Digital Scholarship & Data Science Fellowship (DS^{2}F)

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University Libraries
University of Arizona

Training needs

Digital Scholarship

Digital publishing

Text data mining

Sentiment analysis

Data visualization

Data Science

Machine learning

Data visualization

Text data mining

Artificial intelligence

Training needs overlap

Digital Scholarship

Digital publishing

Text data mining

Sentiment analysis

Data visualization

Data Science

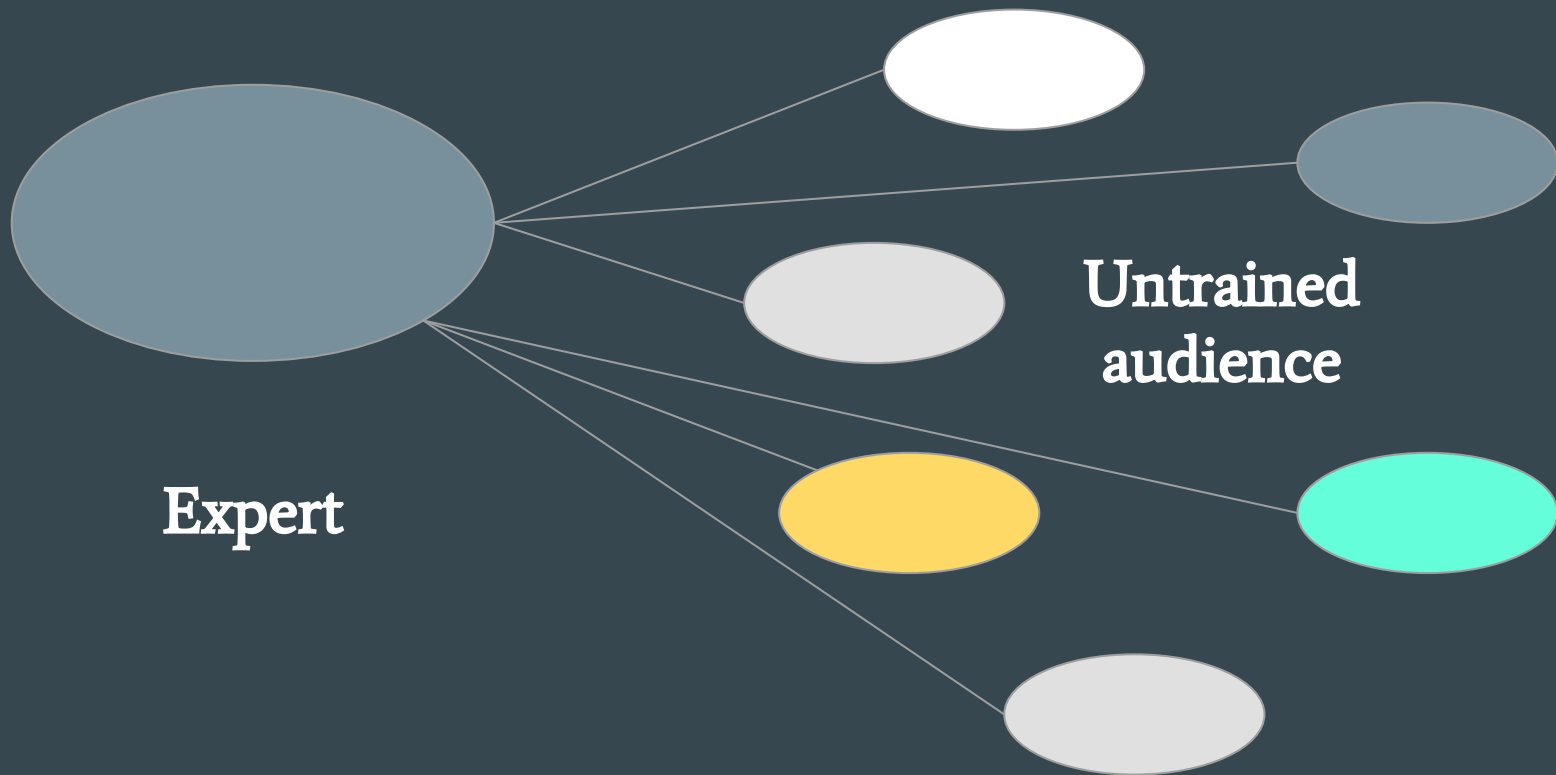Machine learning

Data visualization

Text data mining

Artificial intelligence

Training needs remain unmet

- No time for formal classes
- Classes often not "cutting edge"
- Workshops and bootcamps are a start, but limited in depth
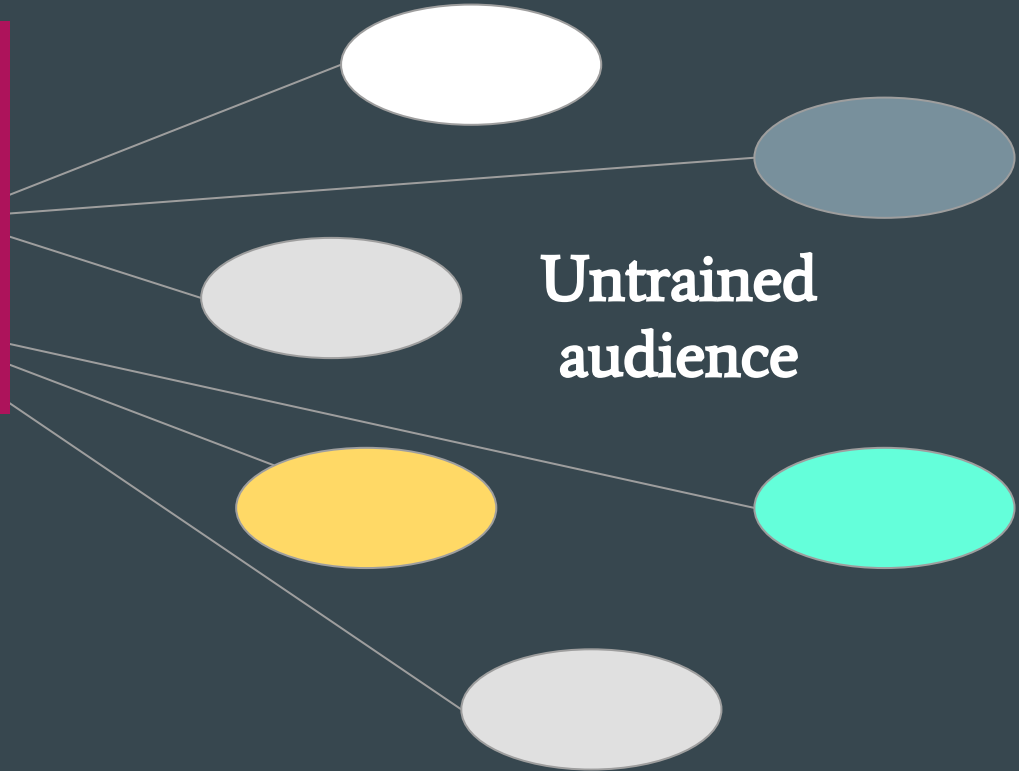- Few graduate programs provide any training in pedagogy

The DS²F program

Expert

Untrained
audience

The DS²F program

Graduate students

Untrained audience

The DS^{2}F program will:

- train graduate students in best practices of skills training pedagogy;
- create a workshop series providing training for in-demand digital and computational skills;
- support the creation of open, digital learning resources
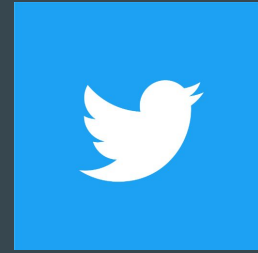
Program team

- Jennifer Church-Duran
- Cheryl Cullier
- Yvonne Mery
- Jen Nichols
- Jeff Oliver
- Megan Senseney
- Leslie Sult

DS²F workshops could teach…

- linguists how to use Python to harvest and analyze tweets;

- biologists how to analyze large data sets on the CyVerse cloud;

- astronomers how to use machine learning for high-throughput image classification

Additional areas for emphasis

- Web scraping, text data mining, natural language processing
- Digital publishing platforms, electronic notebooks, digital project management
- Data visualization, 3-D modeling
- Data cleaning, data analysis
- Network analysis, neural networks, machine learning

Structure of the program

Spring 2020 Monthly Workshops

- January: Strategies for Self-Directed Learning
- February: Instructional Design
- March: Digital Pedagogy and Digital Literacy
- April: Open Educational Resources

Intervening weeks will include co-working sessions and project updates.

Structure of the program

Fall 2020

Fellows lead workshops on their chosen topic; open to UA campus community

Time commitment: approximately 4 hours per week

- Weekly meetings on Friday afternoons
- Separate self-directed learning time

What's in it for you

- Support for building **technical skills** related to your research
- opportunities to apply **instructional design and digital pedagogy** by creating and delivering new workshop content
- Stipend of $1,500, dispersed in two installments at end of each semester

What's in it for us

- Suite of instructional materials that can be reused and integrated into future instruction and training
- Multidisciplinary network of graduate students engaged in digital scholarship or data science
- Increased capacity for cutting-edge scholarship and research

How to apply

See https://ds2f.github.io/arizona

Materials:

- A statement of intent, in 2 pages or less, that addresses
  - the technical skill that you would like to pursue,
  - how this skill applies to your research trajectory,
  - your interest in training the UA community, and
  - what diverse perspectives or representation you would contribute to the cohort.
- A current C.V.
- Contact information for two references, at least one in your academic program

Evaluation

Due date: October 15, 11:59 PM Arizona time

Notification date: November 30, 2019

Evaluation criteria:

- Strength of individual statements
- Diversity of the cohort
- Fellowship projects whose outcomes will serve the needs of the broader University of Arizona community

Questions?

See also https://ds2f.github.io/arizona/faq