



THE UNIVERSITY
OF QUEENSLAND
AUSTRALIA

CREATE CHANGE

Language Technology and Data Analysis Laboratory (LADAL)

School-based support infrastructure
for digital humanities research at UQ

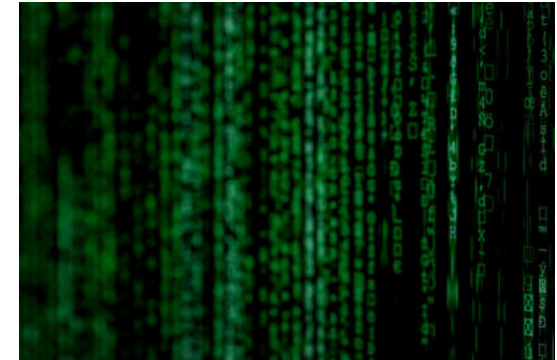
Martin Schweinberger



Humanities and Computing Potential

Data itself has become a very valuable commodity

- Computers are pervasive across all domains of life
- The www consists essentially of digital texts and media
- Vast potential for the humanities by extending computational methods to humanities research
- Being able to handle, process, visualize, and analyse data are skills that will increasingly become more important and valuable (to us and to students).





Humanities and Computing Challenges

Why does this concern you?

- Most of us use data in one form or another
 - Corpora and transcriptions, Surveys and questionnaires, eBooks and Social Media Data, etc.
- The ever increasing availability of data allows us to approach questions from new angles and by using new tools: potential for our research

PROBLEM!

**Most of us use computers on a daily basis
but we are not trained in how to
efficiently use computers in our research!**

Have you created files like this?

last version.docx

very last version.docx

very very last version 17 Nov. 2019.docx

ultimate last version I promise 18 Nov. 2019.docx



Humanities and Computing Challenges

What are problems with digital tools in HASS?

- Lack of Best Practices and transparency in research (Access to / sharing of data)
- What methods/tools are available and what are their (dis-)advantages???
- (Over-)reliance on existing (commercial) tools
- Unwillingness to give up on accustomed practices
- Vastly different needs across disciplines (differences in experience and expectations)
- Lack of programs, materials and professional training (both for general and specialized audiences)

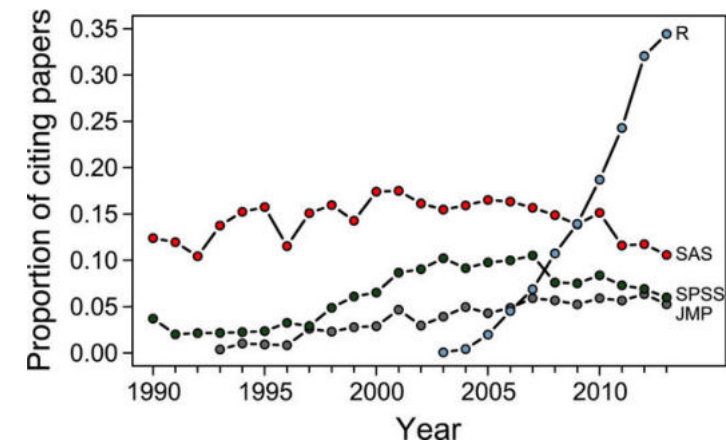
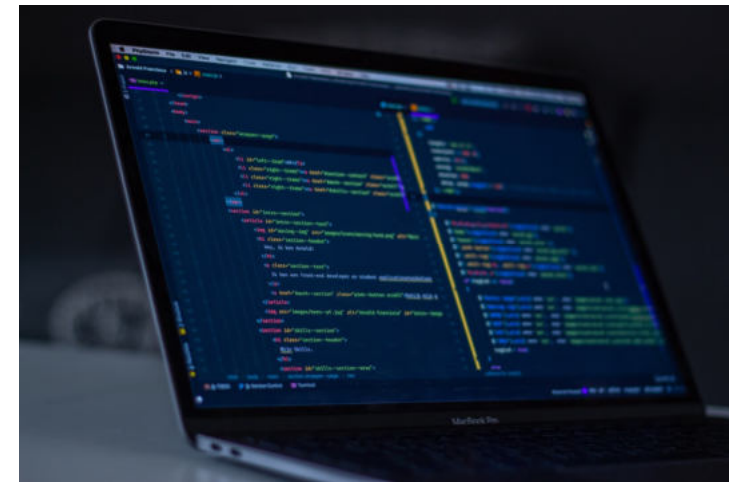


Figure from Touchon, Justin C. & Michael W. McCoy. 2016. The mismatch between current statistical practice and doctoral training in ecology. *Ecosphere* 7(8):e01394. DOI: 10.1002/ecs2.1394

Humanities and Computing Solutions

Strategic combinations of general purpose and specialised training

- at various levels of expertise
- designed for different audiences
- from general introductions to highly specific methods



Language Technology and Data Analysis Laboratory

- HASS eResearch support infrastructure for digital HASS the UQ School of Languages and Cultures
- Assists in the use of professional handling of data
- Offers consultations on data analytics and digital research tools
- Enhances existing research programs (hopefully offers pathways into new research possibilities)
- Components
 - Specialist computing lab for language-based computational and experimental work (the Computational and Experimental Workshop)
 - Online virtual lab (the LADAL website: <https://slcladal.github.io/index.html>)

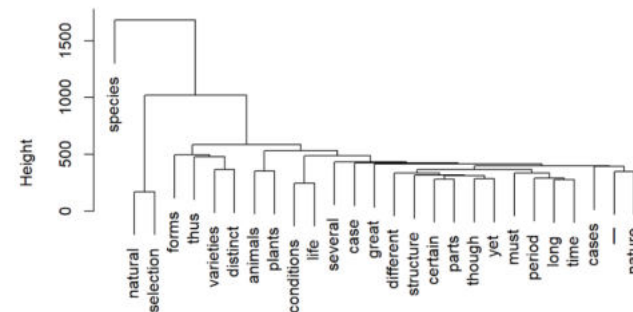


Language Technology and Data Analysis Laboratory

Enables development of skills in

- Data management and dealing with data on your computer
- Digital tools and how to efficiently handle spread sheets
- Computational methods and (basic) programming skills
- Data extraction / transformation / processing
- Data visualization (including geospatial mapping and interactive web apps)
 - NLP applications (text analysis) and various statistical (including classification and machine learning)
 - How to keep your computer functional ;)

```
# load function for concordancing
source("https://slcladal.github.io/rscripts/ConcR_2.5_LoadedFiles.R")
# start concordancing
darwinorganism <- ConcR(darwin, "organism[s]{0,1}", 50)
# inspect data
darwinorganism[1:5, 2:ncol(darwinorganism)]
```



Language Technology and Data Analysis Laboratory

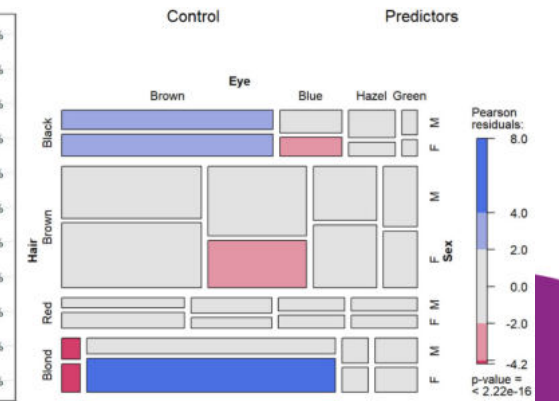
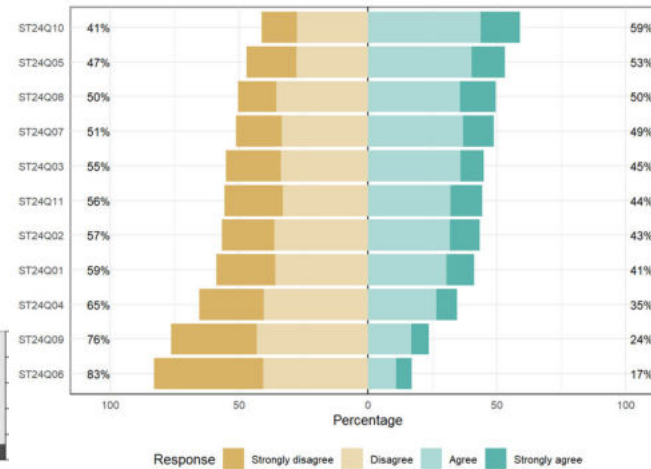
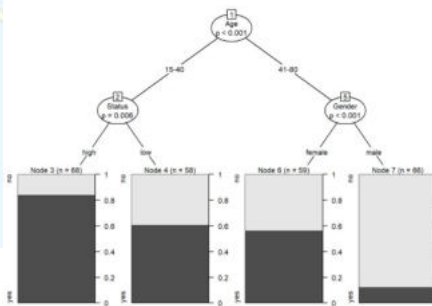
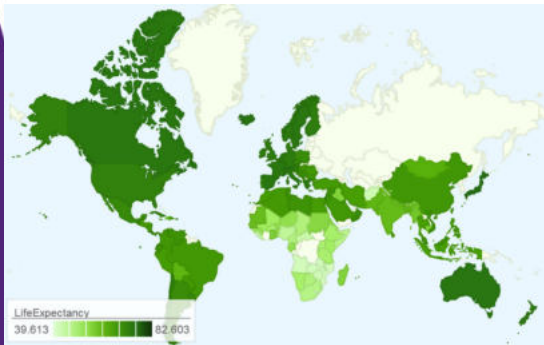
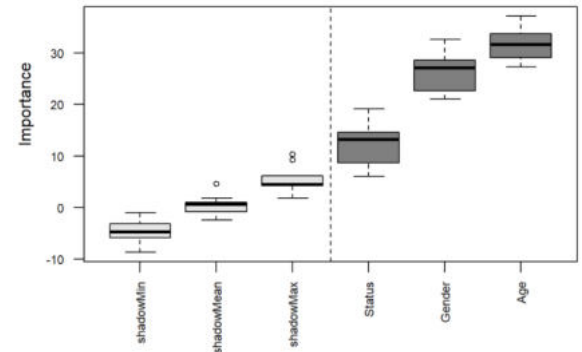
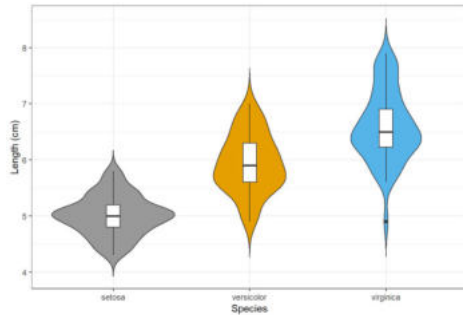
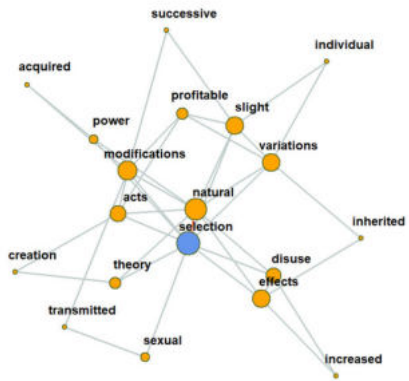
Services

- Specialised training/support (workshops) on digital research methods and technologies
- Information and self-guided study materials
- Hands-on practical tutorials on topics relating to digital tools, computational methods for data extraction and processing, data visualization, and statistical analyses (learning to “code”)
- Face-to-face consultations



**What we need to improve:
More hands-on workshops and better communication!
(I promise to work on that!)**

Language Technology and Data Analysis Laboratory





What we can do for you

Aims of LADAL

- Help you deal with data
- Increase quality of research (Best Practice, assure high standards quality and replicability)
- Assist you in finding the right methods and tools for your research
- Enable you to pursue new pathways by using innovative methods and new types of data (social media data, machine learning, etc.)

The LADAL is still work-in-progress and we are looking for input to find out what aspects of data analytics are useful for SLC researchers and also for graduates.





Contact Details

If there is something that you are interested in:

PLEASE contact us and let us know! We need to know what your needs are and how we can help you!



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<https://slcladal.github.io/index.html>