103 Million New Visits

Based on a survey of Americans on smartphones, virtual reality, and interactive technology in museums

2018 MUSEUMS & TECH
SURVEY + REPORT

stage2vr.com
How can museums grow?

- If museums added virtual reality exhibits, 12.2% would visit more often.
- If museums added interactive exhibits, 17.3% would visit more often.
- If museums added augmented reality exhibits, 10.5% would visit more often.

"I'm not sure" responses include:
- 35.6% (Criterion 1)
- 25.9% (Criterion 2)
- 43.8% (Criterion 3)

103 million new visits based on a 12.2% increase over 850 million annual visits (Attendance data source: American Alliance of Museums, 2018)

The Newness Factor

A large percentage of respondents indicated unfamiliarity with virtual reality and other new technologies, presenting an opportunity for educators.

See page 8 ➤
A totally new kind of technology is enabling totally new kinds of interactive exhibits. How will this transform museums and museum experiences? We surveyed over 500 Americans for their opinions of virtual and augmented reality. The results were surprising and informative.

What types of interaction would you like to use in future museum exhibits?

- 46.1% New Technology like VR or Smartphone Interaction
- 39.8% Traditional Hands-On Interaction
- 14.2% Non-Interactive Content

Mostly new technologies like virtual reality

What is the best way museums can improve existing exhibits?

- 57.7% A mix of technology and hands-on interaction
- 24.6% Mostly traditional hands-on interaction
- 18.4% Would visit museums more often if they could use their smartphone to enhance exhibits

Most visitors want to see a mix of new technology with traditional interaction. However, don’t overlook including some tech-free, traditional hands-on exhibits. The world of virtual and augmented reality is limitless, but some visitors will always prefer the simplicity of more traditional experiences.

Note: Smartphones are capable of VR and AR, but many users are simply not aware. (See discussion on page 10, “Misconceptions”)

Projected educational users of VR/AR within 7 years: 15 Million

Many people are turning to their personal electronic devices for entertainment and education. Museums can combat this trend by offering rich media experiences beyond what is possible at home.

15 Million
Museums can’t stand still. They must pioneer—new tech, new methods of interaction, new ways to learn.

Why? Because visitors expect something new. At least 77% of Americans have smartphones, and more than half own a tablet. These are not merely gadgets; they are powerful gateways to rich interactive experiences, and more and more Americans of all ages crave innovative ways to learn.

Museums are uniquely positioned to lead. They serve diverse audiences. If 77% of Americans have smartphones, that means 23% still do not have smartphones. There is a growing disparity in access to technology at home and in schools, and museums can help fill this gap. Museums want to do more than survive; they want to thrive, and the first step towards growth is insight: the metrics behind this wave of technological transformation.

Opportunity.

Museums that implement exciting new interaction technologies stand out. Competing for Americans’ attention is more difficult than ever. Institutions that deliver innovative educational experiences have a leg up on those that don’t.
Which topics would you find interesting in a virtual reality exhibit?

- Space exploration and dinosaurs were popular topics among survey respondents, but world cultures took the top spot. Don’t neglect to feature other under-appreciated subjects—one benefit of solutions like virtual reality is the ability to make less popular arts and sciences more compelling and relatable.

32.4%

Would like an app on their smartphone to explore museum exhibits.

18.4%

Would visit museums more often if they could use their smartphone to enhance exhibits.

**Analysis:**

Audiences crave new experiences, especially those they can interact with on their personal devices. However, most people haven’t seen a dedicated VR or AR exhibit, so don’t overlook the excitement this can generate. Exhibit design should not be limited to one form of new media.
**Growth Opportunities**

Recently, investment firm Goldman Sachs predicted the educational sector would see some of the most explosive growth for these new technologies. Virtual and augmented reality solutions have the potential to grow audiences on the education side, but also through fundraising and development. Museums and other institutions can give key stakeholders an exciting early look at capital campaigns (view a new exhibit hall before construction begins), or can take them on a research expedition to a remote site. These kinds of experiences elevate the profile of the institution and foster a sense of ownership in current and prospective donors.

![15 Million](image)

Projected educational users of VR/AR within 7 years according to investment firm Goldman Sachs.²

![$50/Student](image)

Average annual spending on educational software.²

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**JARGON**

Understanding the alphabet soup of mixed reality technologies:

**VR** Virtual Reality. Completely replaces the user’s view with a simulated world.

**AR** Augmented Reality. Projects simulated objects into a live view of the real world.

**MR** Mixed Reality. Brings real-world objects into a simulated world. Also can mean AR or VR.

**XR** Cross Reality. General term for all of the above technologies (and those yet to come).

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**Misconceptions**

The biggest misunderstanding among people who haven’t tried virtual reality regards the scale of the experience. **VR headsets are small, but the experience can be huge.** The headset (HMD) sits inches in front of the user’s eyes, immersing them with a wide three-dimensional view. Standing at the edge of the Grand Canyon truly feels like looking over the edge of a mile-high precipice (and most users can’t muster the courage to take a step forward).

The other common misconception is that VR and AR require custom, high-end hardware. In fact, most smartphones can deliver impressive experiences with inexpensive viewers like Google Cardboard that cost $20 or less.

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**About the Survey**

The 2018 Museums and Technology Survey and Report was commissioned and produced by Stage 2 Studios, a multidisciplinary firm specializing in media for the education and nonprofit sectors. The survey was conducted in December of 2017 via Google Surveys, the market research service of Google, LLC. Survey questions were delivered over four sessions to 104, 100, 213 and 101 respondents, for a total of 518 total respondents. An equal bias on gender and age demographics was sought. For example, on the question regarding VR exhibitors and attendance, an approximately equal number of males and females responded (53.6% vs 46.4%). Ages ranged from 18 to over 65 years, with slightly higher representations among adults 55-64 years old (+4.2%) and those over 65 years (+6.4%).

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**Virtual Mars**

Stage 2 Studios develops innovative interactive apps for clients like the US Department of Education and other major educational institutions. Learn more at stage2vr.com