



isle

# Integrated Statistics Learning Environment

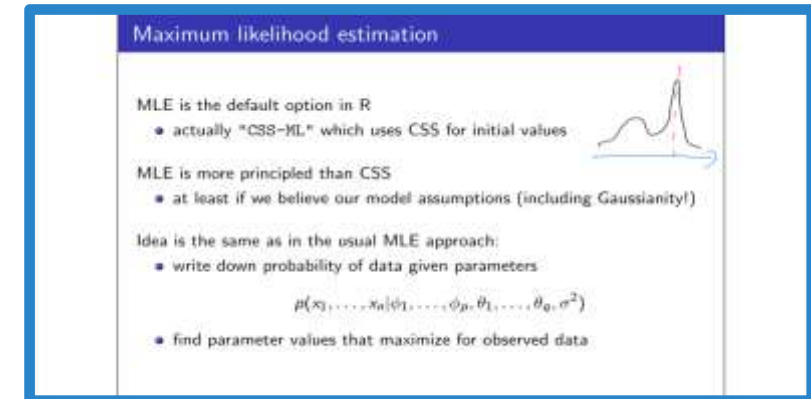
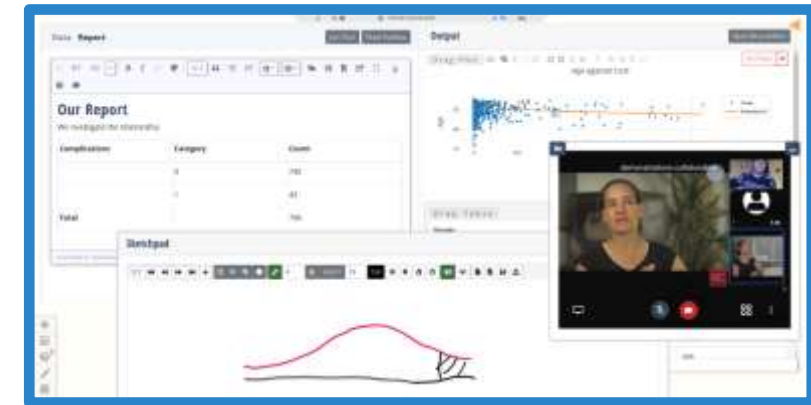
Spring, 2020

# ISLE Learning e-Platform Overview



## Enabling Technology: Integrated Statistics Learning Environment

- The ISLE platform enables interactive, real-time collaborative instruction
  - Leverages existing content – static documents and pre-recorded video lectures
  - Author bespoke interactive lessons on a locally installed ISLE Editor
  - Browser-based presentation for ease-of-use and universal compatibility
  - Instructor and student annotation functionality to facilitate note-taking
  - Course material gating, and support for individual scaffolding
  - Sketchpad, chat, comment, and group presentation functionality for collaboration
  - Real-time interactive polls and clicker-style questions
  - Real-time question queues and conceptual understanding feedback features
  - Real-time reporting on student engagement and lesson progress
  - Support for remote learning, including audio/video conferencing with exportable transcription



# ISLE Features and Functionality



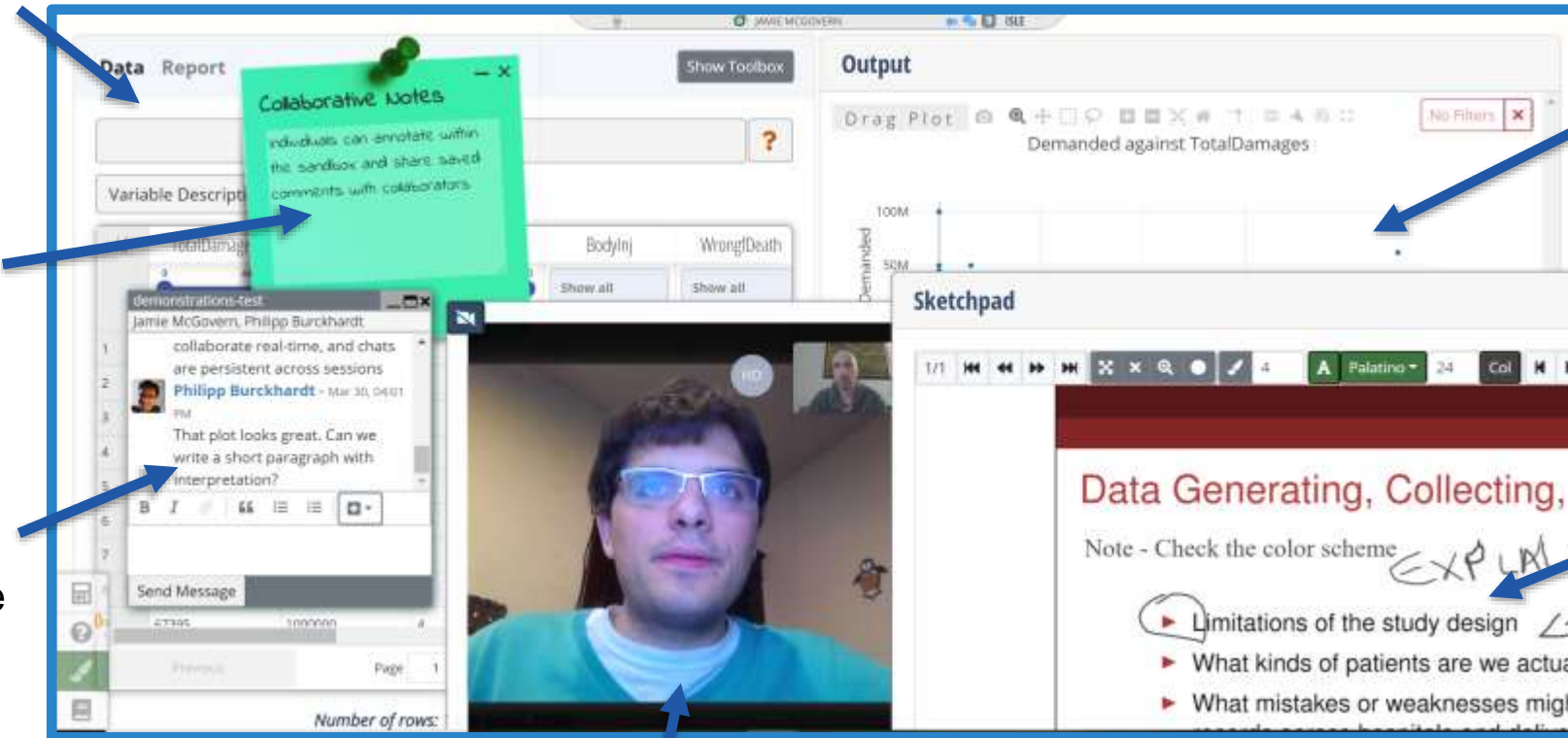
## Collaboration: Connecting Students and Instructors

Interact with data / data exploration

Group report authoring with templates

Share comments on data sets

Communicate via chat with simple file sharing (images/pdfs)



Communicate via real-time video

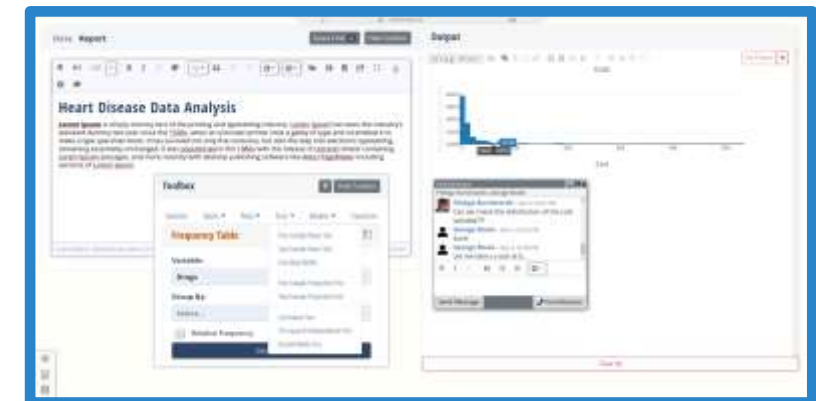
Work via shared notes/sketchpad functionality

# ISLE Data Explorer



## Data Exploration: Integrated Statistics Learning Environment

- The ISLE platform support robust capabilities for working with data
  - ISLE allows students to explore data sets via visualizations and summary statistics inclusive of functionality to run hypothesis tests and fit statistical models
  - An integrated right-text editor with Markdown support allows students to practice writing data analysis reports
  - Students can perform the entire data analysis workflow without any coding, working autonomously or in groups to create data analysis reports and presentations (oral/posters) directly in ISLE
  - Public Data Explorer data sets can be found here: [http://stat.cmu.edu/isle/data\\_explorers.html](http://stat.cmu.edu/isle/data_explorers.html)



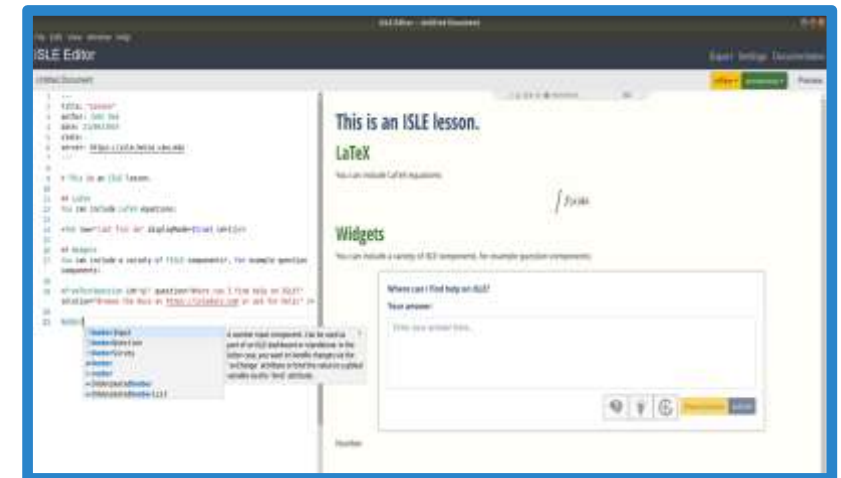
# ISLE Content Authoring



## Onboarding: the ISLE Editor for Content Authoring

- ISLE runs natively in all major web browsers (Chrome, Safari, Firefox, Edge)
- Mobile and tablet support
- No additional licenses required
- No software installation required by students
- Minimal ramp-up required – existing materials can be leveraged to create lessons in ISLE
- Hosting required for course content - Beta Users welcome to utilize CMU's ISLE server (four core machine each with 2.80 GHz | 8 GB RAM)
- Self-hosting requires similar infrastructure; familiarity with basic Unix system administration, familiarity with terminal usage recommended

Instructions and guidance for self-hosting:  
<https://isledocs.com/docs/overview/install>



The ISLE Editor is available for Windows, macOS, or Linux

# ISLE Use Cases and Support



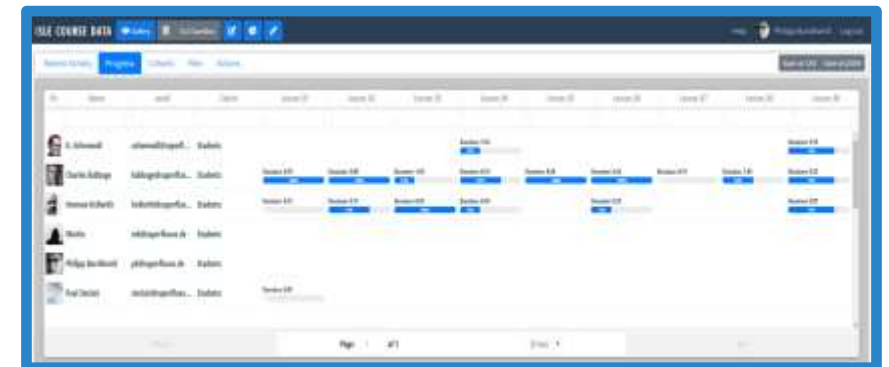
## ISLE Use Cases

- Lecture-based courses with slides or live remote instruction
- Lecture-based or seminar courses with group discussions
- Instruction with real-time annotation of materials
- Flipped classroom, video-based instruction
- Analytic projects and coursework requiring data modeling and visualization



## Support for ISLE

- Documentation available for content creation and platform navigation
- Frequent webinars for instructors for build and use support
- Weekly office hours for live teleconference support
- Email queue for helpdesk-style support



# Contacts



## Integrated Statistics Learning Environment

- ISLE originated as the thesis project of Dr. Philipp Burckhardt, a current post-doc in the Statistics & Data Science department at CMU
- ISLE has been used in graduate and undergraduate courses at CMU in the last year – references available upon request
- For more information, or to be added to our distribution list for future communications, contact Rebecca Nugent or Philipp Burckhardt
- Supplement material available - <http://stat.cmu.edu/isle>

## Carnegie Mellon University Points of Contact:

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