Computer Games 2015

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CV

- Techn. Mathematik
- Telematik
- Associate Professor

- Multimedia Search & Retrieval
- Adaptive MMIS

Motivation

Games & Science?

Motivation

This course is hard work.

First of all …

- Course is in German
- Slides are in English
  - Because I need them in English too
  - I don't like to do twice the work ;)

Three things ...

- Good artists copy, great artists steal.
- 80% of the work go into 20% of the product.
- Fun is non-optional.

Course Organization

- Prüfungsimmanent
  - You have to be here. You have to take part.
- There are multiple exercises
  - Programming, reading, watching videos.
- Exam at the end
  - Multiple choice test, min. 50% correct.
- Final Project: Build a full game (level)
  - with all steps & documents in between .

Final Project: Build a game (level)

- Set up a game project
  - Game bible, blueprints, roles
  - Implementation
- Procedure will be explained in the course
  - How to actually do this …
- Use a game (engine) for that
  - libGDX, Crafty, pixl.js, phaser.io, Jaws, …

Game Studies

- Analyzing current and past gaming landscape
- Variety of transdisciplinary contexts
- Research oriented and theoretical

"You play games now learn to study them"

Game Production

- ## How to create a game?
  - From idea to roll-out.
- ## What are the means to an end?
  - Tools, schemes, models, vocabularies, techniques.
- ## Feeding the industry
  - You are the game developers of … well I hope tomorrow.
- ## Engineering related
  - product management, getting things running.

"You play games, now learn to make them."

Course Goals

Game Production

- Learn to make games
  - On a general management level
  - And actually make some games on your own.

Game Studies

- Learn about games to make them (better)

Course Goals

Theory

- Gaming context, history and impact
- Processes, roles and best practice
- Tools and technology

Practice

- Hands-On

Course Goals

This course is **<u>not</u>**
- about being a player
- A discussion of single games or genres

Game Jam

- When: April 17-19, 2015
- Where: AAU

- More information and registration at
- http://itec.aau.at/gamejam

Kickstarter

- I want you to create games.
- A lot of games.
- So I start the course with an example.
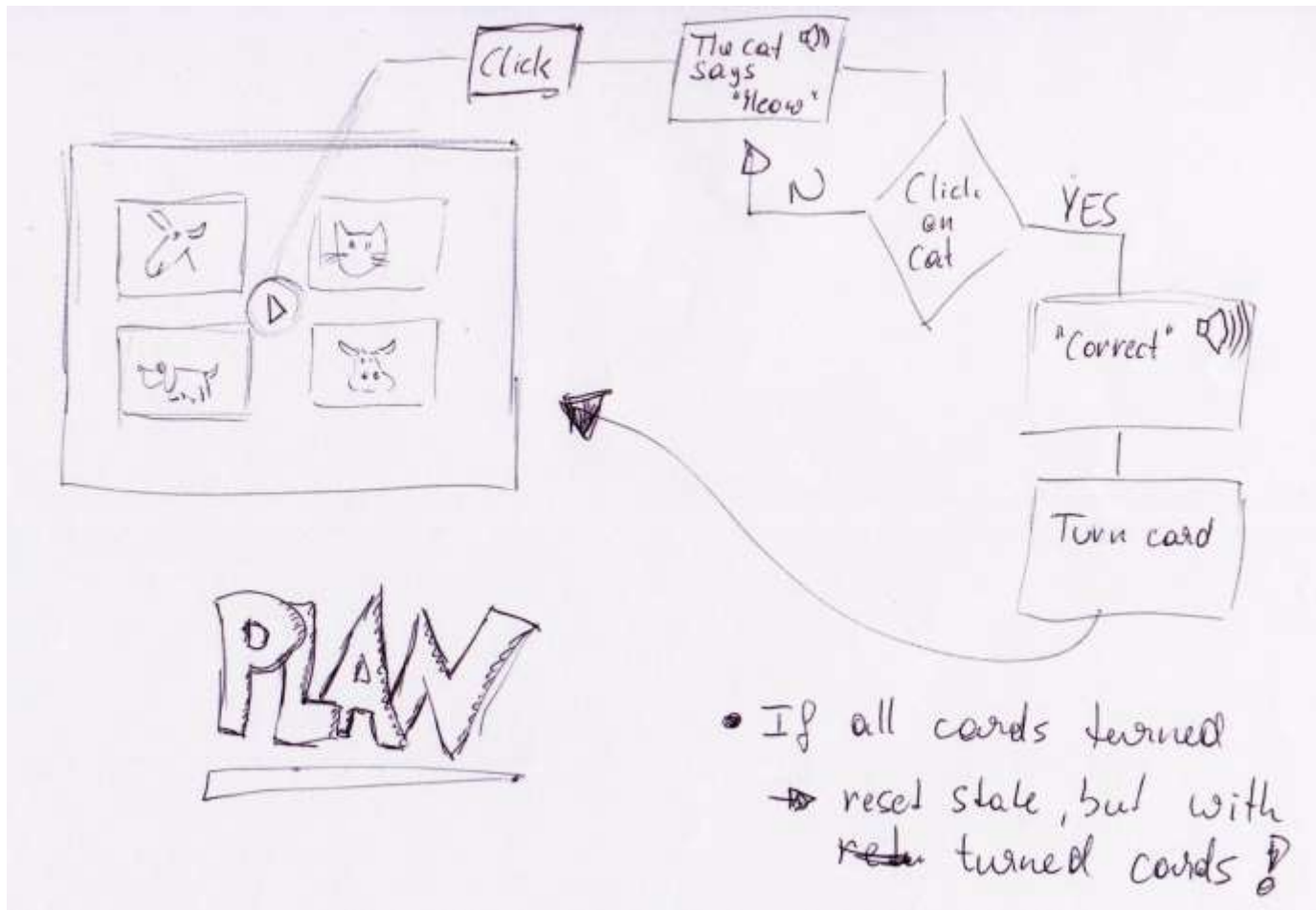
The first idea ..

- A kids game
- With animals -> pictures and sounds
- Something with guessing, referencing
- On mobile devices.

What to do next?

- We need a plan.
- Then we need to know if it works.
- If so, we need the media.
- Then we need the assets.
- Finally, let's do some programming.

The Plan

Does it work?

- Lets make a paper prototype and test it on some test subjects.

- Materials needed are …
  - Paper, scissors, pen

Getting media

- Images
  - Four animals, looking like a set
  - A play button
- Audio
  - Four times animal sounds
  - Four times recordings for „The XY says ZZ"
  - One Recording „Bravo!"

Getting Media

- ## Decide on the theme
  - Comic? Papercut? Origami? Photos?
- ## Collect Media
  - Save the license data!
- ## Decide on the Design
  - Colors, fonts, sizes.

Downloading Media & Recording

- We decide on „photo" and „realistic"
- Get photos from Flickr
  - Creative Commons!
- Get animal sounds from freesound.net
  - Public domain or creative commons
- Recording
  - Choose a speaker, do the recording.

Which design?

- Fonts for a kids game
  - Less serifs, clear letters
  - Check ie. Google Web Fonts
  - Open Sans, Lato, Droid Sans or Ubuntu?
- Overall Design
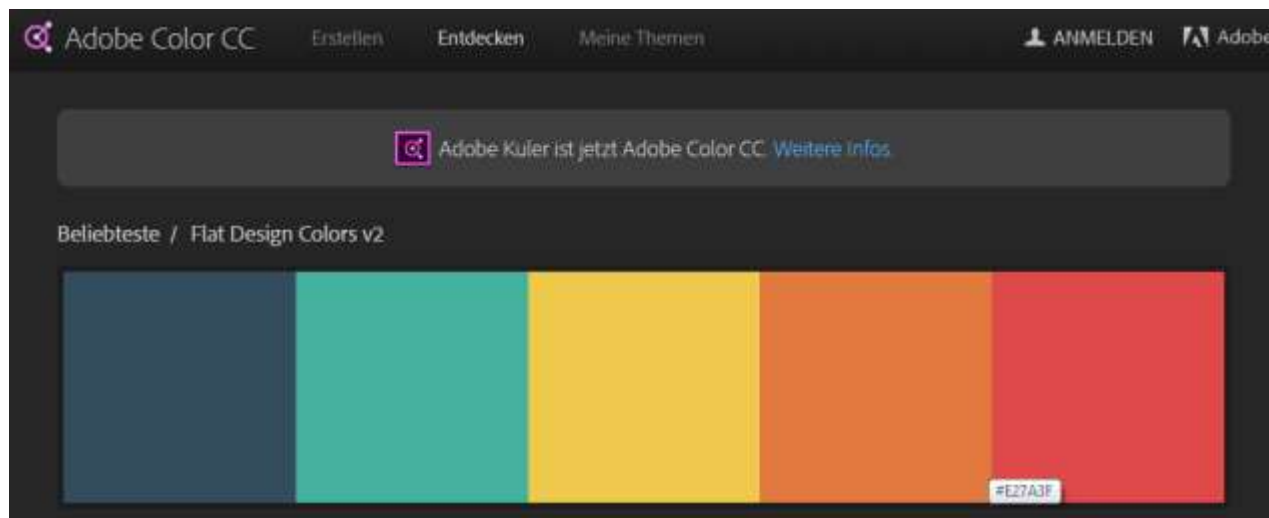 - Play Button with recognizable sign
  - ie. http://fontawesome.io/

Look out for designs you like and use them for inspiration!

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KLAGENFURT I WIEN GRAZ

Color Scheme

- Check for schemes on Adobe Color CC
    - eg. https://color.adobe.com/de/Flat-Design-Colors-v2-color-theme-4341903/

Mockup

Kids' Game
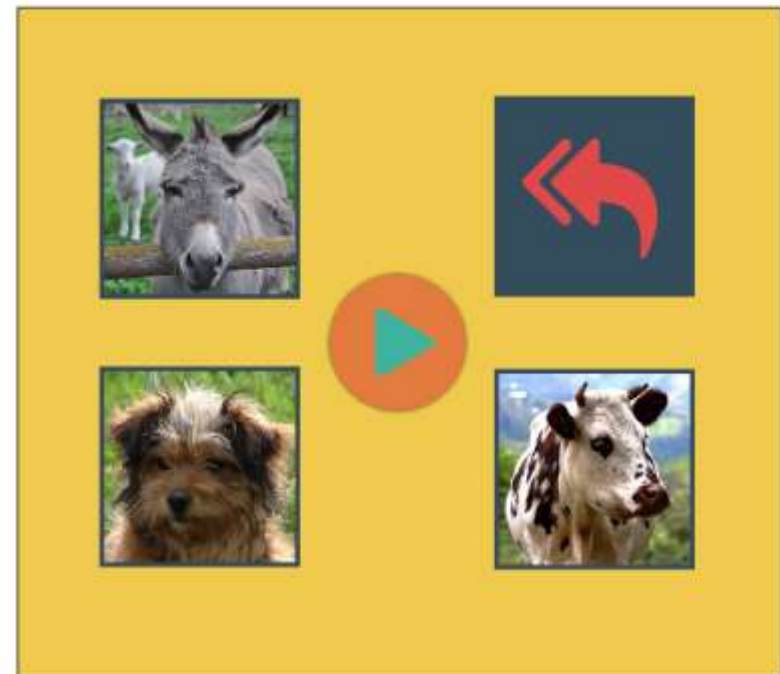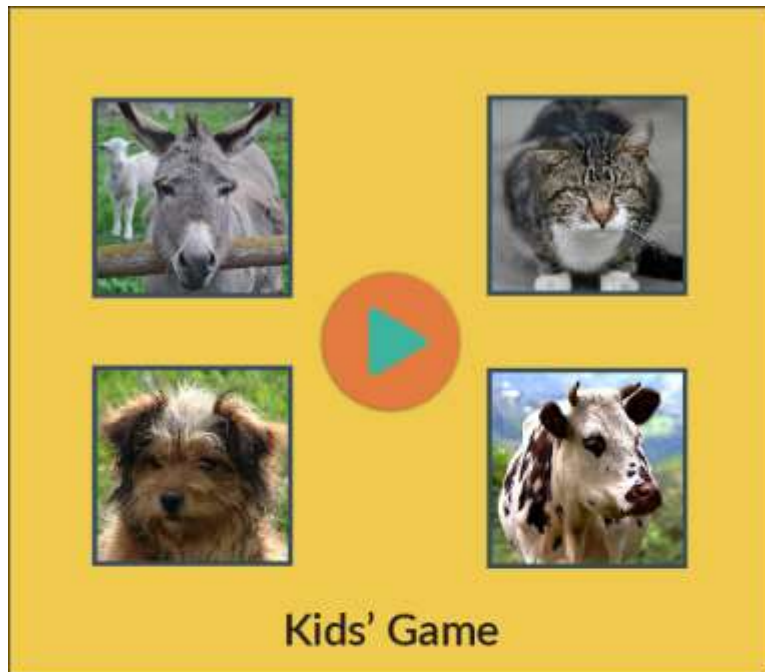
Font: Lato Semibold for Text, Font Awesome for Glyph Icons-
Color Scheme: https://color.adobe.com/de/Flat-Design-Colors-v2-color-theme-4341903/

Assets

- Make sure all media is normalized
  - Same size, same lighting
  - Same amplitude, same amount of noise
- Extract the text and buttons from the mockup
  - The right resolution, or vectorized.

Finally: Implementation.

- Which platforms?
  - Android, iOS, Blackberry, Windows Phone.
- Which framework?
  - For all of these???

HTML 5 & JavaScript

- http://phaser.io/

- Check the examples at http://examples.phaser.io/
  - Basics – click on an image
  - Audio – Audio Sprite