RDM 102: The Instructor Experience

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The Instructor Experience

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Beyond Research Data Management for Biomedical & Health Sciences Librarians
Details

- Feb. 20 – Apr. 12, 2019
  - 5 content weeks
  - 1 catch up week
  - 1 final project presentation week

- NNLM Training Office based out of the University of Utah

- 35 Students

- Other Instructors:
  - Shirley Zhao
  - Margaret Henderson
  - Leah Honor
Objective of the Course

Provide an introduction to the support of data science and open science with the goal of developing and implementing or enhancing data science training and services at the students’ institutions.
Modules

1. Open Science and Data Science
2. Data Literacy
3. Data Wrangling
4. Data Visualization
5. Leadership
My Role as Instructor

- Develop data visualization module
- Primary instructor for data literacy and data visualization modules

Visualization should match the data’s story
My takeaways

- New tools: Moodle and Jupyter Hub

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Research Data Management for Librarians 102 - Spring 2019

Welcome to RDM 102: Beyond Research Data Management for Biomedical & Health Sciences Librarians!

This course is a rigorous online training course going beyond the basics of research data management, sponsored by the National Library of Medicine (NLM) and the National Network of Libraries of Medicine Training Office (NTO). We will build on concepts covered in RDM 101: Biomedical and Health Research Data Management Training for Librarians, and threaded throughout will be the librarian’s role in research reproducibility and research integrity. You will also practice using Jupyter Notebooks through an open-source browser-based application (JupyterHub) that allows you to create and share documents that contain live code, equations, visualizations, and narrative text.

The major aim of this course is to provide an introduction to the support of data science and open science with the goal of developing and implementing or enhancing data science training and services at your institutions. This material is essential for decision-making and implementation of these programs, particularly instructional and reference services. We also hope this course will help you build your confidence in discussing relevant issues in RDM, data science, and open science and in contributing to the growing community of information professional with expertise in this area.
Week 2 Assignment

Calculating Mean, Median, Mode in R

```
In [2]:
# Use a hashmark to comment - this code will not run
# The first step is to import the data. We'll be using titanic passenger data in this demo.
titanic <- read.csv("titanic.csv") # In this function, I'm importing the data and assigning it to an object, titanic
# Which acts as a type of nickname for the data (I just added a comment to the end of a function's line!)

In [4]:
# Let's see what the titanic dataset looks like using the head function to look at the first 6 rows
head(titanic)
```

<table>
<thead>
<tr>
<th>PassengerId</th>
<th>Survived</th>
<th>Pclass</th>
<th>Name</th>
<th>Sex</th>
<th>Age</th>
<th>SibSp</th>
<th>Parch</th>
<th>Ticket</th>
<th>Fare</th>
<th>Cabin</th>
<th>Embarked</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>3</td>
<td>Braund, Mr. Owen Harris</td>
<td>male</td>
<td>22</td>
<td>1</td>
<td>0</td>
<td>A5 21171</td>
<td>7.2500</td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>1</td>
<td>Cummings, Mrs. John Bradley (Florence Briggs Thayer)</td>
<td>female</td>
<td>38</td>
<td>1</td>
<td>0</td>
<td>PC 17599</td>
<td>71.2833</td>
<td>C85</td>
<td>C</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>3</td>
<td>Heikkinen, Miss. Laina</td>
<td>female</td>
<td>26</td>
<td>0</td>
<td>0</td>
<td>STON/O2. 3101282</td>
<td>7.9250</td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1</td>
<td>Futrelle, Mrs Jacques Heath (Lily May Peel)</td>
<td>female</td>
<td>35</td>
<td>1</td>
<td>0</td>
<td>113803</td>
<td>53.1000</td>
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<td>S</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>3</td>
<td>Allen, Mr. William Henry</td>
<td>male</td>
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<td>0</td>
<td>0</td>
<td>373350</td>
<td>8.0500</td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>3</td>
<td>Moran, Mr. James</td>
<td>male</td>
<td>NA</td>
<td>0</td>
<td>0</td>
<td>330677</td>
<td>8.4583</td>
<td></td>
<td>Q</td>
</tr>
</tbody>
</table>

```
In [3]:
# We can also see all the data by simply typing titanic
```
My takeaways

• New tools: Moodle and Jupyter Hub
• Weekly feedback form and summary post
• Mixture of learning activities
• Synchronous, recorded office hours
• Starting module weeks on a Wednesday
Future improvements to the course

• More videos about how to use Jupyter Notebook
• More defined syllabus
• More complex data to work with for the data visualization assignment
• More examples/ perspectives
• Moving office hours to Monday