistant director of museum operations and then associate director, and she was the first executive director of the Winchester Historical Society and its Sanborn House Historical and Cultural Center in Massachusetts. Beaulieu is committed to local community service and broad engagement in the museum field, serving as an AAM peer reviewer, a faculty member of the American Association of State and Local History’s History Leadership Institute, and in leadership roles in the AAM Historic Houses and Sites Network and the New England Museum Association. She has a passion for financial sustainability and accountability issues and in 2017 published the book Financial Fundamentals for Historic House Museums.

Richardson brings rich experience in the cultural sector—within and outside the museum field, on the funding agency side, and in nonprofit and municipal governance structures—and in the realm of assessment and application of standards and compliance. Richardson is the chief of staff at Th Studio Museum in Harlem in New York City, a position he’s held for nearly seven years, where
Evans Richardson, Chief of Staff, The Studio Museum in Harlem

he oversees strategic initiatives and planning, city and stakeholder relations, capital funding, advocacy, and board management. As the museum is preparing to build and move to a larger facility, he is articulating and leading the museum’s strategic vision regarding DEAI, community engagement, and institutional partnerships.

Before coming to The Studio Museum, Richardson spent several years as a program specialist at the New York City Department of Cultural Affairs. Over his career, he has been an active leader in the NYC Cultural Institutions Group (CIG), a consortium of 33 cultural organizations across the city, both representing his museum and pursuing new initiatives to increase diversity across the entire New York City cultural field.

Read more about Beaulieu, Richardson, and the other Accreditation commissioners at aam-us.org/programs/accreditation-excellence-programs/accreditation-commission.

AAM thanks the following individuals who served on this cycle’s nominating committee: Devon Akmon, senior consultant, DeVos Institute of Arts Management (committee chair, AAM Board member); Amy Bartow-Melia, MacMillan associate director for audience engagement, National Museum of American History (Accreditation Commission chair); Ann Fortescue, executive director, Springfi ld Museum of Art (Accreditation commissioner); LaNesha DeBardelaben, executive director, Northwest African American Museum (Association of African American Museums representative); and Katherine Kane, executive director emerita, Harriet Beecher Stowe Center (American Association for State and Local History representative, former Accreditation commissioner).

Board Approves 2019 Slate

AAM’s Board of Directors has nominated seven distinguished professionals from the museum field and beyond as board candidates with terms that begin in May 2019. Four are current board members and three would be newcomers.

VICE CHAIR 2019–2020
Chevy Humphrey, President and CEO, Arizona Science Center, Phoenix

CLASS OF 2019–2022
AT-LARGE MEMBERS
Returning board members:
Robert M. Davis, Museum Consultant, Dubuque, IA
Kelly McKinley, Deputy Director, Oakland Museum of California
James Pepper Henry, CEO/Director, Th American Indian Cultural Center and Museum, Oklahoma City, OK

New board members:
Marcia DeWitt, Board President, Hillwood Estate, Museum and Gardens, Washington, DC, and Board President, Biggs Museum of American Art, Dover, DE
Julie Stein, Executive Director, Burke Museum of Natural History and Culture, Seattle, WA
Jorge Zamanillo, Executive Director, HistoryMiami Museum, FL

AAM’s bylaws allow additional nominations to be submitted by petition; the deadline for petition submission is March 19. To find out more about this option, email the Board Nominating Committee at boardnominations@aam-us.org.

The final appointments will be announced at the 2019 AAM Annual Meeting & MuseumExpo, and the new board members will begin their terms immediately following the meeting.
AAM Convening on Artificial Intelligence in Museums

The nature of intelligence is changing.

As humans, our constant exposure to technology has already changed our relationship to knowledge, our approach to problem solving, and even our identity and concept of self. Now the emergence of artificial intelligence (AI) promises to expand our abilities.

Participants at Museums and New Intelligences prototype a conceptual AI product or service for museums.
to learn, make predictions, automate routine tasks, and navigate and translate across a range of human language and experiences.

But with great power comes great responsibility. The news is replete with stories about the privacy implications connected to the datasets these technologies rely on.

On November 1–2, 2018, museum people, technologists, and scholars convened at the Pérez Art Museum Miami to talk about various forms of AI and think through their future applications in museums. Kristen Summers of IBM Watson Public Sector shared tools and their applications in museums. Artist and technologist Surya Mattu talked about the implications of data privacy and bias in AI. Thé Alliance’s Elizabeth Merritt, vice president for strategic foresight and founding director of the Center for the Future of Museums, facilitated sessions that challenged attendees to design future scenarios related to AI and think critically about the implications that stem from changes within the field. This event was funded by the Knight Foundation with additional support from Alley interactive.

To learn more and to watch video of the keynote speakers, visit aam-us.org/programs/center-for-the-future-of-museums/museums-and-new-intelligences/.

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**CORRECTION**

In the November/December issue of *Museum*, information about Wilton House Museum in the article “The Quest for Excellence” was incorrect. Accreditation has allowed the museum to receive loans from other museums—not banks. We regret the error.

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Brandon J. Anderson, Executive Director and CEO, Auburn Cord Duesenberg Automobile Museum, IN

Tamara Brothers, Director of Development, Nasher Museum of Art at Duke University, Durham, NC

Alana J. Coates, Curator of Collections and Exhibitions, Freedman Gallery-Albright College, Reading, PA

Hunter Hughes, Senior Director of Technology, Country Music Hall of Fame and Museum, Nashville, TN

Sarah Jesse, Deputy Director, Orange County Museum of Art, Newport Beach, CA

Casey Mathern, Curator of Visual Resources and Collections Manager, William Paterson University Galleries, Wayne, NJ

Kelly McGlumphy, Director of Public Relations, Country Music Hall of Fame and Museum, Nashville, TN

Dawn Munger, Curator of Collections, Riley County Historical Museum, Manhattan, KS

Desiree Eden Ocampo, Individual Gifts Officer, Portland Children’s Museum, OR

Hillary Olson, President and CEO, Rochester Museum and Science Center, NY

Katrina Stacy, Curator of Education and Interpretation, Georgia O’Keeffe Museum, Santa Fe, NM

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Retired

Kate Bennett, president and CEO of the Rochester Museum and Science Center (RMSC) for the past 21 years, retired in November 2018. Bennett inspired the RMSC staff to understand and create visitor experiences that engage different learning styles and communicate the excitement of hands-on experimenting and discovering. She encouraged streamlining and cross-departmental collaborations for greater efficiency, spurred efforts to increase the accessibility of collections, and cultivated collaborations with community partners as well as other museums and science centers. Bennett will remain on the board for a period so that she can finish special projects and assist with the onboarding of new President and CEO Hillary Olson.

Dan Monroe, Rose-Marie and Eijk van Otterloo executive director and CEO of the Peabody Essex Museum (PEM), will be retiring in September 2019. Monroe will continue to lead PEM through the summer opening of its new wing, which will feature fresh installations of its vast and diverse collections. Over the past 25 years, he has led the consolidation of two historic museums into a museum that operates on a global stage and stands among the top 10 percent of American and Canadian art museums, as measured by size of budget, facilities, and other metrics. He also spearheaded two major capital campaign and expansion programs, raising more than $800 million, adding more than 270,000 square feet of new facilities, and renovating or restoring tens of thousands of square feet of existing facilities.

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In Memoriam

Bernard Kester has passed away at the age of 90. Kester was a fellow of the American Craft Council and trustee emeritus of the Museum of Arts and Design. He served on the Board of Trustees of the Craft and Folk Art Museum and the Board of Directors of the UCLA Arts Council and was a recipient of the International Association of Designers award in textiles. In his tireless promotion of craft as a respected art form, he introduced the nation to California and western craftspeople with his “Letter from Los Angeles.” Kester curated a number of exhibitions, and his first, “Craftsmen USA ‘66,” was shown at the opening of the Los Angeles County Museum of Art (LACMA), where he was the principal exhibition designer. His architectural designs elegantly presented and enhanced the perception of artworks at LACMA for more than 50 years; he designed more than 100 exhibitions there and reconfigured its many galleries.

Kudos

In recognition of her distinguished service and lifetime achievements in the museum field, Sonnet Takahisa, the Newark Museum’s director of strategic education initiatives, has been awarded the Katherine Coffey Award by the Mid-Atlantic Association of Museums. Takahisa joined the Newark Museum in 2014, and under her leadership, the museum opened the MakerSPACE, an intersection of art, science, and technology. Additionally, she led the revitalization of museum programs for diverse audiences, such as Late Thursdays and Second Sundays, and reintroduced art classes and courses for adults, including Vitality Arts for individuals 55 and older. For many years, Takahisa was a consultant to museums, cultural institutions, and schools. She was instrumental in initiating programs at Boston Children’s Museum, Seattle Art Museum, Brooklyn Museum, and the National September 11 Memorial & Museum.
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**Anne M. Young** heads the rights and reproductions department at the Indianapolis Museum of Art at Newfields.

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The image appears in Tom Joyce: Everything at Hand, published by the Center for Contemporary Arts, an awardee in the 2018 AAM Publication Design Competition.
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