Job Description

Job Title:	Data Analyst, Research Intelligence
Department:	Office of Research
Reports To:	Senior Manager, Research Data Analytics
Jobs Reporting:	None
Salary Grade:	USG 10
Effective Date:	May 2023

Primary Purpose

The Data Analyst, Research Intelligence is accountable to the Senior Manager, Research Data Analytics for the provision of data and analytics expertise, services, metrics, and tracking frameworks to the leadership team in the Office of the Vice President Research and International (OVPRI) portfolio business units and the broader research community. The incumbent is responsible for interpreting data and providing relevant insights to senior leaders for both ad-hoc enquiries and the development of and reporting on strategic plans. The incumbent works closely with staff in Faculties, Institutional Analysis and Planning (IAP), the Library, University Research Centres/Institutes (URCIs) and Academic Support Units to support the realization of the goals set out in University Strategic Plan.

Key Accountabilities

Data Analytics Expertise in support of Research Strategy

- Responsible for interfacing directly with senior leaders up to AVP level on Research Intelligence projects from high-level conceptualization to implementation and delivery.
- Responsible for the provision of data, information, and analytics used to develop strategies at unit, departmental, and institutional levels, enabling improved decision-making processes, and collaboration across research disciplines.
- Collaborates at the expert-level on cross-functional initiatives, in partnership with IAP, IST, the Library and senior leaders within the OVPRI portfolio to produce reports in support of thematic areas of strength identified within the University Strategic Plan (for example, the Research Impact Framework).
- In collaboration with IAP, oversees the implementation of reporting on the strategic research plan, impact measures and the research elements in the university strategic plan.
- Proactively provides analysis-based advice to senior leadership to shape the strategic priorities and direction the University takes regarding major research objectives and initiatives.
- Develops and maintains an awareness of the trends and issues related to university-level rankings and research impact, such as bibliometrics and other forms of impact measurement, and, in collaboration with IAP, responds to related questions.
- Evaluates available data for strategic analysis purposes with the goal of identifying institutional strengths, trends, and emerging areas that might require support.
- Develops relevant research-related data required for the performance indicator reports as well as statistics related to outreach activities such as digital and print publications.

Data Analytics Expertise in support of Research Management

- Responsible for promoting democratized access to key portfolio data managed by the OVPRI (such as Research Awards, Research Commercialization and Research Ethics, and future portfolios incorporated by the OVPRI) by developing and executing tactical reports and dashboards.
- Responsible for the provision of research intelligence information and the identification of relevant opportunities to increase research funding and grants applications success.
- Assesses both input and output research areas, including growth in research funding, and the evaluation of success in meeting the university's strategic objectives.

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Data Analytics Expertise in support of Research Impact

- OVPRI research intelligence data lifecycle expert:
  - Advances data collection from sources that could facilitate the identification of appropriate outcome measures for research projects to enhance the impact and reputation of Waterloo research.
  - Coordinates work with multiple units (Library, IAP, URCIs, and Faculties) to discover relevant metrics on the contribution of Waterloo towards solving global and local problems.
  - Collaborates with Waterloo Ventures to catalogue and monitor metrics related to commercialization, innovation, and entrepreneurship.
  - Leads projects informing University strategy – with report audiences including the President, Vice-Presidents, the Senate, and the Dean's Council.

Data Analytics Expertise in support of Operational Business Requirements

- Presents reports and data to key stakeholders in the OVPRI and the wider campus community with efficiency and clarity using various reporting formats and web technologies as appropriate.
- Serves as a data and analytics subject matter expert on institutional data and analytics
- Ensures that the use of institutional research performance data conforms to and is consistent with the highest standards of analysis and proper interpretation and respects appropriate confidentiality considerations.
- Provides leadership and guidance in the use of descriptive and inferential statistics to facilitate an understanding of trends and relationships related to scholarly research.
- Ensures that statistical and other information is conveyed in an easily understandable manner using appropriate reporting formats and digital technologies for a wide range of specific audiences so that it can be used to effectively inform strategic decisions at all levels.
- Effectively communicates limitations of data to avoid misinterpretation of the results.
- Prepares and provides presentations and interpretations of research data analysis results.
- Investigates, recommends, and implements innovative, enhanced methods of any research intelligence reporting.

Project management and continuous improvement

- Provides project management and implementation services during all project phases; requirement gathering, synthesizing and mining of data, development of metrics and strategic highlights, detailed methodology and report writing.
- Follows, and improves an Agile methodology integrated with data tasks and requests, participates in sprint planning, and identifies ticket priorities.
- Defines project/task scope and communicates with stakeholders and team members to validate the steps of the task/project.
- Follows Agile Data Management to ensure data quality, availability, integrity, security, and usability.
- Prioritizes projects and activities, appropriately delegating responsibility, allocating work, and deploying resources.
- Guides and encourages team members to participate in the establishment of, and adherence to, strategic plans for the achievement of departmental and team objectives.
- Collaborates with team members, supporting onboarding with training and exposure to unit portfolio, technology, and work environment.
- Provides recommendations on processes that can be improved, for example to facilitate data collection or to introduce a new required data input.
- Contributes to the team capability-building by leading internal training.
- Leads the development of process documentation for various initiatives.

Other

- Carries out other general and specific duties as may from time to time be required.

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**All employees of the University are expected to follow University and departmental health and safety policy, procedures and work practices at all times. Employees are also responsible for the completion of all health and safety training, as assigned. Employees with staff supervision and/or management responsibilities will ensure that assigned staff abide by the above, and actively identify, assess and correct health and safety hazards, as required.*

Required Qualifications

Education

- University degree in a relevant discipline required (e.g. Mathematics, Data Analytics, Statistics)
- Certification and/or formal training in data analysis (e.g., descriptive and prescriptive analytics, business analysis, data management, architecture/engineering foundations), project management (e.g., agile, process improvement) is highly desirable

Experience

- 2-5 years in data analytics, statistical analysis methods and/or performance metrics.
- 1-2 years experience working with project management
- Exposure to a research or academic environment preferred.
- Demonstrable experience in the development and maintenance of dashboards, reports, and visualizations portfolio related.
- Experience with Power BI, including building reports, dashboards, and visualizations using Power BI Desktop and the Power BI service; knowledge of DAX, Power Query M or similar tools will be considered a plus.
- Experience with other platforms to extract data, such as Cognos Impromptu, or programming language for data modelling (R, Python), considered an asset.

Knowledge & Skills

- Strong background in data collection and research methodologies, quantitative and qualitative data analysis, development of accountability frameworks and decision support processes and systems.
- Strong understanding of data management concepts and relevant analytical applications.
- Strong organizational, analytical, and problem-solving skills.
- Ability to work independently and as a member of a team.
- Exceptional oral and written communication skills.
- Ability to run different exploratory data analysis (EDA) to identify patterns, trends, relationships in the data.
- Knowledge of research related systems (such as InfoEd, Cayuse, Kuali, Scival/Scopus, etc.) and metrics associated with the research portfolio (awards, bibliometrics, commercialization, compliance, research security).
- Strong understanding of data modeling, data warehousing, and ETL processes. Proficiency in SQL and other query languages for data extraction and manipulation. Proficient user of Microsoft office suite including advanced knowledge Excel.Knowledge of Microsoft Office 365 and Atlassian suite (JIRA, Confluence) is a plus.

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Nature and Scope

- **Contacts:** Internally, the Data Analyst, Research Intelligence must build close relationships with Director and AVP level colleagues both within the OVPRI and with other academic support units such as the Library, IAP and IST. They also must consult with and provide advice to the VPRI and senior leadership team within the VPRI business units and to Faculty ADRs with respect to Research Analytics.
- **Level of Responsibility:** This role has specialized work with minimal supervision and provides leadership in the area of expertise**.** Responsible for accurately producing and communicating key research data analytics and performance metrics as an aid to senior leadership decision making. Responsible for ensuring that data with the VPRI business units are secure and appropriately maintained. Responsible for providing advice and support to data users on the confidentiality of research data and results. Responsible for ensuring the integrity and accuracy of research data reported both externally and internally. Responsible for organizing and prioritizing customer requests with escalations to the Senior Manager, Research Data Analytics as required.
- **Decision-Making Authority:** Provides expert strategic decision-making support to the VPRI and senior leadership team on research data and analytics. Routinely makes decisions regarding the most effective means of operationalizing research data analysis initiatives, including allocation of resources, collaboration, workflow, consultation, and other key accountabilities.
- **Physical and Sensory Demands**: Minimal demands typical of a position operating within an office environment.
- **Working Environment:** Minimal exposure to disagreeable conditions typical of a position exposed to stress and pressure associated with project-management-level responsibilities and short deadlines; intermittent work outside the normal operating hours of the institution and occasional travel.