SeRP@Curtin's Five Safes approach to data and risk management

What is SeRP@Curtin?

SeRP@Curtin is a secure e-research platform at Curtin University, Western Australia. This platform allows researchers and data custodians to manage, store, share, analyse and link sensitive research data in a fully governed and highly secure environment.

Data and Risk management

SeRP@Curtin's approach to the management and protection of data aligns with the 'Five Safes' approach where privacy risks are considered along five dimensions – people, project, data, settings, and output. These risks are assessed separately but considered jointly for every project that is hosted in the environment.

Five Safes is a strong framework for managing and protecting data inside an organisation (Desai, Ritchie and Welpton, 2016). Originally developed in the UK, it is now used across Australia and internationally by governments, businesses and academic institutions to help make decisions about the management and use of data which is confidential or sensitive.

SeRP@Curtin applies various controls across the five dimensions to assess and minimise the risks that may be associated with a particular research project.

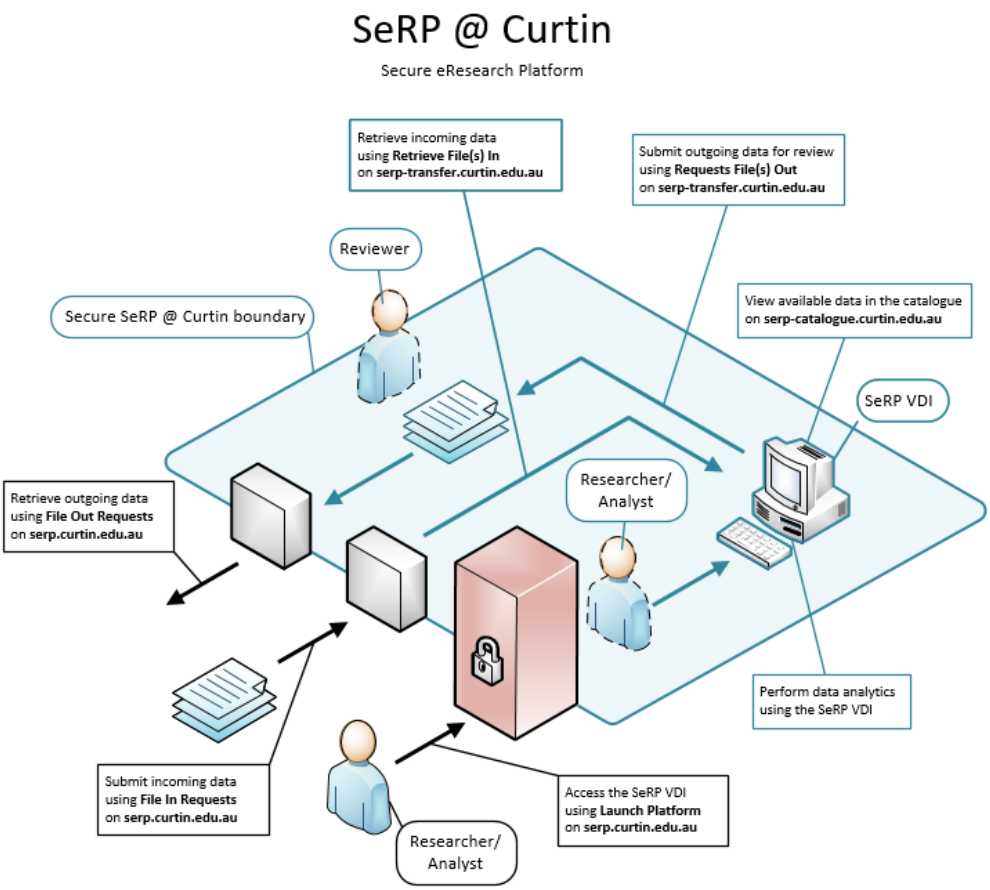
These controls include the following:

- **People**: Only authorised personnel have access to de-identified data in an approved SeRP project; these people are listed in Ethics application (or equivalent). The credentials of personnel wishing to use the environment are established as part of the approval process. All users must sign an Agreement to ensure that the person acts responsibly within the environment and will maintain the confidentiality of the research data. Academic researchers are guided by the Australian Code for the Responsible Conduct of Research (2018) which sets out appropriate ethical, legal and professional standards and protects privacy and the confidentiality of data. Intentionally re-identifying individuals from de-identified data would, for example, constitute a breach of that Code.

- **Project**: Only approved projects are permitted to reside in the SeRP@Curtin environment. Research projects are typically approved by one or more Human Research Ethics Committees (HRECs). These Committees independently review and approve the protocols, objectives, methods, and the public benefit arising from a research project. These same Committees assess whether the public benefit arising from a research project outweighs any potential risks to privacy.

- **Data**: Data within the SeRP @ Curtin environment is typically de-identified i.e. personally identifying information such as name, date of birth and address has either been removed entirely or transformed e.g. date of birth is reduced to mm/yyyy. This treatment minimises the potential for re-identification.

- **Settings**: Access to research data hosted in SeRP@Curtin can only be occur through the platform. All data analyses are performed within the platform. Some of the relevant data flows and controls around the environment are shown in the figure below.



- **Output**: The SeRP platform does not permit the unrestricted downloading/removal of data by researchers. Any removal of data or research outputs can only be done through SeRP's secure gateway. Any requests to remove data (outgoing data requests) are screened by an Authorised Data Approver. This person (Authorised Data Approver) is not connected with the research project in any way; they screen data for information that may reveal identity (disclosure control); this includes reviewing of cross-tabs or outputs that contain fewer than 5 records per cell. If the data meets these requirements, then data is released; otherwise, it is kept within the secure confines of the platform.

Further Information

For further information about SeRP@Curtin, contact the helpdesk at serp.helpdesk@curtin.edu.au or visit the website: https://healthsciences.curtin.edu.au/health-sciences-research/research-institutes-centres/data-analytics-hub/serp-curtin/

References

Desai, T., Ritchie, F., & Welpton, R. (2016). Five Safes: Designing data access for research. Bristol Business School Working Papers in Economics.