Workshop 'Digital vs. low-tech or no-tech' – 18 03 19

Belgian Museum Education and Outreach Day - 'Boosting Museum Education: methods and tools'
Brussels, Royal Belgian Institute of Natural Sciences

Sixteen participants are joining the workshop in the use and the value of digital applications in museum/heritage education. The workshop is conducted by:
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6 examples of digital applications in museum/heritage education

After some technical problems with the presentation equipment (symbolic start for a workshop on digital applications?), Mathy and Arja present six examples of digital applications in museum/ heritage education. Mathy and Arja selected examples they know, showing a variety in using digital elements, with different learning goals. They decided to limit the range to education for schoolgroups. So these are just examples to work with during the workshop.

1. Neighbourhoods with a Heritage (Buurten met Erfgoed) (B)

'Neighbourhoods with heritage' introduces primary schools to the exploration and discovery of the story behind their own immediate environment. Heritage can be found everywhere: landscapes, nature, buildings, inscriptions, street names, stories, recipes, utensils... This cross-sector (CH and Education) pilot project wants to reveal and reinforce the links between schools and local heritage. Teachers (parents and grandparents) work together with local and regional heritage, cultural and nature workers. Primary schools are encouraged to use heritage from their own school environment as an educational tool. The project materials are aimed at teachers and introduce them to the use of both old and new methodologies or work forms: stories, philosophizing, critical and creative thinking, system thinking, art initiation, new media, making an environmental book, ... made possible with recommended tools such as maps, blogs, online storytelling, web sites, apps, video applications, games and print materials. The approach is very much oriented towards user generated content: learners, teachers and all other involved create artefacts that document their local history and cultural heritage and that by doing so encourages them to adopt higher order skills, competences and attitudes.

The project is an initiative of a partnership between many organisations in the area of CH and education, including local municipalities and schools, regional heritage partners, national youth service Mooss for creative capacity building, the 'Open Map' project of the Flemish Knowledge and

Training Center for Nature and Environment De Helix, the CANON culture cell research project "Culture in the mirror" of the Flemish Ministry of Education, the Flemish Cultural Heritage Agency (who acts also as the main funding source) and furthermore FARO, the Flemish focal point for cultural heritage, and Local History of Flanders, anchoring point for the cultural heritage community of Local History in Flanders and the Brussels-Capital Region.
http://www.buurtenmeterfgoed.be/

2. History classrooms - Geschiedenislokaal - Noord-Hollands Archief e.a. (NL)

Started by the archives in the province of North-Holland. The educators experienced the huge gap between the digitalised archive collections and the students in secondary schools. These students get lost in both the quantity of data and the often specialised descriptions, which do not make sense to them. In addition the teachers wanted focus on specific subject matter, based on the curriculum.
So it was decided to build a web-environment showing a suitable selection of sources, and adapted to the secondary school level. It was called: history classroom. The application is made in such a way that other archives and heritage institutions can open their own 'classroom'.
Now 7 'classrooms' are available. The first three were named after the area telephone code, e.g. 023 for Harlem. One classroom was made in the context on the centenary of the 1. World War. A user group is sharing experiences and negotiating with the company hosting the site.
www.geschiedenislokaal.nl

3. ErfGoedApp (B)

The ErfgoedApp enables museums and heritage organizations in Flanders and Brussels to provide multimedia information to their visitors using their smartphone. The possibilities are extensive, thanks to the flexibility with which new information can be created. The ErfgoedApp's most important feature is that the user can always see information about the heritage objects and assets in a simple way. Additional information on heritage is made visible only when the user scans a code or receives a push message from a Heritage Beacon. The app works on the basis of technologies such as iBeacons and augmented reality.

Heritage workers or educational directors in musea or on heritage sites can easily create their own augmented or virtual reality media to augment visits. The user only requires a smart phone with the (free) ErfgoedApp installed. A manual and training opportunities are available to assist content providers. Because the App makes use of the (user's own) smartphone, it is easy to see how it can be combined in scenarios where all other phone functionalities such as tracking, quizzes, recording, commenting, analysing etc are addressed as competences. The learning content creator has endless possibilities to challenge and entertain the learner.
https://www.heritageapp.be/

4. Digital Block Calendar – Digitale Scheurkalender – Kröller-Müller Museum e.a. (NL)

Started by Kröller-Müller Museum (art museum) as result of requests by teachers: after experiencing the power of the 'Philosophise with art' education programs in the museum, they asked for a follow up, to be applied in the classroom.

So Kröller-Müller composed a digital block calendar, as a refreshing 'culture-snack', for anyone who likes to be surprised. It encourages collective viewing, discussion, interaction, philosophising and is easy to incorporate. The calendar is developed for smartboards and tablets and can be used free of charge. It won the first Dutch national museum education award and the money was used to distribute the concept.

Now Kröller-Müller is coordinating a network of about 20 museums and organisations ('Hubs'), who developed their own calendars. They cooperate, learn from each other and control the quality together. The success has surprised Kröller-Müller, there are many calendars available now, even one Danish and one for elderly people (which will be available in English soon).

www.digitalescheurkalender.com (due to copyright protection passwords are required, will be provided by the specific developer/Hub).

5. Sportimonium: Olympic Games Quiz (B)

The Olympic Corridor in the Sportimonium is a narrow space where visitors pass from one area in the museum to another one. In large class cupboards on both sides of the corridor the visitors are invited to explore the artefacts and objects that relate to 2000 years of Olympic History. The very rich collection is filling the exhibit space leaving little room for the contextualisation that these objects deserve in order to give the visitors enough background information. Interactive tablets are positioned permanently in front of these exhibits, they are touch screen interactive and invite the visitor to learn more information through videos text, images, photos, audio and video. The application also uses MCQs to engage with the visitor and at the same monitor the behaviour of the visitors.

https://sportimonium.be

6. Who am I, who were you? - Wie ben ik, wie was jij? – Nationaal Archief (NL)

Since January 2019 the Dutch National Archives opened a new exhibition, especially focusing on school groups, with the title 'Who am I, who were you?'. Individual visitors can also use it when there are no school classes around.

'Experience how time, place and conditions under which you were born influence the opportunities and the choices you have – or not.' Students follow a historical figure and find out that equal rights and equal treatment are not always obvious.

There are four educational programmes: about right or wrong in World War II, migration, slavery and women rights. Each programme has a mix of analogue and digital learning (using tablets and a smart system organising the learning process of the students in the room) but is based on direct contact with the authentic object / source material. The students are following their persona's and consider the opportunities and the choices this person encountered in his/her live. What would they do themselves? The central reflection is an important part of the programme.

https://www.nationaalarchief.nl/beleven/onderwijs/wie-ben-ik-wie-was-jij
https://www.lkca.nl/primair-onderwijs/praktijkverhalen/erfgoededucatie-nationaal-archief

DICHE project

Mathy refers to the Erasmus plus-project in which both he and Arja worked together with other parties from UK, Italy, Belgium and The Netherlands. The main goal of this project was to study Digital Innovation in Cultural and Heritage Education in the light of 21st century learning. They learned through the project that it is not that easy to find applications that enhance 21st century

skills like creativity and critical thinking. In the pilots with students also some practical barriers were met.

One of the outcomes of the DICHE project is the Resources menu, to be used freely by everybody! A great number of good practices were collected, described and presented here, in English, Italian and Dutch. *See http://www.diche-project.eu/*

While collecting good practices, the DICHE-team discovered that they were comparing apples with oranges. So they started to look for ways to structure the examples, which wasn't easy. Now the good practices are structured by the type of function in the learning process:
- Tracking/mapping/routing
- Instruction/assignment
- Exploring/research/inquiry
- Recording/collecting
- Presenting/reporting

But from the fact that often a range of options were chosen to categorise one example, Arja concludes that there must be many more ways to structure digital applications. She states that we are now moving beyond the pioneering stage of designing digital tools just because it is new and 'cool' (or because the director or the alderman wants 'an app' or 'a game'…). She encourages to use all the work done so far by colleagues who experienced with all types of digital elements in museum/heritage education and to start analysing their experiences. Next step is to detect the type of functions the digital elements have in the learning process of visitors/users. If we know more about that, we can make more conscious and successful choices for applying digital techniques (or not) in our education programmes.

Defining the functions that fits best for the presented programmes

We work in three groups. Each group gets an envelope with a set of 22 cards with possible functions of the digital element in museum/heritage education. Each group is asked to discuss which cards fit best to two of the presented examples. By accident two groups look at the same examples, so no one looks at nrs. 1 and 2.

Example 3 - ErfGoedApp
One group selects:
- A presentation tool.
- To explore resources in museums, archives and other heritage institutions.
- Informative, to deepen knowledge.

The other group:
- To combine what several cultural organisations can offer to schools.
- To point out where to go (sign posting. E.g. in museum or outside).
- Informative, to deepen knowledge.

Example 4 - Digital Block Calendar
One group selects:
- To enhance critical thinking.
- To combine what several cultural organisations can offer to schools.
- As an attractive start /introduction to a new subject matter, raising curiosity among students.

The other group:
- To enhance engagement with the theme.
- As an attractive start /introduction to a new subject matter, raising curiosity among students.
- A presentation tool (understood as: the digital block calendar presents paintings, not in the sense of a presentation tool used by students to present something).

Example 5 - Sportimonium: Olympic Games Quiz
- To enhance engagement with the theme.
- A reporting tool.
- As an attractive start /introduction to a new subject matter, raising curiosity among students.

Example 6 - Who am I, who were you?
- To explore resources in museums, archives and other heritage institutions.
- To make it more attractive to the students (encourages by new media).
- To enhance critical thinking.

These were the three selected cards, but many others were considered too. It lead to a lot of discussion in the groups. The participants do realise that many different functions can be played by digital elements, so as designed of an educational programme you can apply it in may ways, depending on the learning goals and the choices you make. And the budget (money & time)…

We also discuss whether these functions could as well be met by low-tech or no-tech solutions, which is different for each project. For web-based applications you cannot do without the digital environment. But a digital block calendar could be replaced by a paper version (without some technical tricks though). When the digital tool is used on the spot alternatives are more likely, although the digital element may help in many ways, like making it more attractive to the students or easier to organise the logistics of a programme.

Success and Failure factors

The last few minutes of the workshop were dedicated to the conditions to realise digital applications.

General comments:
- Accessibility – important to make it accessible to ALL (mentioned by all three groups).
- Depends on HOW it is used / designed.

Success factors:
- Differentiation (age, level), layers enabled by digital tools.
- Give choices (differentiation).
- Fun.
- Mediation between content and public.
- Only for your people: NO!
- Use it in a pedagogical way.

Failure factors:
- Sometime the technical application can be a barrier to exploration and discovery.
- Digital can be a barrier, for example to senior users. Users blame themselves on failure to work with the tool.
- Information overload ▢ results in the lack of curiosity.

One discussion item is the accessibility of digital tools for part of our target groups, like our older audiences. The House of European History experiences difficulties with (mostly older) visitors who do not manage to work with the tablet and therefore have no access at all to the labels in the exhibits. How to prevent these type of barriers?
The use of digital tools does not seem to exclude an active role of educators on the ground. Some examples show the value of combining the tech and the no-tech ('blended learning') in order to achieve the best results, the educator serves as a kind of 'bridge'.
We also discuss the importance of being good commissioners. We often need external expertise to realise digital elements, but it is not always easy to make clear what we are heading for. Often we are asking something we do not know (yet), which makes it more difficult to describe what we want. The other party costs a lot of money, so it is risky. And we often do not speak the same language.
In addition Arja feels like there are many ways to apply digital elements she does not know yet. Are we limited by 'old thinking', not able yet to see all the options hidden in the new technology? Gradually we are getting more experience though, and that should make it easier to become good commissioners. That stresses the importance of learning from examples and sharing experiences (also the bad ones) among colleagues – like we tried today.

To conclude a selection of quotes from the evaluation notes, written by the participants:

To take away from this workshop:
Ask yourself when you create a digital content / Digital media can serve as bridge, but sometimes they serve in the opposite way – focus of attention! / Human media and tablet-digital tools do not really work without each other / Digital as tool, not as goal / We have to think more about how to use technology with a purpose – objective and not just a gadget / If possible, let users provide content (bottom-up) / Apps, tablets etc do not stimulate dialogue. Dialogue happens between people! / Importance of defining the goals of using a high tech solution.

Issues we need to elaborate on:

What do our audiences need? / Systematically ask ourselves whether it is useful or not to implement digital 'solutions' / Adapt to different ages and learning styles / The age of the visiting group… for the time being we still have people who are not 'computer literate' / General overview of the several possibilities & media / More practical exercises / Non-school audiences / Functionality for more than one public type / Problems with maintenance and outsourcing.

Report & most of the photos: Arja van Veldhuizen – Photo page 2: Mathy Verbuel

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Attachment
Set of cards with possible functions the digital element can serve in museum/heritage education, divided in 3 categories: content / organisation / providing access

Content / inhoud

- To make it more attractive to the students (encouraged by new media)
  Om inhoud voor leerlingen aantrekkelijker te maken (gemotiveerd door inzet nieuwe media)
- As an attractive start / introduction to a new subject matter, raising curiosity among the students
  Als aansprekende instap op een nieuw onderwerp, leerlingen nieuwsgierig maken
- To practice subject matter / 'rote learning'
  Om leerstof te oefenen / 'automatiseren'
- A reporting tool
  Manier om verslag te leggen
- Informative, to deepen knowledge
  Informatief, om kennis te verdiepen
- To enhance engagement with the theme
  Om thema beleefbaar te maken
- A presentation tool
  Manier om iets te presenteren
- To explore resources in museums archives and other heritage institutions
  Om erfgoedbronnen te raadplegen (collecties in musea, archieven, etc)
- To search for information (browsing the net, google, Wikipedia)
  Om informatie op te zoeken (browsen op internet, google, wikipedia etc.)
- To use digital tools for creating something new
  Voor creatieve verwerking (zelf digitaal iets nieuws ontwerpen)
- As a research tool
  Als onderzoeks-tool
- To assess the learning outcomes of the students
  Om resultaten van leerlingen te testen / evalueren
- To enhance critical thinking
  Om leerlingen kritisch te laten denken
- Media literacy: to advance digital skills of the students
  Mediawijsheid: om digitale vaardigheden van leerlingen te bevorderen

Organisation/ organisatie

- To structure logistics, like sequence of assignments, division of tasks between groups etc.
  Om logistieke zaken te structureren, zoals volgorde van opdrachten, taakverdeling tussen groepen etc.
- To structure the individual learning process of students (what is done and still needs to be done, controlling results for each pupil)
  Om individuele leerproces van leerlingen te structureren (wat heb je gedaan en wat moet je nog, resultaten bijhouden per leerling)
- To point out where to go (sign posting, e.g. in museum or outside)
  Om de weg te wijzen (routing, bv. in museum of buiten)
- To bridge physical distance (e.g. distance learning, skype conversations)
  Om fysieke afstand te overbruggen (bv. afstandsonderwijs, skype gesprekken)

Providing access/ toegankelijk maken

- To combine what several cultural organisations can offer to schools (e.g. a 'culture menu')
  Om aanbod van meerdere culturele instellingen gebundeld aan te bieden aan het onderwijs (bv. cultuurmenu)
- To give access to digital teaching material for teachers
  Om lesmateriaal digitaal toegankelijk te maken voor docenten
- To give access to digital learning material for students
  Om lesmateriaal digitaal toegankelijk te maken voor leerlingen
- Make use of the social media channels of students to spread information about your museum / heritage organisation
  Gebruik maken van de social media-kanalen van leerlingen, om het verhaal van je museum/erfgoedorganisatie verder te brengen