

Making R attractive for diverse learners

Isabella Gollini <https://github.com/igollini/presentations>

R-Ladies Budapest party_after(erum_2018) – 16 May, 2018

Motivation



Motivation

Example

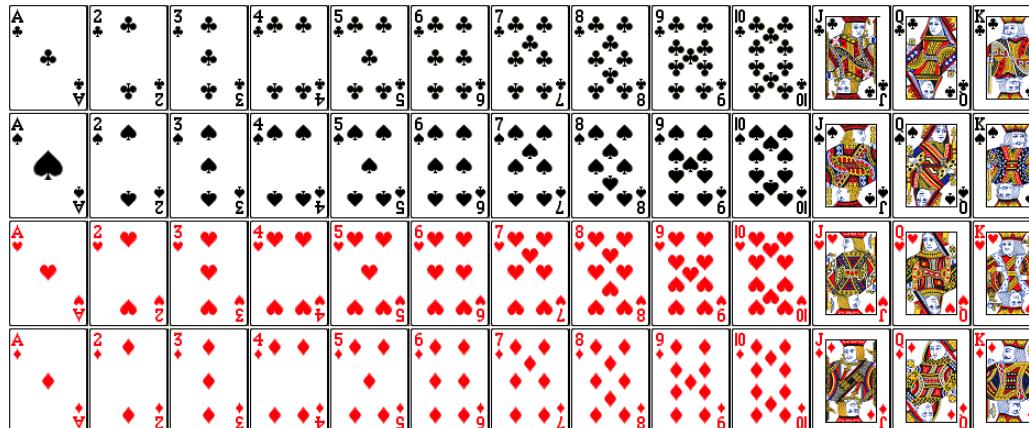
Consider drawing a card at random from a standard pack of 52 cards. What is the probability that a spade or a king is drawn?

$|S| = 52$. Let A be the event that a spade is drawn. Let B be the event that a king is drawn. Thus $|A| = 13$ and $|B| = 4$, from which it follows that $\Pr(A) = 13/52 = 1/4$ and $\Pr(B) = 4/52 = 1/13$.

Now $A \cap B = \{\spadesuit K\}$, so that $|A \cap B| = 1$ and hence $\Pr(A \cap B) = 1/52$.

The event that a spade or a king is drawn is $A \cup B$. Using the result of Theorem 4,

$$\Pr(A \cup B) = \Pr(A) + \Pr(B) - \Pr(A \cap B) = \frac{1}{4} + \frac{1}{13} - \frac{1}{52} = \frac{4}{13}.$$



Motivation

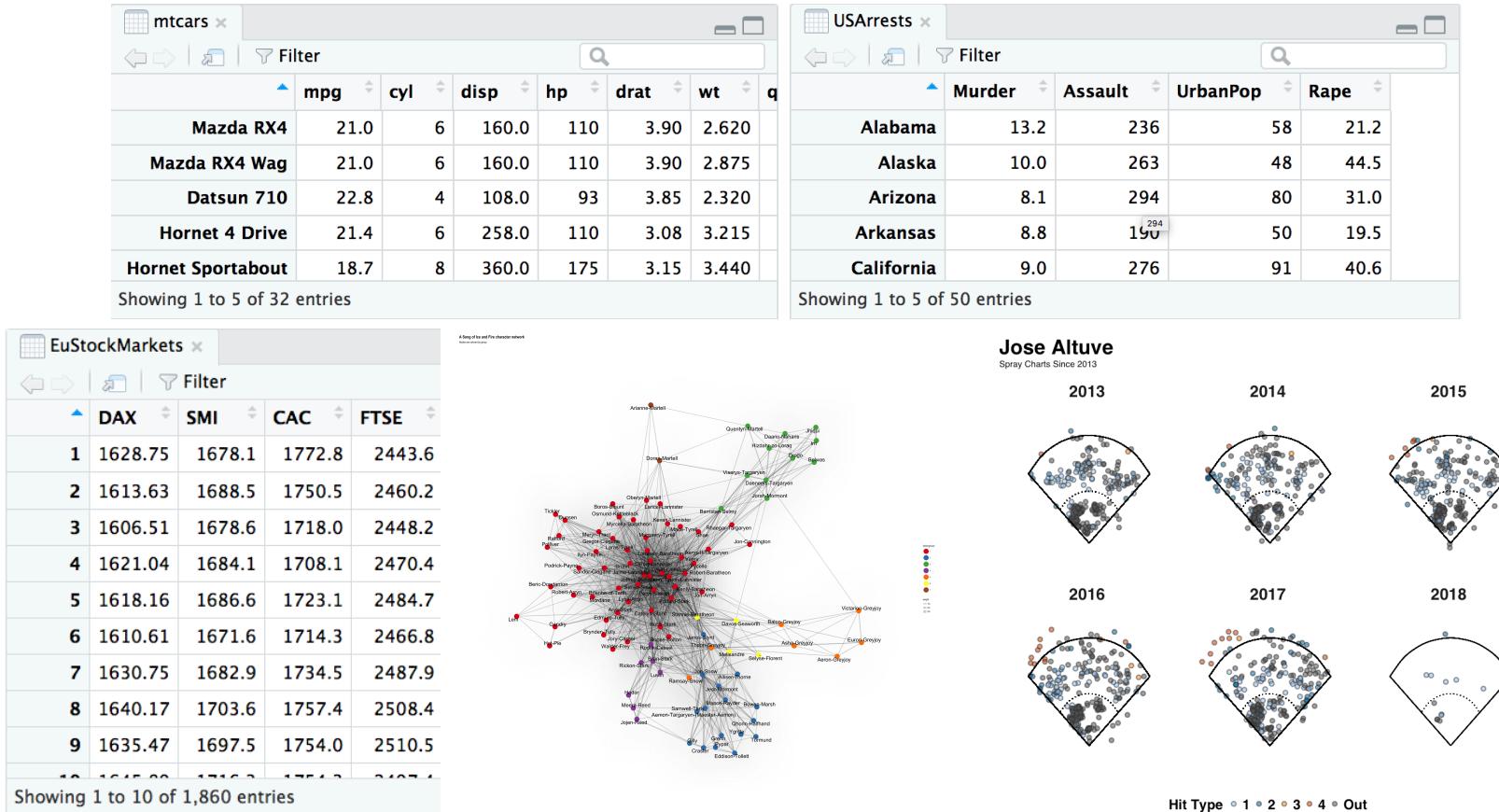


Source <http://onlinecasinosuite.com/casino-blog/wp-content/uploads/2010/11/>

Motivation

Many of the most widely used examples tend to be more appealing to men, or assume a certain cultural background!

"Bad" Teaching Examples



- Source Games of Thrones plot: https://shirinsplayground.netlify.com/2018/03/got_network/
- Source baseball plot: <http://billpetti.github.io/baseballr/data-visualization/>



R Forwards taskforce on women
and other underrepresented groups

Presentation

Aim: improve the participation and experience of underrepresented groups in the R community.

- R foundation task force set up in December 2015 to address the underrepresentation of women (Rwomen)
- Rebranded in January 2017 to accomodate more underrepresented groups: LGBT, minority ethnic groups, people with disabilities

Information Central: Website/GitHub

- <http://forwards.github.io/>
 - Summary of where we are
 - Data and code for gender summaries
 - Links to resources on diversity in tech
 - Slides from talks
 - More as initiative develops!
- [@R_Forwards](#)

The screenshot shows the homepage of the [FORWARDS](http://forwards.github.io/) website. The header features a navigation bar with links for Home, About, Data, Blog, Edu, Docs, and Links. A search bar is positioned above the main content area. To the right of the search bar is the [FORWARDS](#) logo, which consists of a stylized 'F' and 'R' inside a circle. Below the header, there's a secondary navigation bar with links for Home, About, Data, Blog, Edu, Docs, and Links. The main content area contains a brief introduction about the task force's mission to widen participation in the R community, followed by a call to action to learn more about the task force. On the left side, there's a 'News' section with a post about Julie Josse presenting survey results at useR! 2017. On the right side, there's a 'Latest Tweets' section featuring a tweet from [Stephanie Hicks](#) (@stephaniehicks) about organizing a panel at #WSDS2018.

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Leading the R community forwards in widening the participation of women and other under-represented groups.

Find out more [about](#) the task force.

News

2017/07/12 Julie Josse presents the results of the Forwards useR! 2016 survey at [useR! 2017](#) [Video] [Slides].

Latest Tweets

Forwards Retweeted

 **Stephanie Hicks**
@stephaniehicks

I'm organizing a panel at [#WSDS2018](#) on how can we attract & empower girls to study [#statistics](#) and [#datascience](#)! If you or someone

Core team



Heather Turner
UK



Emily Dodwell
US



Gina Griffin
US



Kevin O'Brien
IE



Julie Josse
FR



Jenny Bryan
CA



Michael
Lawrence
US



Tracy Shen
US



David Smith
US



Jasmine Dumas
US



Madlene Hamilton
US



Carolin Strobl
CH



Di Cook
AU



Isabella Gollini
IE



Jonathan Godfrey
NZ

Subteams

- **Community** General outreach to help people from under-represented groups get into R and develop as useRs. *Gina Griffin, Kevin O'Brien*
- **Conferences:** Focusing on R Foundation conferences, liaising with organizers/program committee on policies and inclusion initiatives. *Heather Turner, Julie Josse*
- **On-ramps:** Creating paths for useRs to develop their skills and make contributions to the R/BioConductor package ecosystem. *Jenny Bryan, Michael Lawrence*
- **Social Media:** Posting to Twitter and/or Facebook, soliciting blog posts and publishing them, maintaining website. *Tracy Shen, David Smith*
- **Surveys:** Running and analysing community surveys, packaging up data and tools and maintaining the Data page. *Jasmine Dumas, Madlene Hamilton, Carolin Strobl*
- **Teaching:** Methodology, materials and workshops designed for under-represented groups. *Di Cook, Isabella Gollini*
- **Disability advisor** *Jonathan Godfrey*
- +13 members of subteams!

Subteams

- The activities of the taskforce are recorded in the minutes of our bimonthly core team teleconferences and alternate monthly all team slackathons.
- We are open to new member joining one of our sub-teams. If interested, please contact rowforwards@gmail.com.
- The task force is happy to engage with other individuals and organisations (such as R-ladies) that are concerned about diversity and inclusion and actively seek outside collaboration on specific tasks.

Teaching subteam



- 'Teaching' team leaders: Isabella Gollini & Di Cook
- Jenny Bryan, Hadley Wickham, Andrea Foulkes, Joyce Robbins, Jonathan Godfrey

Teaching subteam

- Development of methodology & material to make R inclusive
- Organisation of workshops for specific audiences (e.g. Women, Girls)
[eRum2018]
- Teaching Examples
 - Detect and discourage use of "bad" widely used examples
 - Collect/produce more diverse examples
 - Collect/produce examples about gender and inclusivity

See: https://github.com/forwards/teaching_examples

Conferences

- The taskforce made recommendations for conferences
- 50:50 program committee
- 50:50 session chairs
- 20% women on panels
- Diversity scholarships
- Offering childcare
- Send emails to invite friends submitting abstracts, attending conferences

Questions & Comments!
@IsabellaGollini @R_Forwards
