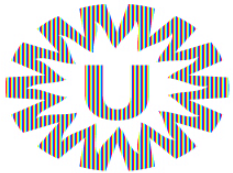
Data Stewardship Best Practices

Daphne van Beek



Data Stewardship

Long-term and sustainable care for your research data

http://data4lifesciences.nl/hands/handbook-for-adequate-natural-data-stewardship/

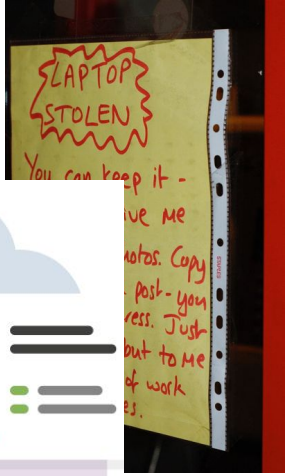
When:

Before start of project

During your project

After your project

Why data stewardship?



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Meet legal standards

At the start of your project

Create a data management plan!

- Are you re-using data?
- Do you have enough resources available?
- Legal contracts in place?
- Agreements about data publication and ‘ownership’?
- Thought about metadata?

ELSI helpdesk

DTL DMP wizard

During your project

- Evaluate and update your DMP every year
- Store your data in a correct and clear way
- Add metadata already during the project

- Think about security!
- Make use of handy tools!

Security

- No personally identifiable information on devices
- Encryption of hard drives
- Secure data transfer
  - Encryption of email (attachments)
  - Check data integrity
  - SFTP server
  - Surfdrive
- Do not use one password for all your (internet) accounts
- Proper key management
- Set up two-factor authentication when possible

Github

- Version management of your code
- Short (1h) introduction available: https://services.github.com/on-demand/intro-to-github/
- Publish your code!
- GitFlow

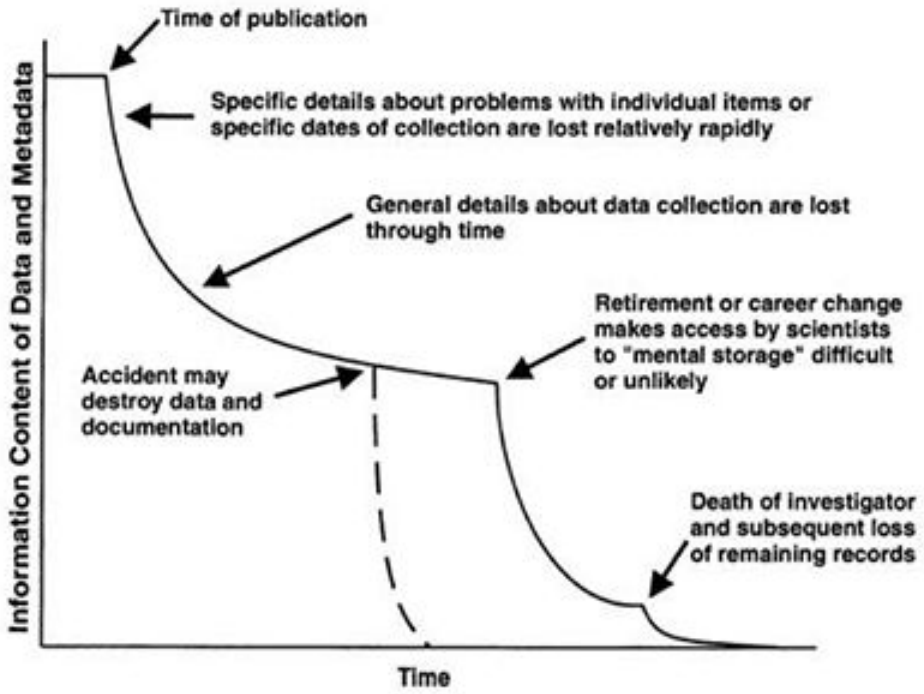
Alternatives: GitLab,

BitBucket (Git) or SVN-based.

Protocols.io

- Interactive protocols for:
  - Lab
  - Bioinformatics
  - General workflow descriptions
- View on mobile devices
- Use for publication of methods!

After finishing your project



Michener et al. 1997

FAIRification

- Think about what you would like to FAIRify
- Create data model
- Select ontologies
- Convert your files
  - Using in-house script
  - DTL FAIRifier
- Publish them to a FAIR data point (together with original files)

References

HANDS:
http://data4lifescience.nl/hands/handbook-for-adequate-natural-data-stewardship/

Icons made by Dave Gandy from www.flaticon.com.

GitFlow: https://leanpub.com/git-flow/read