Forming Groups and Brainstorming Project 2- Lecture 14

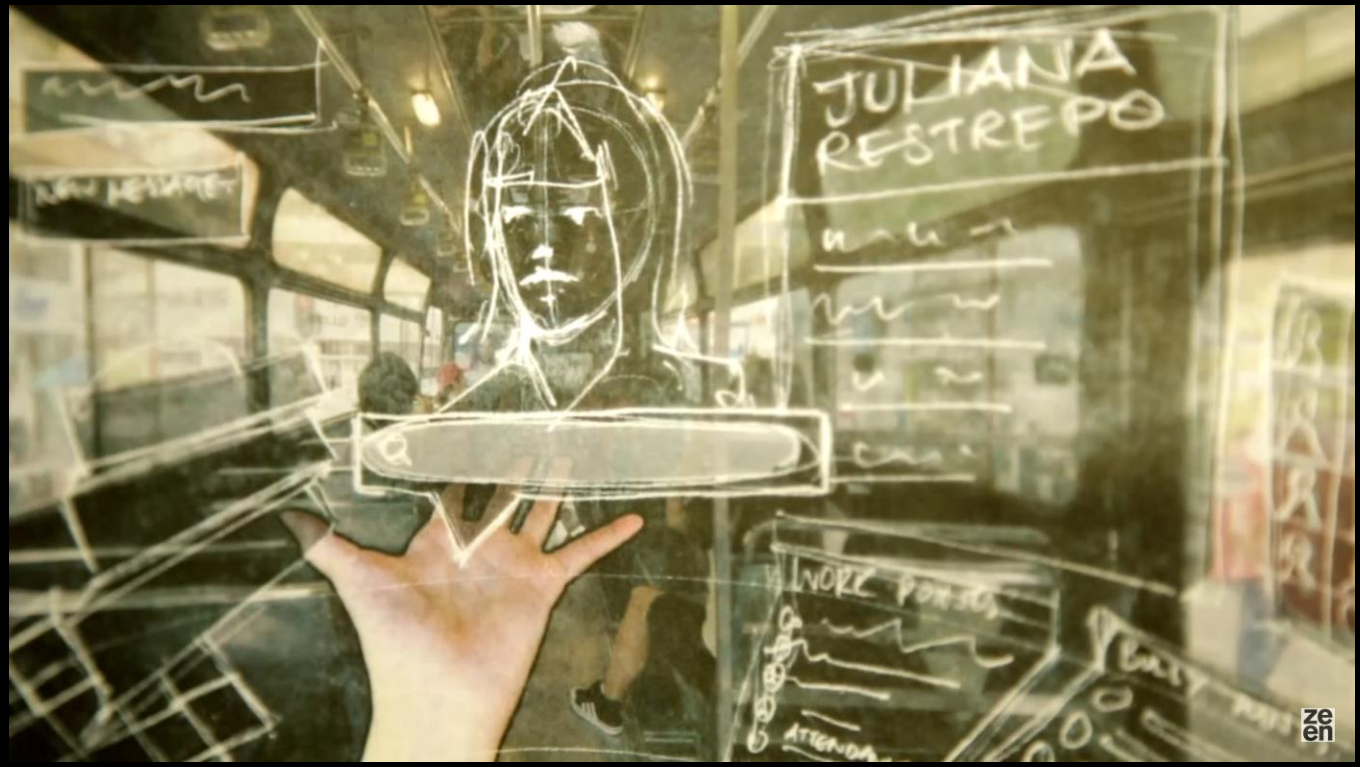


Image by Dezeen: link

Mario Romero
2016/11/15

KTH VETENSKAP OCH KONST

VICSTHLM
VISUALISATION INTERACTION COLLABORATION

AGI16 Calendar: link

Tue 30 aug 13:00-15:00	Lecture 1: Introduction
Fri 2 sep 8:00 – 12:00	Lecture 2-3: Forming Groups and Brainstorming
Tue 6 sep 13:00 – 15:00	Lecture 4: Groups formed, inspiration, and brainstorming
Fri 9 sep 8:00 – 10:00	Lecture 5: Proposals
Tue 13 sep 13:00 – 15:00	Lecture 6: Proposal Feedback
Fri 16 sep 10:00-12:00	Lecture 7: Hello World Demos
Tue 20 sep 13:00 – 15:00	Lecture 8: Preparing ForskarFredag 2016
Tue 27 sep 13:00 – 17:00	Lecture 9: Demo and preparation towards ForskarFredag
Fri 30 sep 8:00 – 16:00	ForskarFredag (we set up on Thursday evening)
Tue 4 oct 13:00 – 15:00	Lecture 10: Reflecting on ForskarFredag
Tue 11 oct 13:00 – 15:00	Lecture 11: Preparing for Comic Con
Tue 1 nov 13:00 – 15:00	Lecture 12: Preparing for Comic Con
Fri 4 nov 9:00 – Sun 6 Nov 16:00	Comic Con (we set up on Thursday evening)
Fri 11 nov 10:00 – 12:00	Lecture 13: Reflecting on Comic Con
Tue 15 nov 13:00 – 15:00	**Lecture 14: Forming groups for project 2**
Fri 18 nov 8:00-12:00	Lecture 15-16: Proposals Project 2
Tue 22 nov 13:00-15:00	Lecture 17: Hello World Demo Project 2
Tue 29 nov 13:00-15:00	Lecture 18: Feedback on Demos
Tue 6 dec 13:00-15:00	Lecture 19: Preparing for Open House
Tue 13 dec 13:00-15:00	Lecture 20: Demo project 2
Fri 16 dec 15:00-19:00	**VIC AGI16 Open House**

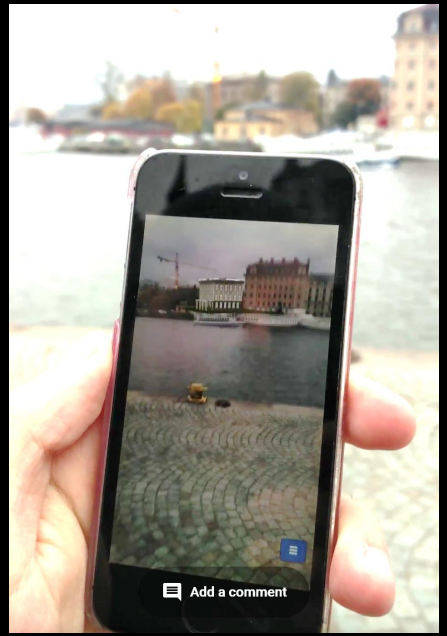
Agenda

1. Announcements
    1. Friday
        1. Johan Kasperi
        2. Proposals
    2. Assignment 5
2. Reflect on Comic Con
3. Example Proposals for Project 2
4. Examples of AGI15 P2s
5. Assignment 4 group work
6. Brainstorm

Friday

Johan Kasperi is working on Augmented Reality tours of the newly proposed Nobel Museum. This project will work while walking or riding a bus.

video



- Johan Kasperi
  - BrARwl → Table Top Heroes
  - AR Nobel Museum
  - Q&A
    - Argon, Vuforia, Three.js, ...
  - Feedback → proposal drafts
    - 9:00 – 10:00
- Proposals
  - 10:00 – 12:00
  - 8 minutes each
  - You know what to do!

Assigment 5

For next Friday Nov. 18

We will discuss these in class

- Read about
  - Vuforia
  - Argon.js
  - WebGL
  - Three.js
  - MacIntyre, Blair, et al. "The Argon AR Web Browser and standards-based AR application environment." *Mixed and Augmented Reality (ISMAR), 2011 10th IEEE International Symposium on*. IEEE, 2011. PDF

Project 2 Guidelines

- Mixed Reality Stockholm
  - AR Guided Bus Tours
  - AR Guided Walking Tours
  - MR Guided Museum Tours
- Techonologies
  - Phones
  - Vuforia
  - Argon.js
  - WebGL
  - Three.js
- Not this please!
  - Link

Reflecting on Comic Con

goo.gl/mXwdbD

- Talk to your neighborgs
- Discuss
  - What worked?
    - Better than expected
    - As expected
    - Not as well as expected
  - What was unexpected?
  - What did you learn?
  - What can you apply to P2?
  - What will you change for P2?
  - Other comments

Reflections from Comic Con 2016

AGI 2016-11-11

What Worked better than expected?

- Limited area
- Transition between projects and context switches.
- VR
- Highscore list
- Instructing childrens
- Crowd understood that it was not a perfect project
- Moving all the hardware
- Whiteboard highscores
- Little noise uptake of microphone
- Children can use the vive
- Phones battery consumption manageable
- Crowd control
- Interviews and news articles
- Only one person complained about motion sickness (on our project presentation)

What Worked as expected?

- Scheduling (except the first day's start)
- Catching attention through Pixelsense while queueing for HTC.
- A lot of interest for VR/the Vive
- We can draw a crowd!
- People like to play with friends
- Hardware

What Worked not as well as expected?

- IR pollution
- A lot of kids had to small heads (and arms) for the Vive
- Vive controllers and headset was lagging
- Poster placement. Posters where not were the project was being presented.
- Queue organization problems
- Sometimes confusion where the users didn’t know that Pixelsense and HTC were connected.
- Sound level
- In-game tutorials (language barrier)
- The queue
- Phone hardware limitations
- Wiimote precision imprecise
- Bugs!
- Moar bugs!
- Gameplay balance

What was unexpected?

- More people in queue
- The demographics
- Less cosplayers than expected that would have massive armor and make tracking harder (Kinect)
- Gameplay had higher replayability
- Number of people were fewer
- Pollution from the other Vive devices
- bugs bunny

What did you learn?

- A lot of different technologies.
- Prefabs are the shit!
  - Examples?
- And also, game engines are good
- Møre people have experience with VR than expected
- We should spend more time testing the games
- Do not haphazardly combine technologies
  - Can you give examples?
- Do not use Wii-motes
- DO NOT EVER USE KINECT
- Sometimes showing people is better than telling them what to do.
- Unexperienced users provide valuable insight.
  - Examples?
- Psvr has potential, fo sho
- Networking sucks (+4)
- Language barrier for small kids
- People worry about how they look while playing and do not want to look weird
- The need for a graphical artist
- That people only gives feedback on the physical color of a tower.
- Contacting PR can be a challenge
  - Meaning?
- Color perception change
- Kids prefered to play against each other rather than cooperate
- The PixelSense attracts people
- Games development is a huge time-sink
  - Why?
  - What to do about it?

What can you apply to P2?

- Start prototyping early
- Choose easily available hardware
- Get your hands dirty as soon as possible
- Make more intuitive, should not require tutorial
- Try to reuse as much as possible.
- Stay away from networking (+1)
- Previous knowledge in engine of choice.

- Not to use wiimote, kinect
- More focus on gameplay
  - If it is a game…

What will you change for P2?

- Change game engine
- Now focused, less weird stuff
- More weird stuff
- No networking (hopefully)
- Focus on a single **reliable** technology.
- Concrete plan before starting to develop
- Try to get a graphical artist

Other comments?

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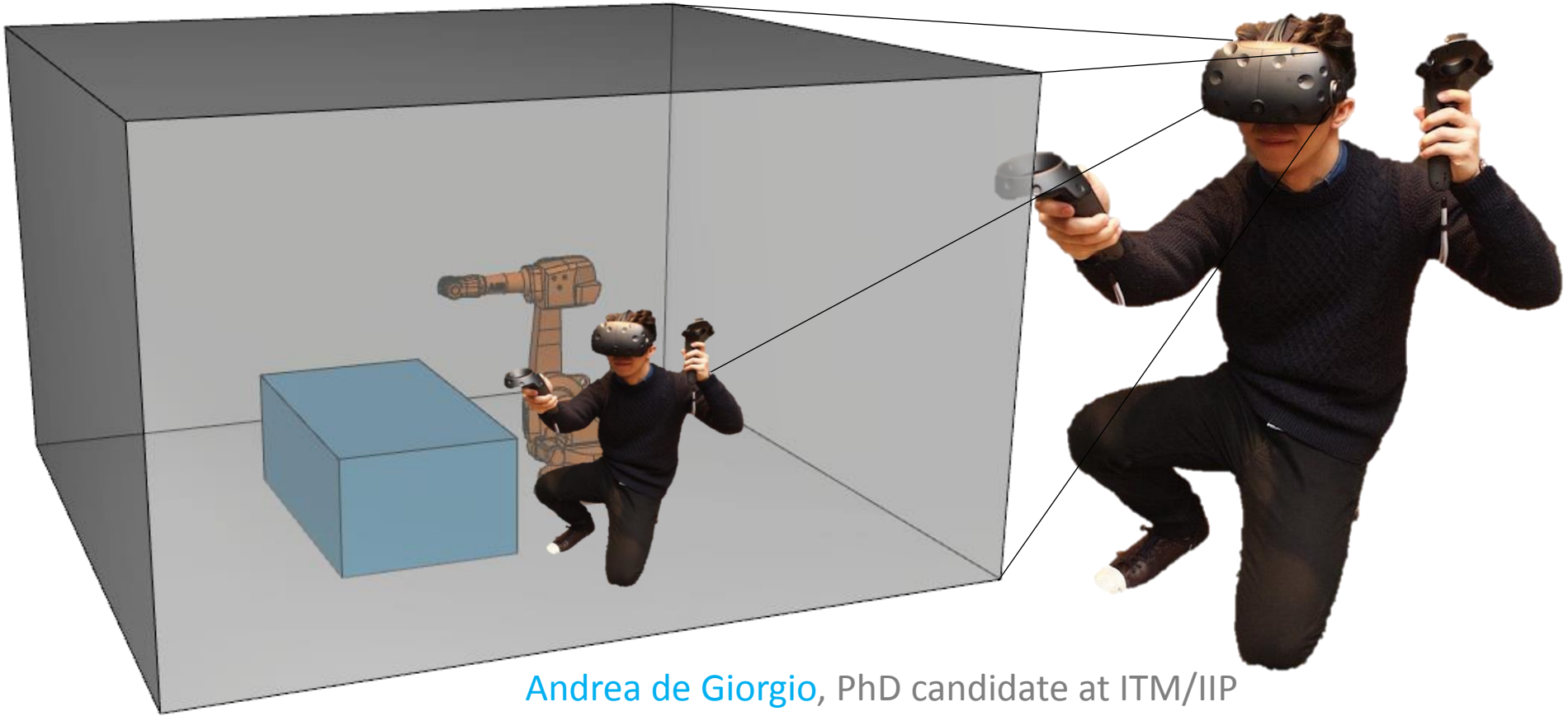
- Fun was had ㅋㅋㅋㅋㅋㅋㅋㅋㅋ
- Make comic con great again

- People's goals and interests are important and how we align these are crucial to the end result

Proposed Ideas

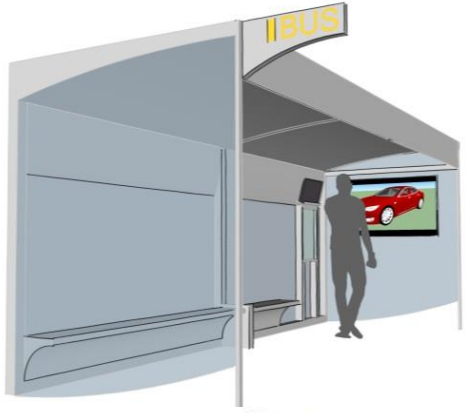
1. VR Robot behavior modeling
2. PARADE
3. MyCraft
4. The Rock
5. The Crowd
6. gARffiti
7. XcavatAR
8. AR Tidebannan
9. Future Stockholm AR
10. Past Stockholm AR

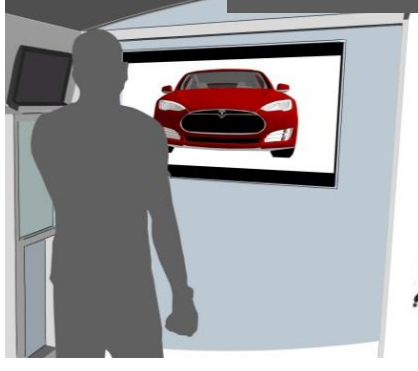
Virtual reality can bring the operator in the “cage”

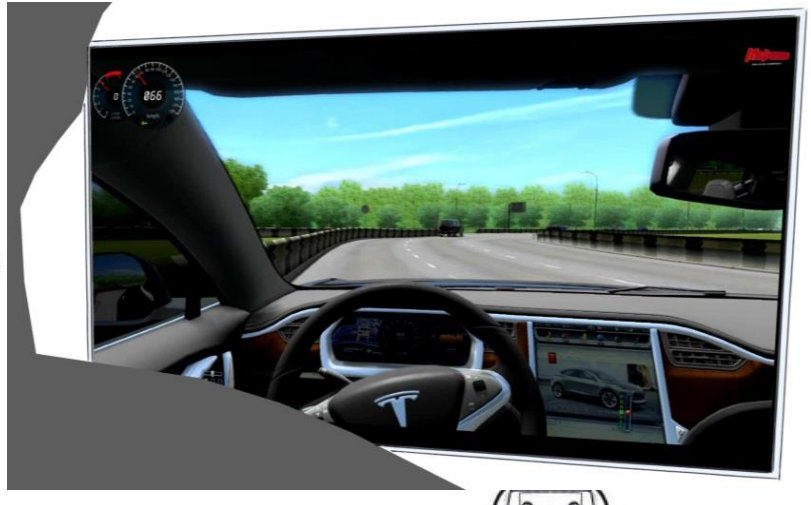


Andrea de Giorgio, PhD candidate at ITM/IIP

PARADE:
Public Augmented-Reality ADvertising Experiences





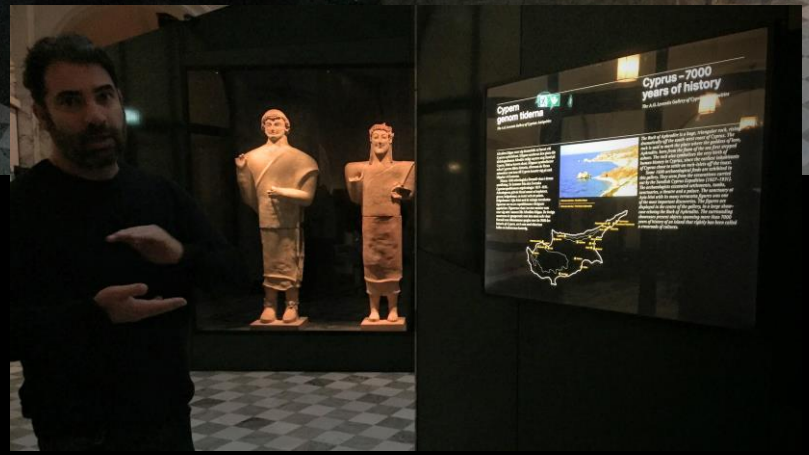


MyCraft

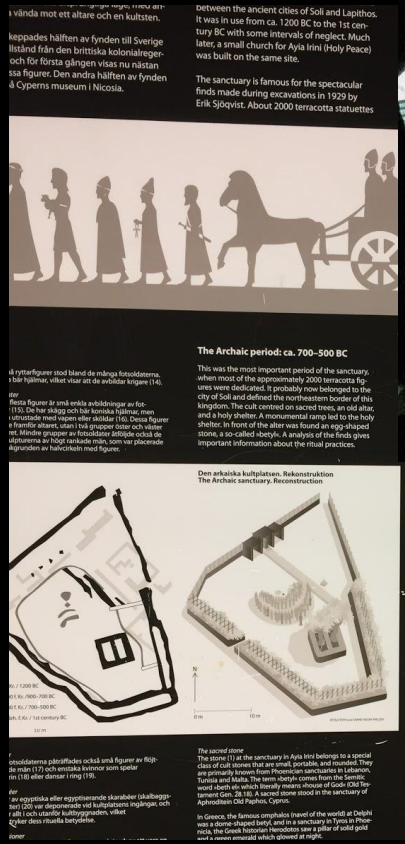
1. AR
2. Interactive
3. Expressive
4. Sharing
5. Extended Museum Experience

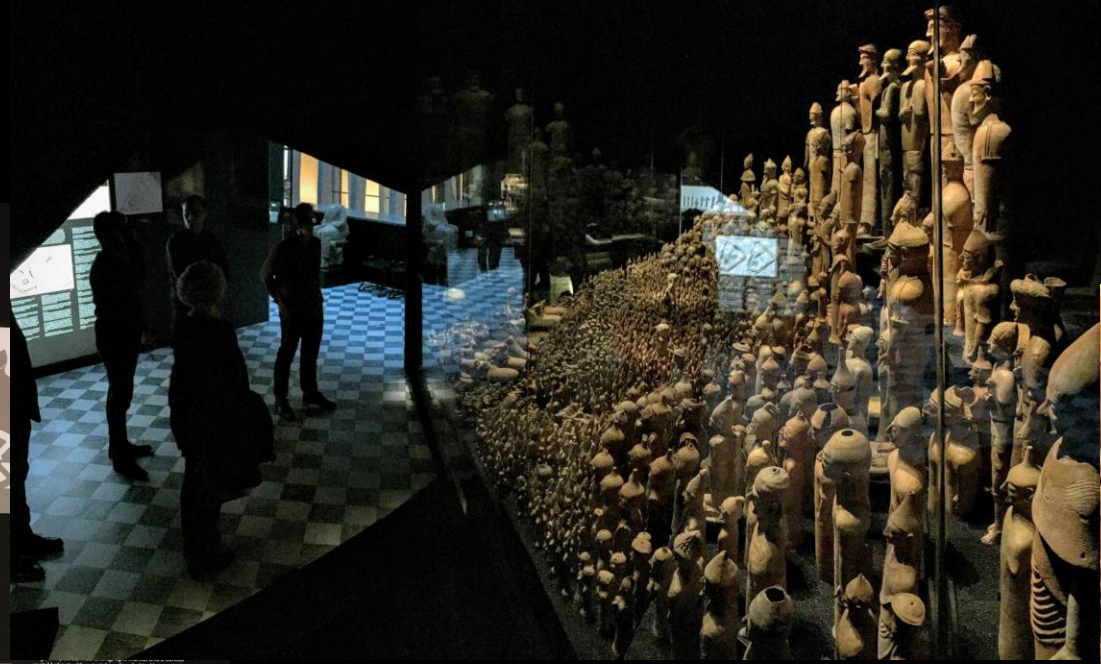
The Rock

1. Mixed Reality
2. Geocontextualization
3. Chronocontextualization
4. Culturecontextualization



The Crowd





1. Mixed Reality
2. Geocontextualization
3. Chronocontextualization
4. Culturecontextualization

gARffiti

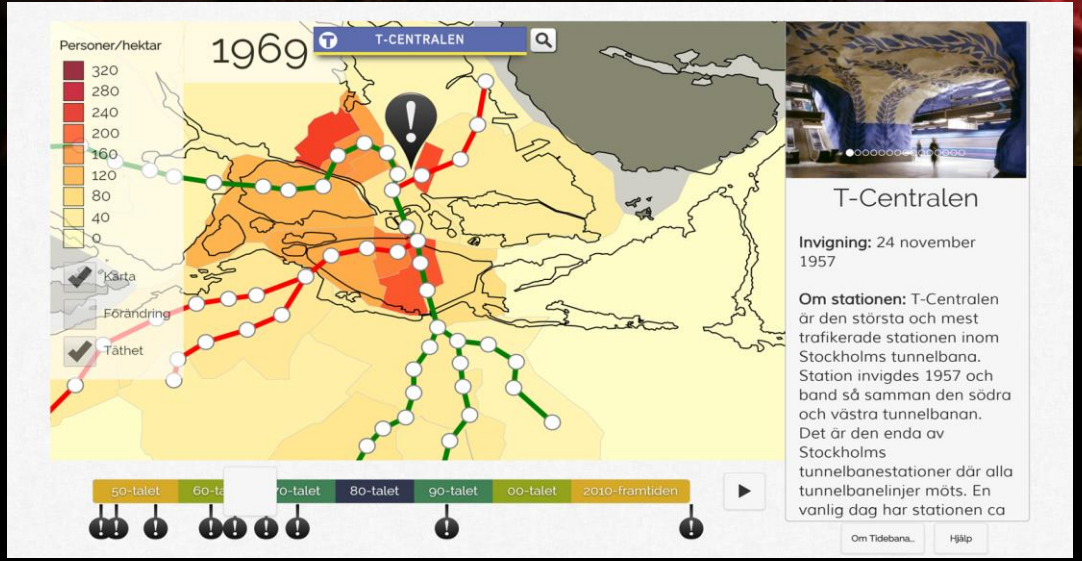
1. User generated 3D sketches
2. Contextual placemente
    1. Space
    2. Time
    3. People tagging
    4. Social Networking
3. AR connectivity
4. Special Effects
5. Interaction
6. Animations

XcavatAR

1. Mixed Reality
2. Archeological finding
3. Discovery
4. Content Creation
    1. Leave traces behind

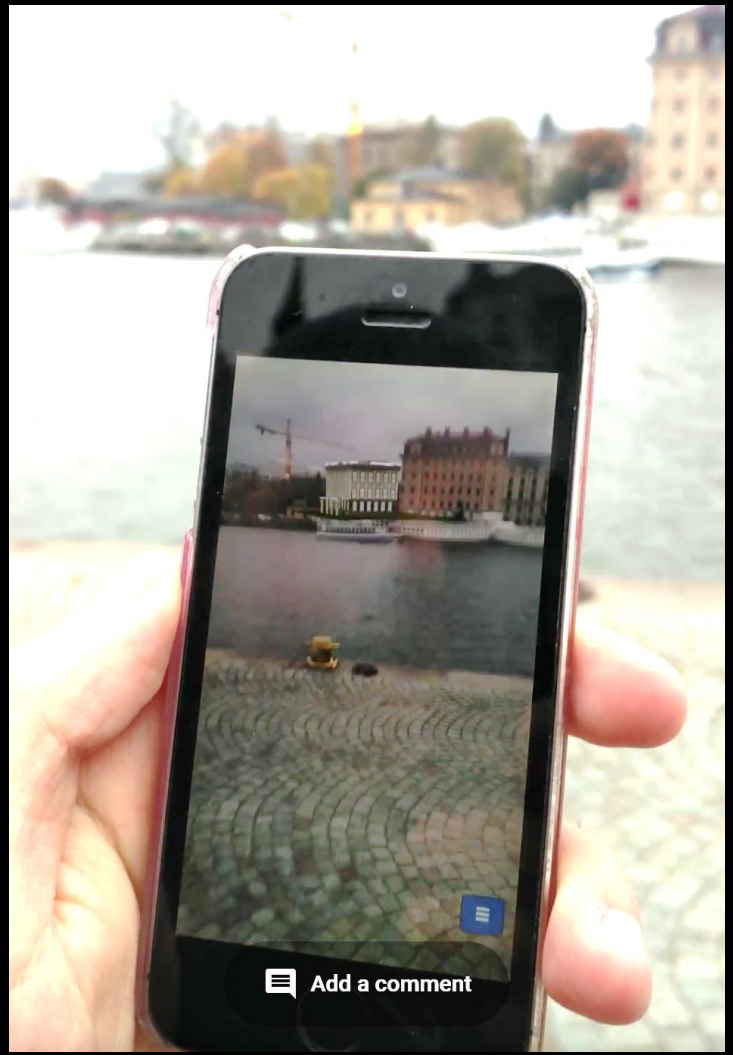
AR Tidebannan

1. Urban AR
2. Spatial Context
3. Temporal Context
4. Curated Content
5. User-created Content



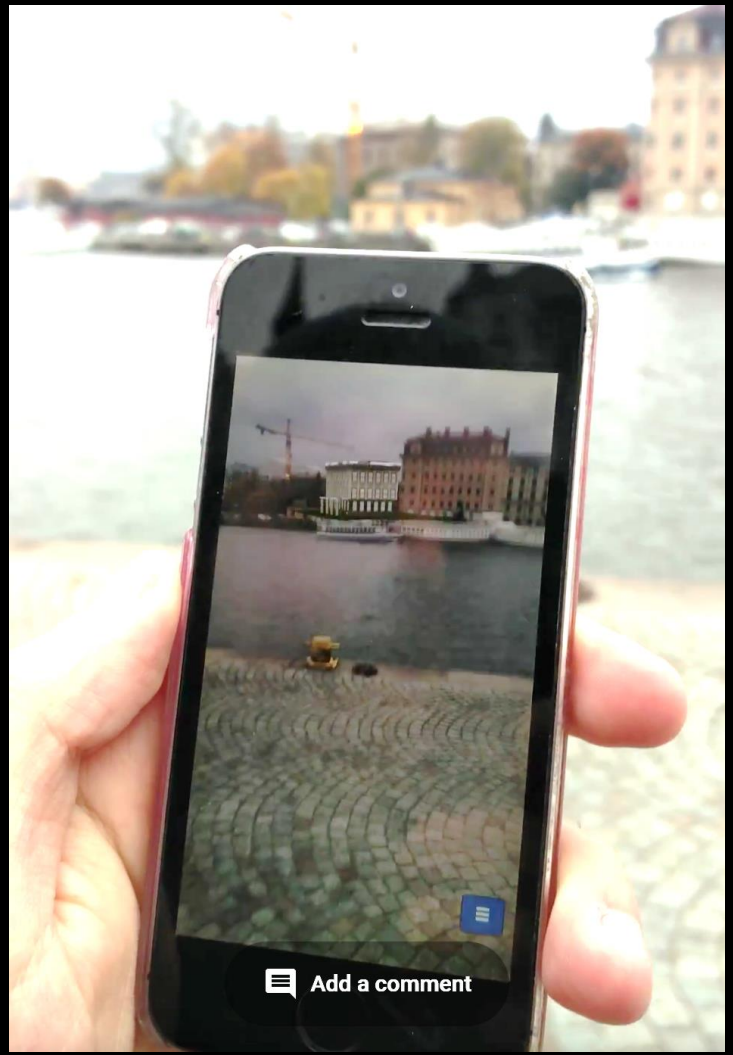
Future Stockholm AR

1. AR
2. Models
3. Occlusion
4. Shadows
5. Light
6. Atmospheric Effects



Past Stockholm AR

1. AR
2. Models
3. Occlusion
4. Shadows
5. Light
6. Atmospheric Effects



The basics

- Mixed Reality
- Experience
- Learning
- Sharing
- Exploring
  - Space
  - Time
  - Culture

Assigment 4
& Group Forming

1. Break up into groups where at least one person read the papers
2. Pull out the papers and present them to those who did not read them
3. Ask and answer questions
4. Discuss how you can incorporate the lessons from the paper into project 2
5. Brainstorm what you would like to do in project 2
6. Think about forming new groups

- Please, read these four papers and be ready to answer a few short questions and to discuss the papers next lecture, on November 1.

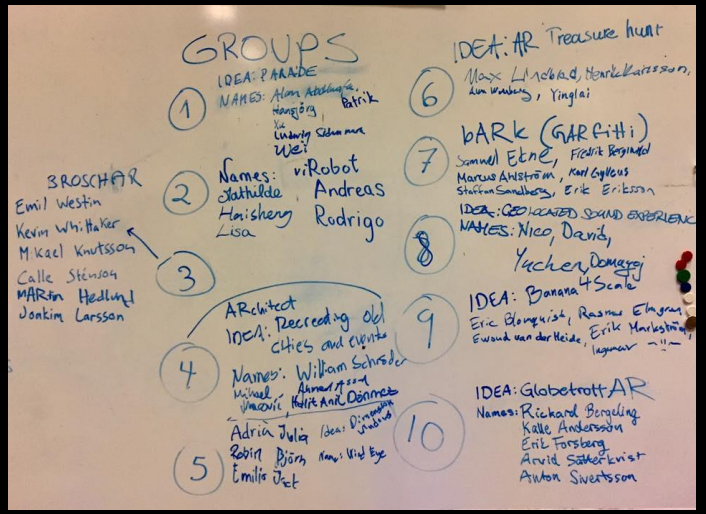
  1. Morgan McGuire and Andi Fein, Real-time rendering of cartoon smoke and clouds.
  Smoke, Cartoon, Non-photorealistic rendering

  2. Mine, M., Yoganandan, A., & Coffey, D Game controller design, Immersive game experience, Virtual reality

  3. Foltin, Martin (2011)., Automated Maze Generation and Human Interaction
  Procedural generation, mazes, algorithms

  4. Plemmons, Daniel; Holz, David, Creating next-gen 3D interactive apps with motion control and Unity3D.
  Motion controller, Game engine, natural interfaces

And the P2 Groups are…



1. PARADE:
   Alan Abdlwafa, **Hansjörg** Hofer, **Ludwig** Sidenmark, **Wei** Wang, **Xu** Han
2. viRobot:
   Andreas Linn, **Rodrigo** Rodriguez, **Lisa** Schmitz, **Haisheng** Yu
3. BroschAR:
   Emil Westin, **Kevin** Whittaker, **Mikael** Knutsson, **Calle** Stenson, **Martin** Hedlund, **Joakim** Larsson
4. ARchitect:
   William Schröder, **Mihael** Marović, **Ahmed** Assal, **Halit** Dönmez
5. WindEye:
   Adrià Cruz, **Emilio** Lando, **Björn** Englesson, **Robin** Tillman, **Jack** Shabo
6. AR Hunt:
   Max Lindblad, **Henrik** Karlsson, **Yinglai** Xu
7. bARk:
   Samuel Ekne, **Fredrik** Berglund, **Marcus** Ahlström, **Karl** Gylleus, **Erik** Eriksson, **Staffan** Sandberg
8. radAR:
   Nico Palmroos, **David** Ringqvist, **Yuchen** Qiu, **Domagoj** Penić
9. Banana4scale:
   Eric Blomquist, **Rasmus** Elmgren, **Ewoud** van der Heide, **Erik** Markström, **Ingemar** Markström
10. GlobetrottAR:
    Rickard Bergeling, **Kalle** Andersson, **Erik** Forsberg, **Arvid** Sätterkvist, Anton Siverstsson

Questions?