Museums and the digital toolbox (a focus on interpretation)

Laura Robb, Interpretation and Audience Research, AGO
“Digital is not the holy grail. It’s a layer.”

Shelley Bernstein,
Barnes Foundation (formerly the Brooklyn Museum)
(Really, there is no holy grail.)
Constructivism

- Philosophy about the ‘nature of knowledge’ – how we learn
- We are active participants who construct knowledge for ourselves – it’s how we make meaning
- For museums, it’s how we approach exhibition design – we focus on the learners, rather than the subject that we’d like to teach
- To focus on learners is to acknowledge:
  - People have different learning preferences
  - People have different motivations for visiting
  - People come in with different life experiences and existing knowledge
  - All of which inform and shape their visit
Strategies and Vehicles

Interpretive strategies are how we describe the approach we intend to take in presenting our ideas. For example, one strategy might be to show the difference between the artists in the Salon des Refuses and the juried Paris Salon. The strategy could be communicated using different vehicles:

- A game that challenges visitors to guess why each work was or wasn’t included in the Paris Salon (could be digital or analog)
- A text panel explaining the Paris Salon
- A narrated video showing footage of the artists and their works
- An installation that demonstrates the clash in styles
- The use of tour guides to facilitate conversation with visitors
We chose the installation...

...because the analog vehicle best communicated the strategy
That said…

- Digital allows for new ways of exploring and seeing collections
  - It allows us to do things we couldn’t do before
- Most of our visitors come with Smartphones
  - It’s a tech-literate audience
Moreover...

- Digital can provide a personalized experience that other vehicles can’t
- It can allow us to collect data, to understand more about visitors
- It can be ‘open’, experiential, nimble and adaptable
Which is why...

Museums should understand how digital fits into the interpretive toolbox – and that it should be an overarching mindset, or another vehicle we consider, rather than a niche strategy.
Types of Digital Bummers

• “Touchscreens are great! We can pack so much content into them.”
• “We took away object labels and put everything on this new app!”
• “It’s a QR Codes.”
  • (Does not include artist’s works.)
• “We spent almost a million, so you know it’s fantastic.”
Avoiding Digital Bummers – some tips to consider

• Thoughtful – why should the visitor want to use it?
• Insider – does it invite visitors into a virtual space/concept/person/collection they can’t access?
• Deliberately Digital – does it have to be digital? Really?
• Participatory – can visitors contribute?
• Personalization – does it respond to the visitor as an individual?
• ‘Magic’ – how does it feel?

Not every project can or will hit all of these points, but it should hit at least half...
Part I
Recent Projects at the AGO
The basic touchscreen

“Killer Openers” in Guillermo del Toro: At Home With Monsters (2018)
Excellent work. Turn your head and look over your right shoulder - you’ll see Killer Openers by other ghoulish scribes appear in the passageway (including your own, eventually...).
when my heart creates wicked
diseased displays the macabre
wonder satisfies mine desperate
misery
VR in *Small Wonders* (2016)
“Last Judgment; Coronation of the Virgin”
AR in ReBlink (2017)
Part II
New(ish) and Notable Projects
Chicago 0,0
Touch Van Gogh

App Touch Van Gogh
Skin and Bones – Smithsonian
Magic Tate Ball – Tate Modern

- App, location-based, personalized
National Blues Museum (MO)
Making Music in Aoteaora
Making Music in Aoteaora
Part III
Museums and Gaming
Learning through play

• How children make sense of their world through mostly self-directed learning

• Play is a process – it has no defined outcome
  – Creativity
  – Problem-solving
  – Social skills
  – Dexterity
  – Self-confidence

• Gaming isn’t strictly play...but it borrows a few of its qualities
This is not a facilitated activity...so how do you teach the gameplay?
The first screen contains nearly every crucial aspect to Mario!
Lev Vygotsky

- Born 1896, died 1934; Russian
- Psychologist and learning theorist; he argues that children’s development occurs through play:
  - Emotional growth
  - Social growth
  - Physical growth
  - Language
  - Cognitive development
- Vygotsky argued that children’s “work” is play – it’s how they naturally learn
Vygotsky’s Zone of Proximal Development

• The idea that learning occurs between what you’ve *already* achieved and what you *cannot yet* achieve

• The teacher guides the learner along at the beginning, but easies off as the student acquires more skills (think learning to talk, learning to drive)

• ZPD is also referred to as scaffolding difficulty (it’s also how we approach exhibition content)
Vygotsky’s Zone of Proximal Development

- High Level of Challenge: Anxiety
  - What the learner cannot yet achieve

- Low Level of Challenge: Boredom
  - What the learner can achieve independently

- Level of Competence:
  - Low
  - High

- Zone of Proximal Development:
  - What the learner can achieve with assistance.
Back to Mario 1.1 and the ZPD in action...
Mihaly Csikszentmihalyi

- Born 1934; Hungarian
- His flow theory builds on Vygotsky’s ZPD; it argues that people are happiest in a state of flow: total absorption in an activity (intrinsic motivation)
- Flow is “being completely involved in an activity for its own sake. The ego falls away. Time flies. Every action, movement and thought follows inevitably from the previous one, like playing jazz. Your whole being is involved, and you’re using your skills to the utmost.”
Csikszentmihalyi’s flow model...
...layered over the ZPD

Flow state is energizing and fulfilling. It keeps you focused on whatever it is you’re doing – like, say, playing games.
Consider Scrabble...what makes it a game?
Basics of gameplay design

• The ‘needs’:
  – Fun (flow!)
  – Challenging
  – Rewards and penalties
  – Chance
  – Open-ended: is there more than one way to win?

• Other fun stuff: strong narratives, collaboration, feeling and emotion
But...not everyone flows the same...

• Totally true: the objective in exhibition development is to provide different avenues for multiple learning preferences, abilities and ages.

• Ultimately, games are just another interpretive tool – just like text panels, audio tours, labels, video, social media: no singular interpretive vehicle represents the *absolute best way* to reach every single visitor.
Why now?

• Resources
• Desire
• Literacy...and history
  – Consider: Home Pong in 1974 (and every home system after) – many Gen Xers and Millennials grew up with home consoles
  – This means there’s a world of tropes, themes, functionality and storylines to riff on (a retro universe or ‘retroverse’)
Consider: Oregon Trail – 1974

You have dysentery.
Cannibals: Myth & Reality – 2016

THE DONNER TRAIL
Press 1 to eat the bodies of your deceased companions. It's a hard choice, but the only way to make it.

Press 2 if you can't imagine eating someone else to live. You'll wait it out and hope for a break in the weather.
A few words on gamification

• Gamification is “integrating game dynamics into your site, service, community, content or campaign, in order to drive participation.”

• Think the LinkedIn progress bar, Starbucks rewards, Foursquare or DMA Friends program.

• Gamification isn’t bad – but it’s not the same as creating a game.
Tate Trumps

Select a mode

- **Battle**: If the artworks came to life, which ones would be good in a fight?
- **Mood**: Can you find works that feel exhilarating, menacing or absurd?
- **Collector**: Which pieces would form the ultimate home art collection?

Getting More Cards
Tate Trumps – onsite

Use the keypad below to enter the little ID code which is found next to the artwork.

Roy Lichtenstein

Strength: 9
Size: 7
Agility: 10
Tate Trumps (Tate, 2010)

• Audience: Teens and adults
• Gameplay: Simple but totally absurd premise: which works of art would be better at kicking ass? Look good in your home? Would score well for Menace, Exhilaration or Absurdity?
  – Originally designed to be played in-gallery, but expanded to include anywhere mode
  – More successful at the Tate – you can wander around and collect works (via ID numbers on tombstones) which prevents your opponents from getting them
  – Can be played alone against the computer, or in battle mode with other humans
Tate Trumps (Tate, 2010)

• Fun: depends…but it riff s on a familiar game people know and play (War)
• Challenging/ZPD: yes – the absurdity adds a curveball. It takes a bit to figure out how to win and playing against the computer adds to the challenge.
• Chance: yes
• Open-ended: yes
• Rewards and penalties: fastest players get the ‘best’ art in collector mode.
• The goal was to get people looking at art in a different way – although the categories are whimsical, it gets users thinking about what artworks would score well for “menace, exhilarating, absurdity, size, strength or agility”
Watershed of the Future Simulator (Manitoba Museum, 2015)

- Audience: 10+; could be collaborative or singular
- Gameplay: “The game prompts players, as “water stewards,” to select an “issue” threatening the Lake (e.g., agricultural innovations, tourism, and city waste management) and to make strategic decisions that will reduce the ecosystem’s phosphorus levels...Each issue has three potential “solutions” affecting the environmental, economic, and social health of the Lake. These result in scores from +5 to -5. Players are encouraged to probe layers of information through on-demand prompts and “polls” before making decisions. To “win”, players must improve the Lake’s health; there is no single correct game path.”
FOOD FOR THOUGHT

Our farms use lots of fertilizer to grow food that feeds people around the world. But then we need to import food for ourselves.

Help manage our food.

Select This
Market "Lake Friendly" food
Learn More

Select This
Stop food exports
Learn More

Select This
Support farming research
Learn More
Sometimes it’s worth the cost to think about the Lake’s future. Did you?
Tap to explore the projects YOU chose.
Watershed of the Future Simulator (Manitoba Museum, 2015)

- Fun: yes! Easy to understand in the beginning but quickly increases in difficulty.
- Challenging/ZPD: yes – addition challenges (introduced later on) keep the game dynamic.
- Chance: yes – choices you make at the beginning trigger different challenges.
- Open-ended: a clean lake wins the game, but there are many ways to achieve this.
- Rewards and penalties: a clean lake! Penalties/rewards during gameplay include high/low phosphorus levels, un/happy citizens, etc. – all change depending on what choices you make.
Feed Mamenchi

CONGRATULATIONS!

YOU’RE THE PROUD PARENT TO BABY MAMENCHI.

MAMENCHISAURUS NEED A LOT OF FOOD TO REACH THEIR FULL 27,000 KG SIZE.

CLICK ON THE PLANTS AROUND HIM TO FEED HIM!
Feed Mamenchii

IT TOOK MAMENCHII A LONG TIME TO MOVE THAT FAR...

SCORE: 250  LEVEL: 1  TIME: 60s
Feed Mamenchi (2016)

- Audience: intergenerational
- Gameplay: Balance the dinosaur’s nutritional needs against its physical challenges. It’s a long-necked, plant-munching dinosaur who was slow, held its neck rigidly but had to eat constantly. Onsite experience.
- Fun: yes!
- Challenge/ZPD: the game’s basic concepts were easy to master (click plants) but players were meant to lose at the beginning – like Mario 1 – and learn they had to be strategic in feeding their dinosaur.
- Chance: no
- Open-ended: no
- Rewards/penalties: growing your dinosaur; seeing it die tragically.
Strawberry Thief (V&A, 2014)

- Audience: children and adults
- Gameplay: the bird collects strawberries, which allows her to reveal the lines, colours and texture on a William Morris textile. Hitting a butterfly throws the bird off-course; onsite and home experience.
- Fun: in some ways – for people who enjoy colouring it’s fun in a contemplative, relaxing way.
- Challenging/ZPD: not really.
- Chance: no.
- Open-ended: no.
- Rewards and penalties: the reward of completion!

*Strawberry Thief* is a contemplative and relaxing game: the reveal is slow, and it’s a close-looking activity that allows users to focus on the shapes, colours and textures and explore the intricacies of the pattern.
Strawberry Thief (V&A, 2014)

• Over to you – is this a game? Or an activity?
Capture the Museum (NGS, 2013)

• Audience: millennials
• Gameplay: players download an app and sign up for a team; players scan QR codes to access museum ‘territories’ with their camera and participate in games and challenges relating to the exhibits to win territories. Teams have 30 minutes to grab the most territories.
• Fun: yes.
• Challenge/ZPD: not really – puzzles appear to stay at the same skill level (gathering information, rather than putting it together to figure out new concepts)
• Chance: yes.
• Open-ended: not really – the only way to win is gather the most territory.
• Rewards/penalties: bragging rights.
Capture the Museum

When two clans go to war...
The exhibits of the National Museum of Scotland are restless. After 900 years of marriage the King and Queen of the Lewis Chessmen have declared war on each other and their clans battle endlessly to Capture the Museum.

Remember, this isn't a game, it's war. Only one clan can win.

About
Thought Den have teamed up with Splash & Ripple and National Museums Scotland to create a new type

I've sided with your enemy, but I don't think they care about my territory, so if you prove you know more by
Capture the Museum

What is Alphabot and what does it do? Choose three answers.

- It moves cubes
- It draws circles
- It writes
- It speaks
- It spells
- It uses its memory
Over to you

- Pick a scenario
- Decide on the strategy you’d like to communicate to visitors
- Develop either:
  - One very fleshed-out digital vehicle to communicate the strategy
  - A handful of rough digital vehicles to communicate the strategy
- Above all – make sure your vehicle isn’t a bummer
Further resources

- Project CODE | WORDS, via The Medium
- Any museum blog that talks about tech and interpretation – some good ones: The Brooklyn Museum, the Met’s archives (they’ve since cut most of their digital team)
- Conference papers and archives: Museum Computer Network, Museums and the Web and Digital Media Learning
- http://www.mooshme.org/ -- Barry Joseph’s blog (of AMNH)
- #museumtech, #musetech, #musegames