ARTG 6900

Information Design Workshop

Goal of This Course/Workshop

Greater range of technical skills
- Advanced d3 patterns
- Front-end development
- Data management and manipulation

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Self-directed problem-solving

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Self-directed problem-solving

Sythesize all this into a final project!

Principles

BInformation visualization seeks to inform, not (necessarily) to persuade, certainly not to obfuscate.

Principles

"I want to make a data visualization that looks like X."

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Data visualization should not be conflated with a particular aesthetic or visual artifact.

Principles

"I plan to make a data visualization of X."

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Before delving into "how", ask "why". What are your goals for creating this data visualization? Who is going to look at it? What are their information seeking needs?

Planning a Project

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Start with Questions

A project begins with a dataset and/or a set of questions.

Gathering data and converting it to a machine readable format is in itself a very involved exercise.

Planning a Project

Understanding the Data

Understand the context for the data.

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Understanding the Data

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- How was it collected?
- How might the data collection method impact its usefulness?
- Are there anomalies in the data? Is it noise or actually significant?
- Consult with domain experts.

Planning a Project

Data Discovery

Pose lots of questions to the data. Produce lots of sketches. Some will yield interesting patterns and lead to intriguing discoveries, even if many will not.

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Data Discovery

"I know X is true. I will produce visualization Y to show X."

Is X really true? Even if it is, is it really the right or most relevant question to ask?

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Understand the Audience

Are they experts in this domain? Are they engaged?

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Depending on the answer, the final visualization product can span a spectrum between **expressive, explanatory, high level**, and **complex, exploratory**.

Planning a Project

Understand the Audience

For a low-engagement, non-expert audience, stay high-level.

For a highly engaged audience, provide a full range of exploratory capabilities.

Planning a Project

Wireframe, Prototype, Iterate, Improve

Planning a Project

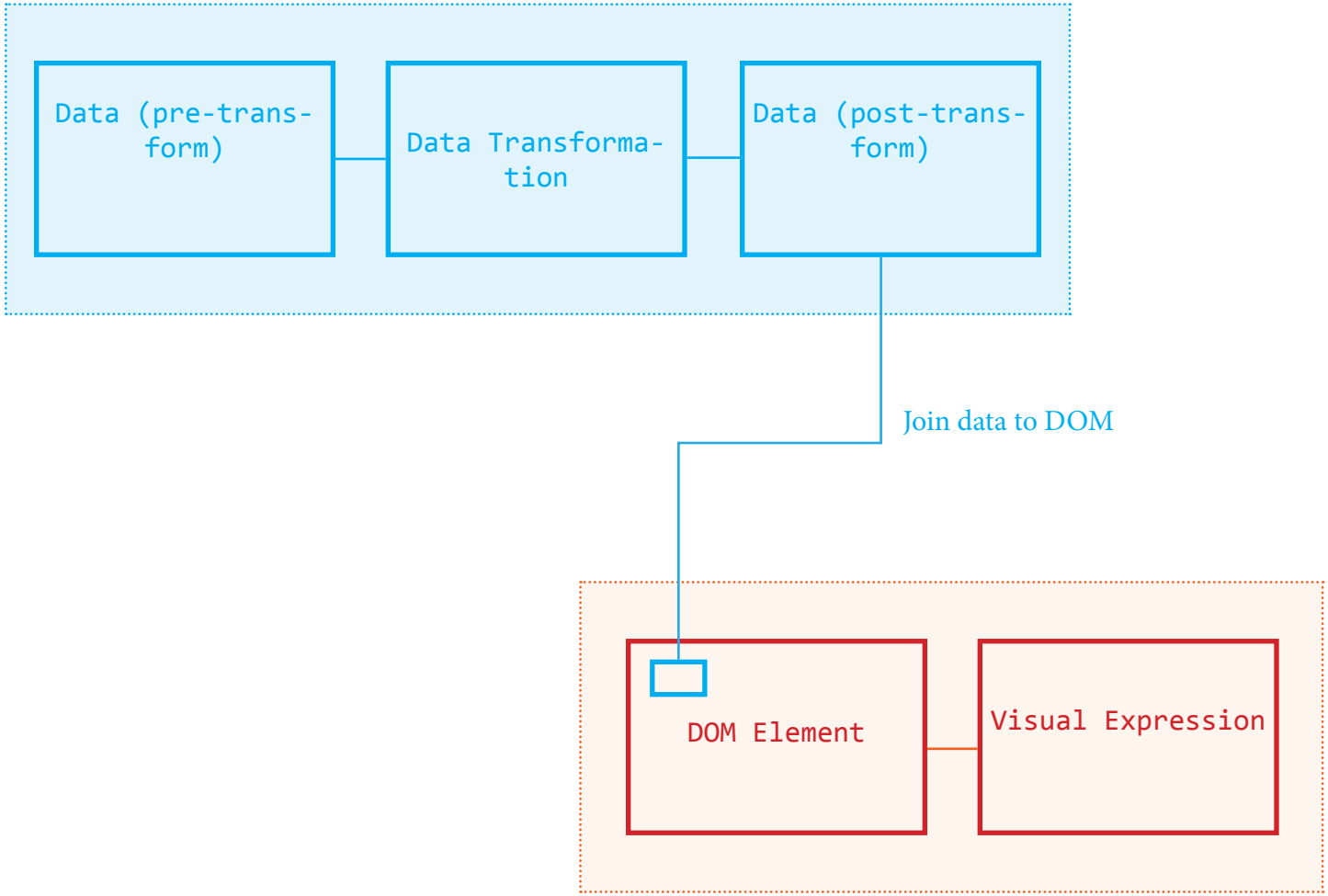
...and After That

Data visualization is frequently the first step of an exploratory data analysis, the result of which is further data gathering, exploration (and visualization!)

The Syllabus

A Quick Recap of Key Concepts

Acquire
Parse
Filter
Mine
Represent
Refine
Interact


Data (pre-trans-form)
Data Transforma-tion
Data (post-trans-form)
Join data to DOM
DOM Element
Visual Expression

Getting Started

Cloning the repo

```
git clone [repo url]
```

Check out its remote

```
git remote -v
```

Committing changes is a two step process:
First, stage changes

```
git add --all
```

Then commit with a message

```
git commit -m “First commit”
```

Push changes to remote repo

```
git push origin master
```

Which branch am I on?

```
git branch
```

```
git branch -a
```

To switch between branches

```
git checkout [branch name]
```

After-class Exercise

Refamiliarize yourself with Git, especially `add`, `commit`, and `push`

Understand the concept behind “branches”

Install node.js