



Museums
Music
Streaming Services
Performing Arts
Film
Theater

THE ART OF DATA

How Arts Organizations & The Entertainment
Industry Can Use Data To Boost Revenue





INTRODUCTION

When people think of the arts, a few things probably come to mind: the lights of Broadway, colorful museum paintings, their favorite movie, or the first concert they ever attended. While most businesses tout personalization, art actually makes things personal by connecting with people emotionally. Still, with the rise of digital, art-makers and venues are facing more pressure than ever to stand out. After all, museums, performance spaces, and other arts & entertainment companies are in constant competition with on-demand entertainment, increasing costs, and evolving consumer expectations in the age of social media.

Standing out requires data, and lots of it. That said, some areas of the arts have more data to use than others. Namely, online arts providers like Netflix, Hulu, and Spotify. In-person arts organizations such as museums, concert venues, and theaters have struggled to keep up with their online competition, but are now recognizing the importance of using technology to stay top of mind.

This book is organized in terms of art experienced in-person vs. online, and will cover how both are using data to understand their audiences and create better experiences for them.

A quick note on this distinction. While the ways in which arts organizations use data may differ, the reason they need data is often the same: to attract new audiences and to engage existing audiences more.

Let's look at how two very different types of companies overlap when it comes to their data. Ballet Austin (BA), a non-profit performing arts organization, sells out all 14 performances of the Nutcracker at its 2,442-seat theater every December. While audience members come for the classics, BA has found generating interest for newer works to be difficult and wanted to use data to figure out how to address this problem.¹ Hulu, on the other hand, has a deeper understanding of its audience, but is still searching for ways of using data to attract new customers and compete with competitors—especially considering a recent study which revealed that 68 percent of respondents feel Netflix has the most appealing content when compared to Hulu and HBO.²

Ballet Austin and Hulu are quite different, but their goals align when it comes to bringing in new audiences and engaging current audiences further. Why? Both must utilize data to figure out how to connect with people

and build lasting loyalty.

The Art of Data will cover how the arts can better collect, analyze, and use data to connect with their audiences. This includes questions arts & entertainment companies should ask to organize data and strategies for activating it to make more informed decisions. Plus, readers will learn how top arts organizations utilize data to compete in their respective industries and what to do to get your own data strategy down to a fine art (pun totally intended).

IN-PERSON ARTS & ENTERTAINMENT

A quick story to illustrate an ongoing problem in the arts: While drafting this e-book, we asked one of our employee's daughters (age 11) if she likes classical music:

"Ew, no."

"Why?"

"Nothing happens."

"Well, how would you like to play a game about classical music?"

"Sure!"

She ended up playing the Australian Discovery Orchestra's online game for an hour straight.³

This small instance speaks to a larger problem within the performing arts for reaching younger audiences.⁴ Roughly 79 percent of classical music concert attendees are over 40, with nearly 40 percent over 61.⁵ The average age of Broadway theater-goers in 2018 was 40.6 years old (the lowest since 2000).⁶

Age isn't the only issue when it comes to reaching new audiences. In 2018, just 25 percent of all Broadway tickets were purchased by people of color and only 38 percent of total purchases were by people from the New York City area.⁷ Reaching these audiences could ultimately make or break a show's success. Approximately two million seats go unsold on Broadway every year with an average ticket price of \$100. **That's over \$500,000 lost every single day.**⁸ While certain shows have been wildly successful, this is not the norm. Only 21 percent of Broadway shows ever recoup their investments.⁹

While most arts and entertainment companies are striving to reach new audiences, it can be expensive to change a show's structure or promotion strategy without first digging into questions such as:

1. What interests more diverse demographics?
2. Why don't more locals attend?
3. What type of messaging resonates with parents when making choices for their kids?

But to answer these, companies need easily accessible audience data. And this isn't always a guarantee.

One reason Broadway hasn't been able to use its

audience data to reach more people is because of third-party ticket resellers. Namely, Broadway doesn't own most of its own audience data because people often purchase tickets through sites like TodayTix and StubHub. According to the Harvard Business School, for Broadway to get information on its audiences it would require, "reach(ing) out to some sort of list broker that can do list matching—a process where they take the organization's patron lists, run them against their database, and attach demographics to each person."¹⁰

In 2018, TodayTix began using its massive amounts of first-party ticket data to create TodayTix Presents, an event series that allows audiences to see their favorite artists in "a new light, from sit-down sessions to high-energy concerts."⁹ And it's gaining traction. In November, TodayTix Presents hosted a concert that had over 300 attendees. In an interview with Forbes, TodayTix CEO, Brian Fenty, explains just how deeply his company understands its users.

"We know how much money they like to spend on tickets. We know whether they like to buy in singles, in pairs, in foursomes. We know the types of shows that they want to see... The dream would be, for example, Hugh Jackman performing Adele's catalogue."¹¹

TodayTix's impressive understanding of its audience gives the company other advantages as well: two-thirds of its users become repeat buyers, and 61 percent of them buy subsequent tickets in different genres (opera, dance, etc).¹²

\$500,000 is lost every single day from unsold Broadway tickets in NYC.

2 million seats go unsold on Broadway every year





Photo from movie : Love, Simon via 20th Century Fox

Why does this matter? Well, TodayTix is creating highly personalized programming based on first-party data that could (but doesn't) belong to arts & entertainment organizations themselves: the types of shows people see, when they see them, and at what price. In other words, a non-arts company has created shows nearly guaranteed to receive interest because of data, and ultimately, generate revenue. Luckily, there are strategies the arts can implement to begin reclaiming their first-party audience data to achieve similar success.

When it comes to reclaiming first-party data, many organizations have turned to data orchestration. Data orchestration is a process through which a company can connect the dots on who an audience member is across all channels, online and in-person. Using things like cookie and audience ID matching, data orchestration matches customer IDs (from an email, phone, etc.) with your audience's activity on different devices or even on third-party channels to create more holistic customer views all from one platform.¹³

Let's circle back to the importance of using data when planning a promotion strategy. 20th Century Fox Film was working on how to promote "Love, Simon" in theaters (i.e. in-person entertainment)—the first PG-13 film with a gay teenage love story as its focus. People at Fox initially assumed their marketing should target "mom" audiences. Julie Rieger, Chief Data Strategist at 20th Century Fox, explains why this would've been a huge mistake.

"When we turned to the data, we found that this segment was heavily drawn to R-rated films (... not PG-13). We figured out they saw both sex and sexuality as mature content. Without the data, we would have spent millions going after an audience who had no interest in this film."¹⁴



2/3 TodayTix users become repeat buyers



61% of TodayTix buyers purchase subsequent tickets

TODAYTIX

The company had a hypothesis, used data to answer “do moms have an interest in this kind of love story?”, and found out that they didn’t. This is why knowing the right questions to ask is so important. But what do you do once you know what questions you’d like to answer?

Most companies utilize some sort of customer relationship management (CRM) software to keep track of audience data and ticket sale information. Tessitura, for example, is often the go-to for non-profit arts and entertainment organizations. The software can track ticket sales and seat maps in real-time to manage orders. These orders can then be linked to consumer profiles and indicate whether they are a first-time buyer, repeat purchaser, or donor. Various plugins allow users to oversee other aspects of marketing and operations like email campaign open rates.¹⁵

Nevertheless, a CRM alone is not enough—even one as powerful as Tessitura. CRMs provide a window into who current ticket buyers are, but don’t give insight on new audiences, or even the cross-channel behavior or general interests of repeat ticket purchasers like data orchestration can. CRMs also don’t allow for the management and activation of campaigns nor do they provide the ability to enrich data automatically.

Data enrichment is when software tracks how consumers—whether they’ve purchased tickets or not—interact with campaigns on both first-party (i.e. data from your website and email newsletters) and third-party channels (i.e. ticket resellers and social media), and feeds that behavior directly back into your audience segments. The result? More holistic customer views that allow arts & entertainment companies to understand alternate demographics and create advertising/marketing that resonates.



DATA SUCCESS STORY:

How The Chicago Arts Institute Leveraged In-Person Activity to Sell More Tickets

The Chicago Arts Institute wanted a way to readily answer “what are the strengths and gaps in our collection?” So, they decided to explore which exhibits and individual pieces of art drove the most engagement. Leveraging museum-floor beacons to track visitor pathways and time spent in galleries, the museum was able to promote the galleries with high visitor engagement, increasing paid attendance from \$14.8 million in 2015 to a projected \$19.9 million in 2016.¹⁶





Photo from Chicago Arts Institute via Adobe Stock

In performing arts venues and museums alike, understanding your audience data can boost revenue well-beyond ticket sales. According to Vox, museum gift shops “contribute up to as much as 25 percent of museum revenue.” In the article, Michael Guajardo, Director of Retail Operations at the Virginia Museum of Fine Arts, estimates that exhibits featuring popular artists “can add anywhere from 25 to 70 percent” to total year-end sales.¹⁷ Sharon Macdonald, Director of the Center for Anthropological Research on Museums and Heritage further explains, “Some visitors even begin with the shop in order to find out what is important

to see in the museum!”¹⁸

Whether tracking how people move within a space or using data to determine which pieces of art matter most to an audience, reflecting those preferences in merchandise can make a dramatic difference toward a organization’s bottom line. Performing arts venues should consider using data similarly. By tracking what messaging convinces audiences to purchase tickets and which aspects of performances they share via social media, venues can use this information to inform the types of merchandise people are most likely to buy.



25% of museum revenue comes from gift shops.



25 to 70% of total year-end sales can be from exhibits featuring popular artists.



THE POWER OF DATA:

Newfields Spring Flower
Bloom Exhibit Results



72% museum attendance
increase over the prior spring.



38% percent of visitors
were local.

Besides ensuring convenience, arts and entertainment organizations must create social-worthy experiences that compete with online activities. After 30 years of static attendance, Newfields (formerly Indianapolis Museum of Art) wanted to reach new people with a campaign promoting their art. But analyzing the data revealed this traditional approach wouldn't have worked. 94 percent of the museum's local market had never even heard of Newfields.¹⁹ In an interview, Newfields' Museum Director, Charles Venable, explains their audience "wanted to be social and didn't want their friends to say, 'You wasted my precious Friday night with a boring, static art-museum experience.'" The data uncovered people weren't excited by "paintings hanging on a white wall." Even words like "art" and "museum" were a barrier to engagement.²⁰

In response, Newfields built a beer garden and promoted an outdoor "Spring Flower Blooms" exhibit and reaped the rewards: Attendance increased 72 percent

over the prior spring. 38 percent of visitors were local. This success, according to Gary Stoppelman, Deputy Director for Marketing & External Affairs at Newfields, started with asking a question of their audience data: "How do we build a segment when the woman who comes with her son's class on Tuesday also comes on Thursday evening with her girlfriends and also visits on Saturday with three generations of her family?"²¹

While some organizations may be in a position to create new exhibits to attract audiences (Newfields), others have seen success by finding alternative ways of promoting their existing works (Ballet Austin). Either way, it's clear that arts organizations are heading in the right direction by harnessing their engagement insights. Using data to understand your audience's needs, wants, and reservations can make a huge difference in whether or not they return, bring friends, and engage as donors.

DATA SUCCESS STORY:

How Ballet Austin Doubled Sales with Data

For years, Ballet Austin assumed Nutcracker attendees wouldn't consider other shows because they weren't familiar with them. So, they asked "What would it take to convince Nutcracker audiences to go to other shows as well?" Analyzing the data showed that attendance was less about increasing familiarity and more about bridging uncertainty, i.e. noting the costs of things like tickets and parking as well as clearly explaining the value of newer works. Once Ballet Austin realized people would be open to more contemporary work with the right messaging, they added Nutcracker audiences to email lists for more experimental performances, ultimately leading to a 100 percent increase in daily sales from \$1,500 to \$3,000.²²

ONLINE ARTS & ENTERTAINMENT

The limitless success that's possible once an organization taps into its data has never been more apparent than in the online arts & entertainment world. Most online arts providers exist because of data—and with great data, comes great responsibility. In addition to attracting new audiences, these companies are in an arms race to do whatever it takes to stand out. The pressure is higher not only because of the limitless information at their disposal, but also fleeting customer attention spans. In fact, Netflix has shared that it saves roughly one billion dollars a year in customer retention value because of its content recommendation algorithms.²³

Online arts and entertainment providers have become a constant in most consumers' lives. It's well-known that these companies leverage data to refine user experiences, increase content engagement, and attract new customers. For this reason, we won't dive too deeply into the commonplace ways in which these companies use data (i.e. content recommendation algorithms). Instead, we'll shed light on some of the more unexpected ways the online arts use their data to attract new customers and engage existing audiences.

Globally, consumers spend an average of 17.8 hours a week (2.5

hours a day) listening to music.²⁴

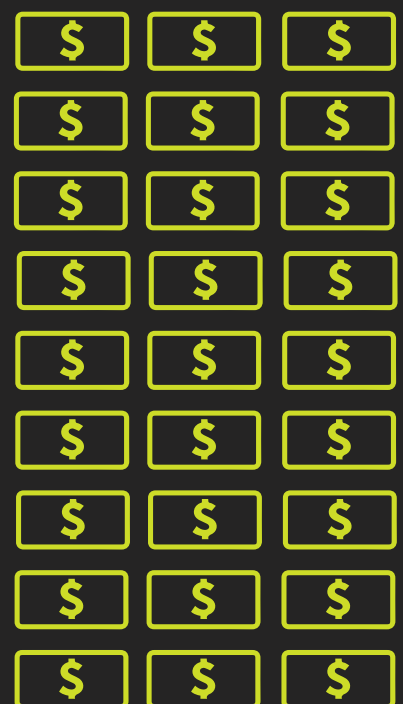
This number doesn't include the amount of time people spend on services like Netflix, Hulu, and YouTube. All of these companies provide consumers with one thing the in-person arts do not: choice. With online-based art, people can enjoy whatever they want at any time. And consumers have now come to expect that level of personalization and freedom to be reliably delivered.

On a panel at the 2018 Fast-Forward conference, Jeremy Pritchard (from British band Everything Everything) explained the impact of streaming on album releases: "The rollout, regardless of how long it is, in week two, week three you're going to struggle to keep it in people's minds. The album may now be a culmination of a campaign, in other words... artists have to release more frequently."²⁵

This trend around piecemeal album release speaks to the expectations major media companies have created for "a la carte" entertainment. People want what they want, when they want it, and those who don't align with this expectation risk being forgotten. Knowing how to release and promote music via streaming services requires a deep understanding of audience behavior.

Chief Revenue Officer at Lineate, Elizabeth Gallagher, explains

\$1billion is how much Netflix saves a year because of its content recommendation algorithms.





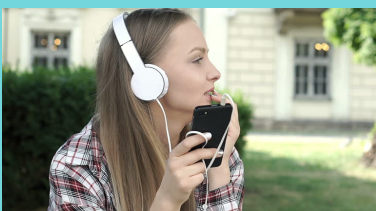
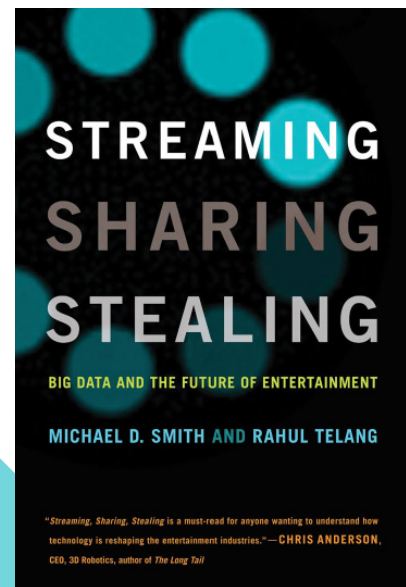
why consumer engagement data is used to drive decisions like track release. “We have been working closely with Warner Music engineering to make their massive stores of engagement data readily accessible and actionable across departments whether it is to improve advertising performance on YouTube channels, more effectively manage demand and supply of merchandise for live events or to get the right tracks to streaming channels at the right time. For example, different audiences gravitate to different streaming channels—there is a data-driven decision behind why a specific Ed Sheeran single is released on iTunes exclusively over another channel.”

In addition to strategically timing song release, John Rees, Head of Digital Strategy and Business Development at Warner Music, explains the other benefits of data in the music industry, “The huge amount of data allows us to make smarter choices when it comes to marketing and even in terms of how we want to

portray an artist, or what type of content we want to release.”²⁶

But digital streaming services aren’t just impacting how the music industry operates. In Smith and Telang’s book [Streaming, Sharing, Stealing: Big Data and the Future of Entertainment](#), the authors write: “If studios want to thrive in the era of Google, Amazon, and Netflix, they are going to have to think differently about communicating with their customers. In order to do that, they are going to have to make gathering and analyzing data on customers a priority.”²⁷

What are traditional studios competing with in regards to customer-first entertainment, exactly? For starters, immersive, choice-fueled experiences like Netflix’s *Bandersnatch*. In *Bandersnatch*, viewers make choices while watching that shape the outcome of the show, their first decision being the type of cereal the main character eats. Seemingly innocuous, this choice actually represents a huge op-



Globally, consumers spend an average of 17.8 hours a week (2.5 hours a day) listening to music.



portunity for what Netflix can learn about its audience. In an article by The Verge, the author explains what “choose your own adventure” television entails in terms of data.

“These moments are opportunities for Netflix to market to its users while learning from them. Using the insights it gathers, Netflix will be able to associate products with content, micro-genres, or specific demographics (e.g., Frosted Flakes and 18- to 24-year-old men). It will be able to directly test product designs (e.g., two different Frosted Flakes box covers), which is a service Netflix could sell to brands before production begins. Netflix will be able to erase marketers’ greatest obstacle by hand-holding them to their most receptive audiences.”²⁸

Having a choice about cereal, and seeing that choice called back later in the episode delighted viewers and led to lasting conversations—proving that collecting data is not inherently bad, particularly when presented in a way that provides a good experience for your audience.

Apart from engaging audiences more deeply (and collecting more in-depth data as a result), Band-

ersnatch’s complexity makes it nearly impossible to pirate. While piracy and stream ripping are often a huge issue for the online arts, Netflix has proven that you don’t have to sacrifice user experience in order to prevent piracy.²⁹ In fact, Netflix has used piracy sites for inspiration. Several years ago, the media giant shared they often mine torrent sites like BitTorrent for download data to understand audience trends and to inform what shows they should create.³⁰

In the end, online arts providers are constantly trying to strike a balance between protecting their content, catering to artists (or actors), and providing stellar user experiences. With access to arts and entertainment at everyone’s fingertips, the sheer amount of data available can be overwhelming. That’s why knowing the right questions to ask is so important for staying focused. And once an organization knows its top questions, having the right tools in place to process data, answer those questions, and understand audience data is critical.

“While piracy and stream ripping are often a huge issue for the online arts, Netflix has proven that you don’t have to sacrifice user experience in order to prevent piracy.”

CONCLUSION:

THE NEXT STEPS ON YOUR DATA JOURNEY

Across the arts and entertainment industries, traditional organizations and digital-first companies alike are exploring how to reach more people in a way that matters. And to understand what matters to your audience, you need a reliable way to access, organize, and utilize your data.

Figuring out the best way to activate data may be daunting for some. But, this book illustrates that creating a strategy—no matter the size of your team or familiarity with data—always starts from the same place: asking the right questions.

Circling back to the Chicago Arts Institute, Andrew Simnick, museum Vice President for Finance, Strategy, and Operations, shares the Institute's four-step approach for analyzing its own data.³¹

1. Ask the questions that matter most.
2. Use lean processes wherever possible.
3. Communicate clearly to your audience.
4. Practical is better than perfect.

Once you know the questions you want to ask of your audience data, choosing software that can help you easily answer these questions is paramount. Behe-moth companies like Netflix may opt to build custom technology and algorithms, but other organizations may want a solution that makes it easy to understand who their audiences are and how they behave across all chan-

nels both online and in-person.

At Lineate, we create custom technology for worldwide labels like Warner Music and explore smaller-scale software solutions for classic institutions as well to help them reach their audiences more efficiently. These solutions range from dynamic triggered emails that ensure companies communicate when it matters most to platforms that help connect the dots on how would-be ticket buyers engage across all channels.

If you're at the question stage in your data journey, keep an eye out for our infographic covering the top 28 questions every arts and entertainment organization should consider when diving into their audience data. Or if you're ready to explore a solution that allows you to answer (and take action on) your toughest audience questions, visit our website to learn about our data orchestration software, DataSwitch, at www.lineate.com

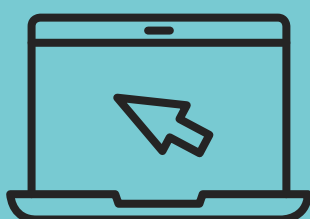


THE ART OF AUDIENCE UNDERSTANDING

28 QUESTIONS ARTS ORGANIZATIONS MUST ASK OF THEIR DATA TO ENGAGE AUDIENCES BETTER

From watching Netflix to exploring local museums, consumers worldwide experience the arts online and in person on a daily basis. With the rise of digital, the film, theater, visual art, and music industries have more access to audience information than ever before. This means more competition for audience attention, and in turn, more pressure to figure out what audiences like, what they don't, and why. Actionable change starts with knowing the right questions to ask of your data. While there are no shortage of interesting topics to explore, your organization must know how to answer the below to attract new customers and engage current customers more.

ART EXPERIENCED IN-PERSON	ART EXPERIENCED ONLINE
1. What factors actually drive attendance?	1. Do national vs. international audiences behave the same way?
2. Who are our most engaged audience members? What are they doing that less-engaged audience members are not?	2. What factors lead customers to purchase paid subscriptions and memberships?
3. Do local and tourist audiences behave the same way?	3. How do we get more out of our online presence? What type of content resonates most with our audience?
4. What can we do to attract younger audiences?	4. How do we engage younger audiences? What expectations do younger audiences have when it comes to their entertainment online?
5. What leads to repeat ticket purchases?	5. Why do certain artists or shows garner more fan-loyalty than others? What can we do to create that sense of loyalty and excitement elsewhere?
6. What can we do to engage audiences more once they're at the venue, museum, etc.?	6. Does our audience prefer interactive or passive experiences when it comes to art?
7. How can we increase merchandise booth or gift shop sales? How are people moving through the space?	



SOURCES

1. <https://www.wallacefoundation.org/knowledge-center/pages/ballet-austin-building-audiences-for-sustainability.aspx>
2. <https://www.mediapost.com/publications/article/331094/study-netflix-content-more-appealing-to-consumers.html?edition=112614>
3. <https://australiandiscoveryorchestra.com/>
4. <https://www.princeton.edu/culturalpolicy/quickfacts/audiences/classical02.html>
5. <https://www.broadwayleague.com/research/research-reports/>
6. <https://shortyawards.com/3rd-socialgood/situation-project-3>
7. https://www.theproducersperspective.com/my_weblog/2015/01/sure-these-broadway-shows-recouped-but-why-a-by-the-numbers-infographic.html
8. <https://digit.hbs.org/submission/broadway-enters-the-big-data-era/>
9. <http://hello.todaytix.com/todaytix-presents>
10. <https://www.forbes.com/sites/leeseymour/2018/10/11/ticketing-app-todaytix-launches-original-content-venture/#4c82ff2f7d9b>
11. <https://www.forbes.com/sites/leeseymour/2018/10/11/ticketing-app-todaytix-launches-original-content-venture/#85c2b507d9b8>
12. <https://www.forbes.com/sites/leeseymour/2018/10/11/ticketing-app-todaytix-launches-original-content-venture/#2222f94f7d9b>
13. <https://lineate.com/what-you-need-to-know-to-achieve-data-orchestration/>
14. <https://www.thinkwithgoogle.com/marketing-resources/data-measurement/data-insights-film-marketing/>
15. <https://www.softwareadvice.com/nonprofit/tessitura-profile/>
16. <https://www.aam-us.org/2017/01/17/the-power-of-applied-data-for-museums/>
17. <https://www.vox.com/the-goods/2018/11/7/18072114/museum-gift-shops-art-money>
18. <https://www.vox.com/the-goods/2018/11/7/18072114/museum-gift-shops-art-money>
19. <https://www.midwestmuseums.org/2018/09/03/newfields/>
20. <https://medium.com/museum-tech-trends/every-smart-museum-needs-an-instagram-moment-93e431655f56>
21. <https://www.midwestmuseums.org/2018/09/03/newfields/>
22. <https://www.wallacefoundation.org/knowledge-center/pages/ballet-austin-building-audiences-for-sustainability.aspx>
23. <https://www.predictiveanalyticsworld.com/patimes/wp-content/uploads/2018/09/Inside-Big-Data-Netflix-Graph-1.jpg>
24. <https://www.ifpi.org/downloads/Music-Consumer-Insight-Report-2018.pdf>
25. <https://musically.com/2018/02/15/music-streaming-booming-next/>
26. <https://www.ifpi.org/downloads/GMR2018.pdf>
27. <https://muse.jhu.edu/chapter/1873302>
28. <https://www.theverge.com/2019/1/2/18165182/black-mirror-bandersnatch-netflix-interactive-strategy-marketing>
29. <https://www.theverge.com/2019/1/2/18165182/black-mirror-bandersnatch-netflix-interactive-strategy-marketing>
30. <https://www.bbc.com/news/technology-24108673>
31. <https://www.aam-us.org/2017/01/17/the-power-of-applied-data-for-museums/>

THANK YOU

[CONTACT US](#)

 Lineate