phase D, session n. 12 Collaborative Design, Transformation and Testing

AGENDA

PHASE

- Welcome, overview of previous lecture 5 minutes
 - Theory 20 minutes
- Prototyping examples 10 minutes
- Make the magic happen on mural 30 minutes
- Study case : Participécs 20 minutes
- ------ Assignment and structure 5 minutes



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THEORY TIME!

Welcome, overview of previous lecture - 5 minutes

→ Theory - 20 minutes

- Prototyping examples 10 minutes
- Make the magic happen on mural 30 minutes
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What is a Prototype?

An expression of the design intent It allows the design to be tested in action













'Making' in different phases of the Design Process > Prototyping = Evaluation



Three approaches to making are located along the timeline of the design process (Elizabeth B.-N. Sandersa* and Pieter Jan Stappers, 2013)

- * 1. Cultural Probes: tools what participants use remotely (eg: polaroid camera)
- * 2. Generative tools: generate design ideas (eg. during workshops)





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The Design Process > 'Making' during different Phases

Design Phases	Pre-Design (> Generative)	Generative (> Evaluative)	Evaluative
'Making'	Cultural Probes / Probes (For Remote Engagement)	Engagement Toolkits (for Ideation)	Prototypes (for Testing)
What?	Objects which provoke or elicit response. E.g: a postcard without a message, or a polaroid camera to use remotely	Specifically designed for each project's context. Participants use the toolkit components to make artefacts about or for the future.	Prototypes are physical manifestations of design ideas and concepts. They range from rough ones (giving an overall idea only) to testing the actual design (high fidelity ones)
Why?	To find inspiration in participants' reactions and gain insight into their lives and values	To give participants means (tools) with which to participate in the co-designing process	To give form to an idea, and to explore feasibility, get insight from participants
From what (materials)?	Examples: diaries, work- books, polaroid cameras with instructions, etc.	Toolkits are made of a variety of components, Eg: pictures, words, phrases, blocks, shapes, buttons, wires, etc.	Can be made from a very wide array of materials, eg: paper, clay, foam, wood, plastic, simple digital and electronic elements.
Who uses?	The probes are sent out to participants often with little or no guidance – so it can be creatively and provocatively used, and then sent back to the designers	Toolkits work with individuals or small groups. The process is normally facilitated. Participants use the toolkits to imagine and plan for the future, for change <i>(Elizabeth BN. Sandersa</i>)	Designers create the prototypes to envision their ideas, to display and to get feedback from participants * and Pieter Jan Stappers, 2013)
PHASE D	SLU EVENEN	Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen	E Institute LED2 EAP

LearningEmpowermentAgencyPartnership

Why do we need Prototypes?

- to test designs and ideas
- in the low-risk phase
- collect feedback
- ensure the design concept works
- see how people use the design
- understand their experiences
- develop the design further based on their feedback
- generate shared understanding



Life size paper prototype, Glasgow











Low-fidelity Prototypes

- Cheap, tangible
- Quick representations of ideas
- Test functionality
- For rapid experimentation

High-fidelity Prototypes

- Appear and function as similar as possible to our design



Low fidelity paper prototype, Kibble project, Glasgow











Prototyping Glossary

Experience Prototyping

turning ideas into experiences
 (performative)

Video Prototypes

- design concepts through video narratives



Performative prototyping - pedestrian crossing design, Glasgow















how do you prototype - facilitation tool



PHASE D

can

and

in a

what













how do you protoype - facilitation tool















The Prototyping Process > Iterative

Prototype > Test > Feedback > Iterate > Test > Feedback ...



















The Prototyping Process > 1. Design/Build



1. Prototyping:

- Quick ideas
- Cheap design
- Don't get emotionally attached to your ideas

Pros: quicker + easier to modify if needed

Examples: storyboard, paper cutout, miniature model, performance

- **Emphatise** Design/build with the Participant in mind
- Create an engaging / interactive experience











The Prototyping Process > 2. Test and Feedback



2. <u>Testing the Prototype:</u>

- Break the ice! to create trust and a safe place
- What are the roles? who is facilitating, taking notes, documenting?

- Plan your questions What do you want to understand?

- **Document** the use and feedback
- Consent forms













Ethics

- 1. Consent Form:
- Vulnerable context caretaker's or parents consent
- Communicate participant rights
- **Anonymity** *if participants wish to remain anonymous in the documentation*
- Agreement to their **responses** being used
- Data storage and disposal GDPR policy



Image credit: Lawrence Bradby, Sainsbury Centre

















Image credit: Lawrence Bradby, Sainsbury Centre

2. Unexpected questions *Prepare to deal with them*

3. Ethical documentation

(e.g: do they agree of their photos being taken?)

4. Power dynamics

'Ladder of participation' Are you a Facilitator? Or a Partner?

5. Open-ended design

to encourage interaction and feedback















PROTOTYPING EXAMPLES!

- Welcome, overview of previous lecture 5 minutes
 - Theory 20 minutes
- **Prototyping examples 10 minutes**
- Make the magic happen on mural 30 minutes
- Study case : Participécs 20 minutes
- Assignment and structure 5 minute 7

















TOOLS

need to create tool that empowers them young people does not know how to create safer spaces

EMPHATHISE What is the problem? Define the challenge & explore the human context

CONTEXT

DEFINE

Why is it important? Research, observe, understand & create a point of view

TEST

Does it work? implrement the product, show, & dont tell, start to refine the product

IDEATE Why is it important? Brainstorm ideas good & bad, dont stop at the obvious

PROTOTYPE

How do we create it?

Start creating, experiment,

fall cheap, & fast

FORM

drama theater **game**

card set of interventions map as a board game rules of proposing ideas and lead discussion















DESIGN IDEAS (as actions)



PHASE D



trán Olitolatilité studi









DESIGN IDEAS (as models)



































MAKE THE MAGIC HAPPEN ON MURAL!

- Welcome, overview of previous lecture 5 minutes
 - Theory 20 minutes
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Intro of the mural exercise

Construct a magical tool that is able to tackle and address the

democratic challenges identified in your living lab!

democracy 63 outcome your tool Ξ toolbox challenge? 0 COPY THIS ARE IF NEEDED. YOUR NAME YOUR NAME YOUR NAME YOUR NAME

Make the magic happen! Share your ideas with each other in (10 min), select one to be realized and follow the steps to prototype and test your idea in your living lab (20 min)!





PHASE D





Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen







now we sort you into breakout rooms based on your prefix. Make sure you added your breakout room in front of your name. Please enter your homework template on mural and continue working on your idea!

B1 - Your Name : Freising City centre and Airport area (Freising 1,2, 5, 7,8):
https://app.mural.co/t/participation4818/m/participation4818/1591694210886/0a3682cb1a55694e3d09eaf27ad39f1e66deac84
B2 - Your Name: Freising Regatta area (Freising 3, 4, 6, 9):
https://app.mural.co/t/participation4818/m/participation4818/1591694199089/0ff32000ae788608faf7520f94c202544a7601ac
B3 - Your Name: Dublin:
https://app.mural.co/t/participation4818/m/participation4818/1591694182830/61fd5eeaddd11942964c8f259422ec6466fade00
B4 - Your Name: Bologna:
https://app.mural.co/t/participation4818/m/participation4818/1591694130692/7a4e5558ebfe029666cbb07016c81d99512f6b53
B5 - Your Name: Budapest:
https://app.mural.co/t/participation4818/m/participation4818/1591694145680/a5bbdd82554b692efff04469cbaf1827006e90a4
B6 - Your Name: Independent:
https://app.mural.co/t/participation4818/m/participation4818/1591694115093/9e2f74b221fa0812b1097bf9cb56a73017f9974a
B7 - Your Name: Nürtingen
https://app.mural.co/t/participation4818/m/participation4818/1591694096048/be799ae62495e8f0bc6a7fc82a85e05eaa75625c













CASE STUDY TIME!

- Welcome, overview of previous lecture 5 minutes
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Design methods & tools













- the challenge
- goals & development of an educational game: ParticiPécs
- reflections on the game & afterlife

















The challenge



- Little space for the youth to actively take part in the shaping of their urban environments
- Young people do shape their environment by everyday use, but it's not self-conscious
- No clear idea about possibilities, opportunities



HOW CAN WE COMMUNICATE ABOUT URBAN **TRANSFORMATION IN AN ACCESSIBLE WAY?**













Goals & developmen of an educational game: ParticiPécs



PHASE D











Development goals of an educational game: ParticiPécs



• CHARACTERS: mixed group of

developers: architects, teacher coach, youth worker, students from different age groups, it engineer, graphic designer etc.

- EXPERTISE: some previous experience
 with educational games, participants with a wide
 range of experience
- ACTION PLAN: 9 intensive workshops
 team building, brainstorming, prototyping,
 testing etc.













ParticiPécs - the game



~

Marci vagyok, 17 éves és a Miroslav Krleza Gimnáziumba járok. Horvátul tanulok, mert a nagypapám horvát származású, és szeretné, ha az unokái is beszélnék a nyelvet. A Tiborc utcában lakom egy családi házban a szüleimmel, az öcsémmel és a nagypapármal. Van egy kutyám, Füles, akivel hétvégenként az Eger-tetőre járok sétálni. Most szombaton azonban megkértem az öcsémet, hogy ő vigye sétálni Fülest, hogy be tudjak szállni a ParticiPécs játékba és alakíthassam a várost!

JÁTÉK



Start: a Tiborc utcai otthonodból indulsz Cel: Minden játékonak közös célja van, mégpedig az, hogy a mai napon minél többet tegyetek a városért, és minél több pontot gyűjtsetek össze közösen. Ehkez a következőt kell tenned: ek kell jutnod a kiemelt fejlesztési mezőkre és ott el kell helyezned egy fejlesztőkockát. Együtt kell működnöd a többiekkel, mert a legtöbb programot csak többen tudjátok megvalósítani. Vagyis csak akkor kaptok pontot, ha az előírt számú fejlesztőkockát sikerült elhelyezni a mezőn.



Pontok: •1 személyesek – 1 pont •2 személyesek – 3 pont •3 személyesek – 6 pont •4 személyesek – 10 pont

- The game illustrates ONE DAY in the Hungarian town of Pécs, consists of 12 ROUNDS or so called hours. It tells the story of an extraordinary Saturday when young inhabitants gather together to make the city more attractive by means of SMALL URBAN INTERVENTIONS.
- The equipment consisting of:
 - a board
 - building blocs & the town hall
 - dices
 - \circ $\,$ chance, character & intervention cards

PHASE D



25









Prototyping the gameboard















Official revie: GAME TEST & REFLECTION





INITIAL GOALS:

- teach about how the city **DEVELOPS**
- your possibilities of **INVOLVEMENT**
- how **TEAMWORK** makes goals reachable
- notice and formulate **COMMUNITY** goals
- **EXPERIMENT** with real interventions
- +
- enhances teamwork
- fun
- strengthens local knowledge
- icebreaker
- it gives options for intervention, but doesn't leave space for own ideas













REFLECTION & AFTERLIFE: SHAPE YOUR CITY



Students from Pécs were invited to think of ways to make the public spaces of their city more inviting and more livable for young people. The program took place in the form of school activities:

- ParticiPécs as the introductory game
- Define places that could function better
- Formulate what is missing
- Come up with an idea
- Discuss
- Plan the realisation process
- 180 students participated
- 35 design ideas
- 15 ideas exhibited
- the winners realised













SHAEP YOUR CITY: ideas realised



birdnests















ASSIGNMENT TIME!

- Welcome, overview of previous lecture 5 minutes
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Collaborative Design, Transformation and Testing

Assignment general information and timeline

At this point of the story you have already formulated a **joint goal** and developed a **long term strategy** for achieving your shared ambition.

With this long term goal in mind, we ask you to zoom in at a key moment of the story of these 3 years and carefully **choreograph a scene**, which helps the narrative unfold and continue.

For this assignment your team is going to **PLAN A PROTOTYPING ACTION** related to the 3-year action plan you developed in phase C. Focus on the first step and make it happen!

















Collaborative Design, Transformation and Testing

Assignment general information and timeline



These are the moments we ask you to focus on within your story. Please remember, that both schemes above are abstractions!

We ask you to be specific in your rendering!





LE:NOTRE Institute
Assignment general information and timeline

What to be specific about? To show us the scene of your prototyping event you need to take inventory on what a setting up a scene might need (imagine the director's role in a movie; no movement/action/accessory is there by chance, but as a result of a thought-out decision.)

As the plot has already unfolded in previous sessions and the main characters already introduced, focusing on one scene needs a detailed demonstration of how the knowledge you have built up in previous weeks links back to the local community and how the different characters' expertise enriches the process. Don't generalize and don't be superficial!

FOCUS POINTS OF THE ACTION:

collaboratively develop an intervention strategy & idea create an detailed step by step action plan (step 1, step 2, etc.) share roles and tasks among participants envision the realisation of the prototype.



Assignment general information and timeline

You will have 10 minutes to present your prototype, which will be followed up by a 10 minutes discussion period. Please be sure to practice your presentation beforehand, time limits will be followed closely by moderators. Lastly, think outside of the box, make full use the experimental character of this assignment, let the energies of a collaborative design process draw you into unexpected directions.

•Working period: 10.06. – 17.06.2020

- Submit on ILIAS by 14:00 June 24. 2020 https://ilias.hfwu.de/goto.php?target=cat_26530&client_id=hfwu
- •Presentation + discussion in cross-cultural sessions: online on June 24, 2020, 17:00 CET
- Publication on the seminar wiki by June, 2020















The following slides need to be completed/developed by each team

What is your PROTOTYPING ACTION?

- WHAT ARE YOU GOING TO REALISE (REAL LIFE OR PROTOTYPE)
- WHAT DOES THIS INTERVENTIONS STAND FOR?
- HOW DOES THIS INTERVENTION RELATE TO THE SHARED GOALS AND VISIONS OF THE COMMUNITY?















The following slides need to be completed/developed by each team

How did the intervention idea EVOLVE?

- WHO WERE WORKING TOGETHER?
- DESCRIBE YOUR COLLABORATIVE DESIGN PROCESS.
- WHAT TOOLS/METHODS DID YOU USE TO COLLABORATE?















The following slides need to be completed/developed by each team

Describe your ACTION PLAN & ROLES?

- WHAT DO YOU NEED FOR THE REALISATION (MATERIAL AND HUMAN RESOURCES)
- HOW ARE YOU GOING TO MAKE THESE AVAILABLE?
- WHO NEEDS TO BE INFORMED OF/AGREE ON THE INTERVENTION?
- WHAT IS THE TIMEFRAME, HOW ARE ROLES DIVIDED?















The following slides need to be completed/developed by each team

Show us the REALISATION PROCESS!

- WHAT DID YOU DO?
- WHO WERE THERE?
- HOW DID IT FEEL?

















The following slides need to be completed/developed by each team

REFLECTION

- IDEALLY HOW IS THE INTERVENTION GOING TO MAKE A CHANGE?
- WHAT WOULD YOU DO DIFFERENTLY?
- HOW DOES YOUR INTERVENTION REFLECT THE LECTURES & LITERATURE FROM PHASE D?
- HOW DO YOU MEASURE THE LEVEL OF PERFORMANCE? (how do your indicators of success work?)















The following slides need to be completed/developed by each team

LITERATURE

. . . .

















Get inspired! I.

low fidelity paper prototypes















physical model -



Budafok Gyerek szemmel project is a project carried out by the Association kultúrAktív in Hungary. After walking and reflecting about the public spaces of Budafok secondary school children created an evaluation about the positive and negative aspects of the space (sadness and happiness map). In the second step they came up with intervention ideas which were represented as physical models. Models were built from selective material, berries and branches found in nature. Children presented their ideas for the mayor and representatives of the community in an exhibition.

More information about the methodology and engagement process in Hungarian:
<u>http://epitettkornyezetinevele</u>
<u>s.blogspot.com/2014/06/buda</u>
<u>fok-belvaros-</u>
<u>diakszemmel.html</u>

PHASE D













prototyping_paper section model

















paper prototypes with kids

Kibble Charity, Scotland

Designing a School garden with vulnerable young people

Ethical context:

- no participant photos taken
- no direct communication only through gatekeepers
- (carers/teachers)
- gatekeeper always present
- their comments phisically added
 - to the model to empower

PHASE D





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paper prototypes with kids

Send in whe have and the art.

Kibble Charity, Scotland













paper prototypes / 1. Testing



PHASE D





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prototyping_design ideas > paper prototypes / 2. Iteration



'Colorful Community, Govanhill' project, Scotland

2. (Previous slide) Testing with community Insights:

- spaces we suggested for use are not safe
- colours we suggested hold different meaning to the community
- the need for using colors + 3 minority languages spoken in the neighbourhood

3. Modifying design based on feedback















prototyping_design ideas collage technique in Törökbálint























board game



stadt Spieler

Das Trainingsspiel für Stadtentwic



Das Spiel: Lassen Sie Ihrer Kreativität freien Lauf. Mitspielen...



Stadtspieler is a board game http://www.stadtspieler.com

Players propose design ideas through creating clay objects on the playing field. They discuss and evaluate design ideas on city / district level.

Playing field is an abstracted city map with different districts (industrial, downtown, agriculture, etc.), therefore it is possible to use it in different cities.

In participatory planning process: https://www.weil-amrhein.de/pb/site/weil-amrhein/get/documents_E54524726/ weil-amrhein/Objekte/Projektseite%20Kind erfreundliche%20Kommune/1_Wor kshop%20Stadtspieler.pdf













paper prototypes + roleplay

Speculative Design 3D Immersive Pedestrian Crossing

PHASE D



- 1. Storyboard sketch of the design
- 2-3. Life size paper/cardboard Props (+test)



SLU









Get inspired! II.

high fidelity and digital prototypes

















section model



https://streetmix.net













virtual modelling



1. Model

Select the site to be redeveloped, and create a Minecraft model of the existing site using images, plans, Google maps, and other inputs.

Redevelopment site, Les Cayes, Haiti Credit: Block by Block team

2. Mobilize

Identify 30-60 people living and working near the site who are interested in improving their urban environment. Ensure broad representation of the community, including women, youth, older people, and people with disabilities.

Community mobilization in Kalobeyei, Kenya Credit: Block by Block team



3. Organize

Organize community workshops (2-4 days; 30-60 participants; 1 computer per 2-4 participants).

Identify a Minecraft expert to lead training and provide support.

Block by Block Workshop, Gaza Strip Credit: Block by Block team

4. Introduce

Brief participants on public space basics and general design considerations for the selected space, and begin shared dialogue on relevant issues.

Workshop kickoff, Accra, Ghano Credit: Block by Block team



6. Teach

Train participants in the fundamentals of using Minecraft.

Minecraft training session, Niamey, Niger Credit: Block by Block team



8. Present

Arrange for the teams to present models and advocate for their ideas to stakeholders and professionals including urban planners, architects, and local policy makers.

stakeholders, Hanoi, Vietnam Credit: Microsoft team

12. Advocate

Expand impact by advocating for continued investmen in public space transformation and more forwardthinking policies at the local level and beyond.

Peru Credit: Jairo Rosales The **Block by Block** Foundation empowers communities to turn neglected urban spaces into vibrant places that improve quality of life for all.

Our unique methodology centers on **Minecraft** as a powerful tool for visualization and collaboration, actively engaging neighborhood residents who don't typically have a voice in public projects.

from modelling the existing situation to community learning, redesign, realization and post occupancy.

Block by Block projects

transform lives and revitalize urban neighborhoods by improving public safety, economic opportunity, access to clean water, sustainability, and livability, block by block.

https://www.blockbyblock.org

9. Prioritize

Workshop participants and stakeholders discuss how to improve the public space and collaboratively prioritize the proposed improvements.

Community prioritization discussion, Cairo, Egypt Credit: Block by Block team

















animation, cartoons, physical models

Waterplaze Rotterdam: Most of the time the water square will be dry and in use as a recreational space. The exemplary design for the watersquare is divided into two main parts: a sports area and a hilly playground. The space is captured by a green frame of grass and trees. When heavy rains occur, rainwater that is collected from the neighborhood will flow visibly and audibly into the water square. Short cloudbursts will only fill parts of the square. When the rain continues, more and more parts of the water square will gradually be filled with water. The rainwater is filtered before running into the square.

- virtual or physical model to test water flow ullethttps://www.youtube.com/watch?v=kujf4BTL3pE
- More information about the project: • http://www.urbanisten.nl/wp/?portfolio=waterplein-benthemplein
- about the cartoon: http://www.obscura.nu/project/something •











PHASE





ledium rainfal









3D game



http://bretorium.com/wp-content/uploads/2011/07/chinatown.jpg



Participatory Chinatown is a multiplayer game designed to be played in a large physical space. Players assume the role of a fictional character in the Chinatown neighborhood and they go on one of three missions: find a job, find a place to live, or find a place to socialize. The players' comments and decisions are shared with decision-makers in the community to help with the development of the neighborhood. Project: https://elab.emerson.edu/proje cts/participatory-chinatown Game tutorial: https://www.youtube.com/watc h?v=IDuSVXC7tRM Project video: https://www.youtube.com/watc h?v=jA5sz-ymv6k Games for cities: http://gamesforcities.com/data base/participatory-chinatown/













prototyping_design ideas VR and AR

Billennium Square (after Ballard)

A guided tour, on which you take a walk through time, watching as future architecture appears before your eyes and hear what different worlds might sound like.



In Millennium Square (Bristol), a place which marks a significant turning point in time, Uninvited Guests and Duncan Speakman collaborated with audiences to imagine possible futures for this public plaza. The tour will ended with an opportunity to design tomorrow's city and see the buildings people imagined together layered onto the Bristol of today.

Billennium Square (After Ballard) relies on data transmission between the audiences and a visual artist collaborating from off site. The reduced latency of these new networks will hopefully facilitate a more dynamic and immediate dialogue.

https://duncanspeakman.net/proj ects/billennium/















