

Digital storytelling (DST)

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Where I am coming from?

- From string algorithm research via educational technology and ICT4D towards interaction design
- A Lutheran pastor
- A very early-stage tourism entrepreneur at vaarinkallio.com
- Living with Päivi at an open (for airbnb?) home at Maariankatu 5 C 46, Turku

Story behind

- Woven stories (Jussi Nuutinen PhD), Digital storytelling in HIV and AIDS education (Marcus Duveskog PhD), and recent work in serious storytelling
- Your diverse (hi)stories, interests and passions, and presentations sketching the implicit and explicit demand for digital storytelling
- TGL concepts for AR explorations in historic castles
- Co-design with street vendors in Tanzania
- Life before death
- Designing welfare
- Future idea on story sequencing

Sketch for our joint tour

- Tech focus: Stories and digital stories – identifying the potential of technology as a (radical) enhancer
- People focus: Interaction design – constructing street-credible tools for encounter
- Application focus: Digital storytelling in tourism – realizing potential to transform future tourism

Vuja de exercise

- Vuja de (Tom Kelley): situation where you look at a previously known challenge with fresh eyes. Dive into a reflexive process with a small team.
- Give an example of a case where a DST-based application has transformed / could transform cultural or religious tourism by taking into account both foci of technology and people.

PART I: Storytelling

- A way to learn especially in non-formal and informal settings
- Used since ancient times, but supports even the most recent pedagogies, like phenomenon-based learning
- Bettelheim: *The Uses of Enchantment: The Meaning and Importance of Fairy Tales* (1976)
 - allows for exploring the dark side of the reality in a symbolic way

Types of stories

- Narrative – the way and structure that the story is told
- Story – the events that occurred
- Scenarios – future narratives
- Testimonies
- Novels – vs. poetry
- Cartoons
- Mimesis – action enacted, diegesis – the narrative told

Digital storytelling

- *A story element* is any digital piece of information that can interact with its environment (IoT, IoP).
- *A digital story* consists of a set of interlinked sequences of story elements.
- *Digital storytelling* is a process of assembling (creating, editing, analyzing, sharing etc.) a digital story together.
- *Digital storytellers* are all actors—human or artificial—that assemble the story, synchronously or asynchronously.
- *Co-design* or *co-authoring* is one of the digital storytelling processes.

Extended potential of DST

- Applying computational thinking to storytelling

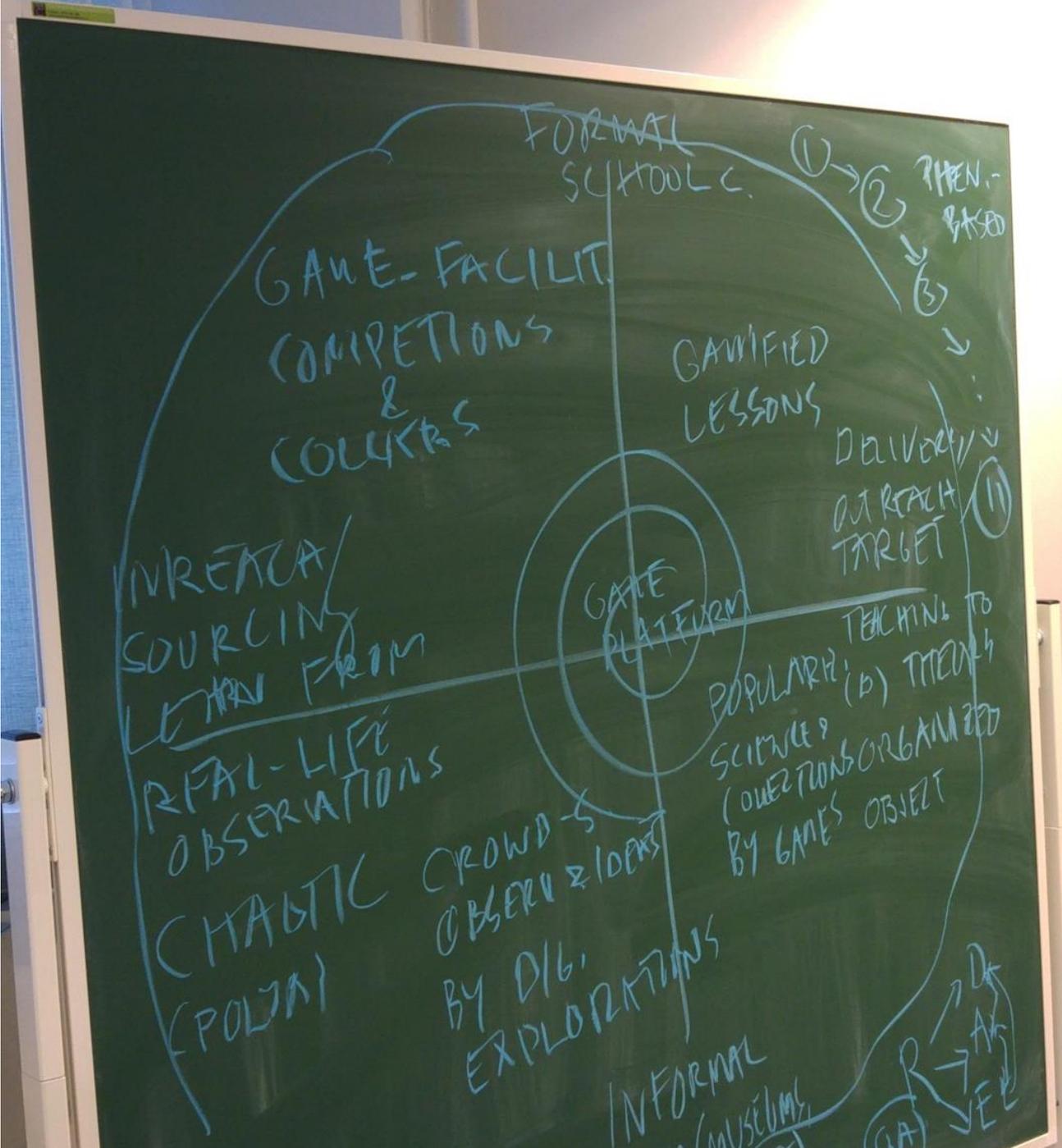
Traditional storytelling	DST
Linear structure	Non-linear structure
Latent layers	Manifest layers
The roles of authors and listeners defined	The roles of authors and listeners blurred
Analysis by interpretation	Analysis by mining
Limited representations	Flexible, adapted and semi-automated representations
Told content (e.g. violence)	Experienced content

Vuja de exercise

- Take any feature—that you consider essential for a tourism application—of a traditional story or storytelling process and tune it towards its digital counterpart by a SWOT diagram: How can digital representation of a story
 - strengthen the feature?
 - weaken the feature?
 - threaten the feature?
 - give a new opportunity to the feature?

PART II: Interaction Design

- Interaction design is a field that crafts tools and platforms that enhance interaction between humans (and possibly artificial actors). It consists of the classical four aspects of any design process:
 - *Art* for aesthetics
 - *Crafting* by a passionate attitude
 - *Innovation* for ethically fair and sustainable societal change and transformation
 - *Research* for proof-of-concept for the design's functional use in the real life



An example of a design task

An example from welfare design

- Welfare is not a state but a journey (wel-fare) and as such another application for DST-flavored e-tourism tools. Fare well, wel-fare!
- Designing a functional service for psychiatric patients starts from scenarios that are contrasted with the narratives of pain and suffering.
- Lesson learned: a good scenario is a combination of major and minor narratives, like national loneliness and an individual eating a frozen, raw pizza.
- Could welfare design be a basis for a responsible tourism design that is aware of the global narrative of suffering and listens to individual pain narratives?

DST for designing an e-tourism service

- A co-design team assembles together scenarios that are based on real-life stories.
- Scenarios combine individual stories bottom-up to be integrated into grand narratives of the proposed service for inspiring, planning, travelling, or evaluation.
- The service can support a traveller, a hospitality student, a destination guide, an entrepreneur, a local authority etc.
- The services to be designed need not but can make use of DST.

PART III: DST for tourism

- A set of ad hoc examples:
 - Tools for story-based match making between destinations and their potential visitors
 - Opinion mining (also for outliers wrt. weak signals) and trend analysis based on travellers' stories
 - Learning by sharing narrative experiences between tourist guides
 - Using scenarios for designing digital tools and platforms for tourism

DST in tourism

- Enhancing (in multiple, which ways?) the possibilities of a
 - person interested in travelling
 - traveller or co-traveller
 - service provider or a cluster thereof
 - local in the destination

to experience, learn, feel, and act before (attraction), ahead (planning), during (travelling), or after (retour) the encounter

Vuja de exercise

- How can a street vendor support their family by a DST-enhanced mobile service in a sustainable way?
- Bear in mind the aspects of sustainability:
 - Environmental
 - Economical
 - Social
 - Ethical

DST in cultural and religious tourism

	Formal/authorized/ organized tourism	Non-formal/shared	Informal/independ ent/make-your- own/organic
Cult	Given/delivered “grand narratives” (websites)	Co-stories	Individually crafted stories (blogs, tweets etc.)
Culture			
Agriculture			

Sequencing travel stories

- Like DNA sequencing is used for building genomes out of DNA fragments, it is, in principle, possible to sequence a bigger story, if not the grand narrative itself, out of a given set of story fragments.
- In tourism applications, story sequencing can be used for crowd-sourcing positive (or all) user stories into an attractive (neutral) destination brochure, combining planning steps together, following in real-time a team of travellers, and assembling an overall evaluation of individual retours.

Vuja de exercise on ABCDE

- How can creative DST designs support each of the top five tourism aspects?

	A	B	C	D	E
Art					
Craft					
Innovation					
Research					

The Last Mile – a Digital Journey

- Could be based on Erik H. Erikson's stages on psychosocial development