TRENDSWATCH
2016

Table of Contents

Introduction

AS I WRESTLED WITH THIS FIFTH EDITION OF
TRENDSWATCH, I realized that for the first time
the report has a unifying theme, even if it's one
that's not easy to state. The topics that emerged
from my scanning last year—the stories featured in
Dispatches from the Future of Museums, yet more
stories I bookmarked in Diigo, sessions at the annual
meeting, buzz at conferences—all revolve in some
way around identity. What defines who I am? How
does society impose identity on me (or you), and
who controls how that identity is portrayed? How do
I experience the world and empathize what it's like
for other people? What is the basic meaning of being
human: How have we mischaracterized that in the
past, and will it change in the future? Existential stuff
for a futurist, but grounded in an examination of five
tangible trends.

This issue opens with a chapter on the future of
labor—a broad look at all the ways that work and
the workplace are changing. I've been told that one
defining difference between cultures is whether and
when you ask a stranger, "What do you do?" In the US
(certainly in Washington DC, where I am based) that
question is a conversation starter—as what you do is
seen as integral to who you are. Stay-at-home moms
have long struggled to answer in a way that rejects
our culture's devaluation of unpaid labor—however
much it contributes to our collective wellbeing. And
wellbeing (in the form of happiness) anchors the
report at the other end. Are jobs (and salary) really
the most important things in the world? And if happi-
ness is more important than money, shouldn't _that_ be
how we define and measure success?

Happiness starts with understanding and accepting
oneself, but it's a lot easier to be happy if _other_ peo-
ple accept you as you are, too. That being so, we are
laying the groundwork for a happier future by starting
to question the boxes we force people into. Even
more fundamentally, we are beginning to question
the reality of boxes themselves. A lot of attributes we
have long treated as clearly bounded categories—
race, gender, sexual orientation—are actually contin-
uums. Chapter four maps some of the implications
of recognizing the blurriness of boundaries: How do
we create buildings, communities and systems that
accept that people fall along broad spectrums in all
sorts of ways?

Accepting others as they are requires empathy, which
is all too often in short supply. Therefore I'm encour-
aged to learn that some of the hottest emerging
technologies—those of augmented and virtual reali-
ties—are described as "empathy machines" capable
of helping people feel they literally are walking a mile
in another's shoes. I review some of the latest devel-
opments in AR and VR in chapter three.

Maybe with a little more AR/VR-enhanced under-
standing of what it's like to be "other," we wouldn't
have designed so much of our environment to work
for the "average" person. But we did, and now we are
confronting society's role in the _creation_ of disability
through our architecture and our behavior. As we
celebrate the 25th anniversary of the Americans with
Disabilities Act, we are rapidly improving our abil-
ity to not only compensate for disability, but correct
for it. However, that acceleration only highlights the

question: Who gets to say that certain ways of being human ought to be "fixed"? A growing number of disability rights movements are celebrating their distinct identities—and rejecting such fixes. And with the development of ever more sophisticated technologies that can augment our sensory, physical and cognitive capabilities, we are entering a future in which we can not only compensate for disabilities, but give people the choice of being "superabled." How will such augmentation disrupt our traditional hierarchies of ability and (to loop back to chapter one) reshape labor?

Hand-in-hand with the question of identity goes the question of representation. Who gets to control the story of individuals and groups? As with disability/ability, this conversation is also about deconstructing traditional power structures—even though it's unclear what the new structures will be. People are demanding to see themselves in their public institutions, but those institutions are besieged by competing claims. Who has standing to speak on behalf of a community? Given our increased recognition of the complexity of identity, who gets to say who does or does not even belong to a given group? Objects, as powerful symbols representing people and culture and history, are at the center of this struggle. And that means museums, as caretakers and interpreters of objects, are deeply enmeshed as well.

So—identity, representation, control, the deconstruction of categories, revisiting who we are and who we want to be. I told you it's a complicated theme: big and messy and important. More than once as I started yet another round of revisions (with much input from my wonderful commenters), I doubted my qualifications to tackle these issues at all. But I decided these topics are too important to give them a pass. Knowing how widely *TrendsWatch* is used with museum staff, boards and museum studies programs, I feel obligated to put precisely these hard, important questions on the table. Where I get it wrong, I am sure that you, or others, will get it right. And I look forward to hearing what you have to say.

Yours from the future,

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

How to Use This Report

TrendsWatch 2016 highlights five trends that CFM's 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 previous editions of *TrendsWatch*:

- The Baltimore Museum of Art tethered a pencil ▶ to a print copy posted in their staff lunchroom, with an invitation to annotate the text. A sticker on the cover encouraged colleagues to "steal this report" by downloading the digital version, and to share their reactions on the in-house blog.

- An instructor at Johns Hopkins University assigned *TW14* to students in a history of museums course, asking them to look for connections between the current trends and forces that have shaped our field in the past.

- Many museums have used the report with their boards and committees to inform strategic and business planning.

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
- policymakers 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 the CFM website www.futureofmuseums.org. Please share any stories you think shed light on these or other important trends with CFM via e-mail at futureofmuseum@aam-us.org or twitter @futureofmuseums. And please write and let me know 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 testing the hypothesis that happiness is a warm puppy.
Josh Morin for the American Alliance of Museums

Labor 3.0: new jobs, or a jobless future?

*"The issue is jobs. You can't get away from it: jobs.
Having a buck or two in your pocket, and feeling like somebody."*
—Studs Terkel

In the last two centuries, labor pivoted from the farm and workshop to the factory and the office. Now, as we enter the 21st century, work is again being radically reshaped by technology, culture and economic forces. Full-time work is fragmenting into the "gig" economy of Internet-powered freelance work. In the office, alt organizational structures are supplanting traditional bureaucracies. Many workers aren't "in" at all—they are telecommuting or using co-working spaces instead. While high-value workers are demanding—and getting—flexibility, autonomy and imaginative benefits, technology is making the lot of part-time and low-wage workers even worse. Looking forward, just as the assembly line created massive labor disruptions in the 20th century, robots and artificial intelligence will reshape the very nature of work, culture and our economy.

Everything about labor is coming into question, starting with when and where we work. Almost a quarter of all workers spend all or part of their day working from home, and that figure is even higher for people with a college degree. This is due, in part, to the ubiquitous Internet-connected devices that make it not only possible to work from anywhere, anytime, but create the expectation that a dedicated employee

will do so. Talk of "work-life balance" is morphing into a dialogue about "work-life blending" as it becomes increasingly difficult to compartmentalize the two.

While a lot of work still gets done in a physical office, we are tinkering in significant ways with how that office is run. The dreaded ritual of the annual performance appraisal is coming under fire, both from unhappy managers and from researchers who demonstrate that negative feedback actually makes it harder for people to improve. To replace the annual review, mainstream companies like Adobe, Microsoft, the Gap, Medtronic, Accenture, Deloitte and the British Broadcasting Corporation are creating systems that provide continuous, futures-oriented feedback. High-performing organizations are focusing their management energy on supporting and rewarding their best employees, rather than on punishing the worst.

Some companies are ditching traditional top-down, hierarchical systems in favor of structures that foster more flexible and responsive work. This may be as simple as flattening the management structure to create fewer barriers between the CEO and frontline employees. Some companies, taking the lead from Internet startups, have established

In 2015, CEO Dan Price implemented a $70K minimum wage for all Gravity Payments employees, to be phased in over three years. Photo: Jose Mandojana

completely flat structures in which there are no job titles or assignments—just self-assembling work groups. A few companies, most famously Zappos, are experimenting with holacracy—an egalitarian system that distributes power across teams via elaborately defined roles and highly structured meetings. And while wholesale adoption of these radical structures is still rare, their ethos and principles are filtering into the mainstream.

However they are structured, companies are seeking to retain their best workers by creating work environments that offer flexibility, autonomy and customized jobs. (See, for example, Enjoy—a startup electronics retailer that lets employees choose their own hours, pick their own schedules and manage their own training.) Some companies strive to create happy, supportive workplaces for philosophical reasons. Dan Price, the CEO of Gravity Payments who famously cut his own $1 million salary to $70K— the same as his lowest-paid employees—cited as motivation his belief that all workers deserve to make a living wage. But many managers are driven by hard-nosed business considerations, based on growing evidence that there is a significant financial return on investing in happy workers.

Back in 1930, economist John Maynard Keynes predicted we would move to a 15-hour workweek as prosperity and higher living standards translated into

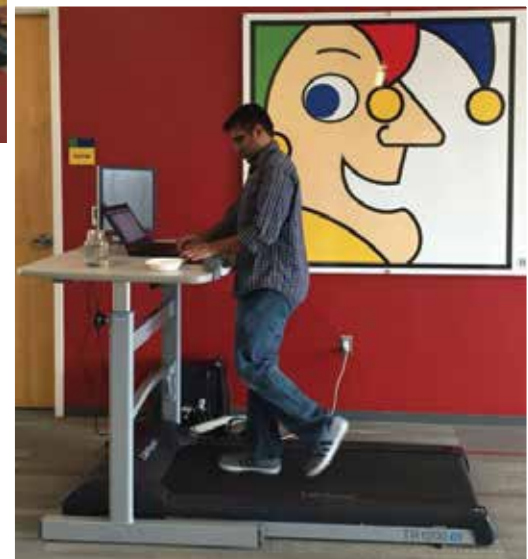more leisure time. So far, the opposite seems true, with people working longer and harder just to stay in place. The current emphasis on comfy workplaces may contribute to this trend: If people have exercise rooms, nap pods, catering, even laundry service at work, why should they ever go home? (Some Google employees recently confessed they actually did live at work for a few months, to save on rent). There are some signs of hope, however. In Sweden a 6-hour workday is increasingly common—with no drop in productivity.

Investment company Motley Fool, which prides itself on "Helping the World Work Better," designs office space around the individual needs of staff. Photo: Alison Southwick for Motley Fool

Increasingly the world of work isn't about full-time employment at all, however "full-time" is defined. While tech firms are doing almost anything to attract and retain highly trained, highly valued workers (both Apple and Facebook will pay female employees to freeze their eggs to keep them working during their peak reproductive years), low-wage, part-time jobs for relatively unskilled workers just seem to get worse and worse. Technology can foster abusive labor practices, as when fast-food chains and big box retailers use real-time data analytics to schedule exactly the staff they need, when they need them. This is great for the bottom line, but makes it practically impossible for people, especially parents, to piece together enough part-time work to yield a livable income. (In 2014 Starbucks vowed to abandon "on-call" scheduling, acknowledging the destructive nature of the practice.)

And the portion of work consisting of stable employment, full- or part-time, is shrinking. By 2020, 40 percent of the American workforce is projected to be comprised of freelancers, contractors and temporary employees. This gig economy isn't just about low-skilled, interchangeable temps—it includes highly educated workers taking advantage of the Affordable Care Act and other systems to close the benefits gap between full-time and contract labor. In many ways, this is a win-win: Millennials prize flexibility and autonomy; employers avoid expensive, intractable infrastructure. But this bargain has a dark side as well: as our regulatory infrastructure lags behind, many gig workers are vulnerable to exploitation by companies seeking to maximize profits while offloading risks.

All these forecasts about how offices are organized and people are compensated presume that we have jobs at all. Given how rapidly robots and artificial intelligence are becoming more sophisticated, this is far from certain. Simple automation is replacing

"pink-collar" positions like retail clerks, bank tellers and fast food workers. Robots have revitalized American manufacturing—boosting the profit margin of first the automotive and now the aerospace industry. Robots are being designed to flip burgers, care for hospital patients, deliver packages—even perform surgery.

Automation is nosing its way into the office as well, in the form of intelligent assistants. "Chatbox" software is angling to replace personal assistants and customer service reps, promising to field both e-mail and phone calls. Management tasks can be automated too: prototype software dubbed iCEO can manage projects *and* people. As we approach true

Artifical Intelligence (AI), we're seeing an explosion of machine learning—the ability to use computational power to build on human processes, refine algorithms, detect patterns that humans would never be able to identify and predict future outcomes more accurately than human experts. These capabilities are derailing solid professional careers like law, medicine and finance. IBM's cognitive computing program Watson has become an ace diagnostician, able to analyze the vast medical literature real doctors can't keep up with and recruit clinicians to fine-tune its results. Watson and his kin can interpret x-rays, prepare legal briefs and manage stock portfolios. All, its programmers claim, based on more information and

Museum Examples

The National Portrait Gallery in London and the Birmingham Museums Trust West Midlands have signed on to the voluntary Living Wage Certification system run by the Living Wage Foundation. This foundation was created by Citizens UK in 2011 to encourage employers to voluntarily pay wages pegged to the basic cost of living in the UK. They collect and share data that make the case for a living wage: the benefits to employers, including enhancing work quality, reducing absenteeism and improving retention; and the benefits to society, including strengthening families and alleviating poverty.

Early in 2015, members of the United Auto Workers went on strike against the Kohler Company. Local union members at the Milwaukee Public Museum issued a statement pointing out that "[p]ast struggles of Kohler

workers, including the longest strike in U.S. history, have inspired the labor movement for generations. The current action by UAW 833 will play an important role in the post 'right to work' era in Wisconsin, showing labor unions once again how to bring back the fight and win for working people." This is one example of how museums and their staff can help the public understand the current struggles of labor in the context of social and economic history.

Also in 2015, an informal coalition of museum activists founded #MuseumWorkersSpeak, dedicated to improving working conditions and other internal practices in museums and cultural institutions. They hold periodic Tweetchats, organize meet-ups and instigate conversations about museum labor practices.
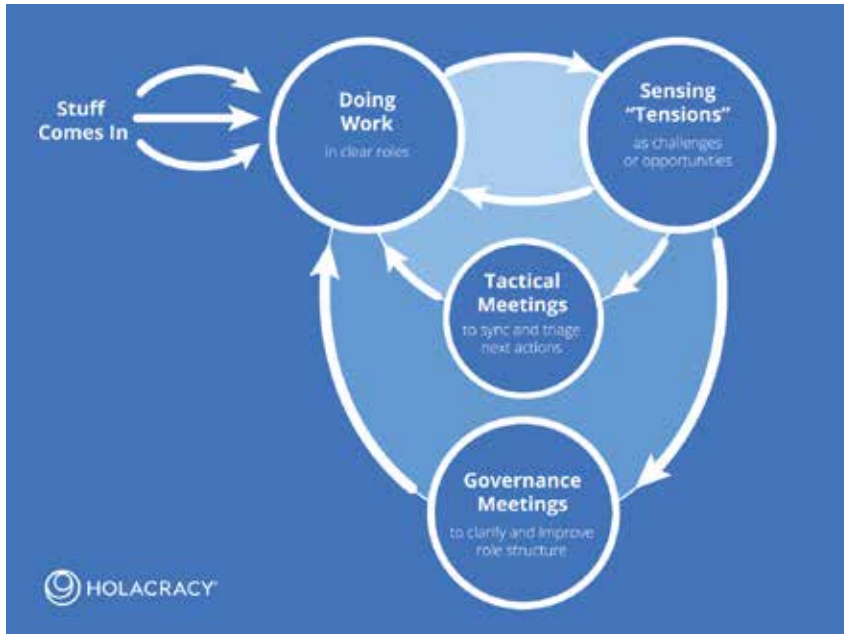
Diagram of workflow in a holacratic organization. Courtesy of Holacracy

(and maybe for robot ethicists as well). Programs like Watson, however powerful, may supplement rather than supplant their human counterparts, freeing them to do what humans do uniquely well—exercise creativity, intuition and compassion. (This thought would be more comforting if Watson and his kin weren't also dabbling in creative endeavors like creating recipes and making videos, and intuitive endeavors like authenticating art, and if robots weren't being programmed to provide empathic responses to their humans.)

less bias than its human counterparts.

People are pretty evenly split on whether this acceleration of automation is a good thing or a bad thing. Forty-eight percent of people in the UK are techno-pessimists who fear this trend will exacerbate income inequality and increase social unrest. The numbers seem to favor the pessimists: while adopting these new technologies can increase productivity by 30 percent in some industries—and save up to 90 percent of labor costs—over the next 20 years, robots and AI are projected to displace up to 47 percent of workers in the US, and 35 percent of workers in the UK.

But that's displacement from existing jobs. The optimists believe these new technologies will simply create different kinds of work, even if we can't foresee exactly what these new jobs will be. Just as computers created the highly lucrative field of software development, the rise of the robot could create jobs for people who can build and program robots

But would even a net loss of jobs be a bad thing? Keynes may have been wrong so far, but that doesn't mean he may not eventually be right. If fewer jobs can be reconciled with broad economic prosperity, we will have to reconsider the fundamental purpose of work. Do we have jobs just to earn money? Or do we have jobs to live fulfilling, purpose-driven lives? And if the latter, once we have enough money to live on, do we need to get paid for our work? To a large extent, the crucial question is not who will work and get paid, but whether our national policies will favor the accumulation of wealth or its redistribution. Some people—an unlikely coalition of socialists, libertarians and technocapitalists—advocate a guaranteed basic income as a way to end poverty, combat inequality and mitigate the disruptions of technology-driven unemployment. While basic income has yet to be tried in the US (though one guy is lobbying for a pilot project in Detroit), the Dutch are trying out the concept in a handful of cities, including Utrecht.

What This Means for Society

The US is struggling with the role regulation can play in maintaining or recreating good middle-class jobs. Federal, state and city governments are grappling with whether to raise the minimum wage, and by how much. Labor issues are particularly difficult in a complex economic environment where any action can have an equal, opposite and unforeseen reaction. For example, while the Labor Department is considering tightening rules that let employers avoid paying overtime to millions of workers, others argue that employers will simply displace the cost by cutting benefits. Laws that support or subvert unions are particularly contentious, as unions, which championed workers' rights throughout the last century, have seen their power erode in recent years.

The part-time, project-based, gig economy may require the invention of whole new regulatory structures. Entitlements are built around traditional employment—the rise of the gig economy may put significant strains on our health care support systems and on social security. Canada, Sweden and some other countries have established a new legal classification of "dependent contractors" to regulate conditions of employment for people working for sharing economy companies like Uber and Lyft. In the US, state and federal regulators are following suit, trying to craft regulations that protect workers from employers who try to minimize their costs by offloading risk and responsibilities onto their employees.

As automation and artificial intelligence continue to cut into both blue-collar and professional employment, we have to consider what role wealth redistribution plays in a society marked by massive unemployment or underemployment. Will unpaid work—artistic, creative, scientific, social—become

The neighborhood co-working space, cove, offers members an alternative to "the lonely living room, noisy coffee shop and boring office." Photo: Dustin Oakley for cove

THE HIDDEN DEBT OF AN ART FAIR

1. Extracted value from art on secondary markets
2. Unpaid labor
3. Overleveraged galleries lacking private finance
4. Working artists living in debt
5. Indebted artists converted to labor
6. Collected financialized debt seeking investment
7. Debtfair intervention proposal*

* red auxiliary wall attachment featuring the work of indebted artists

DEBTFAIR
REVEALING HIDDEN DEBT IN THE ART MARKET

CULTURE IS COLLABORATIVE.
THE ART MARKET IS EXTRACTIVE.
WWW.DEBTFAIR.ORG.

The organization Occupy Museums has focused on hidden debt structures in the art market. Debtfair (Occupy Museums Tal Beery, Imani Jacqueline Brown, Noah Fischer and Arthur Polendo with Kenneth Pietrobono). Produced as part of Work It Out, Momenta Art Brooklyn, 2014. The Hidden Debt of an Art Fair, 2014.

formally valued for what it contributes to society? Will something like a guaranteed basic income become a right of citizenship rather than a stigma?

What This Means for Museums

The overall state of the economy and the conditions of labor dictate the time and money people have to use museums. On one hand, the continued mutation of work into a 24/7 proposition may leave people even less time for leisure. On the other hand, flexible work hours, the rise of freelance and contract labor, as well as "sharing economy" jobs, create a large class of people with the flexibility to visit when it suits them.

The economy and the job market may also shape what people expect from museums in terms of education/training/opportunities. Just as libraries have adapted in recent decades to people's need for Internet access, computer literacy training and job hunting assistance, museums may find themselves working farther down Maslow's pyramid—helping

people build their resumés, network and find productive work. As trainers, museums may specialize in serving as accelerators of higher-order human cognitive skills that are valued but not replicable by more intelligent machines.

Michael Govan, CEO of the Los Angeles County Museum of Art, recently forecast the rise of the independent curator; museums may find themselves using more part-time and outsourced labor overall. Some believe the future of work will be characterized by fluid, temporary teams of skilled specialists, assembled to accomplish a specific task and dispersing when it's done. That model, already being used in the movie industry, real estate development and new business ventures, may be preadapted to exhibit production as well.

Museums have labor issues of their own. The use of unpaid interns is particularly controversial. While internships in for-profit companies are closely regulated, the Department of Labor has so far left a

big fat loophole for nonprofits (stymied, perhaps, by how to distinguish between "interns" and the volunteers without which the charitable sector could not survive). But just because a practice is legal doesn't mean it is ethical—and there is growing consensus among museum workers that unpaid internships are a disservice to our field.

The US is currently enmeshed in debate about the ethics and economics of wages: minimum wage, living wage, the ratio between CEO and worker pay. These issues are tremendously important for museums as well, particularly as they seek to cultivate a more diverse workforce. There is a growing cadre inside the field, particularly among younger workers, calling for museums to "turn the social justice lens inward" and take a critical look at their own practices.

Museums Might Want to...

- Monitor the changing workforce in their communities and assess its needs. When is the most convenient time for people to visit the museum? What programs and services do they want? Perhaps there's a need for co-working spaces—a niche some libraries are already stepping in to fill. Art museums could become the community hub for indies and startups in creative fields, science museums for sci/tech, children's museums for education and family-service programs. This shift could advance museums' missions *and* generate revenue from underutilized space.

- Become early adopters of practices that create attractive (and high-performing) workplaces, including management structures that broadly distribute autonomy and authority. Museums can't compete with the private sector on wages, but if they are willing to abandon outmoded

practices, they can become the ultimate cool, creative place to work, so much so that the best and brightest are willing to sacrifice income to work in the field. This doesn't have to mean ditching the org chart for a holacracy. Ninety percent of American workers feel underappreciated; improving the workplace can start with managers saying "thank you for a doing a great job" early and often.

- Confront economic inequities in our sector: the pay ratio between directors and front-line staff, the consequences of not paying a living wage and the debt young people assume in order to enter the profession. In addition to the need for museums to address this as a field, individual museums can assess their own internal practices, explore the values (ethical and economic) that could underpin reform, and change their policies and practices accordingly.

Additional Resources

You can find #MuseumWorkersSpeak on Facebook, follow them on Twitter (@MuseumWorkers) and read a bit about their work in the post "Unsafe Ideas: Building Museum Worker Solidarity for Social Justice" on the CFM Blog.

Performance-Appraisals.org curates a library of resources on alternatives to the annual performance review. *The Diane Rehm Show* also devoted an episode to the "Future of the Performance Review" (see the show's website for transcript and recording).

Jacob Morgan (thefutureorganization.com) produces the Future of Work podcast and video series, exploring emerging business practices through interviews with leaders at some of the world's most forward-thinking companies.

Google's re:Work website (https://rework.withgoogle.com) offers guides, case studies and commentary on creating a better workplace, tackling subjects like combating unconscious bias, training managers to be coaches rather than critics, and providing professional development for staff.

More Than Human: extending the spectrum of ability

"If I could snap my fingers and be nonautistic, I would not. Autism is part of who I am."
—Temple Grandin

The year 2015 marked the 25th anniversary of the Americans with Disabilities Act (ADA), which banned discrimination against people with disabilities in employment, transportation, public accommodation, communications and government activities. This seems an apt time to explore how the next 25 years might unfold. Advocates call for an increased focus on cognitive accessibility, better access to information and communications, and more comprehensive treatment of the built environment. And we are experiencing a metamorphosis in how society views disability and how people with disabilities view themselves. But even as we struggle to create equity for all people in their diverse states, the terms of the challenge are about to change. Advances in technology—neurological interfaces, haptics, advanced prosthetics, gene editing—are expanding the spectrum of human physical, sensory and cognitive abilities. Museums, some of them already challenged to keep up with best practices in accessible design, are about

to meet a new kind of visitor: people who experience the world in ways humans never have before.

Western culture has long conflated "average" with "normal," stigmatizing people who stray too far from average and categorizing them as "other." Physical and cognitive differences have at various times been interpreted as signs of divine disapproval, moral failing, genetic inferiority or, most recently, as conditions to be fixed or cured. The end of the last century saw

This "hairclip" is actually Ontenna, a new interface that enables the wearer to feel sound. Courtesy of Tatsuya Honda at Ontenna

the beginnings of a movement that challenges society to finally treat people with disabilities as simply *people*, deserving of the same rights and respect as the rest of the human race.

The ADA was a victory for disability rights. Building on foundations laid by the universal design movement, the ADA promotes the creation of places and systems that are inherently accessible to a broad spectrum of people, regardless of age, condition or ability. More organizations, including museums, are realizing that accessible design is simply *good* design—simple, intuitive, flexible and equitable—even if examples of good, accessible design in

practice are still distressingly rare. And starting with good design minimizes the circumstances in which additional modifications are needed to meet the needs of people with specific disabilities. The struggle to improve design is particularly important because many disabilities are, in effect, *created* by the built environment. (As the organization Little People of America points out, most achondroplastic adults can't reach an automated teller machine. That's a failing of the bank, not the customer.)

Society categorizes people as disabled vs. nondisabled (or, as some people say, "temporarily abled") and often treats disability as a condition that needs

The FORTIS™ exoskeleton allows operators to use heavy tools as if they were weightless. Courtesy of Lockheed Martin. Copyright 2016

to be fixed. This concept is increasingly challenged by communities of people with different cognitive and physical abilities who view themselves and their peers as valid subcultures. "Deaf culture" has been explicitly recognized in the UN Convention on the Rights of Persons with Disabilities, and sign language is recognized as a distinct language, rather than an inferior work-around to "oralism." The neurodiversity movement views autism as a valuable part of the human genetic legacy, cheering Temple Grandin's declaration that people with autism are "different, not less."

One logical outcome of this trend is the call to resist treating, or "curing," some disabilities (see, for example, the debate regarding the ethics of cochlear implants, and whether this medical treatment can be viewed as an attempt to eliminate deaf culture). This issue becomes particularly fraught as advances in genetic screening and reproductive medicine give prospective parents more control over their future offspring. Sperm screening, in vitro fertilization,

embryo selection and genetic testing can be harnessed to select for or against certain traits. We are only beginning the search for consensus, globally and nationally, on appropriate boundaries for these powers. Setting aside abortion *per se* (an issue unto itself), is it ethical for a parent to choose not to have a child who is autistic, or deaf, or has three copies of the 21st chromosome (resulting in Down Syndrome)? Stunning advances in gene editing—notably the recent discovery of CRSPR-Cas9—presage a future in which we can cut and paste pieces of genetic code into living organisms with astounding precision. Would using such technology to "cure" a child of a disability before birth simply be eugenics in 21st-century garb?

Social movements that reject our urge to "fix" people are gaining strength just as we see a proliferation of technological tools designed to do exactly that. Wearable tech, in particular, is advancing in leaps and bounds, spawning "wearable assessment technology" and "smart glasses" that supplement low

vision. Wearables like haptic vests and smart hairclips translate sound to vibration for the deaf and hard of hearing, and Google Glass can provide real-time captioning for conversations. Some of this technology is designed to be worn in rather than on the body, including digital tattoos and neural implants that enable people with paralysis to type and control devices with their brain waves.

We are rapidly moving beyond the realm of *assistive* technology, designed for people with disabilities, into *augmentive* technology that expands the boundaries of basic human capabilities. Once cochlear implants can function as "bionic ears" that can synch with wireless devices (remote microphones, TV streamers, phones), even people with average hearing may opt for elective surgery. Those haptic vests mentioned above work because our brains quickly learn to "transcode" vibrations into meaning. This transformation is effective for not only sound (and therefore speech) but also for any kind of data—remote sensors or EEG readings. A pilot, for example, could feed flight data directly into her body. Bionics can replace missing limbs, but also can help average runners attain the maximum speed of Usain Bolt (about 25 mph) on their own two feet. The inventor of the Bionic Boot is shooting for 40 mph. Robotic exoskeletons can not only enable someone who is paralyzed to walk, but enhance the speed and strength of any user. "Neuro-prosthetics" are being developed to compensate for brain injuries or aging. Could they be used to enhance memory overall?

Such augmentive devices lie at the heart of the Transhumanist movement, which is dedicated to transforming the human condition via technology. As the international nonprofit Humanity+ puts it, "we want people to be better than well." This movement isn't just about the far future—a growing cadre of biohackers, body hackers, grinders and cyborgs are experimenting on themselves now. The Grindhouse Wetware team has developed biometric implants and LED tattoos. People have slipped RFID chips under their skin, enabling them to unlock doors, start their cars, surf the Web and authenticate their credit cards via proximity or gesture. Neil Harbisson, artist and founder of the Cyborg Foundation, helped design an antenna that, planted in his skull, translates colors into vibrations he detects via bone conduction. Not content with limiting himself to the visible spectrum, he's programmed the system to detect infrared and ultraviolet light, and tap into WiFi to monitor satellite data.

One forecast projects that a majority of humans will be "transhuman" by 2035, if you factor in mundane medical implants as well as new and emerging technology. All of which begs the question: When

Artist and cyborg activist Neil Harbisson "hears" color through an antenna implanted in his skull. Courtesy of Lars Norgaard

humans can choose to enhance their capabilities in these ways, what constitutes average, much less normal? And in an enhanced future, who will be considered "disabled"?

What This Means for Society

Cool advances in technology shouldn't distract us from severe, persistent challenges, nationally and globally. In the US, only 17 percent of people with disabilities are employed (compared to over 64 percent of people without disabilities), and they earn significantly less than the nondisabled. Only 45 countries have antidiscrimination or other disability-specific laws.

Society has to work through the ethical and legal implications of our growing proficiency in genetic screening and gene editing. There is growing debate about the ethics of embryo editing. Currently the editing of human embryos is banned in the US and the UK, but some are calling for these laws to be revised in order to facilitate research.

Sports, amateur and professional, are structured around rigid categories. What happens when these categories break down? We used to route athletes to the Paralympics so they wouldn't be forced to compete with (and presumably lose to) people who don't have disabilities. Now we face the opposite concern: When do prostheses that help competitors run faster or see better constitute an unfair advantage? Oscar Pistorius, a bilateral amputee and Paralympic champion who runs on highly advanced carbon-fiber prosthetics, was barred from the 2008 games when

Museum Examples

One Saturday each month, the Pacific Science Center opens early for families with children with autism spectrum disorder. By dimming the lights, lowering the sound level and helping these visitors avoid crowds, the museum provides a welcoming environment for this segment of their community. (A number of other museums provide autism-friendly programs and visiting hours as well.)

Museum of Contemporary Art, Chicago provides Enchroma glasses to visitors upon request, enabling many people who are color-blind to experience color in some form. The museum also recently revamped its website with accessible design and incorporated multisensory cues into the galleries that enhance the experience of all users.

At the National Park Service's Lowndes Interpretive Center, located along the Selma to Montgomery National Historic Trail in Alabama, statues illustrating the Civil Rights movement include one depicting Jim Letherer—a one-legged Jewish man who marched with Martin Luther King from Selma to Montgomery. As Day Al-Mohamed notes in a *Museum* article, "The exhibit is about the march and voting rights, but happens to have disability as part of the story—not because of any particular agenda, but because *disability* was there."

the Olympic Committee ruled against his "Cheetah" blades. He was allowed to compete in the 2012 games and didn't medal, but how many elite, non-disabled athletes didn't even make it that far? Our attempts to create "fair" categories for competition are already byzantine and increasingly untenable. (Can a woman with naturally high testosterone compete against other women?) Augmentation makes it exponentially harder to create level playing fields. And the fact that with augmentation, people with disabilities can outcompete people without disabilities may at last shake the perception that disability means "less than."

More broadly, how might augmentation exacerbate inequality in society? When bionic arms can outperform the ones we are born with, might people choose to replace a healthy limb with robotics? What about people who don't choose to become enhanced or can't afford it? To the existing underclass of low SES (Socio-Economic Status) people, we may soon add BD (Biologically Disadvantaged). Though perhaps in a world where everyone is under pressure to be modified, nondisabled people who opt out of augmentation may learn to empathize with disabled people who resist being altered to conform to societal "norms."

What This Means for Museums

Museums can play a leadership role in society—as thought leaders, educators and ethicists—if they are willing to stand at the forefront of disability rights, rather than treading the narrowly legal trailing edge. This means not only integrating the principles of universal design into every aspect of their work, but integrating people with disabilities into their boards, staff and advisory groups.

Many museums, particularly smaller institutions and historic structures, are still working to meet the bar set by ADA. (Even many that have successfully tackled physical accessibility lag when it comes to communications—particularly wayfinding, interpretation for people with sensory or cognitive disabilities, and website design.) Museums need to prepare for the next wave of regulations, which will raise that bar.

Neil Harbisson describes how his cybernetic implant changes his experience of the visual world, including art. Significant numbers of people choosing to enhance and expand their senses would profoundly alter the experience of art and music created in a preaugmentation era. How will augmented visitors experience art and other traditional museums? How will augmentation change the way we design exhibits and public spaces and create experiences?

Museums Might Want to...

- At a minimum, conduct a full audit of their physical and digital offerings for ADA compliance. "Minimum" because ADA standards should be considered the floor, not the ceiling, for accessibility. And it's been proven over and over again that implementation of universal design improves the museum experience for all users—not just for people with disabilities. Such audits would benefit from the assistance of users with a variety of disabilities—to achieve this, museums might partner with local independent living centers as well as NGOs governed by people with disabilities.

- Be thoughtful about how people with disabilities are represented in interpretation. As Day Al-Mohamed wrote in a recent issue of *Museum*, "The 'mechanical' aspects of access to exhibits has overshadowed the importance of inclusion

Developers from biohacking technology startup Grindhouse Wetware show off the Northstar LED implant. Courtesy of Ryan O'Shea

in museum content." She goes on to encourage museums to recognize the "forgotten" disabilities of famous or powerful historical figures (Civil War photographer Matthew Brady, she points out, was totally blind by the end of his career) and to offer well-rounded portrayals of people with disabilities (here Al-Mohamed cites Helen Keller—who in addition to being an advocate for the blind, was a suffragist, a socialist, a pacifist and a founder of the ACLU).

- Explore the "hidden histories" of people with disabilities contained in the museum's own collections. The UK report *Buried in the Footnotes* found that objects related to people with disabilities are "present in quantity" in most collections, but rarely displayed. The authors conclude such objects "give museums the potential to engage with and challenge the expectation that disability must equal a low contribution to society, by demonstrating how varied and potentially influential the roles of disabled people have been in the past."

Additional Resources

In his TED talk "I Listen to Color," Neil Harbisson shares the story of how he chose to become a cyborg. Born completely color-blind, he worked with scientists to design and implant an antenna in his skull that enables him to hear color. "The

biggest change," he notes "is going to an art gallery, I can listen to a Picasso, for example. So it's like I'm going to a concert hall, because I can listen to the paintings."

Released in 1997 (long before the discovery of CRISPR/Cas9 held out the promise of real-world gene editing), the scifi film *GATTACA* explored a future in which it is normal and expected for parents to use genetic engineering to create the best possible offspring. The story follows Vincent Freeman, a member of the "faith birth" underclass relegated to janitorial work, who refuses to accept his biological lot in life.

Some books of interest:

Graham Pullin, *Design Meets Disability* (The MIT Press, 2011). While a lot has happened in the four years since this book came out, Pullin's discussion of how "design and disability can inspire each other" is still timely.

Steve Silberman, *NeuroTribes: the Legacy of Autism and the Future of Neurodiversity* (Avery, 2015). In this exploration of the history of autism, Silberman profiles the neurodiversity movement, comprised of people seeking "respect, support, technological innovation, accommodations in the workplace and in education, and the right to self-determination for those with cognitive differences."

Some of the articles that strongly influenced this chapter:

Zoltan Istvan, "Future Transhumanist Tech May Soon Change The Definition Of Disability." *TechCrunch*, September 14, 2015.

Aimee Mullins, "Racing on Carbon Fiber Legs: How Abled Should We Be?" *Gizmodo*, November 12, 2009.

Me/We/Here/There: museums and the matrix of place-based augmented devices

"It turns out that the killer application for virtual reality is other human beings. Build a world that people want to inhabit, and the inhabitants will come."

—Charles Stross

Augmented reality (AR) and virtual reality (VR) are portals to other places and times (real or imagined). They can be enchanted mirrors, offering reflections of the world as it could be—more exciting, interesting and informative. They can be magic wands, revealing an invisible world hidden around us. These technologies may generate huge profits for some while impoverishing others; they can enhance empathy while creating new forms of discrimination. AR and VR hold promise and peril for museums as well. Why go to a museum when you can just don a headset to experience fabulous sights, sounds, touch—and hang out with friends—without leaving home? On the other hand, with such a direct, high-impact platform to reach people where they live, how many converts can museums court to visit IRL (in real life)? If VR and AR experiences become both affordable and widely accessible, museums will need to sharpen their positioning and value proposition with their communities.

First let's map the relationship between these digital cousins. Virtual reality refers to media that transport a user to a wholly digital, simulated environment—an imaginary world, or a recreation of the real world, present or past. The most highly populated virtual realm is World of Warcraft, where about 7 million users roam the plains, mountains and oceans of Azeroth. The most widely known nongaming virtual world may be Second Life, launched in 2003, whose real estate includes a few score (lightly attended) virtual museums. The current focus in VR, gaming or nongaming, is on making these worlds immersive through new display technologies that create the illusion that a user is actually in the midst of a fully realized, 3D world. The latest buzz is about Oculus Rift, an immersive virtual reality headset for gamers that Facebook purchased in 2014 for over $2 billion, but Samsung, Google and Sony are racing to introduce sophisticated gear as well. As in previous decades, competing hardware platforms create challenges for the broad adoption of VR, as content is often locked into just one platform.

Augmented reality, by contrast, adds digital information to the real sensory input from the world around us—pasting content and information on top of what we see or hear, and at its most sophisticated, interacting with and adapting to the user. Early

Lizzie Edwards, education manager, Samsung Digital Learning Programme, wears a virtual reality headset prior to the British Museum's Bronze Age Roundhouse virtual reality weekend, March 8, 2015. © The Trustees of the British Museum 2015.

versions of museum AR included camera overlays using Layar and, during its brief "Explorer" period, Google Glass. The demo videos for Microsoft's soon-to-be released HoloLens show off its ability to create a shared holographic work environment—enabling multiple users to see and manipulate the same imaginary objects. Up-and-comers in this category also include the somewhat mysterious Magic Leap—a product so far only glimpsed in a tantalizing GIF—that promises to create superrealistic AR. (It's rumored to work by projecting augmented illusions directly into the user's cornea.)

VR and AR have made huge strides in the past couple decades. The first rig, created back in 1968, was dubbed "The Sword of Damocles" because it was so heavy it had to be suspended from the ceiling above the user. Now the software creating these experiences is quickly becoming more sophisticated, while the gear itself becomes smaller, lighter and less expensive. This rapid evolution is largely driven by the prospect of huge payoffs from the lucrative world of online gaming, but games have a venerable history of being hijacked for other purposes. In fact, many modern games are designed from the outset to allow and encourage such "modding." Minecraft, for example, a video game that challenges players to build structures, villages, countries, even whole worlds, out of cubes, has been used for real-world urban planning and community input. (Denmark generated a 1:1 replica of their whole country in Minecraft to facilitate public use of geodata.) Cited as a perfect application for VR/AR rigs, Minecraft was the subject of Microsoft's first public display of HoloLens.

AR/VR has been dogged by a number of

persistent problems, but these barriers are falling one by one. It's hard to trick the human brain into playing nicely with digital data, but companies are slowly overcoming the tendency of their gear to induce "virtual reality sickness." Early adopters of Google Glass had to flip back and forth between focusing on whatever was being projected on Glass and on the real world, which made the user look perpetually distracted (as well as inducing eyestrain). The iOptik prototype, by contrast, lets users focus on the data and the distance simultaneously. While early headgear of any sophistication costs several thousand dollars or more, costs are coming down, and gaming-quality headsets are coming onto the market for a few hundred dollars. Google Cardboard (which can literally be made out of cardboard from open-source specifications), lets anyone turn their smartphone into a simple VR rig for less than 10 US dollars.

AR and VR aren't limited to sight and sound. Devices like Nintendo Power Glove (1989) and Microsoft Kinect (2010) give the user broad gestural control, and Oculus Touch functions like a working pair of virtual hands. The Tactical Haptics Controller creates a sense of friction and weight in the user's hand, and "ultrahaptics" can use ultrasonic waves to induce a sense of touch from a distance. Eventually (as more than one scifi author has forecast), we may interact with digital worlds through direct neural inputs. The basic technologies to monitor brain waves have already been miniaturized and embedded in toys such as Mindflex (2009). Now we are pioneering noninvasive devices that enable users to move cursors with their thoughts and even control the muscles of another user from a distance.

In a neat example of life imitating art, many of these AR/VR projects are being inspired, funded and

Top: The Rosa Parks Experience uses Samsung Gear VR to put visitors in the shoes of the famous civil rights activist. Photo: Scott Clarke, creative director at Möbius Virtual Foundry
Bottom: Oculus Rift VR headsets transport users into the midst of a performance by the Los Angeles Philharmonic. Courtesy of the Los Angeles Philharmonic Association

developed with the help of writers. Neal Stephenson, chief futurist at Magic Leap, often sets his novels in near-future worlds shaped by ubiquitous AR and VR. Neil Gaiman (author of *Sandman* and *American Gods*, among many works of fantasy and fable) is an investor in WoofbertVR. And Woofbert's work with museums was inspired, in part, by the classic scifi novel *ReadyPlayerOne*, in which the protagonist attends school via VR rig. Those of us who grew up enthralled by one of the many incarnations of Gene Roddenberry's *Star Trek* are tickled to learn that

Museum Examples

There are too many museum experiments in AR/VR to cover comprehensively in this essay. Here are a few of the most recent, organized by the Mooshme Matrix categories.

Me/Here
The Art++ augmented reality app at the Cantor Arts Center, Stanford uses image recognition to create a "digital halo" of supplemental multimedia information around a photo, painting or sculpture. The project was made possible by support from the Brown Institute for Media Innovation, a collaboration between Stanford and Columbia University dedicated to innovative storytelling.

Me/There
The Courtauld Gallery in London is one of the earliest adopters of WoofbertVR, an app that will profile collections from around the world. The Courtauld tour gets an extra popularity boost from narrator Neil Gaiman, who is also an investor in Woofbert. Woofbert represents a collaboration between technologists

(Samsung, Facebook) and museums, with each bringing their strengths to the venture. The project intends to eventually provide virtual docents to interact with users.

We/Here
While Hololens (a device that provides shared AR experiences) is not yet commercially available, in March 2015 the Mondrian 3D Museum provocatively tweeted "Meeting with @microsoft about #hololens #museums #3D, looking forward to making next generation of #education and #art in #realmuseums." Stay tuned?

We/There
The Dallas Museum of Art (DMA) organized a performance by artist Jon Rafman that took place in the online virtual world Second Life (SL), in conjunction with the exhibit "Mirror Stage: Visualizing the Self After the Internet." DMA audiences were invited to log in and attend, via avatar, a tour of hidden corners of SL, guided by Rafman's online persona, "Kool-Aid Man."
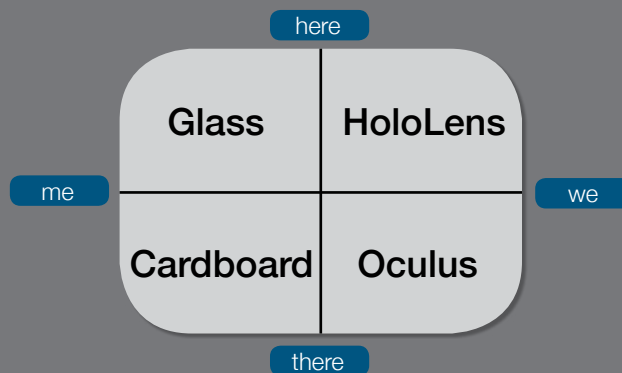
Barry Joseph's "Mooshme Matrix of Place-based Augmented Devices" (see page 28).

Microsoft is testing proof of concept for RoomAlive—the first working holodeck.

What This Means for Society
The surge in new AR/VR technology will both boost traditional businesses (like gaming) and create new business opportunities. The market for virtual reality content is projected to reach $5.4 billion by 2025,

while the hardware generates another $63 billion. On the other hand, there may be losers in the marketplace as well. Online shopping has already damaged place-based retail. How much more attractive will virtual shopping be when you can "see" yourself in a dress and "feel" the fabric? Or audition digital couches in your virtual living room (an option Ikea premiered in 2014)?

VR may revitalize some flagging sectors by providing a compelling and accessible platform for rich content. In 2015 *The New York Times* sent every subscriber—all 1.1 million of them—a free Google Cardboard headset, paired with a free app that gives readers access to a series of short immersive documentaries. One of their first films—*The Displaced*—charts the plight of three refugee children out of the 30 million currently displaced by conflict and persecution. Can VR help traditional journalism win back readers? Like newspaper subscriptions, attendance at traditional music performances has been dropping for years. The Los Angeles Philharmonic recently outfitted a truck (dubbed Van Beethoven) as a mini concert hall that travels LA, giving residents an immersive VR experience of attending the symphony—in some ways better, as it provides close-ups and perspectives you wouldn't get as an audience member at an actual performance.

Researchers are building an impressive body of evidence for the "prosocial" benefits of virtual experiences. VR can help people understand their impact on the environment, reduce conflict by letting people inhabit the lives, situations and identities of others, and connect people with their future selves (hopefully prompting them to make better decisions today). Preliminary research suggests that the effects of virtual reality may last longer than those of traditional media such as reading or TV. This being so, VR could be an empathy tool used to unite our increasingly fragmented world. The Robert Wood Johnson Foundation is funding a large-scale, long-term study on using virtual reality to teach empathy. What could this look like? (Gary Marcus has suggested that augmented reality apps could foster empathy by superimposing information about a stranger's hobbies and family background to remind us of each other's humanity.) We are waiting to see how well these experiments work. Will Americans who view *The Displaced* be more sympathetic to the plight of international refugees? Will people who previewed the future of Marin Valley through the sea-level virtual reality project be more likely to support efforts that combat climate change?

VR and AR may play a major role in both formal and informal education. Google Expeditions is already offering teachers affordable kits that let students use Google Cardboard to take virtual field trips to the Eiffel Tower or the American Museum of Natural History. VR and AR can change the meaning of "immersive learning" by letting students dive into small-scale systems (cells) or the very large (galaxies). These technologies can also lower the risk and cost associated with practicing advanced skills such as surgery, engineering or space exploration. In 2015 Brown University debuted an immersive 3D virtual reality room called the YURT (YURT Ultimate Reality Theatre) to accelerate science through training and experimentation. AR/VR can support lifelong learning as well. The startup ScopeAR is tackling this challenge by adapting AR for the Do-It-Yourself community. Where people now turn to YouTube for tutorials on almost anything, in the future you might "scope in" an expert to walk you through a DIY project, step by step, seeing what you see and showing you what to do.

The power of VR/AR can be dangerous too. One writer has envisioned how augmented reality could be used for "racial filtering": to avoid seeing people who are "other," or to fuel harassment by tagging people with "augmented reality warnings." Virtual reality is not only more effective than traditional media in triggering empathy, it is also more effective in desensitizing both men and women to rape and making people more conscious of the gap between their perfect avatars and their real-world bodies.

What This Means for Museums

Barry Joseph, associate director of digital learning at the American Museum of Natural History, has neatly parsed the taxonomy of rapidly speciating AR/VR tech. His "Mooshme Matrix of Place-based Augmented Devices" (see page 26) ranks each platform along two axes: from here (enhancing the user's surroundings) to there (transporting the user to a different space); and from me (personal/solitary experiences) to we (shared, social experiences). Joseph acknowledges the threat posed by we/there technology like Oculus Rift: if people can be social in immersive, inspiring virtual environments, why come to a museum? But he proposes that such experiences can generate deep interest and inspire people to seek information in real life. The proliferation of AR tech expands the world of BYOD (Bring Your Own Device) and the ways in which people can mediate their own visits. Joseph is most excited, however,

by we/here AR technology like HoloLens, which he calls the "sweet spot of museum engagement." What if visitors could see, handle, manipulate and share digital doppelgangers of real objects, or share the attentions of a docent avatar? "It is why people travel to museums in the first place," Joseph points out, "to have a place-based, shared experience with their friends and family."

Museums, along with print journalism and classical music, have been steadily losing market share to other pastimes. To Joseph's point about inspiring curiosity, increasingly sophisticated AR and VR will heighten the impact museums can make as they push their content out into the world via these platforms. Can AR/VR experiences provided beyond museum walls help win new audiences?

AR and VR will provide new ways to share and access expertise. Not every museum can have an

The "lunch counter" interactive at the National Center for Civil and Human Rights simulates a 1960s sit-in protest against segregation. Photo: Dustin Chambers

companies launching VR and AR programs, such projects can be accomplished on a nonprofit budget.

- Adopt existing tech and adapt it to their purposes. Why not take the *NYT*'s lead? Give every museum member a Google Cardboard headset and release new content on a regular basis: behind-the-scenes tours, a preview of the new special exhibit, a mini-doc of the last paleontology dig or the year's highlights delivered in a tête-à-tête with the director as you sit (or poke around) in her office.

Additional Resources

Barry Joseph has explored the "Mooshme Matrix of Place-based Augmented Devices" in two posts on his blog www. mooshme.org. Part one introduces the classification scheme and introduces the major players in the emerging AR/VR marketplace. Part two refines the scheme and comments on the *NYT* Google Cardboard project.

The Virtual Reality Journalism Report (Tow Center for Digital Journalism, 2015) traces the history of virtual reality, presents a case study in VR journalism, analyzes the potential of the emerging technology and presents recommendations for journalists seeking to work in VR. The report is of great applicability to museums as well.

Some scifi novels exploring the future of AR/VR:

Neal Stephenson, *Snow Crash* (Bantam Books, 1992), takes place in part in the Metaverse—Stephenson's vision of a VR version of the Internet.

Ernest Cline, *Ready Player One* (Broadway Books, 2011), explores how VR may transform the next generation of humanity.

Cory Doctorow, *For The Win* (Macmillan, 2010), addresses the economic and human rights implications of the intersection of real and virtual worlds.

in-house conservator, packer and shipper or mount maker. What if even the smallest museum could "scope in" an experience specialist to walk staff through the process of cleaning objects or other specialized tasks?

Museums Might Want to…

- Experiment with offering visitors AR and VR experiences, using existing or original museum-related content, to better learn which tools afford the best in-museum experience, and upselling opportunities like 3D IMAX films. Content production for VR is still not easy or cheap. However, many institutions are working with emerging production companies and artists at below-market rates while the major funding source for content development remains advertising companies and hardware-specific deals. By partnering with

Capture the Flag: the struggle over representation and identity

"Take down the flag. Take it down now. Put it in a museum. Inscribe beneath it the years 1861–2015."

— Ta-Nehisi Coates

The past year has been marked by protests across the globe as communities grapple with issues of race, identity, culture, history and symbolism. People are climbing out of the boxes long used to define and control society—male/female; straight/gay; white/black/yellow—demanding control over their identities and how these identities are represented. These issues have dogged the US since the nation's founding, but now activists are using the power of social media to ensure they are heard. Objects—powerful symbols of individuals, groups, history and society as a whole—have become explosive points of contention. And museums, as public stewards of our collective history, find themselves enmeshed in the struggle over representation, identity and material culture.

Western society is beginning to acknowledge the complexities of human identity—including race, sexual orientation and gender. Government notoriously lags behind social change, with the US Census perpetually playing catch-up, changing how it collects data to support the way people categorize (or resist categorizing) themselves. The Census Bureau first allowed people to identify as more than one race in the year 2000. In the following decade, the number of people choosing this option doubled, reaching

Activist nikhil trivedi on stage during his Ignite presentation at MCN2015.
Photo: Morgan Holzer

1.8 million by 2010. New parents are more likely to identify their babies as belonging to more than one race, and grown children are more likely to change the identity assigned by their parents and self-identify as multiracial. Paradoxically, by splitting the categories of race and culture, changes to the Census may slow the apparent rate at which the US approaches "majority minority" status, as many Hispanics choose to self-identify as white.

We are also beginning to accept, once we stop forcing people into binary categories, that sexual orientation and gender are both continuums. Sixteen percent of Americans identify themselves as neither fully hetero nor homosexual, but somewhere in between. And some people are able to recognize that their gender doesn't synch with their genes or morphology as early as age three. Our social and legal systems, as well as our built environment, are slowly adapting to reflect these complexities. (In 2014 Facebook presented users with 58 gender options, as well as three pronouns.) While many universities struggle with how to accommodate students who transition in college (particularly at single-sex universities), the University of Vermont has officially

recognized a third gender: neutral. Society pushes off many serious life decisions until a child "comes of age," but that's not an option for parents and children planning for gender reassignment surgery. When is it too early or too late? Norway is considering a law that would allow children as young as 7 to legally change their gender, but forbid sex-reassignment surgery until they are 18.

But accepting fluid boundaries can heighten concerns over representation and control. Are there limits to the right to claim one's own identity? Rachel Dolezal was pilloried in social media and the press for self-identifying as black when her parents and peers experienced her originally as white. Dolezal has repeatedly expressed that she acted on a deeply felt sense of internal identity. But critics accuse her—and other whites presenting themselves as black—of dabbling in an identity they can abandon if it becomes inconvenient. Identity is a matter of personal history as well. Some feminists were furious with the public accolades showered on Caitlyn Jenner. As Elinor Burkett wrote, "People who haven't lived their whole lives as women...shouldn't get to

All gender restroom signs from the Whitney Museum of American Art (left), the American Folk Art Museum (center) and the Chicago Children's Museum (right).

Are there limits to the right to claim one's own identity? Who has standing to speak on behalf of a community?

define us…. [B]eing a woman means having accrued certain experiences, endured certain indignities and relished certain courtesies in a culture that reacted to you as one." Burkett believes that Jenner's right to identify as female doesn't transcend an experience mostly lived as male.

The landscape is no less fraught when it comes to groups rather than individuals. Who has standing to speak on behalf of a community? While supporters of the "Change the Mascot" campaign pressure the NFL team based in Washington, DC, to stop using a racial slur ("Redskins") as its name, some Native Americans rallied in support of the team's moniker. Further complicating matters, culture isn't just a matter of parentage; it is also a matter of heritage. Does an individual have to be raised in a culture in order to represent it? The Navajo Nation recently wrestled with whether to allow a tribal member not fluent in Navajo to hold public office, and eventually decided to amend the election requirements.

The rise of social media has changed the dynamics of these conversations, both accelerating change and amplifying conflict. Twitter is the ultimate megaphone, empowering protesters to take their concerns directly to a massive public, unfiltered by the mainstream press. This amplification can create its own issues regarding representation—a tweet storm may not distinguish between consensus within a community and outlying positions. Social media, especially anonymous platforms, often encourages people to be their worst, unfiltered selves. A student sit-in at Colgate University, for example, was met by

a torrent of abusive postings on Yik Yak, exposing a strain of racism that might never have surfaced in civil dialogue (although the protest organizer noted this may be good thing, since at least now the college can't pretend those attitudes don't exist on campus).

The increasingly fractal nature of identity can make it hard to moderate competing voices that each claim to speak on behalf of a community. Last summer the Museum of Fine Arts, Boston was the target of a protest instigated by a simple (some would say simplistic) selfie opportunity: encouraging visitors to don a replica kimono and pose in front of Monet's *La Japonaise*. The protests, in turn, sparked counter-protests, including people of Japanese heritage wearing their own kimonos, and prompted the deputy consul general of Japan in Boston to speak up on behalf of the museum. One Japanese American blogger noted that "the groups most offended by Kimono Wednesdays appear to be non-Japanese Asian Americans and white allies," and criticized the media as treating "all Asian Americans as a homogeneous group."

Issues of identity and representation not only play out on the individual and corporate level, but also in the public sphere as we grapple with tangible reminders of a painful past. In the US, calls to #TakeDownTheFlag led to the removal of the Confederate battle flag, first from the grounds of the South Carolina Courthouse, and then in a cascade from Capitol Hill in Montgomery, Alabama, to the University of Mississippi and even St. Paul's Episcopal Church (known as the "Cathedral of the
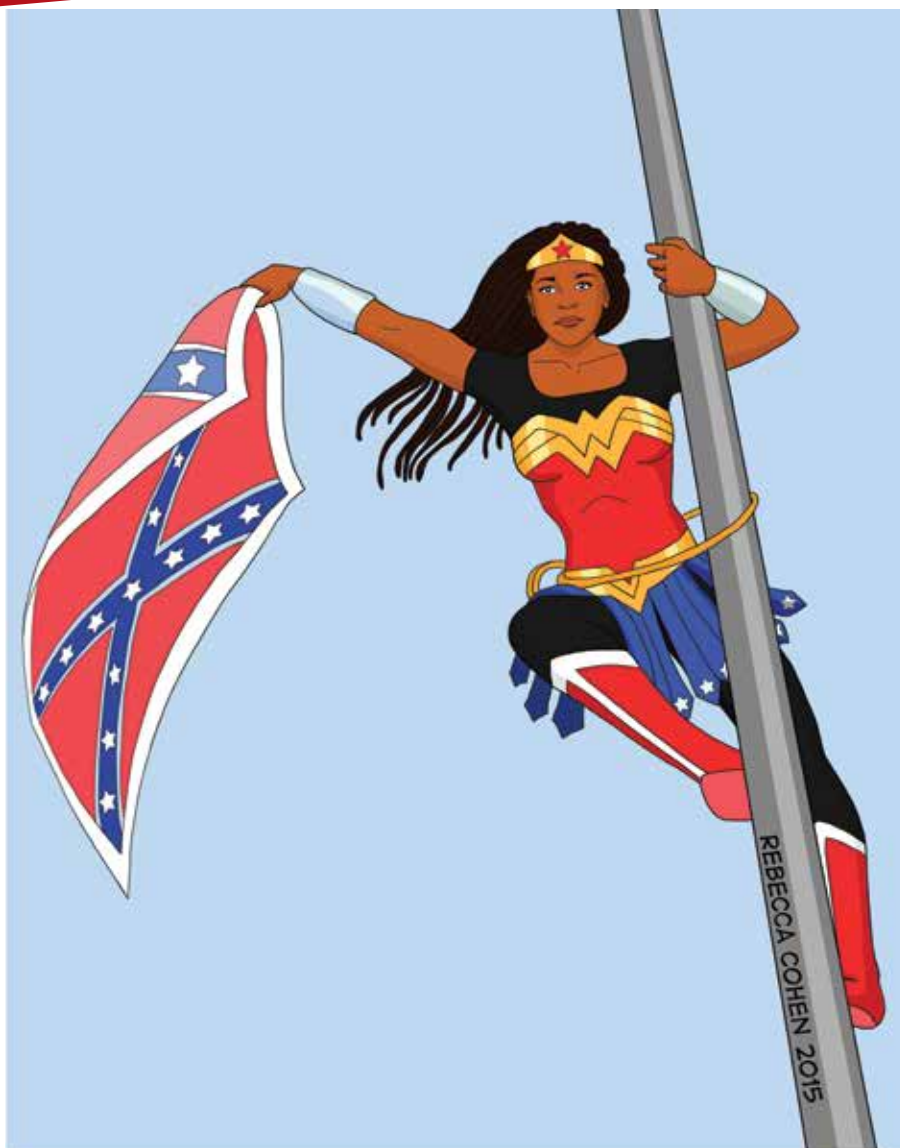
Rebecca Cohen's interpretation of activist Bree Newsome capturing the Confederate flag last summer on the South Carolina state house grounds in an act of civil disobedience that triggered the flag's permanent removal. Credit: Rebecca Cohen

into Darth Vader, as did one artist in Ukraine).

Now the question becomes not whether to take down a flag or a statue, but where to draw boundaries. Do public monuments perpetuate oppression, or remind us of the history we need to redress? The person or people who defaced the monument to Calhoun in Charleston were drawing a line—geographically and intellectually—from his racist views, across Marion Square, to the recent murders of nine worshipers at the Emanuel African Methodist Episcopal Church. But as many commentators are pointing out, if we erase tangible reminders of our past, how will we understand how we got where we are?

Confederacy") in Richmond, Virginia. A statue of Confederate president Jefferson Davis was removed from the campus of University of Texas, Austin, and some students at the University of Missouri are trying to oust Thomas Jefferson. At Yale, student protesters are pressuring the university to rename Calhoun residential college, as John C. Calhoun was a strong advocate of slavery. South Africa is confronting similar issues in response to calls that statues of Cecil #RhodesMustFall, and former Soviet bloc countries wrestle with the choice of saving or destroying statues of Lenin (or, more subversively, reshaping them

What This Means for Society

If our communities proactively address social justice issues, we may negotiate cultural/social transformation in productive and equitable ways. Conversely if society resists change until an explosive tipping point is reached, the resulting violence often ends up damaging the very neighborhoods that seek legitimate redress. For example, research suggests that cities damaged by riots following Dr. Martin Luther King Jr.'s assassination witnessed a nearly 10 percent decrease in the income of black families and higher unemployment among young men.

Our colleges and university communities—often the ignition points for significant social reform—tread a difficult line when they seek to balance respect and inclusion with intellectual inquiry. In the past year, while the University of Missouri and Yale (among others) have struggled to respond to calls for reform, both college authorities and protesters have stumbled. The moral authority of administrators has been undermined by missteps and tone-deaf statements, while the cause of activists has been tarnished by accusations of bullying and suppression of freedom of speech.

As a society, we need to create an environment (physical and regulatory) that treats people with respect, which includes not presuming they fit into neat categories. As with the civil rights and disability rights movements, restrooms are once again on the front line of social change. While many cities and schools negotiate the reinvention of the restroom (how many, who gets to use them, signage), opponents of Houston's Equal Rights Ordinance sank the initiative in fall 2015 by inflaming fears of sexual predators lurking in the public loo. (This anxiety is an echo of the past: Phyllis Schlaffly invoked the same bogeyman to argue against passage of the Equal Rights Amendment.) By contrast, cities at the forefront of equal access (Seattle, Philadelphia, Berkeley, Santa Fe, Austin, Dallas) have passed ordinances requiring all gender restrooms.

What This Means for Museums

Whether they seek an active role or not, museums are being called on to act as cultural hazmat teams. In story after story about taking down Confederate battle flags, or removing statues and commemorative plaques, the writer or speaker concludes with a call to "put it in a museum." What does this signify? Do people want museums to serve as explosion-proof vaults for volatile social issues? Or do they want museums to bury offensive objects in collections storage, out of sight and out of mind? Or (optimistically), do people trust museums to foster productive debate, dialogue and reconciliation?

With regard to a museum's own collections, what does "cultural appropriation" mean (beyond the legal issues of cultural patrimony)? When is it wise, necessary or desirable to tell the backstory of colonialism and oppression that lies behind so many collections (whether fine art, decorative art, historic artifacts or natural history specimens), and when is it okay to have a less-fraught point of access?

As debates about Confederate symbols continue, the status of Jefferson Davis's statue in Kentucky's capitol rotunda remains unclear. Credit: David Buchta, director and state curator of the Kentucky Division of Historic Properties

Museum Examples

In 2014 the Minnesota Historical Society (MNHS) created a Department of Inclusion and Community Engagement (DICE) to "guide internal and external strategies across all historic sites and museums to embed inclusive practices in our work to ensure the diversity of the state is reflected in all MNHS activities, including collections, programs, staffing, volunteers, historic preservation and governance." As Chris Taylor explained in a series of posts on the Incluseum blog (see Additional Resources, page 37), one of the goals of the department is to "recognize the expertise within our various diverse communities and use our resources to amplify voices of diverse communities through collaboration and co-creation." While the Society had a long history of reaching out to diverse constituencies, they created DICE to integrate and elevate these efforts.

In the wake of the murders of nine African American worshippers at the Emanuel African Methodist Episcopal Church in Charleston, South Carolina, on June 17, 2015, Fort Sumter National Monument removed the Confederate flags flying over the site. The National Park Service stated that some Confederate flags and banners (but not the most controversial battle flag) would be returned later in the year to a less visible location. "As a focal point of Charleston Harbor, it is important that the only flag seen flying atop Fort Sumter National Monument is the current United States flag," said Superintendent Tim Stone. "The historical flag display will be in the fort so visitors can learn about the fort's history and the history of the flags that flew here." Predictably, this middle course angered people who felt the flags should not be displayed at all, and also those who felt they never should have been removed.

"Investigating Identity," one of MoMA's learning themes, uses the museum's collections to explore how people perceive and express themselves. As the program description notes, "factors and conditions that an individual is born with—such as ethnic heritage, sex, or one's body—often play a role in defining one's identity." Through this constructivist approach to learning, students are encouraged to interpret art through the lens of their own experience.

As it prepared to move to Lower Manhattan, the Whitney Museum of American Art hosted a discussion about what it means for a museum to be a "safe and welcoming space," including the provision of gender neutral restrooms. Signage in the new building now reads "All Gender Restroom." The American Folk Art Museum and the Utah Museum of Fine Arts provide all gender (or gender neutral) restrooms for visitors as well.

Are there subjects that can only be appropriately addressed by people or groups that represent, genetically and historically, the topic in question? In December 2015, John Cummings opened the Whitney Plantation in Louisiana as what he characterizes as America's first museum dedicated to telling the story of slavery. Cummings is white, and some (even before the opening of the museum) slammed the project as "an example of continued profiteering off the suffering of black people," while others hailed him as a modern-day John Brown—a white man battling racism and oppression.

In recent decades, museums have tried to compensate for the overall lack of racial and cultural diversity among their own staff through the use of advisors and advisory boards. Given the contested nature of identity, it may be increasingly challenging to choose groups and individuals to "represent" the interests of whole cultures, races, etc. Can any individual or group speak for the whole? What validates the approval such groups offer the museum, and who has standing to challenge their input?

Museums Might Want to…

- Take a fresh look at their own environment and the overt and subtle signals they might send about the categories in which they place visitors, potentially signaling who is welcome and not welcome. Adopting the philosophy that "everyone deserves to pee in peace" may be as simple as altering signage, or it may require modifying, adapting or renovating available facilities…and not just the restrooms.

- Create productive ways to navigate controversy within the museum's own sphere—anticipating and welcoming hard conversations—*before* the need arises. Recognize that no group is homogeneous, and no one person or set of people inoculates the museum against criticism. There will probably be a diversity of opinion within any given group, and all it takes is a Twitter hashtag to launch a small protest into the national news.

- Realize that people will experience the museum in the context of their own identity and concerns. Guided by its mission, a museum may focus on the aesthetic or scientific meaning of an object—but others may view these collections through the lens of culture and history. How can museums validate and acknowledge these perspectives?

- Decide whether and how to play a role in decommissioning or relocating culturally explosive icons in their states/cities/communities. This may include confronting offensive symbols in a museum's own historic properties and sites, and memorials recognizing a museum's founder or donors. In some communities, it may mean wading into issues that have the potential to alienate segments of the museum's visitors and supporters.

- Consider the opportunity (many consider it an obligation) to play a role in community dialogue: defusing, healing, rebuilding. This might take the form of the museum's usual core activities: collecting and exhibiting artifacts and oral histories that document conflict and calls for social change. It may extend to being intermediaries, bringing together people of good will to find common ground on contentious issues.

Additional Resources

Museum Hue (www.facebook.com/Museumhue, @museum-hue) is a community of practice that advocates for educators, culture workers and museum professionals. It is dedicated to "tackling issues at the intersection of identity, culture, art and community" and "champions equity, agency, diversity and inclusion within cultural institutions."

The Incluseum (http://incluseum.com) based in Seattle is dedicated to the vision that "inclusion become an integral priority for all museums and flourish through supportive community relationships." Their resources include an essay by nikhil trivedi on defining oppression in museums. Another resource from trivedi is an Ignite talk for Museum Computer Network 2015—"Towards an Anti-Oppression Museum"—in which he offers some suggestions for beginning hard conversations.

In a series of posts on the blog *Japanese-American in Boston*, Keiko K. parses the complexities of who has standing to protest in the Museum of Fine Arts, Boston, Kimono Wednesdays controversy.

Happiness: because you get what you measure

"The gross national product does not allow for the health of our children, the quality of their education, or the joy of their play."

—Robert F. Kennedy

Humans are driven to succeed, so we mold our behavior to fit our definition of success. If what we truly want in life is to be happy—and for others to be happy too—that suggests we should measure how we feel. But in government, business and even our private lives, we usually focus on profit/loss, ROI, net worth—not because money is the most important thing in the world, but because it is easy to quantify and track. Increasingly people (and organizations) are rebelling against this focus on finance, pointing out that it has fostered the accumulation of wealth at the expense of health, sustainability and wellbeing. Governments are experimenting with a variety of nonfinancial metrics including happiness, and businesses are finding that happiness is actually profitable. Once we redefine success to include more than cash, museums are poised to make sizable contributions to our collective bottom line.

Western society hasn't always seen cash as the measure of all things. Back in the 18th century, social reformer Jeremy Bentham argued that happiness is the most important metric of life. But happiness is subjective and therefore hard to measure, so over time economists have expediently used people's expenditures as a signifier of how they experience and value the world. This approach resulted, for example, in the post-World War II emergence of Gross Domestic Product (GDP) or Gross National Product as the primary measure of national prosperity.

But it's been clear from the beginning that money is a poor proxy for happiness. Back in 1974 a USC professor articulated what became known as the Easterlin Paradox: while rich people are on the whole happier than poor people, national wealth (and

Visitors step up to an interactive at "Stefan Sagmeister: The Happy Show" at the Museum of Vancouver. Credit: Flora Gordon

higher per capita income) doesn't make one country happier than another. And our focus on finance has had many unhappy side effects. Measuring only what people spend money on, and therefore what other people earn, undervalues unpaid activities like housework, volunteerism and time spent doing simply nothing (otherwise known as "relaxing"). It also fails to capture externalities—the costs borne by future generations when profit is made by consuming nonrenewable resources, or damaging health or the environment. And it doesn't capture economic factors like inequality that may violate our collective understanding of what is ethical or fair. Perhaps most troubling, as we face the imminent costs of climate change, GDP, stock value and other key financial metrics don't measure sustainability.

There have been challenges to such economic oversimplification for decades. Bhutan got a lot of attention for their Gross National Happiness Index starting in the 1970s. In 1990 the United Nations debuted the Human Development Index, which takes into account life expectancy and education, as well as

Visitors interact with gumball machines and each other (above) and draw what makes them happy (right) in "Stefan Sagmeister: The Happy Show" at the Museum of Vancouver (see page 43). Photos: Flora Gordon.

per capita income. A recent intensification of interest has generated a host of new schemes as well. In 2009 Nikolas Sarkozy, then president of France, commissioned a report from Amartya Sen and Joseph Stiglitz, both of whom are Nobel prize-winning economists, that critiqued GDP and proposed "sustainable happiness" as a key measure of success. The following year France introduced happiness as a major topic in their annual national Social Portrait. (Intriguingly, the French researchers found it is easier to measure unhappiness than happiness, creating a kind of inverse metric of success.) That same year Prime Minister David Cameron made a commitment to developing a General Wellbeing Index for the UK. Across the globe governments are adopting schemes to weigh the impact of nonmarket goods like employment, health, volunteering and reduction in crime.

The search for meaningful metrics has infiltrated the business sector as well. In 2010, Zappos CEO Tony Hsieh launched the "happiness at work" movement with his book *Delivering Happiness*, making the case that happiness in the workplace correlates with

employee engagement, retention, productivity and, ultimately, higher profits. Hsieh has even created an ROI calculator (widely adopted by other companies) that quantifies the benefits a business can derive from cultivating happy employees. According to happiness advocate Shawn Achor, these benefits, on average, include boosting sales by 37 percent, productivity by 31 percent and accuracy by 19 percent. That's pretty significant when you consider that as of Gallup's most recent survey, less than a third of

Americans are "engaged" with their jobs (i.e., enthusiastic about and committed to their workplace); the level of engagement is lowest among Millennials.

You may have noticed that these various movements and schemes focus on a host of related attributes: happiness, wellbeing, satisfaction, engagement. The differences between these nouns, while subtle, can be significant. Wellbeing includes a broader measure of health and ability to function, and implies a system that values goals other than

personal happiness. While most people would grant you can't have too much wellbeing, seeking to be perpetually, blissfully happy is not a realistic or even a desirable goal. But "happiness" is intuitive and compelling. It grabs the public imagination (cue Pharrell Williams's 2013 hit song "Happy").

As with any trend, happiness is now being commodified, with books, courses, even apps promising to help you attain this elusive state. See, for example, the Happify app, grounded in "science

Magnetic resonance imaging of the brain of Matthieu Ricard, a Buddhist monk with an "abnormally large capacity for happiness."
Credit: Jeff Miller: University of Wisconsin–Madison

based emotional wellbeing" and using a proprietary framework (Savor, Thank, Aspire, Give, Empathize) to cultivate resilience, mindfulness and lasting happiness. Sometimes, however, the prescription for happiness is less technology, not more. (The Happiness Research Institute in Copenhagen recently showed that simply disconnecting from Facebook for one week made participants perceptibly happier.)

One of the problems with using happiness as a metric is that until recently, researchers had to rely on accurate (and honest) self-reporting. Now technology is providing new tools to directly measure mood. Bank of America has tested personal sensors that use location data, voice analysis and motion sensors to track the happiness and productivity of employees.

(The pilot data led BoA to deploy a new schedule of lunch breaks that reduced stress and turnover and improved productivity.) Facial recognition software, teamed with artificial intelligence, is learning how to read emotion (e.g., Microsoft's Project Oxford, as well as products from a slew of small startups, one of which—Affectiva—was recently profiled in the *New Yorker*). Algorithms can perform sentiment analysis on masses of data from social media to diagnose the mood of groups or regions. Recently researchers have used magnetic resonance imaging to map where happiness emerges in the brain in the hope of developing "happiness programs" based on scientific research.

What This Means for Society

Stay-at-home mothers and wives have been devalued and marginalized for decades because their work in the home is not counted either financially or in its contribution to family wellbeing. This social devaluation of unpaid work may still be contributing to the gender inequity in time spent on childcare and housework, even in families where both spouses want to make equal contributions. If we do indeed face a future of radically lower employment (see the chapter on labor in this report) and increasing inequality of wealth, it's more important than ever that we embrace nonfinancial measures of whether a person

Museum Examples

There are several examples of museums working with hospitals, or hospitals establishing museums, in order to boost patient wellbeing and health outcomes. The Chelsea and Westminster Hospital in the UK was awarded museum status in 2009, and found that after integrating art into the wards, all patients experienced a psychological lift, "27% very much so." The Al Maktoum Hospital Museum in Dubai used a social media campaign, #wordsthatheal, to create and share an archive of words that "have a powerful and remedial effect on those suffering."

The Happy Museum Project helps the UK museum sector respond to the challenges presented by the need for creating a more sustainable future. "Happy Museums," the project contends, "are about building a case for optimism—they are museums created to actively seek solutions to become more sustainable and in doing so, they promote the wellbeing of visitors, staff and communities." (Ironically, the project does translate happiness back into a financial metric, concluding that the individual wellbeing value of museums is over £3,000/year.) Examples of Happy Museum practice include The Beaney House of Art and Knowledge's "Paper Apothecary" project, in which visitors received a "cultural prescription" from the resident chemist to brighten their day, and the Woodhorn Charitable Trust's museums, which hosted a comedian in residence.

"The Happy Show" by Stefan Sagmeister, a New York-based designer, is a touring exhibit most recently shown at the Museum of Vancouver (MOV) in Canada. On one of his year-long sabbaticals to recharge from his work, Sagmeister launched a 10-year project to define and control his own happiness, culminating in this installation. MOV notes the exhibit was highly relevant to its community in light of a 2012 survey showing that "Vancouverites were isolated and disconnected." The museum built out the experience with a series of public events encouraging people to explore various facets of happiness, including a public forum on ideas for creating a happier community.

A NeighbourMaker event at the Museum of Vancouver encourages students to use design to build social connectedness. Photo: Ryan Carmichael

is a valued, and valuable, member of society.

Defining success in nonmonetary terms is particularly important for Millennials, who face higher rates of unemployment than peers with equivalent education, and even if employed have no guarantee of economic success: nearly half of college graduates in their 20s are trapped in jobs with low pay and no prospect of advancement. Fortunately it seems like Millennials have good instincts when it comes to pursuing happiness, preferring to spend their money on experiences rather than stuff, a strategy that has been shown to be more likely to produce lasting happiness.

To the extent the search for nonfinancial metrics focuses on happiness rather than a better-rounded look at wellbeing, we need to be careful about stigmatizing unhappiness (or anything less than euphoria). Facebook and other social media already pressure people to present a prettified version of their lives. A cultural shift to mood metrics may simply mean people lie about their mental state as well as their income, and are more stressed and less happy as a result.

Perhaps most importantly, because we get what we measure, a national or international shift away from short-term financial gains toward subtler metrics that factor in sustainability, health, wellbeing and, yes, happiness, may result in a world that is not just richer but better.

What This Means for Museums

Nonfinancial metrics are a good fit for the museum sector. In the absence of shared measures of wellbeing, museums often fall back on trying to demonstrate financial impact. Even when such studies are rigorous (and all too often they are not), the argument has an inherent weakness: as soon as a nonprofit grants the premise that its most important contribution is economic, it begs the question of whether a city, state or community could invest the same amount of support in a different entity—for profit or nonprofit—that would yield a better rate of return.

Given traditionally low museum salaries, it may be realistic for much of our sector to focus on employee happiness and wellbeing, as well as trying to budget financial incentives. And (as Tony Hsieh found at Zappos), this may pay off in mission delivery as well. Museum guru Elaine Gurian contends that "if your staff is happy, your audience will forgive you almost anything."

One piece of good news for nonprofits is that charitable giving (along with other forms of spending

money on others) seems to increase happiness far more than spending money on oneself. The Arizona-based Lodestar Foundation leverages this aspect of human nature, seeking to "guide us to find happiness through philanthropy." (This is a refreshingly transparent approach: "It is all about me, but it helps you anyway.") Some major foundations embrace wellbeing as an explicit goal. The Robert Wood Johnson Foundation, for example, funds research into "positive health," including the contributions of wellbeing, happiness and marital satisfaction. The Walt Disney Company's charitable giving priorities include "seeking to bring happiness, hope and laughter to kids and families in need around the world."

Museums Might Want to...

- Consider what nonfinancial metrics they can use to measure their own success. Museums often emphasize educational outcomes, but that message isn't penetrating the market very well! According to research by Reach Advisors | Museums R+D, only 12 percent of the general public thinks of museums as educational. Perhaps happiness would be an easier sell. We have the foundation for building this case: a 2013 report by a researcher from the London School of Economics, commissioned by the Happy Museum Project, demonstrates that visiting a museum is associated with higher levels of happiness.

- Establish an internal happiness audit, assess how to create a happy and productive workplace, and validate the happiness and wellbeing of employees as an explicit measure of success. As noted in the chapter on labor in this report, museums usually can't compete with the private sector on salary, but they *can* aim to be the best places to work when it comes to quality of life.

- Make the case that museums are worthy partners in the quest for wellbeing. Charitable foundations may value the ability of museums to improve wellbeing in specific communities. Businesses may want to include museum services in the benefits deployed to cultivate happy and productive employees.

Additional Resources

The quote chosen to enhance this chapter is from a speech Robert F. Kennedy gave at the University of Kansas in 1968. The full text can be found on the website of the John F. Kennedy Presidential Library and Museum. The speech has particular resonance for our time as it was delivered when, as he notes in his remarks, violent protests were wracking the country, tanks were patrolling the streets and "machine guns have fired at American children." Kennedy argues that the US should not rest complacent in its economic prosperity, and delivers a scathing criticism of GDP as a measure of national greatness.

The OECD Better Life Index empowers users to generate their own international rankings by assigning relative importance to 11 topics including community, education, civic engagement, health and life satisfaction.

Daniel Fujiwara, *Museums and Happiness: The value of participating in museums and the arts* (2013). Commissioned by the Happy Museum Project, this report looks at the impact museums have on happiness and self-reported health. In a concession to the tyranny of economic measures of success, it then uses the Wellbeing Valuation approach to translate these benefits into cash equivalents.

"Fiero! Museums as Happiness Engineers," *Museum* magazine, March/April 2009. In this article, adapted from the inaugural CFM lecture, Jane McGonigal makes the case that museums should be in the business of making people happy, and encourages them to be pioneers in the sustainable happiness movement.

William Davies, *The Happiness Industry: How the Government and Big Business Sold Us Well-being*. For an accessible introduction to the book, download the Future of Work podcast, episode 56, in which futurist Jacob Morgan interviews Davies.

Where to Find the Future

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

CFM's page on the Alliance website (www.futureofmuseums.org) includes links to all of our projects and reports.

Starting in 2016, CFM is devoting a separate website (www.vibrantlearning.org) to an exploration of the future of P-12 education, in which, we believe, museums will play a starring role. This site aggregates content from all over the Web—bringing together blog posts, tweets and news related to education forecasting, innovation and reform, with emphasis on the contributions of museums to the learning landscape.

The CFM Blog (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 2016.

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 links to the newsletter archive and subscriptions on the CFM homepage at www.futureofmuseums.org.

You can follow CFM on Twitter (@futureofmuseums), where our tweets feature links to news, research, opportunities and current events.

On Pinterest (http://www.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 (https://www.facebook.com/futureofmuseums) shares links and brief commentary on stories related to museums.

CFM's YouTube channel (http://www.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. After working through infatuations with ethology (the study of animal behavior), ecology and evolutionary biology, she earned an M.A. in cell and molecular biology at Duke University. However, after dissecting her thousand and nth embryonic chick eyeball, Merritt reconsidered her career path and concluded that the best job in the world would be working in a museum. She bombed her first museum interview (for the position of penguin keeper at the New England Aquarium) but landed a job as curator of a small chil-dren's museum-cum-nature-center. Participating in the Collections Care Pilot Training Program, hosted by the Los Angeles County Museum of Natural History, gave her the street cred to become a collections manager at a natural history museum. Later, while serving as director of collections and research at Cincinnati Museum Center, Merritt attended the Getty's Museum Management Institute. As is often the case with graduates of that august program, she changed jobs within a year of completing the course, leaping to the association world to direct the Museum Assessment Program (MAP) for AAM. Eventually she became director of the Excellence programs at the Alliance, including MAP, Accreditation, peer review and the Information Center. In 2006 the Alliance Board approved the creation of a futurist initiative as one of the AAM Centennial projects, and Merritt hastened to Texas to complete the University of Houston's certificate course in strategic foresight.

Her areas of expertise include strategic foresight, museum standards and best practices, ethics, collections man-agement 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 futureofmuse-ums.blogspot.com and tweets as @futureofmuseums.

TrendsWatch 2016 was designed by Selena Robleto, Red Velvet Creative.
Image and permission research by Sylvea Hollis.

Cover: "Aequorea" is envisioned by Belgian-born architect Vincent Callebaut as a cluster of "oceanscrapers" to be created off the coast of Rio de Janeiro. The structures will be 3D printed from "algoplast"—a composite created from algae and recycled oceanic garbage. The design of these self-sustaining, underwater farms is inspired by a bioluminescent jellyfish of the genus *Aequorea*. For more information about this vision of the future, visit Vincent. callebaut.org, where you can read the history of this colony as told in a letter penned by Océane—a teenage resi-dent of Aequorea—in the year 2050. Rendering by Vincent Callebaut Architectures

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.

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 30,000 individual museum professionals and volunteers, institutions and corporate partners serving the museum field, the Alliance is the only organization representing the entire scope of the broad museum community. For more information, visit www.aam-us.org.

Acknowledgements

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 software and services for arts and cultural organizations, including Altru, designed specifically for general admission organizations. Blackbaud has partnered with more than 2,400 arts and cultural organizations worldwide by providing solutions that help them meet their unique goals in development, marketing, ticketing and more.

"I always look forward to reading CFM's annual 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.

HTB
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: because we believe museums will thrive when built on a solid understanding of their audiences.

PGAV
DESTINATIONS
Global Leaders in Planning and Design

Dreamers, thinkers, and makers

PGAV Destinations. We're sculptors, designers, architects, artists, and strategists devoted to something bigger than experiences alone. We're devoted to the people who will be changed by those experiences.

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

TrendsWatch is an invaluable resource for museums of all sizes across the country and across disciplines. As museums seek places of relevance in the communities they serve, *TrendsWatch* keeps our collective focus on the future and helps museums imagine new, innovative ways to engage audiences. The long-term growth and sustainability of museums depend upon our ability to adapt to a changing environment—and *TrendsWatch* helps museums do just that. As a firm that believes in the future of museums, Schultz & Williams is proud to partner with the Center for the Future of Museums in sponsoring *TrendsWatch 2016*.

S&W Schultz & Williams
Development | Direct | StaffSolutions | Planning | Marketing

Schultz & Williams is a full-service consulting firm—experts in development, multi-channel fundraising and nonprofit management. We also have a team of strategic-planning specialists who work closely with board and staff to address the #1 challenge facing today's museums: community and audience relevance. Call us now about Realigning for Relevance.

Help us keep an eye on the future