



# TRENDSWATCH 2017



*TrendsWatch* is made possible with the generous support  
from our corporate partners:

Blackbaud  
for Arts & Cultural Organizations

**PGAV**  
**DESTINATIONS**  
Global Leaders in Planning and Design

**HTB**  
**HUNTINGTON T. BLOCK**  
INSURANCE AGENCY, INC.

solid|light

and our individual contributors:

**Lath Carlson**

**Mary Case @ QM2**

**Diana Pardue**



# Table of Contents

INTRODUCTION . . . . .	4
HOW TO USE THIS REPORT . . . . .	6
2017 TRENDS	
<b>A Mile in My Shoes: closing the empathy deficit . . . . .</b>	<b>8</b>
<b>Let Justice Roll Down: the next horizon of civil rights. . . . .</b>	<b>16</b>
<b>The Rise of the Intelligent Machine. . . . .</b>	<b>24</b>
<b>Reshaping the World: migration, refugees, and forced displacement . . .</b>	<b>33</b>
<b>Failing Toward Success: the ascendance of agile design . . . . .</b>	<b>40</b>
WHERE TO FIND THE FUTURE . . . . .	46
AUTHOR CREDIT . . . . .	47
ABOUT US AND COVER CREDIT . . . . .	48
ACKNOWLEDGEMENTS . . . . .	49
ABOUT OUR SPONSORS . . . . .	50

© 2017 American Alliance of Museums

The text of this report is licensed by the American Alliance of Museums under a [Creative Commons Attribution-Noncommercial 4.0 International \(CC BY-NC 4.0\) License](#). Attribute to the American Alliance of Museums, and include the URL [aam-us.org](http://aam-us.org). You are free to:

Share — copy and redistribute the material in any medium or format

Adapt — remix, transform, and build upon the material

Licensing on images is indicated in captions.

ISBN: 978-1-941963-05-0



# Introduction

*“The goal of forecasting is not to predict the future but to tell you what you need to know to take meaningful actions in the present”*

—Paul Saffo

This report explores trends—one type of force that shapes our world. Because trends exert their influence incrementally, acting over time in an observable direction and at a measurable speed, they are a sound basis for forecasts—predictions of what the world might be like at some point in the future. For example, we can use historical rates of birth, death, immigration, and emigration to forecast the demographics of a country’s population in 10, 20, or 50 years’ time. Factor in other data (young people may be delaying childbearing; vaccines may reduce childhood mortality), and we can make pretty accurate projections.

But forecasts based on trends can be radically disrupted by another major driver of change: events. While trends represent gradual change, events introduce discontinuities into the timeline. Those trends-based demographic forecasts I said were so reliable? The [1918 influenza pandemic](#) caused about 50 million deaths worldwide—up to 6 percent of the entire human population—and lowered the average lifespan in the United States by a decade. India was plagued by famine in the 1960s, but [Norman Borlaug’s](#) development of dwarf wheat saved over a billion lives by

increasing agricultural productivity. Events can reshape our lives for better or worse, generating the kinds of headlines that, read over breakfast, make you realize that the world changed overnight while you slept.

These forces of change intertwine, of course. Trends are made up of microevents that, cumulatively, can reach a tipping point that becomes a disruptive event. Events can accelerate or slow a trend, even cause it to stop dead and reverse direction.

I bring this up because 2017 may well be a year shaped as strongly by events as it is by trends. You can’t read about mass migration without reflecting on how the Greek economic crisis, military and terrorist actions by the Islamic State, and Britain’s vote to leave the European Union have and will influence the movement of people across the world. You can’t contemplate the future of criminal justice without taking into account how recent elections in the United States, France, Germany, and elsewhere may affect the recent push for reform.

Because our social, political, economic, and environmental circumstances are particularly dynamic and unstable, it’s hard to forecast where the trends discussed in this report may lead us in coming years.



Now more than ever, I encourage you to develop a regular habit of scanning the news to stay on top of current events, assess where these forces may take us, and identify where you can take action to influence the future that will unfold.

After all, this third force—human choice—is the whole point of strategic foresight. Futurism challenges us to cultivate a vision of the future we want to create, and teaches us to use that vision as a lever to change the world. Even small actions can create huge ripple effects through time. Who thought, when Rosa Parks refused to move to the back of a bus in Montgomery, Alabama, in 1955 that her small act of defiance would help catalyze the civil rights movement and end legal segregation in the United States?

As we go to print in February 2017, the immigration and refugee policies of the new administration are

receiving a lot of public attention. These are indeed serious topics worthy of debate. I've been working on this year's topics for at least a year (more in the case of mass migration), and hope that the timely release of this report will help inform thoughtful conversations in our sector and beyond.

Making informed choices requires up-to-date information. For that reason, this year for the first time we are providing a digital presence that complements the print edition of *TrendsWatch*. At [trendswatch.aam-us.org](http://trendswatch.aam-us.org) you can follow all the trends, or those of particular interest to you, to find related news stories, Web posts, Twitter feeds, and research reports unearthed by Center for the Future of Museums staff. I hope this resource will help you become the agent of change that I know you can be.

Yours from the future,

A handwritten signature in black ink, reading "Elizabeth Merritt". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

**Elizabeth Merritt**

Vice President, Strategic Foresight  
Founding Director, Center for the Future of Museums  
American Alliance of Museums



# How to Use This Report

*TrendsWatch 2017* highlights five trends that Center for the Future of Museums (CFM) staff and advisors believe are highly significant to museums and their communities, based on our scanning and analysis over the past year. For each trend, I provide a brief summary, list examples of how the trend is playing out in the world, comment on the trend's significance to society and to museums specifically, and suggest ways that museums might respond.

Here are just a few of the ways people and organizations have used recent editions of *TrendsWatch*:

- Students at the Higher School of Economics in Moscow used *TrendsWatch 2016* in their courses, and interpreted the trends from a Russian perspective.
- Turtle Bay Exploration Park in Redding, California, made *TrendsWatch* one stop on a “Field Trip to the Future” auctioned off at a benefit. (CFM Director Elizabeth Merritt served as one tour guide for staff of the McConnell Foundation, which put in the winning bid.)
- Journalists often use the report to frame their local, national, and international [reporting on museums](#).

To instigate these and other creative uses of the report, I encourage you to share copies with:

- the museum's executive and planning teams
- the entire staff (paid and volunteer)
- members of your governing authority
- local foundations and major donors
- policy makers and government representatives
- members of key community groups and museum partners
- the press

To foster discussion, you might host brownbag lunches, make the report an agenda item for staff or board meetings, or organize your own forecasting workshop. (The CFM report [Tomorrow in the Golden State: Museums and the Future of California](#) provides a brief guide to organizing such events.) At these gatherings, encourage people to explore the following questions:

- How are these trends playing out in your community, state, region, or country?
- Which trends are likely to have the greatest effect on your organization?
- How might your museum take advantage of the opportunities or avoid the risks these trends present?

If you are not directly involved in museum planning, you might organize similar conversations in other settings, such as museum studies classes or professional conferences.

Another way to use *TrendsWatch* is to make it a guide for your own scanning—helping you focus your attention and filter news, essays, and social media that land in your mailbox or cascade across your screen. In the coming year, keep an eye open for news and opinion pieces illustrating how these trends are playing out.



The PDF version of this report includes copious embedded links to news stories, blog posts, research reports, videos, and other resources. (These links were all working at the time of publication, but we can't guarantee they will remain stable over time.) If you are reading a print copy of the report, you can access the digital version with links, as well as all of CFM's other forecasting reports and scanning tools, at [futureofmuseums.org](http://futureofmuseums.org). The report is complemented by a digital site, [trendswatch.aam-us.org](http://trendswatch.aam-us.org), that features related news stories, Web posts, Twitter feeds, and research reports.

Please share any stories you think shed light on these or other important trends with me via e-mail ([emeritt@aam-us.org](mailto:emeritt@aam-us.org)) or Twitter ([@futureofmuseums](https://twitter.com/futureofmuseums)). And please tell me what you think about *TrendsWatch* and how you use it in your work. Together we can build a formidable forecasting network to help museums chart a successful course to the future.



CFM Director Elizabeth Merritt deep in conversation with her [CogniToys Dino](#), which is powered by IBM Watson, an artificial intelligence program that uses natural language processing and machine learning.



# A Mile in My Shoes: closing the empathy deficit

*“There’s a lot of talk in this country about the federal deficit. But I think we should talk more about our empathy deficit—the ability to put ourselves in someone else’s shoes; to see the world through those who are different from us —the child who’s hungry, the laid-off steelworker, the immigrant woman cleaning your dorm room.”*

*—President Barack Obama*

Empathy is hard-wired into mammalian nature—a basic function of the neurochemical pathways that help us form relationships. Empathy fosters the social bonds that hold us together, providing the biological foundation for abiding by social norms and building social trust. So it’s particularly disturbing that researchers across the globe are documenting a decline in this crucial capacity at a time when we dearly need to foster mutual understanding. The good news is that just as we can rehabilitate physical injuries, we can retrain our psyches to strengthen weak empathic skills. Museums’ inherent strengths position them to be effective “empathy engines” helping people to understand the “other” and reinforcing social bonds.

Emotional empathy is the ability to experience an emotional echo when others feel distress or joy; cognitive empathy is the ability to imagine how someone else may feel. Both kinds of empathy are critical to individual well-being and to a functioning society. People who exhibit cognitive empathy are more likely to behave in ways that are honest, courteous, charitable, and helpful to others, and both [empathy and compassion](#) are crucial elements of human happiness. Baked into our evolutionary make-up, empathy turns out to be yet another in a long list

of “distinctly human” traits that are [shared by other animals](#), from rodents to other primates. But as with any part of our bodies and minds, our ability to empathize can become impaired, and a deficit in empathy is characteristic of disorders ranging from narcissism to sociopathy.

In fact, there is troubling evidence of a widespread decline in empathy. A frequently cited meta-analysis by Konrath et al. at the University of Michigan in 2011 examined data from 72 empathy studies of over 14,000 American college students since 1979.





A visitor talks with individuals in Berlin, Germany, using the Shared Studios Portal at the United States Holocaust Memorial Museum. Through this installation, visitors are able to have face-to-face conversations with displaced persons or refugees in Iraq, Jordan, and Germany. Photo courtesy of the United States Holocaust Memorial Museum

This research revealed a 48-percent decline in empathy over the past four decades, with a particularly sharp decrease in emotional empathy—so-called empathic concern. Other research has documented a decline in empathy [among medical students](#) as they progress through their training. (This may in part be functional: surgeons report needing to be able to mute their empathic response in order to do their jobs.) A general decline in empathy puts societies at risk for an increase in acts of intolerance and aggression, and political gridlock. It's even possible that the decline in empathy in the United States is linked to the nation's current "[epidemic of loneliness](#)" and climbing [suicide rate](#). Research indicates that some lonely people have low empathic skills, hindering

their ability to assess how other people perceive them. Convinced that they are failing in their social interactions, lonely people can become yet more isolated and, in some cases, despondent and suicidal.

The growing empathy deficit has also been tied to a decline in social trust and a rise in discrimination, [bullying](#), and hate crimes. These developments are of particular concern in a time when we are experiencing a global wave of forced migration that leaves many displaced people vulnerable to xenophobia and discrimination. The United States currently falls in the top 10 nations, globally, [ranked by empathy](#), but continues to be rent by social unrest characterized by intolerance and bigotry.





The Empathy Museum's mobile installation "A Mile in My Shoes" (see p. 12).

Left: Photo by Kate Haworth

Right: Photo by Tracy Kidd

People are retreating to homogenous bubbles—where they live, where they work, whom they communicate with on social media. It's hard to cultivate empathy for people who aren't like you, with whom you never interact.

Even absent consensus about what's damaging our empathic skills, researchers, policy makers, philanthropists, and technologists are exploring how to combat the decline. Virtual reality (which we explored in *TrendsWatch 2016*) turns out to be a veritable "empathy machine" because it gives people the opportunity to transport themselves into the digital equivalent of another person's shoes. Planned Parenthood takes advantage of this power with their VR film [Across the Line](#), which is designed to engender empathy for women who have to endure harassment from protesters in order to access reproductive health care. Stanford's Virtual Human Interaction Lab is testing virtual reality's ability to foster empathy for the homeless in a new study called "[Empathy at Scale](#)." During the testing (some of which took place at San Jose's Tech Museum of Innovation"), participants donned Oculus Rift VR equipment to experience what it was like to be evicted, lose a job, or sleep on the streets at night.

It's not clear what's driving the empathic decline. Some believe that increased exposure to video games, social media, and screen time overall is damaging our ability to relate to people face-to-face. Some point to weakening family ties, reflected in the growing number of people living alone and the rising divorce rate. Others cite an increase in violence and bullying, inflated expectations of success, and a general increase in social isolation. But all of these phenomena could just as plausibly be *caused* by a shortage of empathy. One significant contributor to the growing empathy deficit may be our increasing self-segregation from people who are not like us.

## What This Means for Society

Empathy plays a vital role in civic participation and the functioning of democracy. The ability or inability of citizens and policy makers to "put themselves in the shoes" of others profoundly influences how we as a society address social ills such as homelessness, poverty, unemployment, and income inequality. Empathy with the least fortunate in society tends to lead us away from punitive and judgmental policies, and toward solutions premised on human value and dignity.



The Empathy Museum presents

# a Mile in my Shoes



Empathy influences how we relate to nonhuman animals and to the environment, as well as to other people. “Empathy conservation” is being promoted as one approach to [encouraging green behavior](#) and support for policies that [minimize the negative impacts](#) of human activity on the natural world.

In the United States, our national decline in empathy may suggest the need to adjust the priorities of the education system. In [Danish schools](#), teaching empathy is as important as teaching math or literature. (Which contributes, perhaps, to Denmark’s consistent ranking as one of the happiest countries on earth.) A weekly “class’s hour” is a regular part of the curriculum, involving group problem solving, eating cake, and sharing *hygge* (cozy) time. The Canada-based [Roots of Empathy](#) program has been shown to increase cooperative behavior and reduce bullying. In the United States, the National Endowment for the Arts is promoting the use of [Restorative Justice Practices](#) in schools, providing training in empathy and communication skills to decrease the use of

suspension and expulsion. Such practices can have lifelong effects: there is a direct correlation between [socioemotional skills in kindergarten](#) and those children’s outcomes as young adults across educational attainment, employment, criminal activity, substance use, and mental health.

War is becoming an incessant struggle against terrorism, rather than relatively straightforward battles between armies. In a future marked by distributed conflict, fostering empathy may be the nonmilitary key to [breaking the cycle of extremism and violence](#).



Handcuffs by Ana Opalić, from the Museum of Broken Relationships (see p. 12).  
Courtesy of Museum of Broken Relationships



## Museum Examples

In 2015, artist/curator Clare Patey and philosopher Roman Krznaric opened the world's first **Empathy Museum**, dedicated to helping visitors develop the skills to put themselves in others' shoes. And one of the museum's first exhibits did just that: the mobile installation "A Mile in My Shoes" is an "interactive shoe shop" that invites the public to don the shoes of another person and walk a mile while listening to an audio narrative of that person's life.

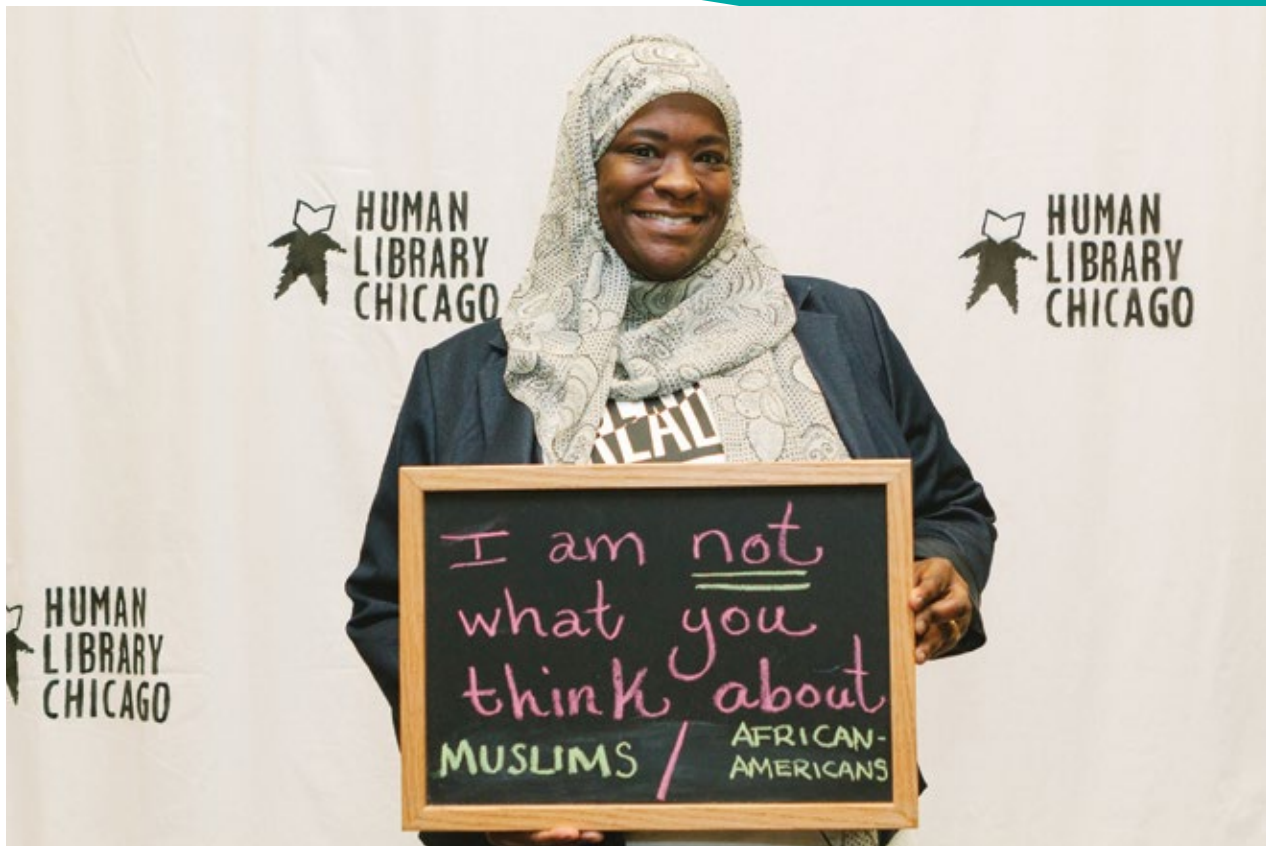
**The Human Library** ("Menneskebiblioteket") is a traveling project that offers real people on loan to "readers," using these conversations to challenge stereotypes and prejudices. These connections foster understanding by creating a safe space for people to interact one-on-one with people they might not know in their own lives: a single mother, a policeman, someone who is homeless, or a person who has been sexually abused. Since its founding in 2000, the Human Library has traveled to over 70 countries and been hosted by many museums, including the National Veterans Art Museum in Chicago, the Empathy Museum in London, the Canadian War Museum in Ottawa, the Benaki Museum in Athens, and the Kelvingrove Art Gallery and Museum in Glasgow.

The **Museum of Broken Relationships** has one branch in Zagreb, Croatia, another in Los Angeles, and a dynamic Web presence as well. The museum is "about you, about us, about the ways we love and lose." It invites the public to donate objects and their associated stories

embodying heartbreak—a universal human experience uniting people across place, time, and cultures. Through the collections, curators take visitors on "an empathic journey around the word" via items that tell stories of love and loss. In a confessional area, visitors are encouraged to share their experiences and reflect on their own failed relationships. The museum offers the chance for people to "overcome an emotional collapse through creativity."

Amar C. Bakshi and the artists of **Shared Studios** have transformed used shipping containers into "Portals" that use immersive audiovisual equipment to bring together strangers from across the world. The first Portal connected residents of New York City with people in Tehran, using conversational prompts such as "What would make tomorrow a good day for me?" to lead people to explore their common humanity. Since their launch in 2014, Portals have gone on to create connections between people in Washington, DC; Havana, Cuba; and Herat, Afghanistan. In the Kickstarter campaign that helped fund the project, the creators explained their motivation for Portals in this way: "If we do not meaningfully engage with people from different walks of life, our capacity for empathy weakens and divisions of class, race and identity deepen."





A “Book” (as storytellers in the Human Library are called), poses at an event in Chicago. Courtesy of Human Library Chicago

And if, as many pundits have forecast, we are entering an era in which machines can outperform humans at both physical and cognitive tasks, then “social work,” based on emotional skills, may become the [last bastion of human labor](#).

### What This Means for Museums

As museums strive to document the tangible benefits they provide to society, some evidence is emerging that the immersive storytelling that takes place in museums can engender empathy. Analysis of data from the US General Social Survey shows that engagement with the arts (including visiting museums) is [predictive of civic engagement, tolerance, and altruism](#). In 2013, [researchers studying field trips](#) to the recently opened Crystal Bridges Museum of American Art found that after just one visit, students exhibited increased “historical empathy” and

higher levels of tolerance. And since socioemotional skills in general, including empathy, influence long-term outcomes in education and life, museums have the opportunity to make the case that by cultivating empathy, they are increasing the emotional, educational, and economic success of their communities.

Empathy is a powerful tool for influencing the public. [Research conducted by Rebecca Herz](#) at the Lower East Side Tenement Museum showed that empathy was the most common connection made between visitors and the exhibits—twice as common as connections to personal family history, four times as common as connections to contemporary events. This finding reinforced earlier research at the museum demonstrating that empathic feelings toward immigrants was a common outcome for visitors.



Thought leaders such as Michael Edson and Rob Stein have challenged museums to develop bolder visions for the impact they can have on society. Rather than being content with small good things, Stein contends, museums need to identify “moon shot” goals for their work. If empathy is indeed malleable, and immersive storytelling can induce empathic responses, then closing the empathy deficit is one moon shot museums may be able to make. In his presentation “Museums...So What?” ([available on SlideShare](#)), Stein, then deputy director of the Dallas Museum of Art, asked, “Is empathy the killer app for museums?”

### Further Reading

*Fostering Empathy Through Museums*, Elif M. Gokcigdem, ed. Rowman & Littlefield, 2016. These 15 case studies illustrate a variety of approaches to employing empathy in museum work.

*Empathy: Why It Matters, and How to Get It*, Roman Krznaric. TarcherPerigee, 2015. In this book, Krznaric argues that empathy is the necessary foundation of a happy, creative, and equitable society.

The Empathetic Museum website ([empatheticmuseum.weebly.com](http://empatheticmuseum.weebly.com)) offers tools and resources for museums interested in exploring institutional empathy. Their Maturity Model helps organizations evaluate their empathic practice and set goals to reach higher levels of achievement.

## Museums Might Want to...

Measure and value their ability to teach empathy and other emotional skills, in addition to facts and reasoning. This strength is particularly important in communities suffering from stress and violence, and for audiences that include people in positions of power—be it parents, politicians, teachers, or police—for whom empathy is a critical skill.

Create environments that foster conversations between strangers and meaningful encounters between people of different backgrounds. As Empathy Museum founder Roman Krznaric has observed, “Conversations with strangers are one of the best ways to overcome our prejudices and assumptions about others.”

Take note of the movement calling for “institutional empathy” in museums. Sparked by a session at the AAM annual meeting in 2014, a group of museum professionals started “[The Empathetic Museum](#)” collaborative to explore how organizations can mirror empathic behavior. “Just as an empathetic individual resonates with the thoughts, feelings, and experiences of another group or person,” they note, “an empathetic museum is so connected with its community that it is keenly aware of its values, needs, and challenges.”

Right: The Age Gain Now Empathy System (AGNES) suit was created by MIT AgeLab researchers and students to help others better understand the challenges associated with aging. Courtesy of MIT AgeLab







# Let Justice Roll Down<sup>1</sup>: the next horizon of civil rights

Around the globe, justice is being reexamined with a critical eye toward how existing structures create or perpetuate inequality. The United States, in particular, is reviewing its criminal justice system, taking a hard look at how the nation's laws, law enforcement, sentencing, incarceration, and postincarceration practices are damaging the fabric of society. Forces driving this trend include the rise of social movements protesting the structural bias of the legal system, transparency and reach provided by social media, public concern about the growing inequality of wealth, and decline in socioeconomic mobility. The communities that museums serve are shaped, and increasingly torn, by these forces of change. In addition to helping society navigate this next horizon of civil rights, museums have the opportunity to reflect on how assumptions about power, security, and order are embedded in their own operations.

<sup>1</sup>Martin Luther King Jr. invoked this passage from Amos 5:24 in his iconic "I Have A Dream Speech" delivered on the steps of the Lincoln Memorial in Washington, DC, on August 28, 1963, as well as in his "Letter from a Birmingham Jail."

The Eastern State Penitentiary exhibit "Prisons Today" opens with the statement "MASS INCARCERATION ISN'T WORKING." Today formerly incarcerated people sit on Eastern State's board of directors and are employed as tour guides. Photo: Darryl Moran





YES

NO

Have you ever  
broken the law?

Consider

Drug Use?  
Drunk Driving?

Insurance Fraud?  
Assault?

Shoplifting?  
Underage Drinking?



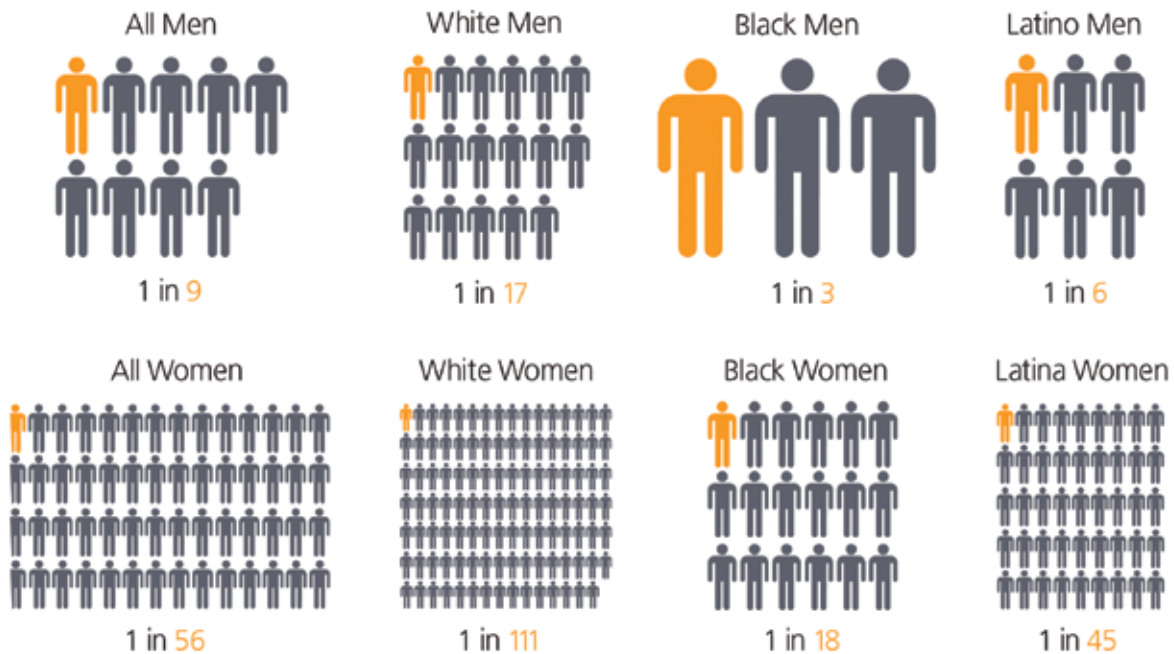
In 2015, the United Nations issued its first-ever report on imprisonment, identifying [overcrowding and incarceration](#) as human rights issues. These concerns are of particular urgency in the United States, which has the highest rate of incarceration in the world. There are 2.2 million people in American prisons and jails—reflecting a [500-percent increase in incarceration](#) over the past 40 years. The federal prison population [soared after 1980](#), growing by an order of magnitude until by 2013, the imprisonment rate in the federal system peaked at 69 inmates per 100,000 US residents, spending rose from \$0.97 billion to \$6.7 billion, and average months served went from 15.9 to 40.1.

This surge was driven in part by the “War on Drugs” declared by President Nixon in 1971, which

included mandatory minimum sentences that kept many people convicted of drug offenses in prison for long periods of time and widened the racial disparities in the prison population. Nearly 60 percent of people in prison today are [people of color](#). Black men are nearly [six times more likely](#) to be imprisoned than white men. Now the population of imprisoned women is growing as well, at a [rate 50 percent](#) higher than that of men.

There is growing [bipartisan agreement](#) that US criminal justice is deeply flawed, as liberal and conservative policy makers alike conclude that overincarceration is not only a waste of resources but actually increases recidivism. Popular support for reform is being fueled in part by the transparency and reach afforded by mobile devices and social

## Lifetime Likelihood of Imprisonment of U.S. Residents Born in 2001



Source: The Sentencing Project, *Trends in U.S. Corrections*, 2015.





Above and below: Isolation cells of the Number 4 prison, which used to imprison nonwhite males during the apartheid era in South Africa (see p. 20). Photo courtesy of Constitution Hill



Exhibits donated by ex-prisoners on display in the isolation cells of the Woman's Jail, with videos of them sharing their experiences of being imprisoned (see p. 20). Photo courtesy of Constitution Hill



media platforms. Videos posted to platforms such as Facebook and Twitter have drawn attention to police actions that would have been largely invisible to the public in the past. Technology-enabled “citizen journalism” has enabled grassroots movements such as Black Lives Matter to draw broad attention to structural inequality in the criminal justice system.

The US prison population is finally leveling off after 40 years of growth—due in part to declining crime rates but largely through changes in law, policy, and implementation. In 2014, California downgraded

some low-level property and drug offenses from felonies to misdemeanors, and in 2009, New York State reformed sentencing for minor drug offenses. Some police departments are rethinking fundamentals such as [traffic stops](#), which have been shown to disproportionately target poor and minority drivers, as well as controversial stop-and-frisk tactics.

President Barack Obama [gave considerable attention to criminal justice reform](#) during his two terms, commuting the sentences of dozens of non-violent drug offenders, presenting his vision for the future of the criminal justice system to the National Association for the Advancement of Colored People, and becoming the first sitting president to visit a federal correctional facility. Under his leadership, the White House’s [Data-Driven Justice initiative](#) fostered the recognition and replication of successful state and community-based efforts.

While the election of President Donald Trump may [signal a shift](#) away from federal reform, there are signs that the momentum of local reform will continue. In the [2016 election](#), voters in Oklahoma reclassified minor drug possession and property crimes from felonies to misdemeanors, and channeled the cost savings to mental health and drug treatment services.



## Museum Examples

In creating the exhibit “[Prisons Today: Questions in the Age of Mass Incarceration](#),” staff of the **Eastern State Penitentiary museum** shifted from their historic position of neutrality on the subject of prison reform. The exhibit opens with the phrase “MASS INCARCERATION ISN’T WORKING” in 400-point font; videos feature bipartisan statements on reform; visitors are asked to admit whether or not they have broken the law, and, if so, to leave a written confession. Staff see the exhibit as a call to empathy, reminding visitors of how they can influence the future of criminal justice in the United States.

The **Equal Justice Initiative (EJI)** is [identifying, documenting, and memorializing sites](#) of more than 4,000 lynchings of African Americans across 12 Southern states between 1877 and 1950. EJI plans to create a memorial and museum called [From Enslavement to Mass Incarceration](#), opening in 2017. The names of over 4,000 victims will be engraved on concrete columns representing each county in the United States where these lynchings took place. Counties across the country will be invited to retrieve and display a duplicate of their column. These installations will highlight the historical connection between these lynchings, the current application of the death penalty, and mass incarceration.

**Constitution Hill** in Johannesburg, South Africa, is a museum sited in a former prison that incarcerated, among many notable inmates, civil rights activists Nelson Mandela, Mahatma Gandhi, Joe Slovo, Albertina Sisulu, and Winnie Madikizela-Mandela. The stories the museum tells remind visitors how the justice system can be used to enforce oppression and maintain the status quo, but also demonstrate the power of activism. This “living museum” is also home to South Africa’s Constitutional Court, the highest court in the land, charged with protecting the rights of all citizens.

At the **Sterling and Francine Clark Art Institute** in Williamstown, Massachusetts, [RAISE: Responding to Art Involves Self Expression](#) is an alternative sentencing program that works with high school students referred to the museum by the Berkshire County Juvenile Court. Over a five-week period, participating youth engage in group meetings that include writing and self-awareness exercises, gallery talks, and the use of art as a catalyst for examining their lives and their potential. Since its inception in 2006, the program has served over 120 youth and documented significant improvements in student behavior and in their attitudes toward themselves and toward art.



Voters in New Mexico supported changing the state constitution in order to prevent detention of defendants solely due to their inability to post bail. Voters across the country opted to legalize recreational use of marijuana or facilitate medical applications of the drug. Many communities elected [reform-minded district attorneys](#) who campaigned on platforms of less incarceration and less punitive sentences.

### What This Means for Society

Criminal justice reform has been [prioritized by the international community](#) as part of efforts to help postconflict societies reestablish the rule of law. These efforts acknowledge reform must be grounded in respect for human rights and reshaping public attitudes toward law enforcement as well as specific changes to policing and incarceration.

Many Americans believe that criminal justice and mass incarceration are the civil rights issue of our times. In the United States, blacks are much more likely than whites to [see racial bias in the justice system](#), and for good reason: the overlap of poverty, race, and incarceration is hard to overstate. Indeed, these issues are essentially facets of the same problem, since the criminal justice system as currently constituted [perpetuates racial disparities](#) in wealth, education, and opportunity. The US criminal justice system has been used for many decades as a substitute for a comprehensive system of support for people in need of medical treatment for [mental health issues](#) or [drug dependence](#). See, for example, how a range of laws about public behavior and the use of public space effectively [criminalizes homelessness](#).

Formerly incarcerated men and women experience high levels of unemployment, which [particularly injures women and families](#), as feminized professions such as retail and caregiving routinely require criminal background checks. The [direct and indirect costs](#)



The Clark Art Institute's RAISE program engages high school students referred by the juvenile court system. Photo by Art Evans, courtesy Clark Art Institute

of becoming entangled in the justice system weigh most heavily on the poor, often miring families in ongoing cycles of debt. It also damages the economy as a whole: economists estimate that such barriers to employment [reduced the US GDP by \\$78–\\$87 billion](#) in 2014.

Mass incarceration has created what has been called “felony disenfranchisement”: [6.1 million Americans are unable to vote](#) due to state policies barring felons from voting. Twelve states carry lifetime voting bans for men and women with felony convictions. Permanently removing the right to vote from people who have first-hand experience with the injustices of current policies makes it that much harder to enact reform.

Youth incarceration is particularly problematic, as



early imprisonment has lifelong effects on a young person's education, well-being, and attainments. This practice also disproportionately affects people of color, who are more likely to be charged and more likely to get harsh sentences. This inequity reflects deeper attitudes in our society that emerge [as early as preschool](#), when teachers' unconscious bias leads to black boys being disciplined at higher rates than their white and female peers, and sets the stage for what has been dubbed the "[school to prison pipeline](#)"—a system in which zero-tolerance policies in education funnel children out of school and into the juvenile and criminal justice systems.

Deconstructing the US system of mass incarceration will require deconstructing the economy that has grown up around it. Many municipalities rely on fines from law enforcement as a major source of revenue, often selling these debts to private businesses that increase the debt via fees and interest. So called "[profit-based policing](#)," which incentivizes overenforcement in mostly poor, politically disempowered neighborhoods, helped create the tensions that led to widespread protests after the police killing of Michael Brown, an unarmed black teenager, in

Ferguson, Missouri, in 2014. (Court fines and fees are Ferguson's second largest source of income.) In 2014, the [private prison industry](#) was a \$4.8 billion business with profits of over \$629 million, housing nearly 20 percent of federal prisoners and 7 percent of state prisoners. [Involuntary servitude](#) of prison populations is legal in the United States, and incarcerated workers are often forced to work for little or no pay through in-prison business or via "convict leasing" to external for-profit companies. The pricing and profits of companies such as AT&T, Victoria's Secret, McDonald's, and BP (British Petroleum) are, effectively, [subsidized via incarceration](#).

## What This Means for Museums

Museums' communities are being buffeted by the economic, cultural, and political fallout from current inequities in the justice system. Increasingly, museums are being called on to play a role in addressing these tensions through serving as venues for dialogue, as places of healing, or by acting as advocates for social justice.

Museums can help society reexamine the history and current practice of justice in the United States. They can create exhibits and programming that

## Museums Might Want to...

Address issues related to criminal justice explicitly in their exhibits and programming. Create ways to connect the public with incarcerated or formerly incarcerated people in order to promote empathy and foster understanding. [Go beyond neutrality](#) and take a position on the negative effects of current systems and the need for reform.

Examine their own hiring practices, especially with regard to criminal background checks. The federal government and over 150 cities and counties in the United States have adopted so-called "[Ban the Box](#)" policies and "fair chance" employment laws barring

employers from asking about a candidate's criminal record at the beginning of the application process. Even if a museum operates in a city or county that does not ban the box, it can voluntarily forswear using previous convictions to weed out job applicants early in the search process. Museums can also choose to proactively assist formerly incarcerated people by providing job training and experience, and encouraging them to apply for museum positions.

Revisit their own security practices, with awareness of how their policies and procedures may intimidate or exclude some audiences.





RAISE students work on a reflective writing assignment in the Clark galleries. Photo by Art Evans, courtesy Clark Art Institute

respond to current and local events and shape the discussion of how to move forward.

Even as museums become more conscious of the need for security in the face of domestic and international terrorism, they need to be aware of the message that security sends to portions of our communities. Adding officers and bag checks can make some people feel less secure, not more.

As the museum field commits to diversifying its own workforce, it needs to consider the effects of excluding people with criminal records. Besides disadvantaging a population that needs employment opportunities, this treatment also impedes progress toward racial diversity, given the disproportionate number of people of color with criminal convictions.

### Further Reading

*The New Jim Crow: Mass Incarceration in the Age of Colorblindness*, Michelle Alexander. The New Press, 2012. Alexander documents the effects of the US criminal justice system, arguing that "we have not ended racial caste in America; we have merely redesigned it."

The Sentencing Project has been working on US criminal justice issues for 30 years, promoting reforms in sentencing policy, addressing unjust racial disparities and practices, and advocating for alternatives to incarceration. Their website ([sentencingproject.org](http://sentencingproject.org)) provides a number of fact sheets and Web tools, including state-level data on criminal justice.

The Equal Justice Initiative is committed to ending mass incarceration and excessive punishment in the United States, to challenging racial and economic injustice, and to protecting basic human rights for the most vulnerable people in American society. Their website ([ejl.org](http://ejl.org)) includes videos, reports, and news briefs on racial justice, children in prison, mass incarceration, and the death penalty.



# The Rise of the Intelligent Machine

*“Some people worry that artificial intelligence will make us feel inferior, but then, anybody in his right mind should have an inferiority complex every time he looks at a flower.”*

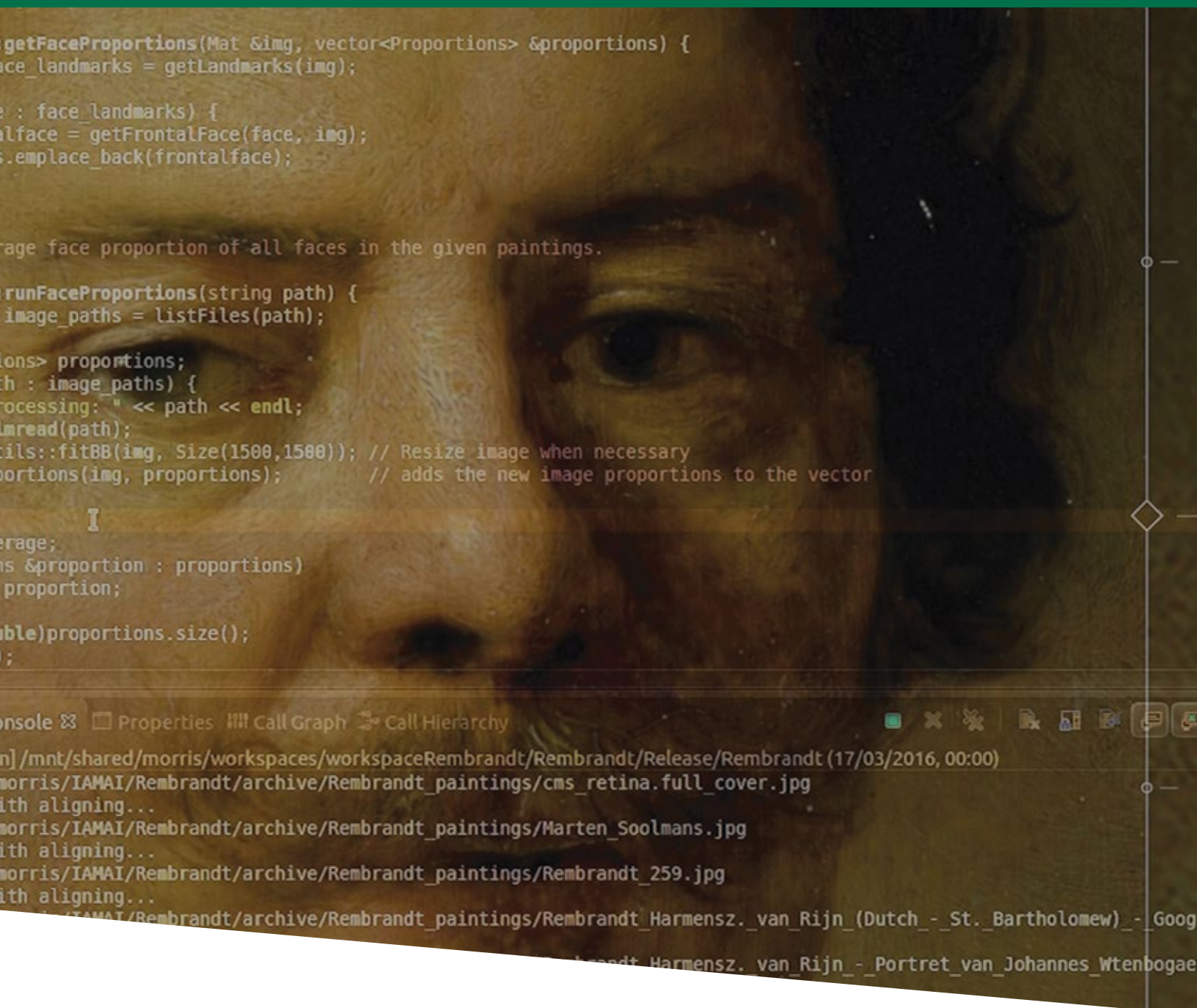
*—Alan Kay, computer scientist*

Computer systems are beginning to do things we used to believe required human thought: dealing with uncertainty; learning from experience; making predictions; interpreting language in a complex, contextual manner. Some systems called neural networks are even patterned after the human brain. These emerging forms of artificial intelligence (AI) can operate on a scale that exceeds human capacity, unlocking the potential of the enormous amounts of data we are generating. As with any technological revolution, the coming era of AI holds both promise and peril. AI algorithms are

powering breakthroughs that may fundamentally improve the human condition, but because AI can “think” faster, cheaper, and (in many cases) better than humans, it is expected to displace many professional jobs. AI offers museums the practical tools they need to manage their own swelling data sets, as well as new avenues for creativity.







In 1950, Alan Turing published a paper titled "[Computing Machinery and Intelligence](#)" in which he presented a framework for judging whether a machine can think. Turing, who is best known to the public for his work cracking the German "Enigma" code during World War II, proposed what he called the Imitation Game (also known as the Turing Test) in which an interrogator, asking questions of hidden respondents, tries to guess whether they are man or machine based on their replies.

[The Next Rembrandt](#) is a 3D-printed painting created with data from 346 of Rembrandt's paintings, using deep learning algorithms and facial recognition techniques. The project was initiated by ING Bank and advertising agency J. Walter Thompson.

Fast forward to spring 2016, when a computer science professor at Georgia Tech revealed to his class that one of their online teaching assistants that semester had, unbeknownst to them, been a kind of computer program called a "[chatbot](#)."



## Museum Examples

The **Norwegian National Museum** is experimenting with how machine learning and deep neural networks can be applied to their collections. At a practical level, this is a way to add metadata by using machine vision to identify and tag images. The museum has also used the algorithm to map the collections based on the machine's "context free gaze," creating unexpected connections.

In 2016, the **Tate's** IK Prize for digital innovation focused on artificial intelligence. The winning entry was **Recognition**, an AI program that pairs real-time photojournalism with British art from the Tate's collection based on its perception of similarities between images. For three months, the Recognition algorithms scanned Reuters news images, looking for commonalities between snapshots of current events and images from the museum's collections and archives. Recognition draws on multiple artificial intelligence technologies including computer vision capabilities like object recognition, facial recognition, color and composition

analysis, and on natural language processing of text associated with images. This enables the program to analyze context and subject matter and create written descriptions of image comparisons. Recognition's creators are also testing whether the program can learn from people's reactions to the resulting pairings of news pictures and art.

The **Musée du quai Branly** in Paris unleashed a **robotic AI art critic** on "Persona: Oddly Human," a 2016 exhibit in which anthropologists explored how the "inanimate becomes animate" through its relationship with people. In the spirit of this inquiry, the Berenson robot (named after the late art critic Bernard Berenson) tracks how human visitors react to the objects in the gallery through analysis of their facial expressions, and forms his own "opinions" accordingly—smiling and moving toward objects that people like, frowning and moving away from objects that provoke negative reactions.

Some students had been suspicious, if only because the program, dubbed "Jill Watson," responded so promptly and efficiently to their questions. Still, overall it seems that Jill herself earned a passing grade on Turing's Test.

Chatbots like Jill Watson use AI to simulate human conversation, drawing on a host of programs and interfaces that have been created based on Turing's

work. Natural language interfaces enable computers to accept normal human speech as input rather than requiring specialized language, syntax, or terminology. "Machine learning" gives programs the ability to improve based on experience, refining their performance as they test algorithmic predictions against real-world outcomes. These and other recent advances in hardware and software have given rise

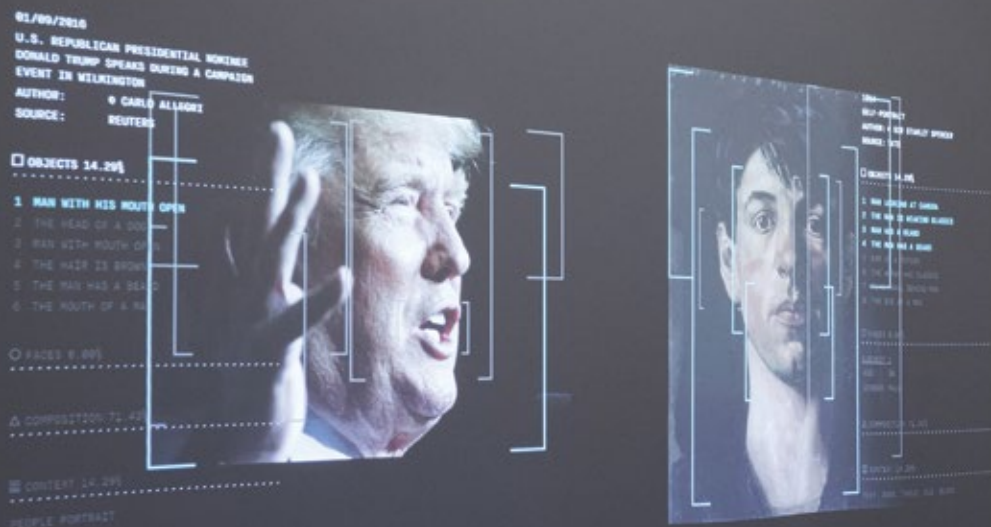


to what's being called "cognitive computing"—programming so sophisticated and adaptable that it mimics the function of the human brain.

AI programs can do far more than chatter. IBM has invested more than \$1 billion over the past two years in its [Watson Group](#), a division devoted to applying the power of cognitive computing and big data to health care, retail, banking, and insurance. IBM's artificial intelligence program, called IBM Watson, made headlines when it became the 2011 *Jeopardy* champion, beating two of the game's best human players, and continues to present a warm relatable side to the public as it invents new recipes, dabbles in fashion, and edits movie trailers. On a more serious

note, Watson is an [ace diagnostician](#), a [cybersecurity](#) expert, and savvy investment analyst. And now (coming full circle), IBM is using Watson to jump into the chatbot market itself, partnering with the popular workplace messaging app Slack to create a [superior chatbot](#)—one that can infer emotion from speech.

IBM is just one player in a rapidly expanding pool of government and private investment in AI: Apple, Microsoft, Facebook, GE, Google, and Amazon are in the game as well. These companies, starting from very different places—hardware, software, appliances, social media, and retail—are all using AI to take their work to a new level. Research is already starting to tackle the next frontiers. We are on the cusp of creating computers that vastly accelerate the speed of calculations and the density of data storage by using quantum scale systems such as atoms, photons, and



A visitor at the Tate examines a pairing made by the Recognition AI based on similarities between the images. (U.S. Republican presidential nominee Donald Trump speaks during a campaign event in Wilmington, Ohio, U.S. September 1, 2016. Reuters/Carlo Allegri; Sir Stanley Spencer Self-Portrait 1914, Tate © Estate of Stanley Spencer.)





Amid a growing number of AI-powered assistants for adults, we are beginning to see AI buddies designed for children as well. For example, each [CogniToys Dino](#) draws on IBM Watson to chat with kids in a personalized, age-appropriate way.

nuclear spin to register information. These quantum computers could fuel the development of neural networks and deep learning—forms of artificial intelligence that are particularly good at pattern recognition. And these tools could in turn enable us to design an [artificial general intelligence](#) (AGI) capable of operating across a broad range of cognitive tasks.

### What This Means for Society

AI has the potential to fuel economic growth and make the world better in a host of ways. AI-guided autonomous vehicles could have a massive effect on public transportation, reducing congestion and pollution while increasing accessibility for the elderly and disabled. AI can improve health care, holding out the promise of personalized medicine and improved diagnostics. AI may be able to make inroads on intransigent social problems that humans alone haven't been able to solve; researchers are using machine learning to map [global poverty](#) with

unprecedented accuracy; a Stanford undergrad is programming a chatbot to help [people who are homeless](#) access support. But the most exciting applications for AI may be in the realm of education. IBM Watson and its kin make possible the kind of learning Neal Stephenson envisioned in *The Diamond Age*. That novel's dystopian society, marred by huge cultural and economic divides, is revolutionized by the invention of AI-powered primers that serve as personalized, responsive mentors to children, creating a social revolution in which high-quality education becomes accessible to all. And if that sounds too much like a sci-fi scenario, take note that the Defense Advanced Research Project Agency's [Educational Dominance program](#) is already using AI-powered “digital tutors” to speed up training of Navy recruits.

All technological revolutions result in massive social and economic change. Historically, the most profound disruptions have been around labor, and AI is no exception, promising to reshape cognitive work as radically as robots transformed manufacturing in the 20th century. Researchers at Oxford University



project that AI will contribute to the [loss of up to 47 percent](#) of US jobs in the next 20 years, many of them professional jobs that traditionally require advanced degrees. Some law firms have already begun to use “[artificially intelligent attorneys](#)” to research legal issues, and one report predicts that by 2030 the [traditional structure of the legal profession will collapse](#), as legal bots take on the majority of “low-level economy work.” On the other hand, even as AI erodes the value of cognitive work, it may [increase the value of human judgment](#). In this scenario, human professionals will partner with AI to enhance their abilities. One such partnership that’s already proven successful: AI and doctors working to [diagnose breast](#)

[cancer](#) with 99.5 percent accuracy—better than either humans or machines working alone.

As we give AI power over the systems that shape our lives, society will need to work through a host of associated legal and ethical issues. For decades, students of moral philosophy have wrestled with the Trolley Problem, a conundrum that challenges them to decide what they would do if, as the driver of a runaway train, they were forced to choose between running down and killing one set of people or another. The programmers of self-driving cars have to write an algorithm that specifies how to behave in real-world versions of that problem. The Pentagon is laying the groundwork for so-called [autonomous](#)

## Museums Might Want to...

Use emerging tools that make AI accessible and affordable to improve museum operations and supplement existing staff. Museums can use cognitive conversational technologies like IBM’s [Watson Virtual Agent](#), designed to be usable by startups and small businesses as well as behemoth companies, to help the public plan their visit, book tickets, and explore online resources. [AI-powered Personal Digital Assistants](#) like Apple’s Siri, Google Assistant, Microsoft’s Cortana, Facebook’s M, and Amazon’s Alexa (or their increasingly powerful progeny) can schedule meetings, retrieve files, and offer reminders—freeing staff to spend more time on creative work. A growing number of [open-source or affordable platforms and APIs](#) (like [IBM’s Project Intu](#)) will help tech staff tailor AI for museum purposes without having to code from scratch.

Project the growth of their own datasets—both image and text—to forecast the point at which AI-mediated tools will be the only practicable management tool. Identify the scope and scale of external datasets that,

in combination with the museums’ own resources, present an AI-enabled opportunity to experiment with meaning and connections.

Help create an informed citizenry that is prepared to make decisions about the use and boundaries of this emerging technology. In a report on the future of AI, [researchers at Stanford University](#) point out: “If society approaches these technologies primarily with fear and suspicion, missteps that slow AI’s development or drive it underground will result, impeding important work on ensuring the safety and reliability of AI technologies.” Often what the public knows of AI comes from interviews with a few notable people, including [Elon Musk](#) and [Stephen Hawking](#), who believe the technology poses grave threats to humankind. Museums can foster familiarity with AI and encourage discussion about the values we as a society will apply to laws, regulations, and ethics controlling the application of AI, as well as how we will respond to the resulting displacement of labor and income.





[weapons](#)—robots and drones empowered to take lives without direct human oversight. More subtly damaging is the ability of AI algorithms to [inherit the biases of their programmers](#) and “learn” bias from the broader world, entrenching prejudices such as racism or gender bias into seemingly objective processes. How can we make AI programs [transparent and accountable](#) for their outcomes?

The rise of AI further challenges what and how we teach. The development of slide rules, then calculators, made it possible for kids to spend less time learning math as a process, and more time using it as a tool for higher reasoning. When schoolchildren use AI as naturally as any other technological tool, will teachers be freed to emphasize higher-level functions such as judgment and creativity and emotional skills such as empathy and compassion?

### What This Means for Museums

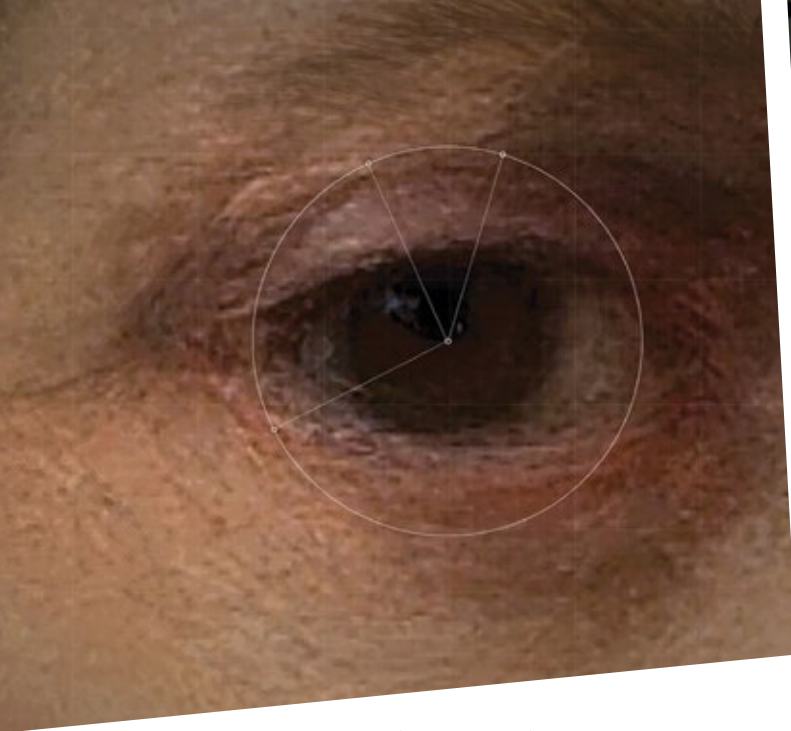
As AI becomes more effective and affordable, it will become part of the standard toolkit of museums seeking to enhance their business practices. Rather than displacing staff, AI can give smaller museums that can't afford dedicated specialists access to AI-powered legal services, marketing, communications, and data analytics. Even exploiting the potential of AI

itself will not necessarily require AI-specific expertise, as we develop plug-in applications for the technology. The Brooklyn Museum already uses Natural Language Processing algorithms to [assist the work of the behind-the-scenes staff](#) fielding visitor questions via their award-winning ASK App. Imagine a future in which any visitor to any museum can lob questions at an AI expert that mines both the museum's own collections data and the mass of scholarship available on the Web.

AI will be an essential tool for museums managing the massive scale of data in the 21st century. Visual recognition algorithms can unlock the potential of digital image collections by tagging, sorting, and drawing connections within and between museum databases. The museum field is struggling to manage the burgeoning mass of archival material “born digitally” via e-mail and social media. As Rich Cherry, deputy director at The Broad, [has pointed out](#), the scale of the problem is staggering: while the Clinton presidential library has a manageable number of e-mails, President Obama's library will contain more than a billion. AI may be the only feasible way to make meaning of archives at this scale.

AI is also a powerful tool for making museums and their collections more accessible and more useful to the general public. Natural language interfaces can empower users to mine collections databases





*The Next Rembrandt* (see pp. 24–25).

without knowing a specialized vocabulary. Programs powered by AI can help the curious surf museum data in playful ways. Front of house, visitors can use evermore accurate translation programs (such as [Google's Translate app](#)) powered by machine-learning algorithms to read exhibit labels and converse with staff.

Just as IBM's Watson can perform some aspects of medical diagnosis or legal research faster and more effectively than humans, it may turn out to excel at some museum-related work as well. Art authentication is an increasingly fraught field, with artist-specific foundations, collectors, and experts tangled over who has the final word over attribution. Some foundations, like the Pollock-Krasner and the Warhol, have [ceased doing authentication](#) from [fear of lawsuits](#) or other concerns. AI is being recognized as a powerful tool for [detecting fakes and forgeries](#); perhaps it can tackle authentication as well. When it comes down to recognizing what we have previously described as "style"—the [ineffable quality that can only be recognized by instinct and training](#)—museums may come to rely on AI as well as the "curatorial eye."

Berenson, a robotic AI art critic. © musée du quai Branly - Jacques Chirac, photo Cyril Zannettacci



## Further Reading

[Preparing for the Future of Artificial Intelligence](#). Executive Office of the President, National Science and Technology Council, October 2016. This report surveys the current state of AI, its existing and potential applications, and identifies the questions it raises for society and public policy.

[Artificial Intelligence and Life in 2030](#). Stanford University, 2016. This report is the first in a series to be issued at regular intervals as a part of the *One Hundred Year Study on Artificial Intelligence* (AI100). Starting from a charge given by the AI100 Standing Committee to consider the likely influences of AI in a typical North American city by the year 2030, the 2015 Study Panel focuses on transportation; service robots; health care; education; low-resource communities; public safety and security; employment and the workplace; and entertainment.





How far  
do we  
open the  
door?





# Reshaping the World: migration, refugees, and forced displacement

*"Refugees and displacement are likely to become  
a defining issue of the 21st century."*

*—Alexander Betts, director, Refugee Studies Centre, University of Oxford*

Mass migration, driven by conflict, oppression, political upheaval, climate change, environmental disasters, and economic distress, has been described as "[the defining issue of this century](#)." These traumatic relocations reshape the lives of the people who are displaced and of their new host communities, and spark both the best and the worst of human behavior. Museums can use their influence to build bridges between established residents and newcomers—to ease fears, build trust, and find common ground. And new migrants can help museums reexamine their relationships to place, to heritage, and to social transformation.

Migration is a constant in human history, but the scale of current involuntary migration is colossal. Last June, the United Nations High Commissioner for Refugees announced that the number of refugees, asylum seekers, and internally displaced persons [surpassed 65 million](#)—the highest number documented since the aftermath of World War II. Some migrants meet the definition of "refugee" as established by the 1951 UN convention: someone fleeing persecution based on race, religion, nationality, membership in a

social group, or political opinion. More than half these refugees are children, who are particularly vulnerable to the upheavals of exodus and resettlement. Many other displaced persons, dubbed "survival migrants," are fleeing economic collapse or food insecurity.

The world is beginning to see significant numbers of "climate refugees" as well, as communities are driven from their homes by changing environmental conditions. According to estimates by the United Nations Institute for Environment and

"Call me by my name: Stories from Calais and beyond" is an exhibition examining the humanity and complexity of the ongoing refugee crisis, staged by the Migration Museum Project in London. © branding by garden, courtesy Migration Museum Project [www.migrationmuseum.org](http://www.migrationmuseum.org)





"Refugees Welcome" sign. Undisclosed location, North East England 2016. Courtesy of mima

## Glossary of terms

**Asylum seeker:** a person who seeks safety from persecution or serious harm in a country other than his or her own, and applies for refugee status under relevant national and international laws.

**Migrant:** a traveler who moves from one region or country to another.

**Refugee:** a person who is involuntarily absent from home or country; an exile who flees for safety; a person who, "owing to a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinions, is outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country" (1951 Refugee Convention Act).

**Forced migration:** the coerced movement of a person or persons away from their homes or home regions.

Human Security and the International Organization for Migration, [between 50 million and 200 million](#) people—mainly subsistence farmers and fishermen—could be displaced by 2050 because of climate change. Last year, the US Department of Housing and Urban Development announced it would devote \$48 million to relocating the Native American residents of [Isle de Jean Charles](#) further inland—the first of many Louisiana communities that will need to be resettled in coming decades. If America's last "great migration" was the exodus of African Americans from the agricultural South to the industrial North, the next may be the shift of residents of low-lying coastal regions all around the country to the interior due to rising sea levels and the increasing frequency and severity of storms.

Recent waves of immigration test the capacity of many countries to provide food, jobs, housing, and basic security. These strains often trigger backlash from people in new host communities who fear for their own livelihoods, safety, or traditional ways of life. This in turn has led to a resurgence of nationalist, often right-wing movements in many countries—both mainstream political parties and groups on the fringe. Dominating the national and international stage and shaping politics across the globe, the challenges abound: whether to welcome or discourage migrants, how to share the responsibility for accepting and resettling refugees, and how to navigate the inevitable changes to local culture.

## What This Means for Society

The same stressors that drive forced migration—financial crisis, unemployment, civil conflict, terrorism—can make people lose their capacity to recognize others' humanity. Across the world we see communities struggle to determine to what extent "outsiders" should be encouraged or forced to conform to local norms. Controversies over clothing, always a powerful symbol of cultural identity, exemplify these strains, with many European





countries outlawing or considering [banning face veils](#) in public places or modest “[burkini](#)” bathing costumes on beaches. Such bans have been met with legal challenges asserting the primacy of freedom of speech, freedom of religion, and the basic principles of human rights, but legal decisions alone can’t resolve the underlying cultural conflicts. [Empathy toward migrants declined](#) in the months after Chancellor Angela Merkel opened Germany’s borders to refugees in 2015, and in Australia the Scanlon Foundation has documented [a decline in empathy and social trust](#) that has in turn fueled antimigrant attitudes.

Many believe that there is an urgent need to shift the public and political view of refugees as a burden to [refugees as a resource](#). All too often, communities focus on the crime, disease, and general moral decline some fear will follow in the wake of immigration. These fears persist even in the face of [research to the contrary](#). It is well documented, but less well publicized, that migrants can act as sources of economic and social revitalization. [Two-thirds of the economic development and economic growth](#)

Two-thirds of the 65.3 million people displaced worldwide are on the move within their own country. More than 80 percent of the other third have been taken in by their neighboring countries. The fictitious people in the Swiss National Museum’s “Displaced” exhibit talk about their fates and their perspectives. © Swiss National Museum

[of cities](#) is determined by population flow, and migration is a major driver of demographic change. In Detroit, which has resettled [more Iraqi refugees](#) in the last decade than any other city in the United States, the [Global Detroit initiative](#) has documented the power of immigrants to revitalize and stabilize declining urban neighborhoods. Bolstered by these findings, a coalition of 18 Rust Belt cities in the declining industrial Midwest of the United States is encouraging immigration, including refugee resettlement, to spur economic development and reverse declining populations.

The success or failure of communities to welcome, support, and integrate migrants will resonate for decades to come. [Migrant children](#) entering school may need support to overcome trauma, master new language skills, and navigate new cultural expectations. In most of Europe, the refugees from the 1990s-era wars in the Balkans are now reaching senior positions all through society; the children of current migrants may be our future leaders. On the



## Museum Examples

In [December 2014](#), Hartwig Fischer, who was then director of the **Dresden State Art Collections**, responded to a surge in anti-immigrant, anti-Muslim violence in Germany by projecting “Dresden for all” on the museum’s façade, hanging banners that read “The State Art Collections Dresden. Works from Five Continents. A House Full of Foreigners. The Pride of the Free State of Saxony,” and welcoming refugees and locals into the museum with the invitation to “Meet a Friend.” These actions had particular significance in Dresden, which is the birthplace of Pegida, Germany’s anti-immigrant, anti-Muslim movement.

In 2016, the **Middlesbrough Institute of Modern Art (mima)** in England worked with the local refugee and asylum-seeker charity Investing in People and Culture on a migration project called “If All Relations Were to Reach Equilibrium, Then This Building Would Dissolve.” The project included an exhibit as well as support services for the local migrant community such as a food bank, free lunch programs, and computers with Internet access. As mima director Alistair Hudson notes in an essay titled “[Why Art Museums Must Promote](#)

[Social Justice](#),” the fact that this work takes place in a museum “elevates the status of this constituency,” offering a “precarious group” the opportunity to contribute to and construct mainstream culture.

In 2013, the **Memoriale della Shoah di Milano (Milan’s Holocaust Memorial)** opened on Platform 21 beneath Milan’s central railway station, on the spot where hundreds of Jews were loaded into railcars for deportation to concentration camps during World War II. Inscribed in the memorial’s atrium is the word *indifferenza* (indifference) to remind visitors that public apathy made the Holocaust possible. By July 2015, African refugees were crowding the train station and using the museum’s washroom. Rather than trying to exclude these people, the staff shared toiletries and towels, distributed wash-tubs, detergent, and drying racks donated by volunteers, and provided folding beds to about 35 refugees, most from Eritrea and Ethiopia. “[We cannot remain indifferent](#),” declared the vice president of the Memorial Foundation, drawing a direct connection between the memorial’s historic mission and its contemporary responsibilities.

other hand, failed policies lead to self-propagating cycles of tension and fear. Ten years after the urban riots of 2005, France continues to suffer cultural and economic fallout from the practice of [effectively segregating migrants and refugees](#) into poor suburban ghettos.

### What This Means for Museums

As members of museums’ communities, migrants and refugees bring their own particular needs, notably to remember and preserve their history and

culture even as they settle into their new country. Migrants may need language and job training as well as advocates to promote tolerance and understanding within the host community. They may need help recovering from trauma. Museums, through their collections, can provide context and historical perspective around the migrations shaping their communities. And in so doing, they can promote the kinds of personal encounters, dialogues, and empathy that promote healing and ease the fears and tensions between refugees and established residents.



Addressing migration gives older cultural museums a way to connect their mission to current events and new community members. For example, the original audience of the National Czech and Slovak Museum and Library in Cedar Rapids, Iowa, included Czech refugees who fled to the United States during World War II as well as the 1960s. While the Czech and Slovak population of Cedar Rapids is shrinking, the city is home to a growing number of [new refugees](#), notably from the Democratic Republic of Congo, and the [museum is responding with a series of events](#) that includes a summit to promote art and cultural initiatives serving local refugee and immigrant communities. As a museum staff member noted, “We have to respond to current issues and make a Czech and Slovak Museum relevant to people who aren’t Czech and Slovak.”

Serving a community that includes recent migrants and refugees may require museums to adapt their hiring and training. Understanding the difficulties of conflict and conflict resolution can require



“If All Relationships Were to Reach Equilibrium Then This Building Would Dissolve,” a 2016 exhibition at mima. Courtesy of mima

a skill set unfamiliar within traditional museum professions. Museums may adapt by hiring people from nontraditional backgrounds, developing new training, and giving representatives of migrant communities meaningful roles in determining how the museum serves their needs. And all museum staff may need training to deal productively with anti-immigrant attitudes directed at the community, visitors, [or the museum itself](#).

Olafur Eliasson: Green light: an artistic workshop coproduced by Thyssen-Bornemisza Art Contemporary. Installation view: TBA21-Augarten, Vienna, Austria. Photo: Sandro E.E. Zanzinger/TBA21. 2016. @Olafur Eliasson







## Museums Might Want to...

Combat fear and prejudice by using storytelling to build empathy. Journalism often fuels fear by highlighting the worst that does or can occur. Museums can provide balance by exploring what their own collections have to tell us about the history of migration and the evolution of communities. They can improve relations between migrants and host communities by inviting newcomers to share stories about objects that reflect their heritage, and explore different perceptions of the world, history, current events, and cultural norms through the lens of art, artifacts, and the natural world. They

can value the expertise of migrants, who may be able to teach museum staff about their own collections.

Help refugees find jobs, thus meeting their immediate practical needs while helping them integrate into the community. Museums could hire refugees, as when the German Culture Ministry employed [Syrian refugees as guides](#) to give native language tours to fellow refugees in Berlin Museums, providing not only income, but valuable social validation. Some refugees are highly trained professionals in fields applicable to museum work. Museums might also foster more general economic opportunities by





## Further Reading

[Museums and Migration](http://museumsandmigration.wordpress.com/) (museumsandmigration.wordpress.com/) was created by Anna Chiara Cimoli and Maria Vlachou as a place to bring together current museum thinking and practice regarding migration and the refugee crisis.

[\*Museums, migration and cultural diversity: Recommendations for museum work\*](#). Published by the German Museums Association, translated into English by the Network of European Museum Organisations, 2015.

*Museums and Migration: History, Memory and Politics*, Laurence Gourievidis, ed. Routledge, 2014. An international compilation of essays on issues and challenges; engaging with cultural diversity; and migration history and personal narratives in museums.

[\*The MeLa Books Series\*](#), available as free digital downloads, includes several titles related to museums and migration, including *Museums in an Age of Migrations. Questions, Challenges, Perspectives*, by Basso Peressut, Luca, and Clelia Pozzi, eds. Politecnico di Milano, 2012.

"Call me by my name: Stories from Calais and beyond," an exhibition examining the humanity and complexity of the ongoing refugee crisis, staged by the Migration Museum Project in London. © branding by garden, courtesy Migration Museum Project [www.migrationmuseum.org](http://www.migrationmuseum.org)

providing migrant communities with [access to maker spaces](#) or opportunities for selling their work. In the emerging niche of [museum-based business accelerators](#), there may be a specialized role for mentoring programs dedicated to helping refugees launch new ventures.

Value simple actions. Easing the trauma of people displaced by violence or social or economic upheaval can start with inviting them to [share a meal, make music, or hang out in a friendly environment](#). It can include offering support that may not directly connect to the museum's usual services: helping people

navigate a new city and an unfamiliar bureaucracy, fill out paperwork, access social services, or [learn a new language](#). Museums can build on the good work being done by nonprofits dedicated to working with refugees—for example, working with local resettlement programs to identify families and individuals who might take advantage of museum services. But, as scholar Maria Vlachou [has pointed out](#), museums may be most effective when focused on "their own role and their specific contribution, one that no other organization can provide in the collective effort that will be the reception and inclusion of refugees."



# Failing Toward Success: the ascendance of agile design

*“If you’re creating things, you’re doing things that have a high potential for failure, especially if you’re doing things that haven’t been done before. And you learn from those things...failure is another word for experience.”*

—George Lucas

Both for-profit and nonprofit organizations increasingly recognize that failure is a necessary part of a successful design process. It isn’t easy to adopt this approach when “failing” is conflated with “being a failure,” but we are coming to realize that blanket negative characterizations of failure damage us as learners, workers, organizations, and as a culture. In a time of rapid social, technological, and economic change, organizations have to try new things in order to succeed, and such innovation requires a tolerance for risk. As museums’ business models are experiencing profound disruptions, this field in particular needs to be comfortable with positive failure, but museums need encouragement, tools, and positive feedback if they are to buck the long tradition of perfectionism that has characterized the sector.

Given all the hoopla in the past decade—as evidenced by the proliferation of catch phrases like “fail fast,” “fail forward,” “fail smart”—the concept of failure is in danger of being labeled a fad. Searching “failure” on Amazon identifies over 24,000 books on the subject, and Astro Teller’s recent TED Talk on the [“unexpected benefit of celebrating failure”](#) has already racked up over 2 million views. But underlying the hype is a profound shift away from traditional business practices and toward lean, nimble, adaptive organizations. In times of change and uncertainty, rapid prototyping and iterative design—trying small,

fast experiments, testing their success, and adjusting accordingly—entails less risk in the long run than investing huge amounts of resources implementing one, theoretically perfect plan. Learning productive methods of failure has become an important strategy for businesses of all sizes, from big established companies that don’t want to become dinosaurs to small startups hungering for success.

Creating a climate of productive failure requires a workplace culture that values individual experimentation and input, but the characteristics of innovative organizational culture are often at odds with





Visitors to the Minneapolis Institute of Art provide direct feedback on a new digital storytelling platform, as part of the museum's ongoing iterative practice of developing engaging experiences. Courtesy of Minneapolis Institute of Art

traditional, command-and-control management structures. Organizations, particularly those with entrenched hierarchical structures, are finding they need to adopt frameworks that support experimentation and risk taking. Recent decades have seen the proliferation of a wide variety of systems, methodologies, and approaches that support taking small, productive risks and learning from small, rapid failures. Entrepreneur and author Peter Sims documents how large established organizations like Amazon, Pixar, Google, Hewlett Packard, and the US Army succeed via making “[little bets](#)”—low-risk actions to discover, develop, and test an idea—in support of ambitious long-term goals. At the other end of the spectrum, [the Lean Startup Movement](#) is designed to help new businesses find their market niche via continual testing. The principles of Scrum—an iterative, incremental approach to software development designed to deal with the unpredictable, shifting needs of the end user—have

spread within organizations as other departments emulate the successful practices of their IT staff. And the Scrum approach has diffused to other fields as people with technology backgrounds become core staff and leaders in a variety of sectors.

### What This Means for Society

To prepare learners for the 21st-century workplace, education is shifting to privilege critical thinking, research skills, creativity, perseverance, adaptability, and teamwork over rote memorization of facts. This transition will require a cultural shift in education toward fostering exploration, curiosity, and experimentation, all of which inevitably involve “failing” as a productive part of learning new things. In the future, a good student's report card may be sprinkled with Fs that laud little failures.

Even as society struggles with the impact of excess screen time for kids and assesses the potential for video games to foster violent or antisocial





Staff of the Phoenix Art Museum used design sprints to create a series of “I’m Here” visitor guides that speak with a fresh voice. This version encourages visitors on a date to use art to spark conversation and, possibly, chemistry. Courtesy of Phoenix Art Museum

behavior, we increasingly recognize that games, particularly digital games, are a means of giving continuous feedback, helping kids see failure as an inevitable and unremarkable part of “leveling up.” And we are realizing that the [characteristics of productive failure in games](#) could be grafted onto other areas of endeavor: giving continuous feedback; making failure private; normalizing failure as an expected part of a process; and immediately presenting a “player” with the chance to try again.

A [bias against failure in research publication](#) is holding back progress in a variety of fields. Not sharing the results of thousands of experiments that “fail”—i.e., generate negative results—obscures important findings, creates bias in metadata studies, and wastes the time of researchers who replicate experiments they didn’t know had already taken place. That may mean, for example, repeating medical trials that subject volunteers to treatments that are already known (by someone) to be ineffective. Individual journals and professional societies are trying to crack down on publication bias, but there is no simple fix. One study conducted in 1987 found that suppression of negative

results isn’t primarily due to editorial decisions: it’s a result of self-censorship by researchers who didn’t even write up and submit papers describing their work. In other words, bias against failure is itself a failing of academic culture.

Valuing failure can amplify or counteract concurrent social trends. User-centered design creates a meaningful role for the public at a time when participation is increasingly valued as part of a cultural experience. And learning to accept failure as part of a mutual process of learning what works and what doesn’t work in our complex society can help to counteract increasing cultural and political polarization.

## What This Means for Museums

Museums, as a sector, share a culture of perfection that places large bets on getting a product—whether an exhibit, program, or building—right the first time. This culture is often rooted in traditional, hierarchical management structures that evolved in a time that valued authority and control over collaboration and creativity. Museums that decide to move away from



## Museum Examples

In the past decade or so, a number of museums have created “labs” that carve out a place for staff to mess around: **Cooper-Hewitt Labs**, the **Metropolitan Museum of Art’s MediaLab**, **IMA Labs at the Indianapolis Museum of Art**, **Louvre-DNP Museum Lab**, and the **Carnegie Museums’ Innovation Studio**, to name a few. As Philbrook Museum of Art Director Scott Stulen (formerly of the Indianapolis Museum of Art) said, “[Failure is such a big part of creativity](#).” Most R&D labs are built on that. But it’s not just failing—it’s having learning as a creative outcome.” However, the mixed track record of these startups demonstrates how hard it can be for the culture of innovation to take hold.

At the **Minneapolis Institute of Art (Mia)**, a “failure-friendly” approach that began as an effort to deliver improved digital content wound up redefining project management for the entire organization. Staff moved away from detailed project plans, strict timelines, and fixed deliverables in favor of rapid iteration and direct public engagement throughout the design process. They found that by educating senior executives in the practice of agility—particularly the concept of self-organized teams—decisions could be made without waiting for traditional, hierarchical approval chains. And teams found they could enhance trust in this process by demonstrating how results of public testing lead directly to improvements. For example, using this agile approach, a dedicated team of Mia staff published over 100 Web-based, multimedia

[“ArtStories”](#) and created a [website](#) that uses direct feedback to make continuous improvements in short iterative cycles.

Some museums are using “design sprints” to drive rapid development of content, experiences, services, or digital tools. The [Phoenix Art Museum](#) sent a team of education staff offsite for a blitz session to create a set of “I’m Here” visitor guides. Starting with a brain dump on everything they knew about visitor motivations, by the end of the day they had content their designer could use to create the working prototypes. Staff from the Digital Product Group at the [British Museum](#) ran a design sprint focused on improving wayfinding. Working in two half-days, and incorporating visitor interviews, they used the process to educate their colleagues about the strength of user-centered design and to break down silos within museum departments.

Starting in 2012, with a break in 2015, a rotating cast of museum professionals led by Sean Kelley of the **Eastern State Penitentiary** has populated a session titled “Mistakes Were Made” at the annual meeting of the American Alliance of Museums. By sharing funny, honest accounts of things that went radically wrong, the panelists help destigmatize failure as well as ensure that some broader benefit comes from their unfortunate experiences. This session culminates in the audience awarding the “AAM Epic Failure Trophy” to the best mistake, celebrating “sharing as the first step in learning.” This national session is so popular that it has spawned local versions as well.



dysfunctional perfectionism have to work consciously to change an organizational culture that discourages risk taking. A culture of continuous improvement can't simply be isolated in a new department or grafted onto traditional structures—it requires fundamental shifts in a museum's ethos, including new

forms of leadership and management.

Museums are at risk of lagging dangerously far behind the rapid changes shaping audience, culture, and technology. The traditional time frame for major projects is too long for truly responsive design. If exhibits and publications take five to 10 years to

## Museums Might Want to...

Try small, controlled experiments to introduce innovative design within the existing culture. Learn from projects like the San Francisco Opera (SFO)'s "[Barely Opera](#)," in which two students from Stanford University's Hasso Plattner Institute of Design introduced the SFO to new ways of thinking. That experiment, which started with staff bouncing ideas off random strangers at the Ferry Building, resulted in a wildly popular event at a bar that encouraged audience members to don costumes, spin a game-style wheel to select songs, and listen to members of the opera company deliver laid-back, humorous interpretations of classic works. Barely Opera pushed SFO staff to work outside their comfort levels and celebrate failures, and resulted in the creation of a new production department called "SF Opera Lab" dedicated to producing low-cost, low-risk events pitched at specific new audiences.

Adopt design thinking or another established model as the museum's usual methodology for developing new exhibits, programs, and services. There are many excellent programs and resources, including [IDEO's ExperienceInnovation: A Workshop for Teams](#); the [Harvard Extension School's Design Thinking Workshop](#); and Stanford University's d.school's [Virtual Crash Course in Design Thinking](#). It is also increasingly common to find sessions and workshops on design thinking and related topics at museum conferences or in online training designed for museum professionals.

Review their own organizational cultures and find ways to encourage productive risk taking. This approach may include budgeting "mad money" to encourage small risks in the interest of R&D or creating an experimental "lab" dedicated to taking supported risks. Or museums could build recognition and reward for risk taking into systems for performance review and compensation. But the mixed record of such experiments shows that successful innovation projects need to be supported at the leadership level and embedded in the organizational culture, rather than depending on charismatic, talented individuals or small groups.

Help reshape cultural attitudes toward failure by incorporating positive narratives into their exhibits and programs. Museums can help society see failure as a normal and valued part of the learning process.

Join the growing number of museums willing to share their failures, as well as what they learned from these "unsuccessful" experiments, in public forums—in print, on blogs, or in conference sessions. Museum professionals can reward their colleagues' candor with praise and appreciation. Museum associations can examine their own practices for accepting papers and sessions, and address any institutionalized bias against failure that may be suppressing useful information.





Levine Museum's "INUEVOlution! Latinos and the New South" exhibit incorporated multiple rounds of community input from inception through installation. Even after the exhibit had been installed and open to the public, staff made significant changes in response to feedback, including a section redesign, new content for panels, and additional activities.

produce, and if institutions take another one to three years to collect evaluation data, operations will only improve on decadal cycles.

"Failure-based" design processes incorporate early input from the end user. For example, one methodology being widely adopted in the cultural sector is [design thinking](#): a set of principles that include empathy with end-users, rapid prototyping, and a tolerance for failure. This is a welcome counterbalance in organizations such as museums, orchestras, or opera companies that have a long history of producing performances, exhibits, and programs that seem perfect to the staff or funders, but may not resonate with audiences. Recruiting the public to test prototypes is not just a way to improve the final design—it is itself a valuable form of engagement that can humanize the museum and make the audience feel invested in the outcome.

Museum funders are beginning to recognize the strength of "small bets" as a path toward innovation. In 2011, the Institute of Museum and Library Services started offering Sparks! Ignition Grants to support one-year, rapid prototyping projects with grants of \$5,000 to \$25,000. This program has now

been rolled into IMLS's National Leadership Grants for Museums, and the maximum award increased to \$50,000.

## Further Reading

[The Art of Failure: The Importance of Risk and Experimentation.](#)

National Endowment for the Arts 2014, #4. This issue presents edited first-person insights from individual artists, entrepreneurs, and critics about their relationship with failure. As the NEA description of the publication says, "Taken together, these voices show that maybe—just maybe—failure isn't such a dirty word after all."

At Museums and the Web 2016, Douglas Hegley, Meaghan Tongen, and Andrew David presented "[The Agile Museum](#)"—a paper describing how the Minneapolis Institute of Art is creating an agile work environment. This case study emphasizes the need to change leadership and management practices in order to support a culture of rapid iteration and experimentation.

The website [Design Thinking for Museums](#), edited by Dana Mitroff Silvers, shares case studies, blog posts, and resources. It grew out of a 2012 partnership between the San Francisco Museum of Modern Art and Stanford University's Plattner Institute of Design, and offers a compendium of links to free online toolkits.



# Where to Find the Future

Most of CFM's content is available free over the Web.

This year's *TrendsWatch* report is supplemented by a digital presence ([trendswatch.aam-us.org](http://trendswatch.aam-us.org)) that aggregates news from across the Web related to each of the trends.

CFM's page on the Alliance website ([futureofmuseums.org](http://futureofmuseums.org)) includes links to all of our projects and reports.

CFM maintains a site dedicated to the future of education ([futureofeducation.aam-us.org](http://futureofeducation.aam-us.org)) dedicated to exploring the role museums can play in the future of P-12 education. It is curated by Sage Morgan-Hubbard, the Alliance's Ford W. Bell Fellow for Museums and P-12 Education.

The CFM Blog ([futureofmuseums.blogspot.com/](http://futureofmuseums.blogspot.com/)) features a mix of essays by CFM's director, guest posts, recommended reading and viewing, and commentary on current news. The trends featured in this report will be explored in more depth on the blog throughout 2017.

CFM's weekly e-newsletter, "Dispatches from the Future of Museums," contains summaries of and links to a dozen or so news items about trends, projections, museum innovations, and tools for the future. You can find the newsletter archive and subscription link at [multibriefs.com/briefs/aam/](http://multibriefs.com/briefs/aam/).

You can follow CFM on Twitter ([@futureofmuseums](https://twitter.com/futureofmuseums)), where our tweets feature links to news, research, opportunities, and current events.

On Pinterest ([pinterest.com/futureofmuseums/](http://pinterest.com/futureofmuseums/)), CFM's boards are devoted to images illustrating the trends we follow, recommended reading and viewing, and glimpses of potential futures.

CFM's Facebook page ([facebook.com/futureofmuseums](https://facebook.com/futureofmuseums)) shares links and brief commentary on stories related to museums.

CFM's YouTube channel ([youtube.com/futureofmuseums](http://youtube.com/futureofmuseums)) hosts interviews with museum professionals around the world as well as recordings and screencasts of talks by CFM staff, while our "Favorites" list is a compilation of futures-related videos from a wide variety of sources.



# Author Credit

Elizabeth E. Merritt is vice president, strategic foresight, and founding director, Center for the Future of Museums, at the American Alliance of Museums. Her #butterflymoment<sup>1</sup>—that magical instant when one first falls in love with museums—took place at age 5 in the Cleveland Museum of Natural History (CMNH). There, confronted by a dramatically mounted [Dunkleosteus terrelli](#) (a prehistoric armored fish), she was so terrified she peed her pants. Fear quickly turned to fascination, and she went on to become a teen volunteer taking care of live animals at CMNH.

Her first paid museum job was at the Children's Museum of Dartmouth, Massachusetts, where one of her responsibilities was to kill rats for feeding the resident boa constrictors. Even that was not enough to dissuade her from a museum career, and she eventually became director of collections and research at Cincinnati Museum Center (CMC). Her notable experiences at CMC included sneaking into a secure quarantine area at the airport to top up the liquid nitrogen of frozen tissue transport containers, and disarticulating a dead baby walrus in the parking lot with a meat cleaver.

Moving to DC, her first job at AAM was directing the Museum Assessment Program (MAP). Eventually she became director of all the “excellence” programs at the Alliance, including MAP, Accreditation, peer review, and the Information Center. In 2006, when the Alliance Board approved the creation of a futurist initiative as one of the AAM Centennial projects, Merritt made a successful bid to lead the new project and hightailed it to the University of Houston for a certificate course in strategic foresight.

Her areas of expertise include strategic foresight, museum standards and best practices, ethics, collections management and planning, and assessment of nonprofit performance. Her books include *National Standards and Best Practices for U.S. Museums* and the *AAM Guide to Collections Planning*. She blogs for CFM at [futureofmuseums.blogspot.com](http://futureofmuseums.blogspot.com) and tweets as [@futureofmuseums](https://twitter.com/futureofmuseums).

<sup>1</sup>The #butterflymoment hashtag was coined by CFM in tribute to Bill Stanley, director of the Collections Center at the Field Museum of Natural History, who died in 2015 during a field expedition to Ethiopia. Bill narrates the moment he fell in love with museums in a beautiful [animated video](#) that won a 2016 MUSE award from the Alliance Media & Technology Professional Network.



# About Us

The Alliance's Center for the Future of Museums (CFM) helps museums explore the cultural, political, and economic challenges facing society and devise strategies to shape a better tomorrow. CFM is a think tank and R&D lab for fostering creativity and helping museums transcend traditional boundaries to serve society in new ways. For more information, visit [futureofmuseums.org](http://futureofmuseums.org).

The American Alliance of Museums has been bringing museums together since 1906, helping to develop standards and best practices, gathering and sharing knowledge, and providing advocacy on issues of concern to the entire museum community. Representing more than 35,000 individual museum professionals and volunteers, institutions, and corporate partners serving the museum field, the Alliance stands for the broad scope of the museum community. For more information, visit [aam-us.org](http://aam-us.org).

# Cover

Sea Tree, by Waterstudio. Lead Architect: Koen Olthuis

[www.waterstudio.nl](http://www.waterstudio.nl)

The Dutch architectural firm Waterstudio designed Sea Tree in response to the challenges of providing city green space in the face of urbanization and climate change. This floating structure provides multiple layers of plantings dedicated to birds, bees, bats, and other small animals—no people allowed! Underwater, Sea Tree provides habitats for aquatic life—even, where the climate allows, for artificial coral reefs. The flora and fauna living in and around a Sea Tree will enrich the environment in a zone extending several miles around the moored location.

Sea Tree is based on offshore technology similar to that used for oil storage towers on the open sea. Waterstudio sees an opportunity for large oil companies to donate a Sea Tree to a city to show their concern for better urban environments. Waterstudio believes Sea Tree will be the first floating structure 100-percent built and designed for flora and fauna.



# Acknowledgements

*TrendsWatch is made possible by the collective wisdom of many people inside and outside the museum field who contribute their time and creativity to CFM's work. For their help with this edition, I would particularly like to thank:*

*Anna Chiara Cimoli, museum consultant, ABCittà, Milan*

*Elif M. Gokcigdem, art historian; founder, Empathy-Building Through Museums Initiative; author, Fostering Empathy Through Museums, Washington, DC*

*Douglas Hegley, director of media and technology, Minneapolis Institute of Art*

*Nicole Ivy, ACLS Public Fellow and CFM Museum Futurist, American Alliance of Museums, Washington, DC*

*Sage Morgan-Hubbard, Ford W. Bell Fellow for Museums & P-12 Education, American Alliance of Museums, Washington, DC*

*Sean Kelley, senior vice president and director of interpretation, Eastern State Penitentiary Historic Site, Philadelphia*

*Clare Patey, director, Empathy Museum, London*

*Gail Ravnitzky Silberglied, vice president, government relations & communications, American Alliance of Museums, Washington, DC*

*Robert J. Stein, executive vice president & chief program officer, American Alliance of Museums, Washington, DC*

*Jasper Visser, senior partner, VISSCH+STAM Strategic Services / blogger, The Museum of the Future (themuseumofthefuture.com), Amsterdam*

*Maria Vlachou, cultural management and communications consultant, Lisbon*



# About Our Sponsors

“We are thrilled to support the research and insights that the annual *TrendsWatch* report provides. Elizabeth Merritt and all of our partners at AAM are moving museums forward, pushing us all to become better together, and we couldn’t be prouder to be a part of this important work.”

—Kevin Knight, SVP & GM, Arts & Cultural Organizations, Blackbaud

## Blackbaud for Arts & Cultural Organizations

Blackbaud is a leading provider of solutions and services for arts and cultural organizations, including Altru for consolidated ticketing, membership, fundraising, and more! Blackbaud has partnered with more than 2,400 arts and cultural organizations worldwide to provide solutions and services that meet their unique goals in development, marketing, ticketing, and more.

---

“I always look forward to reading CFM’s annual *TrendsWatch* report as it provides a window into the world of what concerns museums most. The highlighted trends often provide a spotlight on current perils and exposures and thus potential helpful clues about how we need to modify risk management techniques to better serve the museum community.”

—Joe Dunn, president & CEO, Huntington T. Block Insurance Agency, Inc.



Huntington T. Block Insurance manages AAM-recognized insurance programs, offering museum collections, exhibitions & temporary loans/fine art; property & casualty; and trustees/directors & officers liability insurance. Each unique program strives to provide broad coverage at very competitive premiums with service from a knowledgeable and responsive team of risk professionals.



PGAV Destinations supports *TrendsWatch* for the same reason we conduct our own primary research: we believe museums thrive when dedicated to better understanding their audiences.



Dreamers, thinkers, and makers

PGAV Destinations. We're sculptors, designers, architects, artists, and strategists devoted to creating experiences that will inspire and empower guests to change the world.

Master Planning. Storytelling. Experience Design. Architecture. Media Installations. Retail Design. Museums. Science Centers. Zoos. Aquariums. Historic Sites. Brand Destinations. Themed Attractions.

---

"I'm proud to be able to say Solid Light is where great ideas come to life, and we are passionate advocates for rich and rewarding visitor experiences. We're also proud to support CFM's *TrendsWatch*, because it shows us all ways to innovate and bring fresh approaches to our work."

—Cynthia Torp, Owner/President, Solid Light

solidlight

Solid Light designs and builds exhibits and visitor experiences that engage, enlighten, and inspire. We are passionate champions of a client's vision, bringing powerful stories to life through comprehensive, start-to-finish, content, design, fabrication, and installation services.





**American  
Alliance of  
Museums**

## Help us keep an eye on the future

*TrendsWatch* and other Center for the Future of Museums activities are supported by American Alliance of Museums member dues and donations. If this report sparked your thinking and you would like to see *TrendsWatch* prosper, please consider supporting the Alliance by joining or making a tax-deductible contribution. The Alliance is committed to helping museums succeed and making the case that museums are essential in our communities. We welcome your investment in our shared future.

Join or donate online at [aam-us.org](http://aam-us.org) or by calling 866-226-2150.

*Corporate and foundation support are also welcome. To learn more, contact Eileen Goldspiel, director of institutional giving, at [egoldspiel@aam-us.org](mailto:egoldspiel@aam-us.org) or 202-218-7702.*