Improving the integrity of research data: building an institutional data archive

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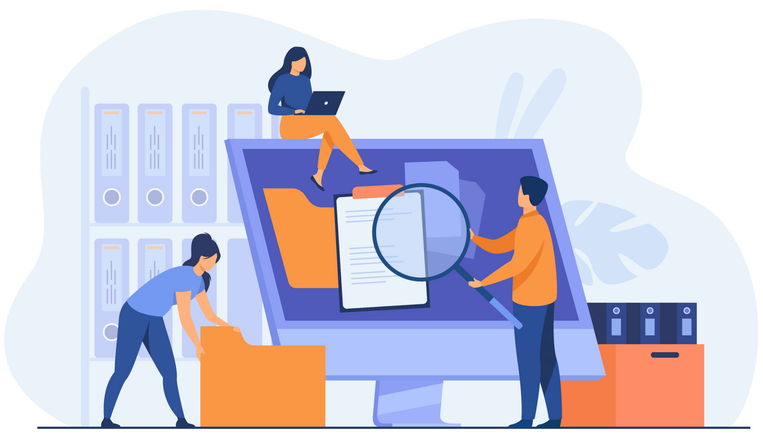
1. RATIONALE

Keep data safe and unaltered for 20 years in a closed off-site storage system

Retain original data for audit in case questions about the integrity of a research article are raised

Increase compliance with Crick's core funders' data management requirements



2. THE SOLUTION

Creation of a team to oversee the project and discuss the needs of the archive

→ System design & architecture team come up with the most feasible technology solution

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IT team start building the system.

Preliminary test with one lab at the Crick

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Wider testing with 8+ labs

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Identification of any issues and feedback from users

→ Final changes before official launch

3. DATA ARCHIVING FLOW

Ticket creation

- Researcher submits their manuscript to a journal
- Researcher submits a ticket to inform the Library & Information Services team about their manuscript submission
- Once ticket submitted, the Data Integrity team creates an archiving folder in researcher's lab storage space

Data

- Researcher adds raw data associated with the manuscript to the archiving folder and informs the Data Integrity team when completed
- The Data Integrity team conducts checks on data/metadata

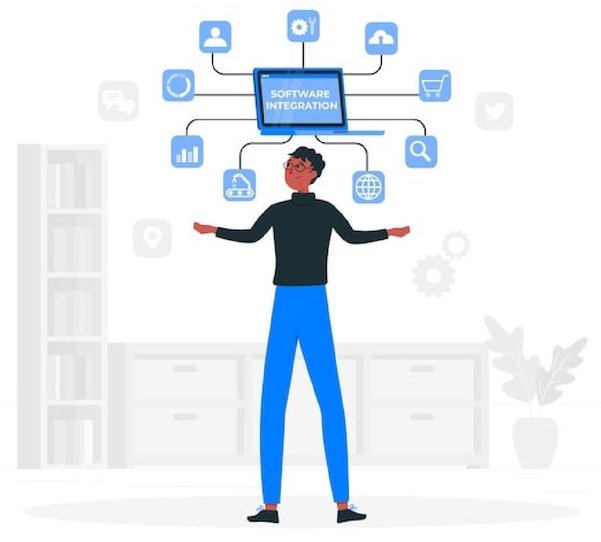
Archiving

- Submission approved by the Data Integrity team and sent to the archiving team
- Data encrypted and compressed
- Data is archived in tape storage off-site and cannot be altered – data can now only be retrieved by request

4. FUTURE STEPS

Adding automaticity to the process to simplify archiving:

- For the user – metadata fields filled out automatically by the system, drawing details from the uploaded manuscript
- For the Data Integrity team – archiving folder creation and email to the researcher automatically generated after ticket creation



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