Interactive Information Visualization Project (iVisPro)

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1. Introduction

The assesment of the IVIS course 2018 is based on an interactive information visualisation project (iVisPro). The topic of the interactive visualisation can be chosen by personal preferences but the project has to match some criteria further described in this document.

iVisPro can be implemented by a single person or in a team of two. Students of class 6Ieng must provide all deliverables in English. Students of class 6iCbb may choose between English and German. Please consult marco.soldati@fhnw.ch if you intend to mix between classes.

Conditions:

- iVisPro must be based on a story about data which is told to the reader.
- iVisPro must use publicly accessible data from at least two sources.
- iVisPro must include interactive elements such as brushing, details-on-demand, filtering, zoom, multiple-view, etc.
- A significant part of the project must be implemented in a programming language such as d3, Python, R, Java, etc. Libraries and plugins may be used where appropriate.

2. Deliverables

iVisPro consists of three parts to be delivered:

- Deliverable 1: Project agreement for your interactive visualisation application (due date: course week 8).
- Deliverable 2: The interactive visualization application, made accessible at least inside FHNW, including source code, data sources, story and project background (due date: course week 13 and 14).
- Deliverable 3: a pecha kucha presentation of your work for your classmates (due date: course week 14 and 15).

Note: All three deliverables must be provided in order to pass this module. Any missing deliverable will result in a FAIL!

2.1. Deliverable 1: Project agreement

The project agreement describes the intended project and has to be delivered in course week 8.

The project agreement document must be based on the Word Template Project_agreement.docx delivered with this document. You may want to use vdesk.fhnw.ch to edit the document.

If you encounter significant deviations during impelementation, please check with Marco Soldati.

The project agreement must include a time estimate for several implementation steps. Each student has to invest at least 45 hours on this project, inlcuding the project agreement and the presentation.

2.2. Deliverable 2: Interactive visualisation application

This is the largest part of your work. The interactive visualisation application must be written for the greater public. Any person, without particular knowledge of your topic or IVIS should be able to understand your story.

This deliverable includes

- The iVisPro software deployed in a way that it can be used by Marco Soldati and your class mates.
- Access to the source code, e.g through gitlab.fhnw.ch, github.com or a similar SCM system.
- References to the data sources.
- Some embedded text or images that help users to understand and use your visualisation.
- Explanation on how you achieved your goal (data analysis, sketches, …)

Some samples in which direction your project could go are:

- https://research.google.com/bigpicture/music/#
- https://www.theguardian.com/environment/ng-interactive/2014/dec/01/carbon-emissions-past-present-and-future-interactive
- http://flowingdata.com/2016/12/06/how-people-like-you-spend-their-time/
- https://flowingdata.com/2017/10/06/in-2017-no-more-than-five-days-without-a-mass-shooting/
- http://setosa.io/bus/

2.3. Deliverable 3: Presentation

The presentation has to be hold in the Pecha Kucha format. An introduction to Pecha Kucha will be given in course week 12.

PechaKucha guidelines for IVIS:

- Use 20 slides and show each slide for 20 seconds.
- Use images, drawings and symbols rather than text
- Do not use unmotivated animations, slide transitions, etc.
- Do not use bullet lists or lengthy texts
- If you are a team of two assing exactly 10 slides to each of you.
- If you are alone you may select any number of slides between 10 and 20.

2.4. Deadlines

Deadlines:

Project agreement:

- Sun, April 15 2018, CET 23:59 (submit via https://filesender.switch.ch)

Link to your iVisPro project page or zip file of your project (if not implemented in JavaScript):

- Thu, May 31 2018, CET 23:59 (submit via https://filesender.switch.ch)
- Thu, June 7 2018, CET 23:59 (submit via https://filesender.switch.ch)

3. Assessment

3.1. Plagiarism

WARNING	Plagiarism is not tolarated. No copy & paste, no translations from other languages, no unmarked citations.

I will strictly follow the rules of FHNW:

- Your work will be graded with 1.
- You will be reported to the school administration.

3.2. Grading

Note: All three deliverables must be provided in order to pass this module. Any missing deliverable will result in a FAIL!

The semester project will be graded by several marks covering the follwing areas:

Area	**Weight**
Quality of overall task	25%
Quality of storytelling	10%
Technical quality of interactive application	25%
Design quality of submitted application	25%
Final presentation	15%

Each area will be given a mark between 1 and 6 and a weighted average will be computed.

4. How to proceed

1. Form the team
2. Select overall topic and the desired language
3. Inform marco.soldati@fhnw.ch about your team and topic
4. Start looking for data source, do some preliminary data analysis
5. Build up your story concept, if needed do some first sketches
6. Fill in the project agreement and send to marco.soldati@fhnw.ch
7. As soon as you get project acceptance notice: start working on the implmentation.

5. Further References

- https://www.forbes.com/sites/benkerschberg/2014/04/30/five-key-properties-of-interactive-data-visualization/#724ed0b4589e