

Promoting Heritage in Virtual Environments

Presentation for a meeting of the Nordic World Heritage Sites



11/10/2022

Skúli Björn Gunnarsson

managing director of Gunnar Gunnarsson Institute



Northern Periphery and Arctic Programme
2014-2020

Investing in your future
European Regional Development Fund



EUROPEAN UNION

Investing in your future
European Regional Development Fund



**Gunnar Gunnarsson
Institute,
Skriðuklaustur, Iceland**

Self-independant
institution, funded by
the Icelandic state

Cultural Centre (2000)

Mansion built in 1939
by the author Gunnar
Gunnarsson

Ruins of 16th century
Augustinian monastery,
excavated 2000-2012

Projects funded by the Northern Periphery & Arctic Programme

<https://northernheritage.org>



Northern Periphery and
Arctic Programme
2014-2020



EUROPEAN UNION
Investing in your future
European Regional Development Fund



CADI SHAC

HIVE



Main objectives



- To emphasis on emergent technologies such as digitisation, online galleries, virtual tours, virtual reality, augmented reality, gamification and co-production.
- To promote the use of digital heritage technologies to empower communities to achieve positive outcomes with respect to social inclusion, social cohesion, wellbeing and prosperity.





Seminar and Think tank in Reykjavik - February 2018

LEIKUM OKKUR MEÐ MENNINGARARFINN



Námsstefna um leikjavæðingu náttúru- og menningararfs

Borgarbókasafnið | Menningarhús Gerðubergi
Föstudaginn 16. mars 2018, kl. 9:30–16:00

Ekkert þátttökgjald. Skráning og dagskrá á lets-play-with-heritage.eventbrite.com

Þrískipt námsstefna

Fyrir hádegi verða fluttir fyrirlestrar sem veita innsýn í þá möguleika sem eru til staðar. Eftir hádegi verða haldnar vinnustofur og kynningar þar sem þátttakendum gefst færi á að kynna sér betur ákveðnar aðferðir, tækni eða verkfæri. Síðdegis verða umræðuhópar um framtíðarsýn og stefnu og hvernig hægt er að vinna saman að nýjum og framföllum á þessu sviði. Í lokin verða pallborðsumræður og samantekt. Þar sem námsstefnan er hluti af CINE-verkefninu sem nýtur styrks úr Nordurslóðaaætlun ESB fer hún að mestu fram á ensku.

Vinnustofur

Digital content creation - digital humans from all ages
Ari Knórr & Halldór Braga, PuppiT & Tækniskólinn

Game mechanics to enhance the learning experience
Niall Mc Shane, Ulster University

Engaging with the past, through mixing realities
Catherine Cassidy & Alan Miller, SMART History

Mobile applications workshop: engaging visitors with immersive experiences
Steinunn Anna Gunnlaugsdóttir, Locatify

Player participation in citizen science research
Pétur Örn Þórarinnsson, Sólfar

Liminal world - experience Iceland's hidden world
Kristín Mjöll, Ólöf & Sólrun, Jaðarmiðlun ehf.

Aðalfyrirlesari

The Future of Playing with the Past: New Opportunities in Interpreting Cultural Heritage



Ed Rodley
Stjórnandi á sviði miðlunar við Peabody Essex safnið í BNA
Ed Rodley vann sem sýningarhönnuður og -stjóri á Tæknisafninu í Boston í meira tveimur áratugum og hefur frá 2013 stýrt samþættingu miðlunar við Peabody Essex safnið (PEM) í Salem sem er elsta starfandi safn í Bandaríkjunum.

Leikjavæðing (gamification) er hugtak sem hefur rutt sér til rúms við framsetningu og miðlun á upplýsingum og fræðslu. Skólar, söfn og fyrirtæki nýta í auknum mæli snjallsíma og tölvur til nálgunar á viðfangsefni sín með aðstoð aðferðafræði og tækni úr heimi tölvuleikja. Á þessari námsstefnu verður skoðað hvernig nýjar aðferðir og ný tækni geta nýst þeim sem vinna að miðlun náttúru- og menningararfs til almennings, nemenda og ferðamanna og hvernig menningararfurin getur orðið innblástur fyrir leikjaframleiðendur.

Aðrir fyrirlesarar



Playing with heritage, the digital & the real, a systems perspective
Alan Miller
Lektor við tölvudeild háskólans í St. Andrews í Skotlandi
Alan Miller kennir tölvufræði og miðlun með áherslu á sýndarveruleika og miðlun menningararfs.



Indirect augmented reality, cultural heritage and gamification
Gunnar Liestøl
Prófessor við miðlunardeild Oslóháskóla í Noregi
Gunnar Liestøl hefur kennt margmiðlun um árabíl og tekið þátt í verkefnum á því sviði víða um Evrópu.



Gamification in interactive media for museums
Lemke Meijer
Hönnuður í gagnvirkni hjá Gagarin
Lemke Meijer stýrir gagnvirkri miðlun hjá Gagarin og hefur komið að fjölda sýningarverkefna á Íslandi og erlendis.





Heritage in virtual environments

ONCE UPON A TIME...IN THE FUTURE

Conference on digital promotion and preservation of heritage

Hybrid event in Reykjavik, Iceland

June
16
Thursday



Northern Periphery and
Arctic Programme
2014-2020



EUROPEAN UNION
Investing in your future
European Regional Development Fund

36 presentations can be accessed on northernheritage.org

cinegamification.com

- *We don't grow out of playing anymore, now the games grow with us.*
- *Ergo - it is important to use games for cultural communication*





What is gamification?

- The general definition is when the mechanics and dynamics of a game are used in a different context to encourage participation and activate the participant.
- Today, "gamification" is not just about creating scoreboards and rewards to encourage people to participate in things which have nothing to do with games. When it comes to communication, gamification, game design and game theory are not far apart. It's not just about the methodology, it is also about the technology from the gaming industry.



10 ways of gamification in tourism

(www.thinkdigital.travel)

- Location-based games
- Gamified Travel Tours
- Gaming in Theme Parks
- Gaming in Cultural Heritage
- Gamification in Transmedia Storytelling
- Gamified Restaurant Experience
- Gamification in Hospitality
- Gamified Flying Experience
- Experiencing Virtual Cultural Heritage
- Gamified Virtual Travel Experience



A visitor enjoying the VR of the monastic buildings at Skriðuklaustur



Northern Periphery and
Arctic Programme
2014-2020



EUROPEAN UNION
Investing in your future
European Regional Development Fund



Northern Periphery and
Arctic Programme
2014-2020



EUROPEAN UNION
Investing in your future
European Regional Development Fund

Why to gamify the visitors experience?



Northern Periphery and
Arctic Programme
2014-2020



EUROPEAN UNION
Investing in your future
European Regional Development Fund



1. It increases the interest in the place, the region and the environment.
 - Good experience gives good reviews – marketing
2. It helps us to put in front what we want to draw the visitor's attention to.
3. It is a way to control the flow of visitors and promote places less known.
4. Experience creates emotions which make the trip more memorable

Imagine gaming techniques as tools to connect places, layers of knowledge and people
(from How to gamify the visitors experience?)

How to gamify the visitors experience?



Northern Periphery and
Arctic Programme
2014-2020



EUROPEAN UNION
Investing in your future
European Regional Development Fund



What to bear in mind and what is needed?

1. What is your ultimate goal? It has to be clear and good to do a little SWOT analysis on it.
2. What is your story? That is the first thing to decide because the narrative is important before choosing the methods and technic to use.
3. What are the resources? What do you have by hand of information or references? Which are relevant and what is need of new material?
4. Choose the form and media. Games can be created in many forms, not necessarily by using technical solutions, a pen and a paper can be enough.
5. How do you get the visitors to play? Where do you enter or get the game? Are there any prizes and rewards?.

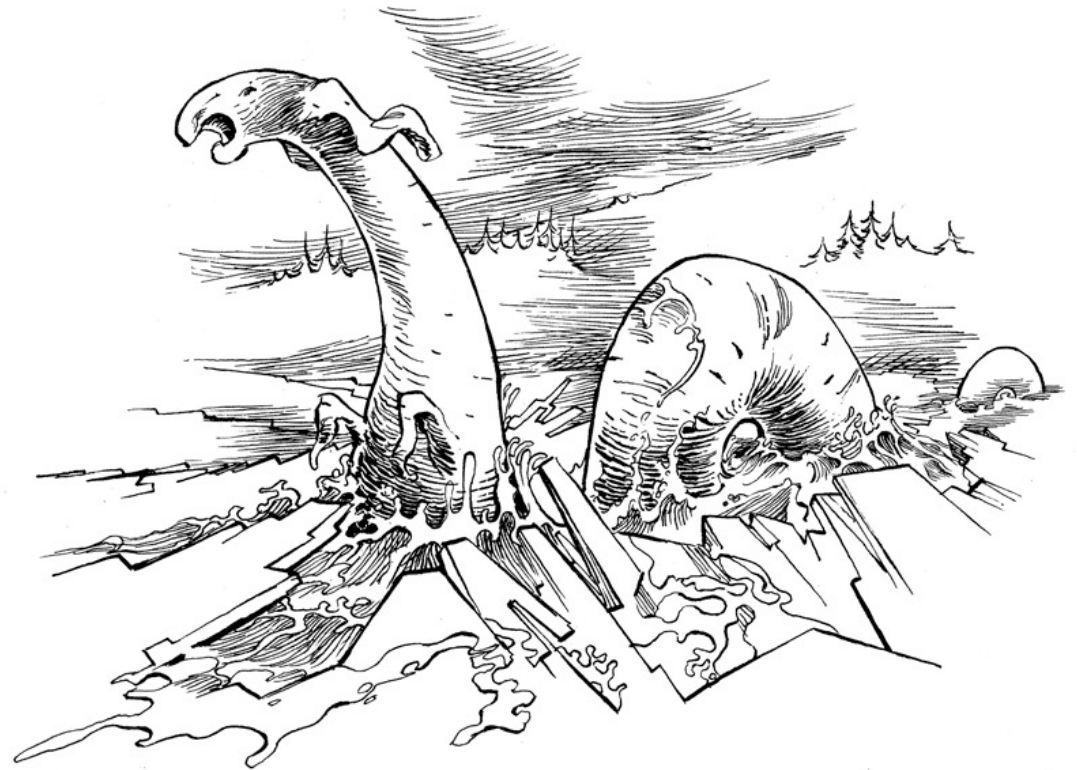


The hunt for the Wyrms' gold

Scavenger hunt created in regional tourism collaboration

The purpose of the project:

- to spread tourists over a larger area – day tours on your own
- to draw attention to interesting place
- to make recreation for families
- to introduce visitors to local heritage and folklore



The hunt for the Wym's gold

The Story: The shire is in danger and you need to help the fellowship of the ring to save it. The gold ring garded by the Lagarfljot's wym monster has disappeared and the wym will break loose from its chain if we don't find the ring.

Resources:

- the folktale about the origin of the Lagarfljot's wym monster
- reference to Tolkien's Lord of the Rings – The Shire
- heros from the Icelandic Sagas are in the fellowship (storytellers)
- folklore, fairytales, history and cultural remains



The Game: The players need to go to specific places and resolve challenges. If they achieve they receive a virtual rune that can be translated to alphabet letter in the keyword which will lead the player to the ring. The players also get points for the scoreboard.

Virtual rune



AUSTURLAND
EAST ICELAND

- LITLU HÚSIN Í ÖTMANNSVERT
- KIRKJUR OG KYNJASKEPHUR
- FLJÓTSDALSRINGURINN FAGRI
- ÖVERGASMIÐ OG DÝR FJALLANNA
- ELDFJALLA OG URRIÐINN
- FJALLA HELGA OG ÖBYGGÐIRNAR
- LANDSENDI OG LEYNDIR STAÐIR

LEITIN AÐ GULLI ORMSINS

ævintýraleikur á Héraði

Útgáfa 1.8 sumarið 2020

LAUSNARORÐ

Í þessa reiti færast þeir stafir sem fundnar rúnir færa ykkur, þá myndast orð sem vísar á staðinn þar sem gull ormsins er falit.

Þ	ᚢ	ᚦ	ᚼ	ᚱ	<	X	ᚱ	N	ᚢ	I	ᚢ	Þ	ᚢ	ᚦ	ᚼ	ᚱ	<	X	ᚱ	N	ᚢ	I	ᚢ
fi	ör	ju	gu	her	sár	guf	ngla	hagl	neyð	la	ár	fi	ör	ju	gu	her	sár	guf	ngla	hagl	neyð	la	ár
Þ	ᚢ	ᚦ	ᚼ	ᚱ	<	X	ᚱ	N	ᚢ	I	ᚢ	Þ	ᚢ	ᚦ	ᚼ	ᚱ	<	X	ᚱ	N	ᚢ	I	ᚢ
fi	ör	ju	gu	her	sár	guf	ngla	hagl	neyð	la	ár	fi	ör	ju	gu	her	sár	guf	ngla	hagl	neyð	la	ár

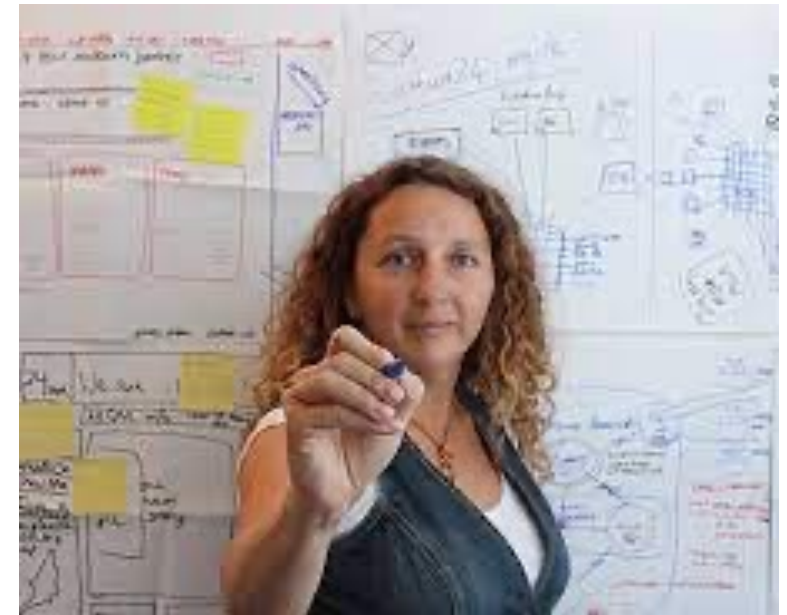
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

HENGIFOSS.IS VISITIGILSTADIR.IS

New generations

- new expectations
- new behaviours

- "...this challenge is absolutely not about technology, which we are often guilty of fetishising as a solution to problems. It is first and foremost about audience and the ways in which digital technologies are changing their behaviours: at work, at home, on the move, learning, playing, questioning, socialising, sharing, communicating. Forever."

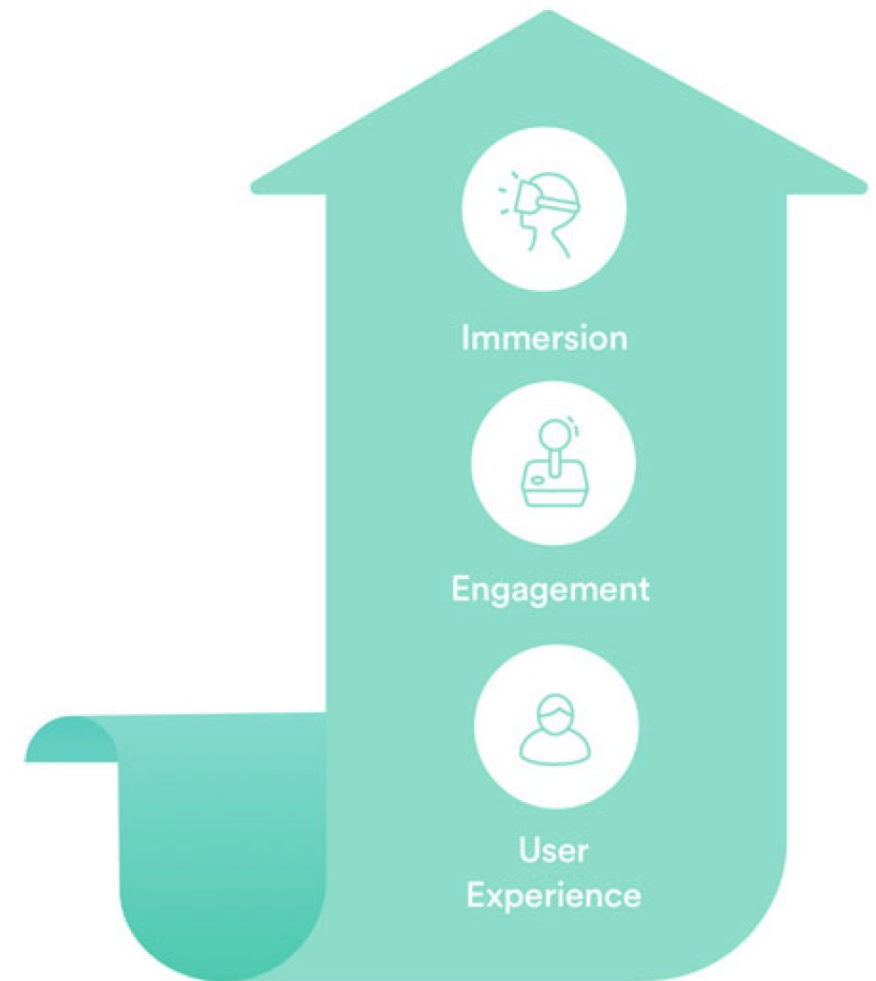


Jane Finnis, 2013. Project manager of Let's Get Real, a project with 22 cultural organisations in the UK.

New generations

- new expectations
- new behaviours

- "One thing is certain: the boundaries between what we know physically and virtual reality will disappear one day. It will no longer be "either/or"; we will transition seamlessly between the real world and the computer-generated world."



AR – VR – XR – MR – CR – RR - Metaverse

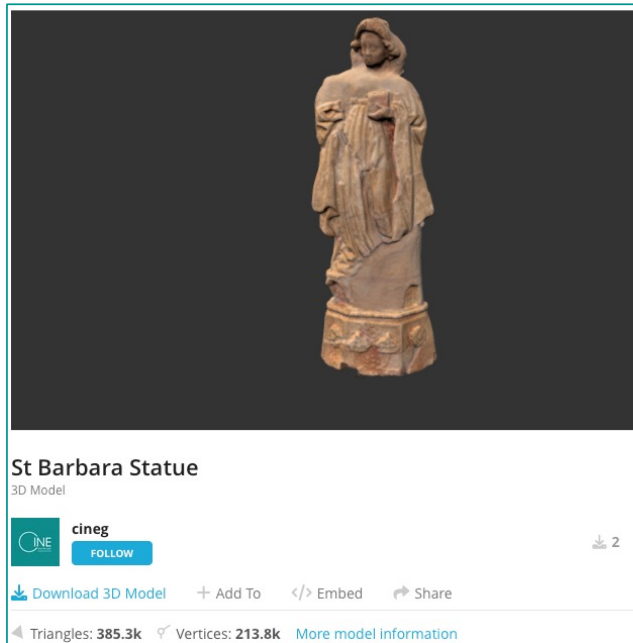
- *Bring your own device (BYOD)*
- *Smartphones:*
 - *Audio and monitor*
 - *Camera*
 - *Geo-location system (GPS)*
 - *Internet connection (WiFi/4G/5G)*
 - *Near field connection (NFC)*
 - *Ultra wide band (UWB)*
 - *Lidar-scanner*



The smartphone revolution – A portal to the past

Let's play with heritage

- How to use VR and AR to promote and preserve heritage in post-COVID times



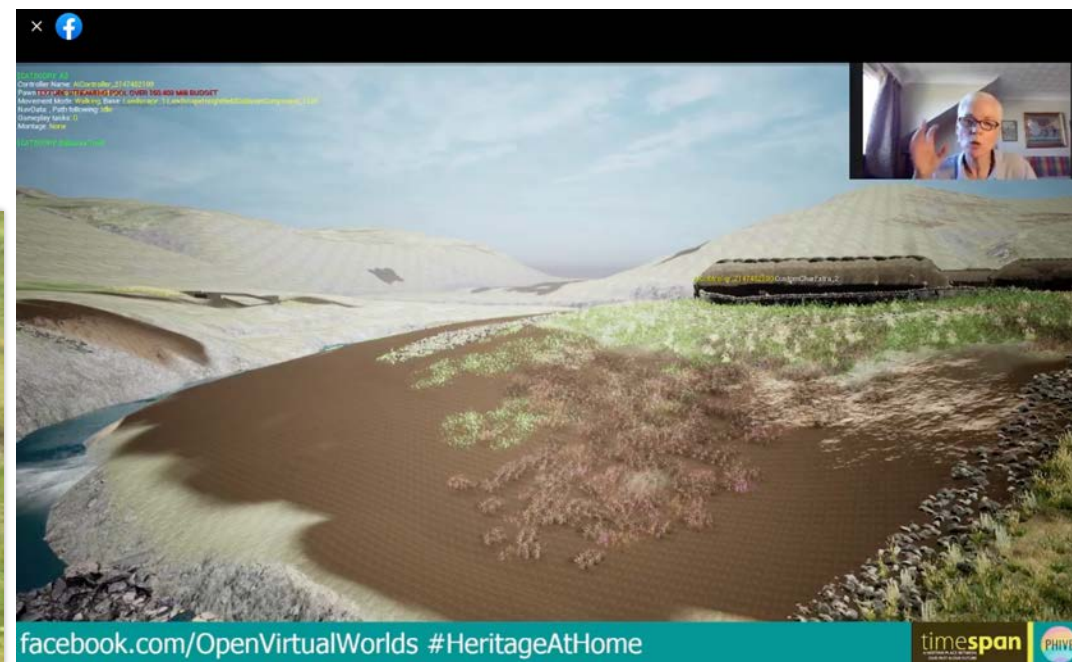
Three generations exploring onsite VR/AR at Skriðuklaustur

Let's play with heritage

- Virtual time travel - live exploration of the past



Example of AR from the project Uist unearthed, bronze age buildings at Cladh Hallan, South Uist



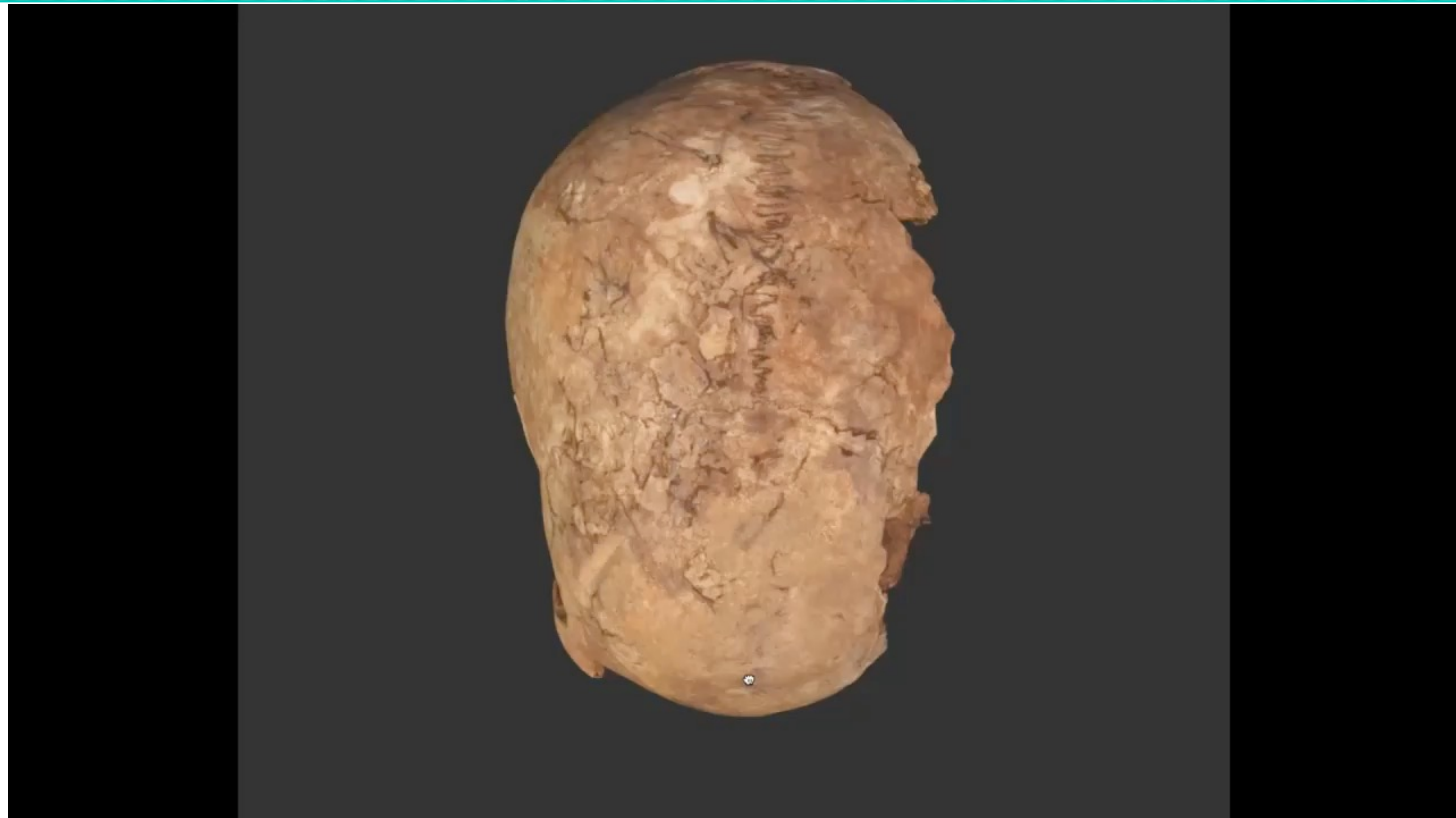
Jacquie Aitken, curator at Timespan in Helmsdale, guiding on a live tour in VR about the Clearances in the highlands of Scotland



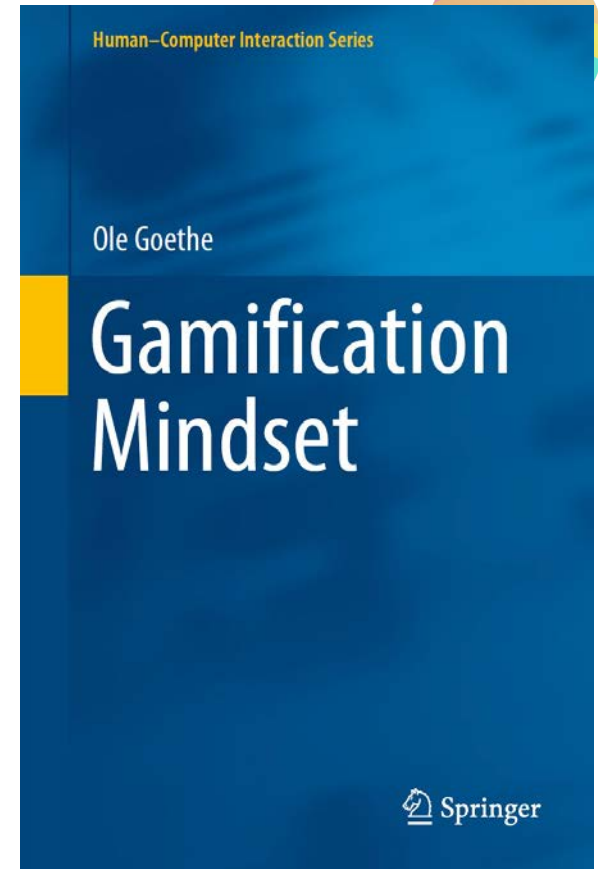
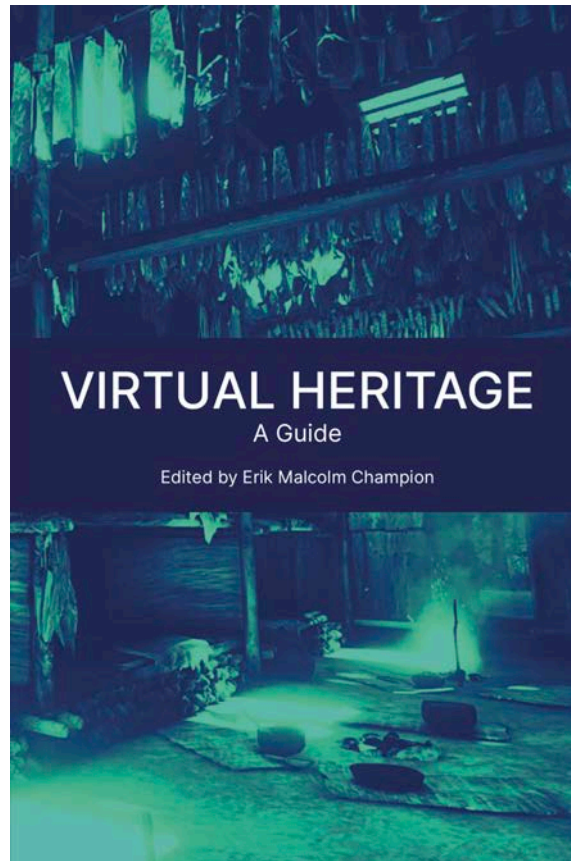


Endless opportunities for transmedia storytelling

- QR codes
- NFC triggers
- UWB triggers
- AR (web-based)
- 360° with audio
- Open access to repositories
- Easy to use online platforms



3D model of one of the skulls from Skriðuklaustur's excavation.



Three newly published books that I can recommend.



Northern Periphery and
Arctic Programme
2014-2020



Investing in your future
European Regional Development Fund