

# Developing Reusable Technology Workshops to Enhance Digital Literacy

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## Summary

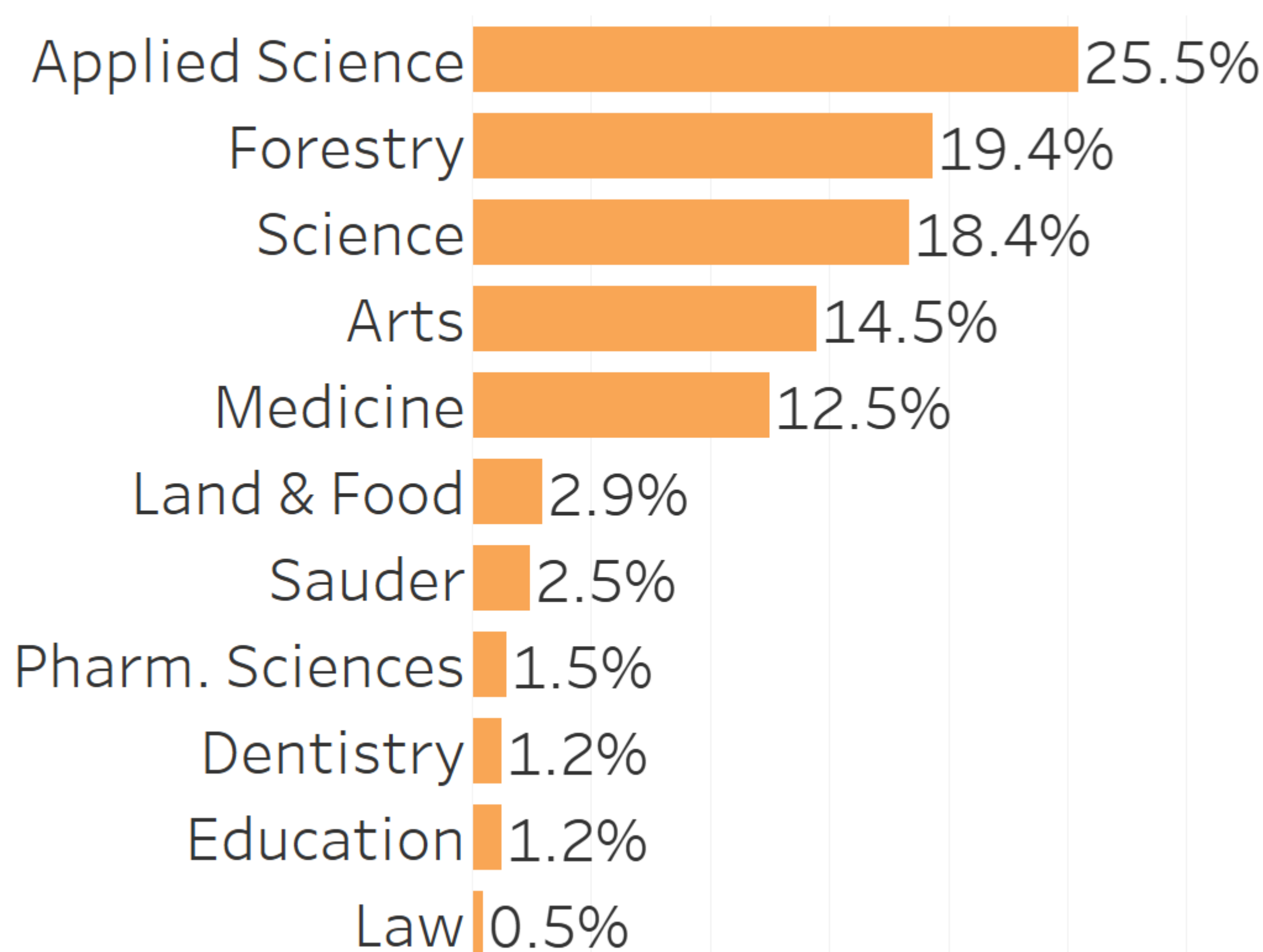
In 2020 and 2021 the UBC Library Research Commons hired eight graduate teaching assistants (GTAs) to develop and deliver a series of **12 modular workshops** on **GIScience** and **Digital Scholarship** topics.

The project also established a workflow for publishing open, reusable instructional content using GitHub. This workflow is now standard for Research Commons workshops.

## Project reach

**8** grad students created **12** new workshops for **345** attendees from **10** Faculties and Schools

### Workshop registrants by Faculty/School



## Open, reusable content

Each workshop was published as a self contained repository and website on GitHub. Workshop materials are freely available for reuse and some have already become part of regular Research Commons programming.



Photo credit: UBC Library Communications

## Improvements in year two

UBC moved to an online work environment weeks before the project began in April 2020. Feedback from GTAs led to several changes intended to improve the online experience and outcomes in the second year of the project.

- **Team building**  
More scheduled opportunities for everyone to meet online, share their work, and learn from each other.
- **More structure for content developers**  
Clearer timeline to help content developers approach the work and manage their time.
- **New format for orientation**  
Shorter and more frequent project orientation meetings, more appropriate for an online environment.
- **Larger class sizes**  
Online delivery allowed for larger class sizes. In year two we increased the registration limit to 80 per workshop.
- **Publishing speaker notes**  
Workshop materials include speaker notes to help future presenters deliver the content in other contexts.

## Graduate Teaching Assistants

CTLT instructional design experts helped the GTAs develop their teaching skills while they created and delivered new content.

### GIScience GTAs (year one)

- Maya Daurio, *ArcGIS*
- Arthur Marques, *R & Python*
- Nicolas Martino, *machine learning & computational design*
- June Skeeter, *open source GIS & data visualization*

### Digital Scholarship GTAs (year two)

- Liam Doherty, *open source software*
- Shayan Fahimi, *Jekyll & Liquid templating*
- Mikhael Gaster, *web scraping & Python*
- Dorothee Leasing, *XML and text parsing*

## Published workshops

Workshop materials created in this project are available on GitHub.com under an open license.

### Year one workshops

- [Understanding spatial data: map projections](#)
- [Introduction to spatial data analysis with R](#)
- [Geocoding & web mapping with Python](#)
- [Geospatial analysis & visualization with Python](#)
- [Visualizing data in ArcGIS Online](#)
- [Spatial network analysis](#)

### Year two workshops

- [Creating XML Files in oXygen](#)
- [Advanced Shell](#)
- [Build and customize a Website with Jekyll](#)
- [Setting up a development environment](#)
- [Introduction to Regular Expressions](#)
- [Introduction to Web Scraping with Python](#)

## News and Presentations

Buhler, J., Cho, A., Grgurić, E., Thornberry, E., "[Collaborative development and publishing of open instructional content with GitHub.](#)" Talk, speaker, *ACCESS*, Virtual, October 22, 2020. 60 minutes.

Grgurić, E., "GitHub and GitHub pages for collaborative workshop development." Lightning talk, speaker, *BC Code4Lib*, February 18, 2021. 10 minutes

Blay, Sarah. "[TLEF grant opening doors to researchers across UBC.](#)" UBC Library Research Commons News. January 15, 2021.

Thornberry, E., White, P., "GitHub and Jekyll for Publishing GIS Workshop Content" *Geospatial Data and Software Reviews*, No. 166 (2020): *ACMLA Bulletin*, Fall 2020, 25-30. <https://doi.org/10.15353/acmla.n166.3463>

## Acknowledgements

*We gratefully acknowledge the financial support for this project provided by UBC Vancouver students via the Teaching and Learning Enhancement Fund*

*We gratefully acknowledge the support for this project provided by UBC Vancouver Centre for Teaching, Learning and Technology, especially from our instructional trainers Jens Vent-Schmidt and Joseph Topornycky.*

*We are also very grateful for all of our partners who helped review and promote workshops, including Jacqui Brinkman, Mary Chapman, Sally Hermansen, Megan Meredith-Lobay, Raymond Ng, and Patrick Pennefather.*