



isle

Integrated Statistics Learning Environment

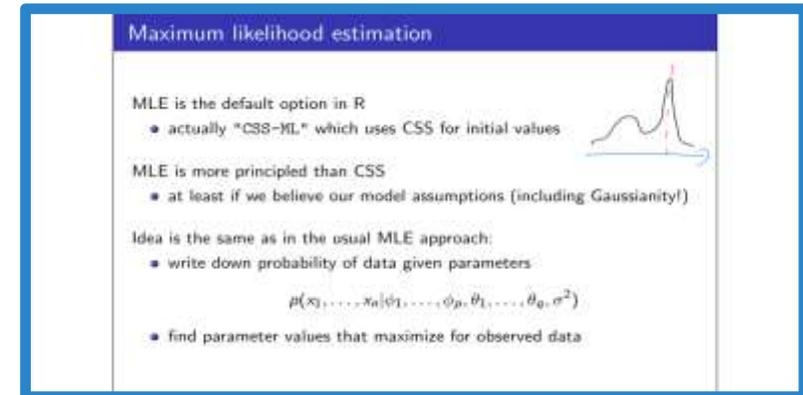
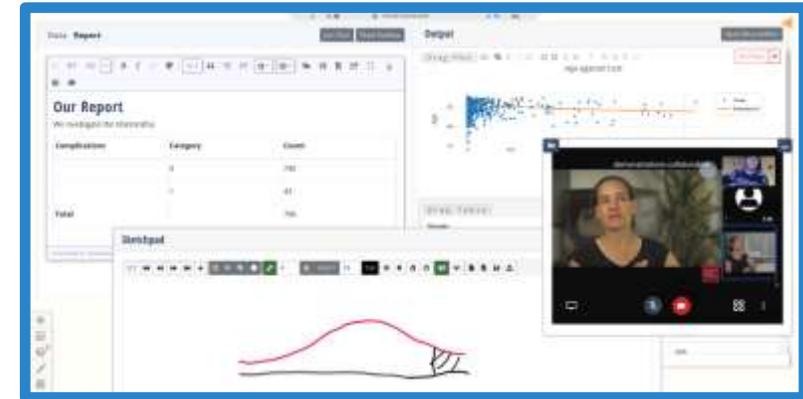
Spring, 2020

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



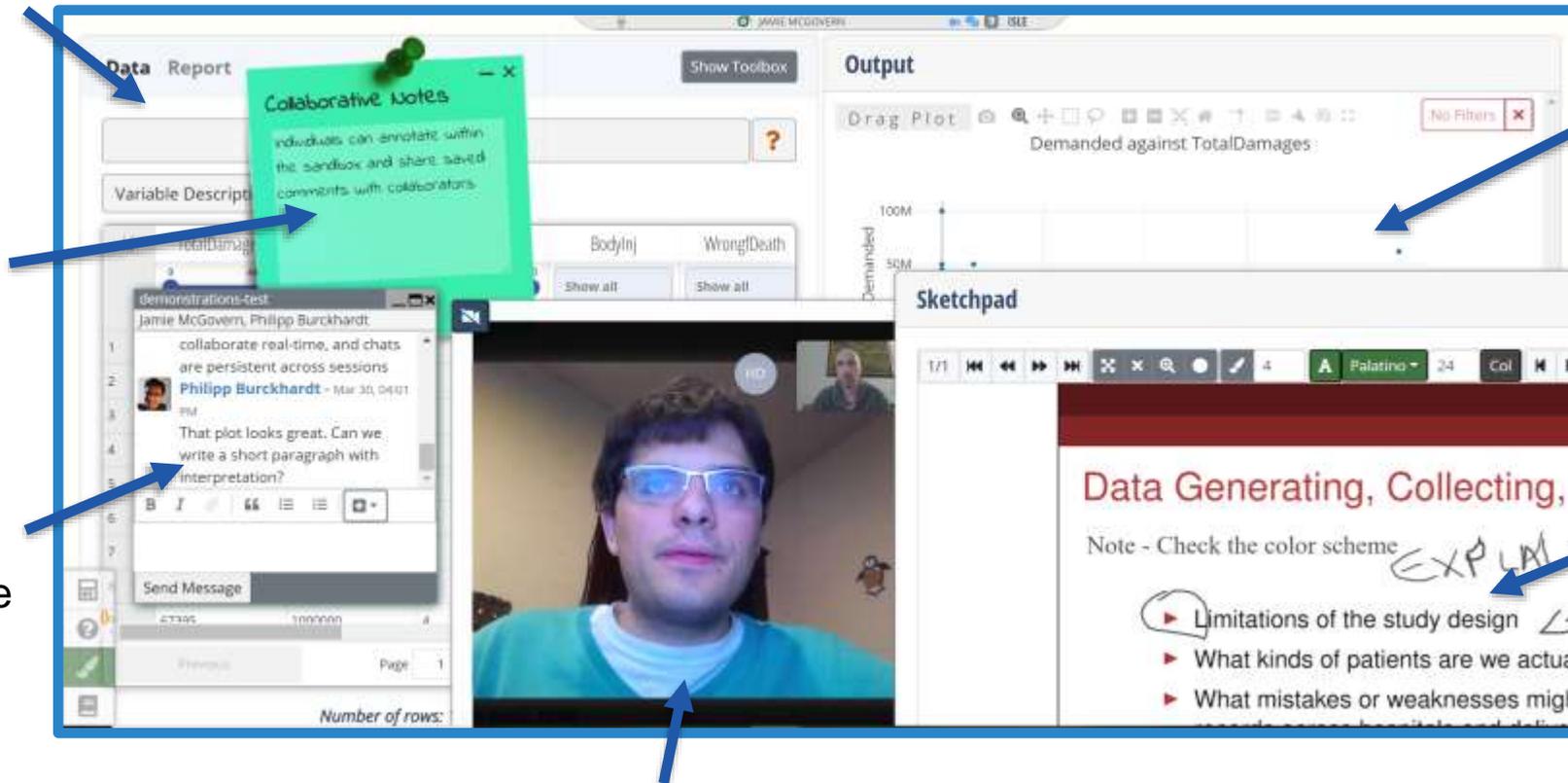
Collaboration: Connecting Students and Instructors

Interact with data / data exploration

Group report authoring with templates

Share comments on data sets

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



Work via shared notes/sketchpad functionality

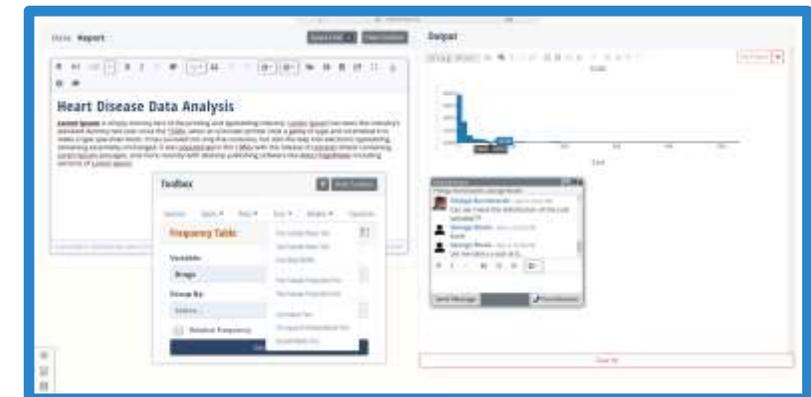
Communicate via real-time video

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



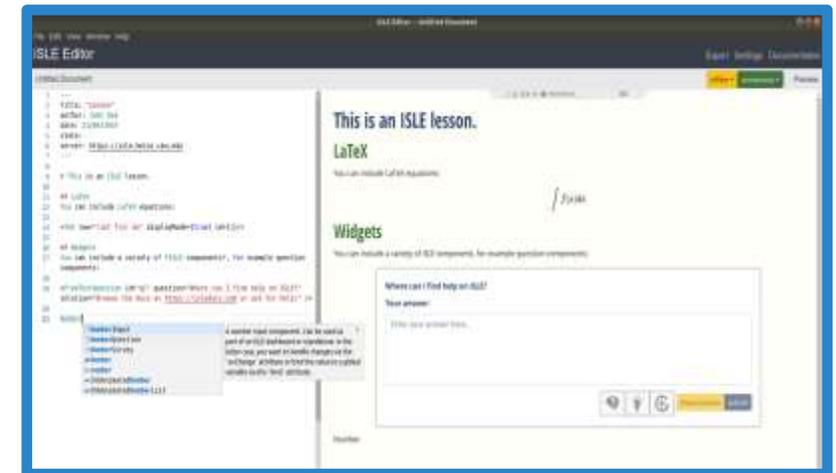
ISLE Content Authoring



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

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>

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