Securely store your supplementary material on Figshare

While making it discoverable and citable

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@petrscience

MOTIVATION: WHY to publish data?

90% of the world‘s total data was created in last 2 years [1]

2.5 quintillion bytes of data every day [1]

Why to publish data

Transparent research

Reuse of already measured data (TOF datasets…)

AI search and analysis of datasets (in future)

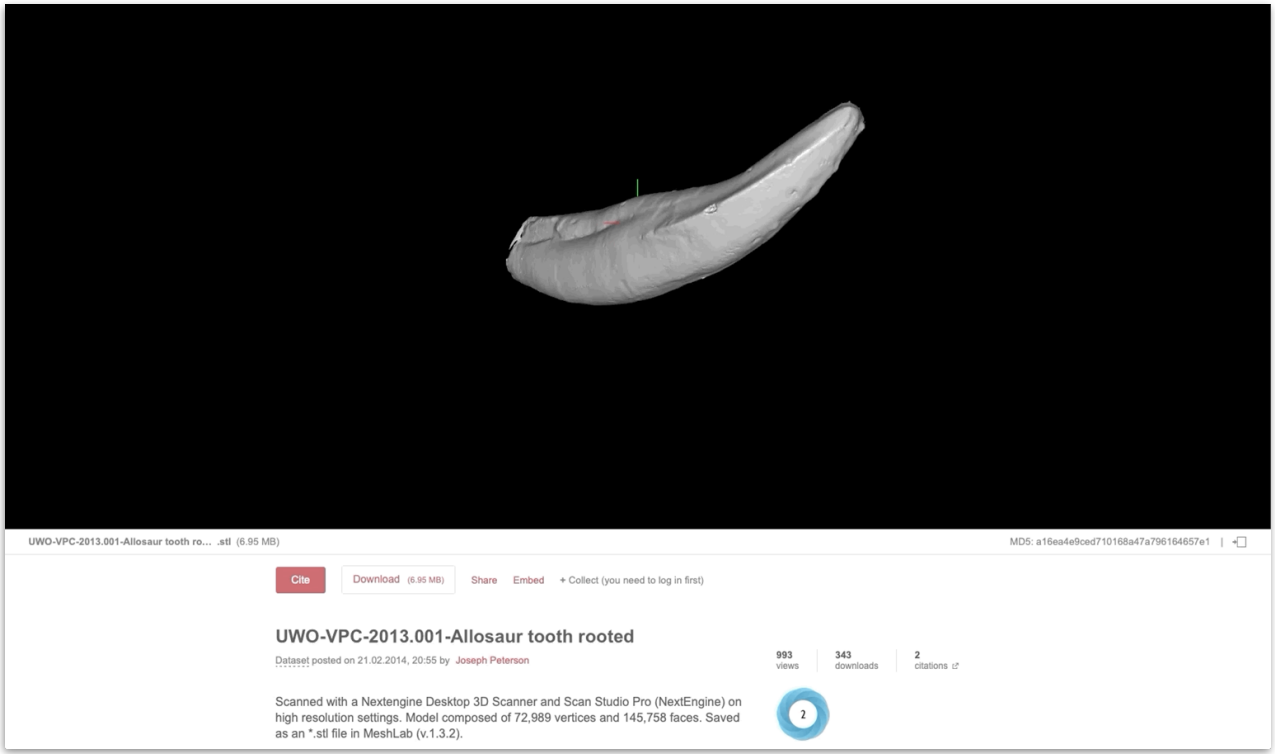
How to publish data

Automatically by Institution (ILL, ISIS)

Manually: for example FigShare

[1] https://www.ibm.com/downloads/cas/XKBEABLN

Figshare is a cloud-based platform for securely storing your research data while making it discoverable and citable.

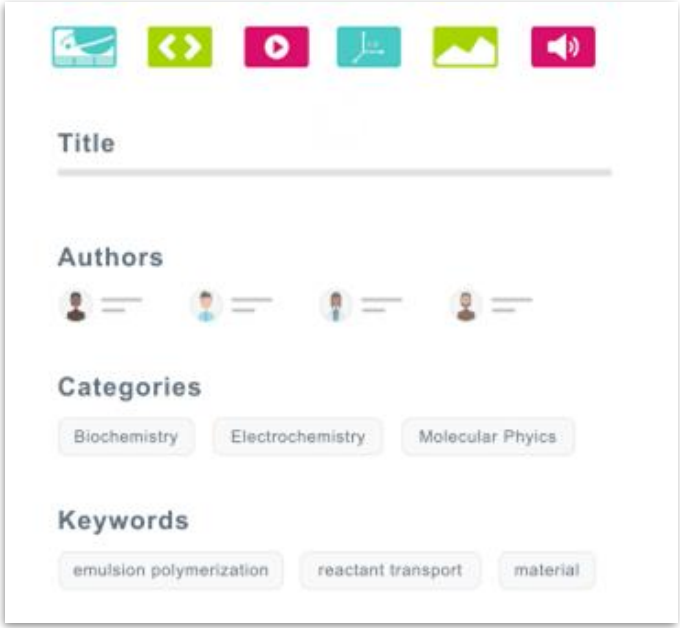


@Figshare

Why Figshare?

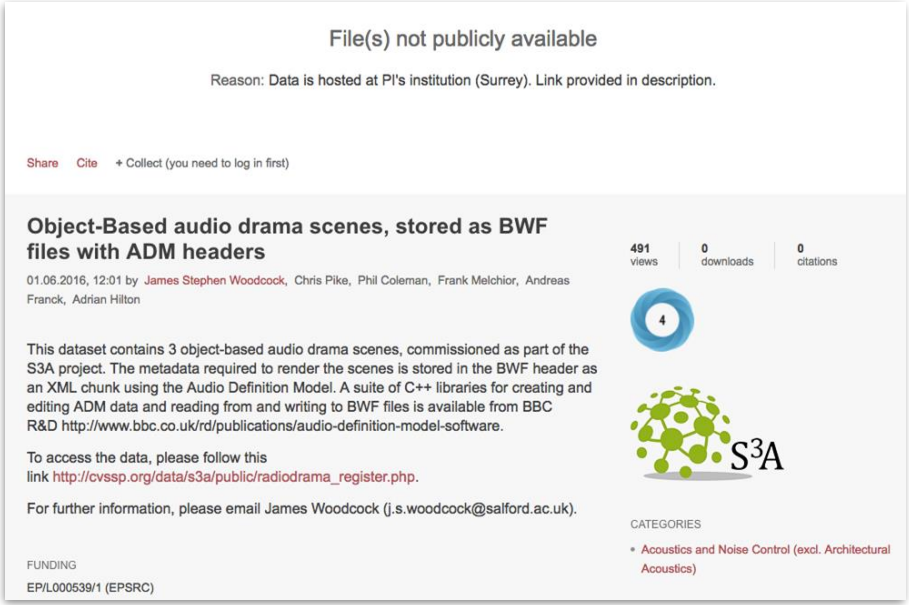
- ✔ Store your outputs in any file format
- ✔ Securely collaborate with researchers from other institutions
- ✔ Get a citable DOI for public outputs
- ✔ Demonstrate impact with Altmetrics, usage metrics, & citation counts
- ✔ Help others discover your outputs on Google Scholar
- ✔ 20 GB private space

  Unlimited public space (5GB per file)



As open as possible, as closed as necessary

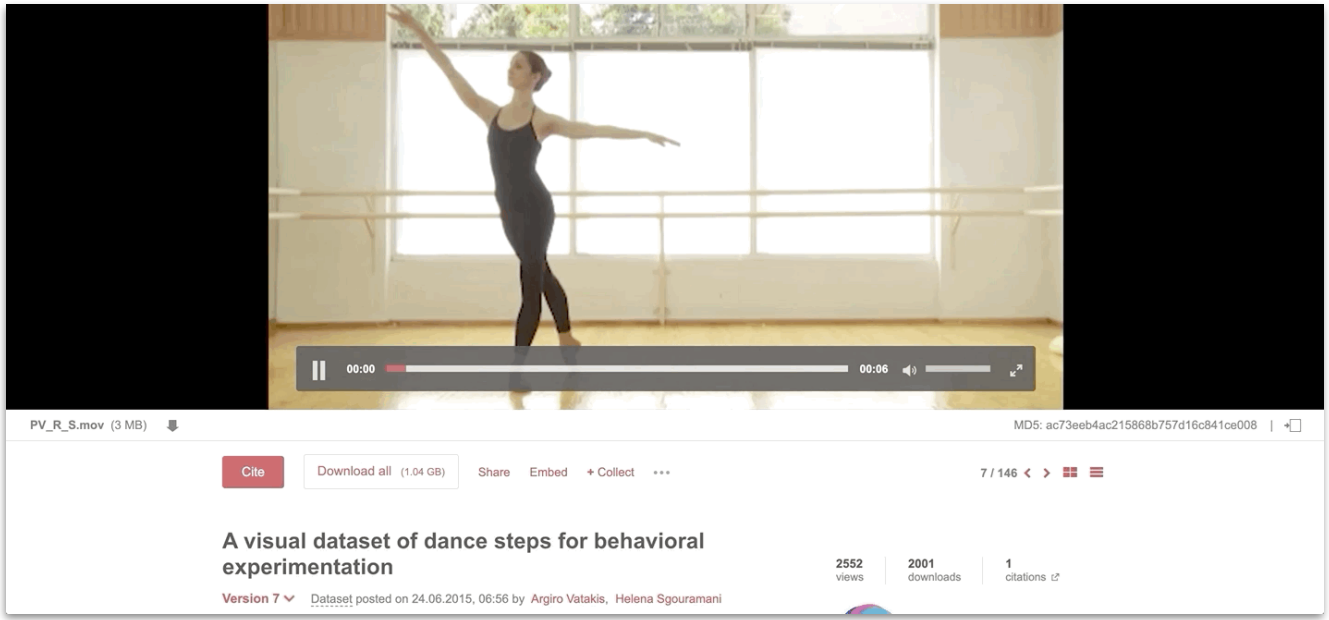
Your research outputs should be as open as possible, but control over access is important.



- Apply embargo
- Make file(s) confidential
- Generate private link
- DOI Reserve Digital Object Identifier

What can you upload to Figshare?

We accept any file format and aim to preview files in the browser.



Vatakis, Argiro; Sgouramani, Helena (2015): A visual dataset of dance steps for behavioral experimentation. figshare. Dataset. https://doi.org/10.6084/m9.figshare.1453169.v7

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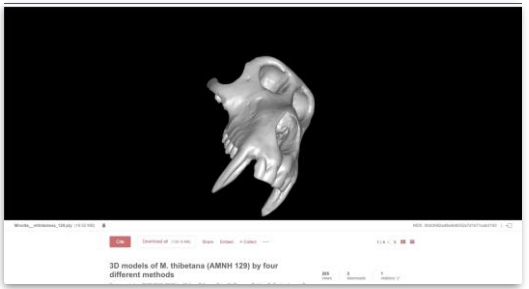
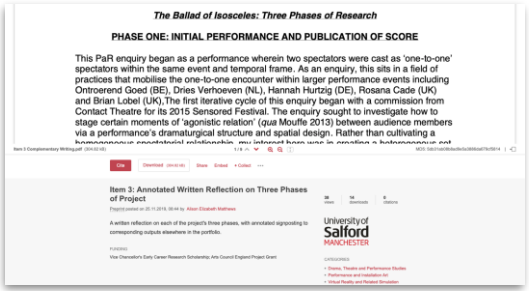
Audio

Images

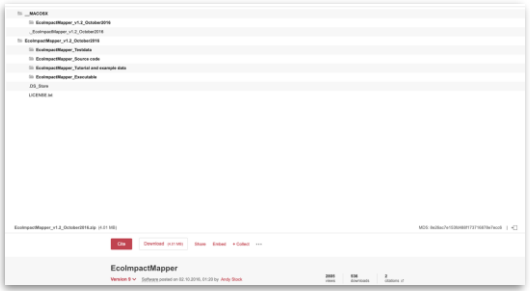
3D files



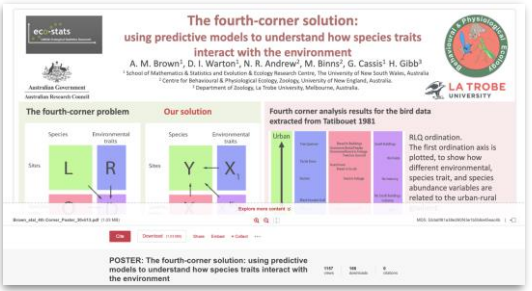
Papers/docs



Code



Posters/Talks



Shulika, Viacheslav (2012): House in Olshany. figshare. Figure.
https://doi.org/10.6084/m9.figshare.105655.v1

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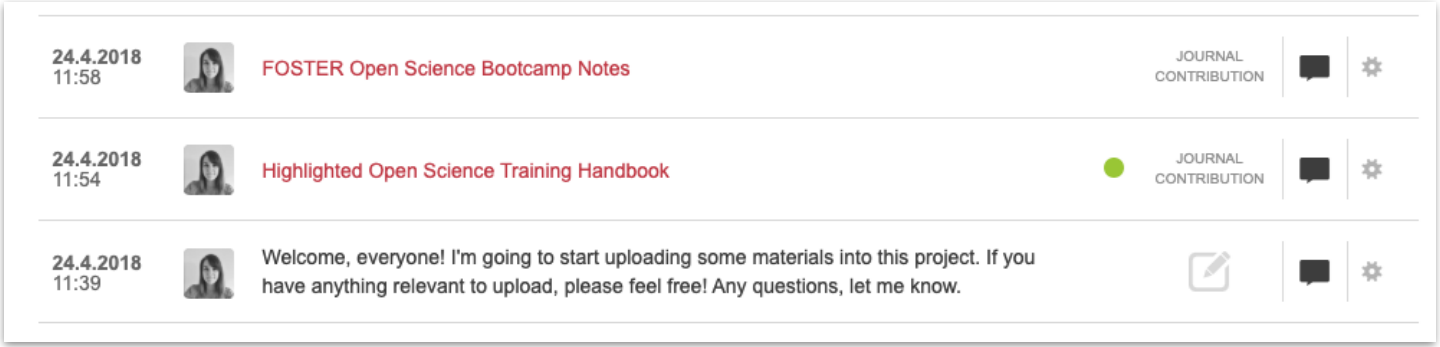
Projects

→ Upload items to the project

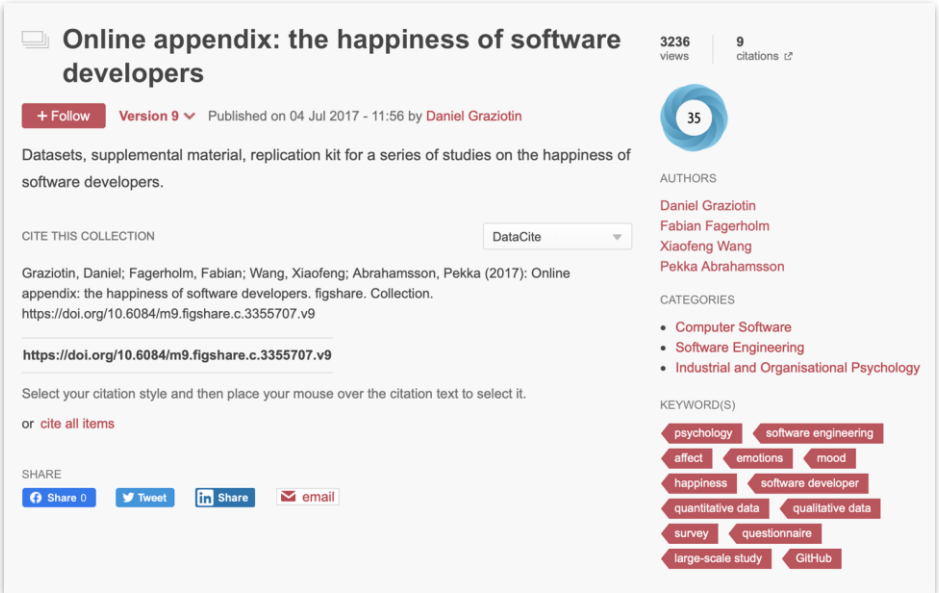
→ Add collaborators or viewers. Invite institutional colleagues, figshare.com users, or invite people with no Figshare account to join your project

→ Keep it private or make it public



Collections

- ✔Pull from your data or public data
- ✔Use to showcase your data
- ✔Get a citable DOI for the collection
- ✔Supports versions
- ✔Tracks Altmetrics, usage metrics, and citations



Graziotin, Daniel; Fagerholm, Fabian; Wang, Xiaofeng; Abrahamsson, Pekka (2017): Online appendix: the happiness of software developers. figshare. Collection.
https://doi.org/10.6084/m9.figshare.c.3355707.v9

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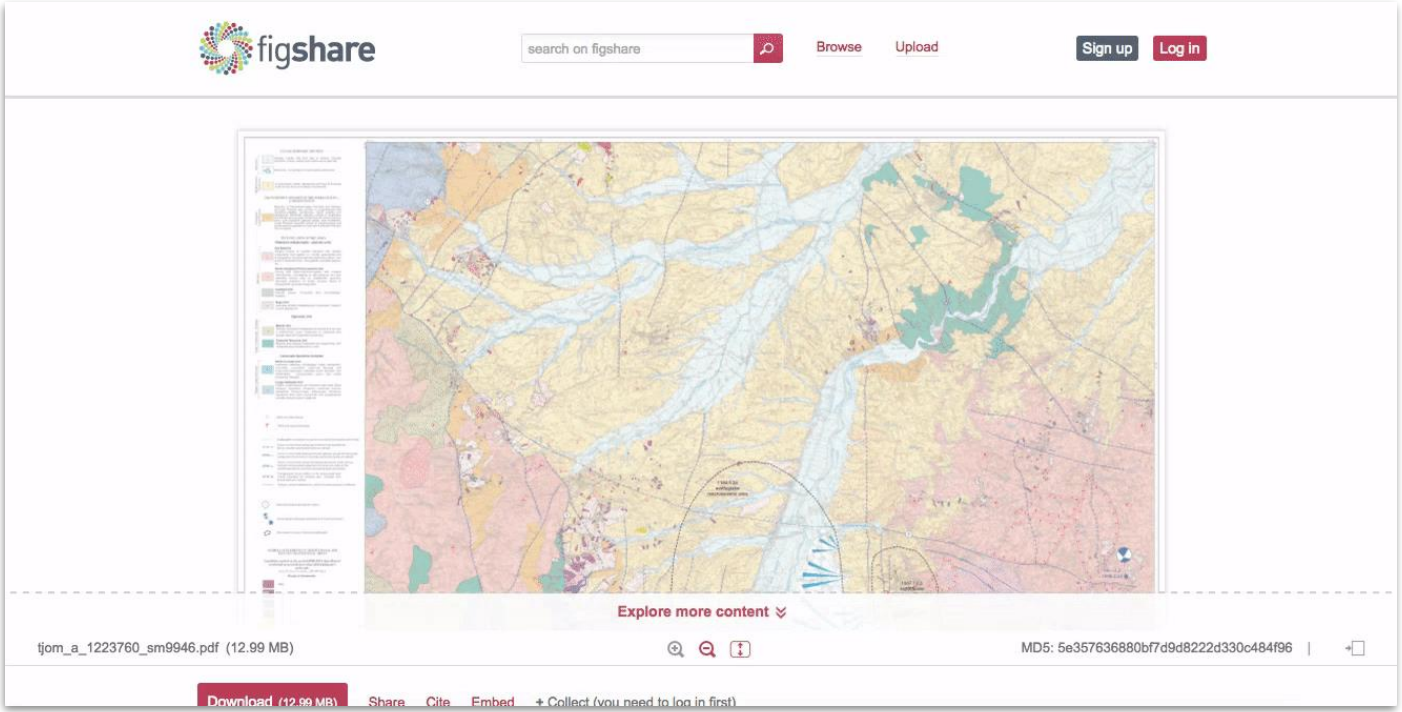
Altmetric



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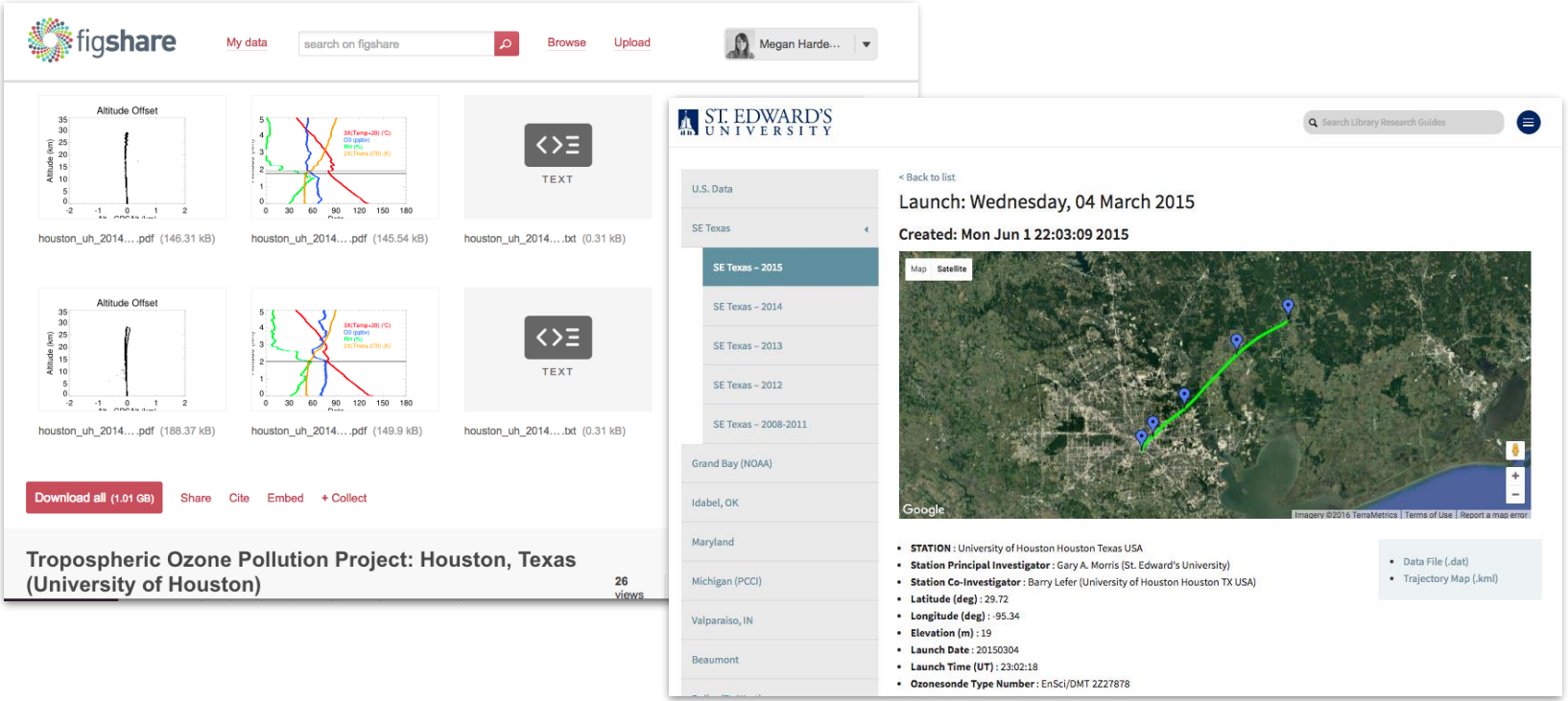
Figshare API



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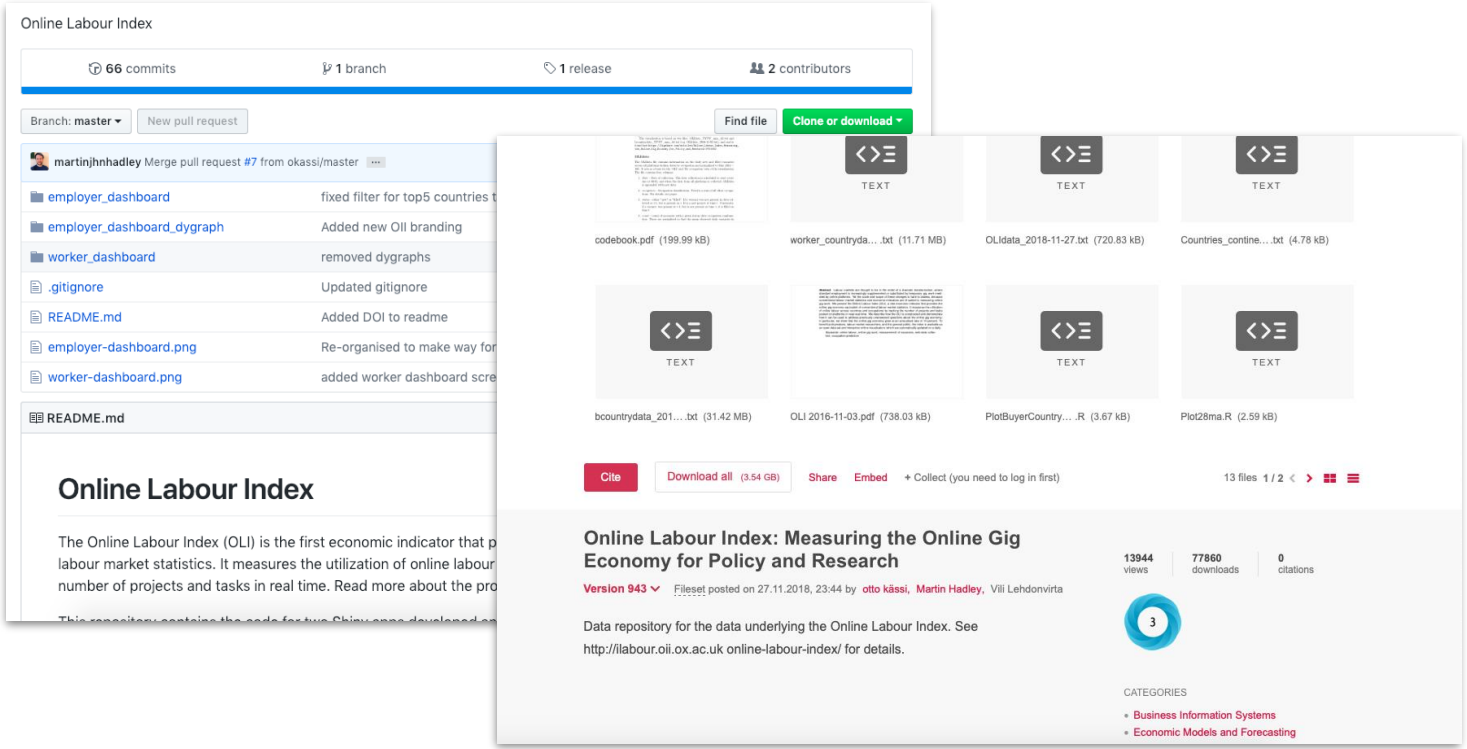
GitHub integration



Only data is not enough

- Well written electronic logbook
- Correct metadata
- Reproducible data analysis!

Clicking

Origin/Excel

- Fast to do
- Hard to understand later

Book1

	A(X)	B(Y)	C(Y)	D(Y)
Long Name				
Units				
Comments				
F(x)=				
1	0.1	-0.68486	-1.08629	-1.34996
2	0.2	-0.72482	-1.13174	-1.37348
3	0.3	-0.73473	-1.14712	-1.38268
4	0.4	-0.73968	-1.15597	-1.38798
5	0.5	-0.74304	-1.16109	-1.39064
6	0.6	-0.74498	-1.16392	-1.39294
7	0.7	-0.74622	-1.16605	-1.39417
8	0.8	-0.74764	-1.16728	-1.3947
9	0.9	-0.74781	-1.16817	-1.39541

Scripting

Python/Matlab

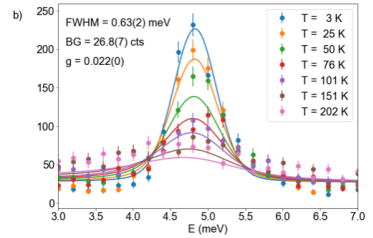
- More work to do properly
- Reproducible
- You can publish!

```
In [14]: yylist = []
for r in rs:
    r.plot(params=False, multi=True)
    # save fits to ascii
    yylist.append(r.yy)

yylist = [r.xx] + yylist

#save raw data
#savetxt("cfs-bfkcoupling-fits.txt", array(yylist).T)

text(3.1, 205, "BG = %.1f(%.0f) cts" %(r.paramdict["bg_bkgd"].value,r.paramdict["bg_bkgd"].error*1e1))
text(3.1, 230, "FWHM = %.2f(%.0f) meV" %(r.paramdict["conv_width"].value,r.paramdict["conv_width"].error*1e2))
text(3.1, 180, "g = %.1f(%.0f) " %(r.paramdict["b_g"].value,r.paramdict["b_g"].error*1e3))
text(2.6, 240, "b)")
xlim(3,7)
title(" ")
xlabel("E (meV)")
#ylabel("cts (arb. u.)")
legend()
#savefig('cfs-bfkcoupling.pdf')
show()
```



It will be legen….Wait for it, we will publish something during HANDS-ON….

Questions?

…dary!