

Job Description



Job Title:	Director, Research Systems and Analytics
Department:	Office of the Vice President Research and International
Reports To:	Senior Director, Finance and Operations
Jobs Reporting:	Manager, Research Information Systems, Manager, Research Data Analytics
Salary Grade:	USG 15
Effective Date:	January 2021

Primary Purpose

The Director Research Systems and Analytics is the senior information technology (IT) specialist in the Office of the Vice President Research and International (OVPRI) and is accountable to the Senior Director, Finance and Operations for strategic leadership in the provision of quality IT systems, services, security and data analytics and reporting to the Vice President Research and International (VPRI) portfolio business units and to the broader research enterprise. The Director Research Systems and Analytics leads the Research Information Systems team and the Research Data Analytics team. The incumbent has director level oversight of technical services and support and of key research information systems such as the research awards management system, research ethics systems and electronic cover sheet system and is responsible for ensuring that these information systems are developed, implemented and managed effectively to ensure the provision of timely and appropriate business processes and management reporting to the research enterprise. The incumbent also leads the Research Data Analytics team which supports the provision of data, analytic services and metrics tracking frameworks to the VPRI leadership team and the broader research community to ensure strategic issues and priorities are critically examined and that planning activities are grounded in sound and reliable evidence.

Key Accountabilities

Leadership of Research Information Systems

- Director level responsibility for the efficient and effective operations of the research information systems (i.e., research awards management, ethics, commercialization) specifically within the Office of Research and more broadly across the VPRI portfolio units.
- In partnership with IST and Senior Director, Finance and Operations determines critical long-term direction by overseeing the functional needs analysis across research information systems and provides strategic advice and support to the VPRI Senior Leadership Team on research information system replacements, implementations, upgrades and enhancements.
- Provides leadership and oversight of the planning process for research information systems replacements including enterprise software selection or local software development decisions, mitigation of key risks and ensures appropriate strategy and resourcing for systems development and implementation, using a Software Development Life Cycle framework.
- Directs the Research Information Systems team to ensure successful on-schedule and on-budget delivery of technical services, systems implementations, upgrades, and enhancements in support of VPRI initiatives.
- Key responsibility for anticipating possible risks relating to research systems and developing and implementing risk-mitigation strategies as required. This would include, but not be limited to, vendor and contract management and trends in the software industry (e.g. Cloud, API First Architecture, low/no code development, etc.).

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- Oversight for on-going monitoring and review of research business systems ensuring continual improvement to functionality and performance.
- Oversight of training and communications initiatives related to research information systems both during implementation of new systems and enhancements to existing systems.
- Oversight of Office of Research (OR) and Faculty user groups in relation to research information systems to identify, prioritize and plan system enhancements and efficiencies.
- Provides leadership to the Research Information Systems Team to ensure effective on-going operations and systems administration support for OR information systems.
- Works in partnership with IST Directors and staff to ensure alignment between OR systems initiatives and broader campus initiatives.

Oversight of IT support for VPRI portfolio business units

- Director level oversight for ensuring adequate and appropriate IT support is provided to all staff within the VPRI business units.
- Strategically plans for the IT requirements within the OR including hardware, software, systems access. Furthermore, maintains a view to upcoming IT changes and plans appropriate change management for such changes (e.g. On-premise/legacy computing to cloud based computing practices)
- Responsible for ensuring that OR office space is equipped for hybrid working methods (e.g. shared workstations, all meeting spaces within the OR are equipped to allow hybrid meeting use (i.e. where some participants are in the room and others engage remotely))
- In conjunction with the Executive Directors of the University Research Centres and Institutes, reviews the information technology support and security requirements for the University Research Centres and Institutes and provides advice and support and training as required
- Responsible for developing a shared services centre model for information technology support across VPRI units

Leadership of Research Data Analytics and Reporting:

- Leads the development of research and commercialization related metrics for strategic planning
- In collaboration with IAP, IST, Library and the Faculties, develops standardized institutional data definitions and reporting methodologies
- In collaboration with IAP develops a performance management framework for reporting on the strategic research plan and the research elements in the university strategic plan
- Oversight of the monitoring of progress with respect to research aspects of the University and Research strategic plans
- Identifies and leads the implementation of continuous improvement of business processes, including relevant data systems, for OR reporting of research funding and impact to the broader university community.
- Works in partnership with IST to maintain a standardized data dictionary for research data on campus.
- Proactively provides analysis-based advice to University senior leadership to shape the strategic priorities and direction the University takes in regard to major research objectives and initiatives.
- Oversees analytical support, gathering of data and information and the production of reports in support of planning, decision-making and performance reporting
- Provides leadership and oversight on specific data analytics projects ensuring best practice methodologies and consistent definitions are used to support evidence- based decision making
- Oversees development of reliable forecasting models
- Responsible for verifying, understanding and explaining the use of university information in external contexts, including those related to national and international rankings and surveys
- Ensures that the use of institutional research performance data by Faculties or Academic Support Units, particularly that intended for external audiences, conforms to and is consistent with the highest standards of analysis, proper interpretation and respects appropriate confidentiality considerations.
- Serves as a data and analytics subject matter expert and/or point of contact representing VPRI on institutional data and analytics strategic initiatives.
- Coordinates, manages and advises on the initiation and implementation of research or

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evaluation projects that address research performance

- Supports the establishment and effective operation of an institutional research community of practice, drawing membership from Faculties and Academic support units to ensure a coordinated approach to supporting various internal/external KPI exercises and the deployment of resources and the acquisition of tools/products to ensure the institution's ability to undertake critical analyses. Contributes content, ideas, or identifies areas for development or strategic advancement.
- Research new tools, systems and practices to recommend improvements in data analytics
- Collaborates with other key central units including IST, IAP, the Library and Faculties on appropriate institutional level reporting tools and dissemination processes such as Power BI to provide dashboards and standard reporting on research across faculties

Oversight of data and information security for the VPRI business units and broader research enterprise

- In partnership with IST, responsible for ensuring that hardware, systems and data within the VPRI business units are secure from data breaches and other security threats
- In partnership with IST. responsible for ensuring employees within the OR are provided with appropriate advice and training to ensure the security of data and information on any hardware or mobile devices wherever they are located or accessed from.
- In conjunction with IST, the Library and the Faculties ensures that appropriate advice and support is given to researchers on security of storing research data.
- In conjunction with IST and the Faculties providing advice and support and training sessions to researchers on data security while travelling and/or working remotely.
- In conjunction with IST provides advice and support on cybersecurity concerns as they relate to the research enterprise
- Responsible for ensuring that VPRI business unit systems and technologies adhere to University policies and guidelines for data and record management.
- Partner with stakeholders to maintain and address data quality issues in research information systems.
- Represents the Office of Research on campus-wide IT committees as appropriate

Leads, directs, motivates, and coaches staff

- Leads the OVPRI Research Systems and Analytics teams ensuring appropriate hiring and team management practices are in place to ensure achievement of team goals and objectives
- Ensures that staff receive appropriate coaching, training, and opportunities for personal growth and professional development.
- Evaluates the contribution of direct reports, providing ongoing feedback and conducting Annual Performance Reviews.
- Ensures that all staff under their direction participate in the establishment of, and adherence to, strategic plans for the achievement of departmental and team objectives.
- Ensures the creation and maintenance of a work environment that fosters, recognizes and rewards consistent application of the Basic Principles of the University of Waterloo workplace.
- Identifies and directs the execution of strategies for promoting team development, cohesiveness, motivation, and commitment to the delivery of outstanding customer-focused service and continuous quality improvement.
- Prioritizes projects and activities, appropriately delegating responsibility, allocating work, and deploying resources.
- Other general and specific duties as required.

**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.*

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Required Qualifications

<p>Education</p> <ul style="list-style-type: none"> • University degree in a relevant discipline required (e.g. Computer Science, Data Analytics, Statistics)
<p>Experience</p> <ul style="list-style-type: none"> • 7-10 years of progressive experience in information systems and technology preferably including systems implementation and project management experience in a research or academic environment • Demonstrated experience in data analytics, statistical analysis methods and/or performance metrics preferably in a research or academic environment is preferred • 3-5 years of management experience preferably in a research-driven academic environment • Track record of providing strategic advice to those in institutional leadership roles
<p>Knowledge/Skills/Abilities</p> <ul style="list-style-type: none"> • Strong background in data collection and research methodologies, quantitative and qualitative data analysis, development of accountability frameworks and decision support processes and systems • Working understanding of data management concepts and relevant analytical applications • Technical expertise at the expert level in information systems management, implementation and information security, including experience working with complex cloud-based software platforms. • Strong organizational, analytical and problem-solving skills • Ability to work independently and as a member of a team • Exceptional oral and written communication skills • Excellent interpersonal skills with the ability to build effective relationships and partnerships across all organizational levels. • Strong leadership and project management skills • Attention to detail • Proven success in diagnosing, isolating, and resolving complex issues and processes, and recommending strategies and plans to senior leadership • Ability to communicate technical concepts to technical and non-technical audiences • Flexible adaptable management style. Ability to conceptualize and address current and future challenges in a logical manner

Nature and Scope

- **Contacts:** Internally, the Director must build close relationships with Director and AVP level colleagues both within the Office of Research 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 and Deans with respect to Research Systems and Analytics. Externally, communicates effectively on behalf of the University with software/system vendors and various government departments and agencies.
- **Level of Responsibility:** Responsible for making high dollar value strategic recommendations to the VPRI and senior leadership on research systems implementations. Responsible for ensuring that research systems and data with the VPRI business units are secure and appropriately maintained. In conjunction with IST, Faculty IT teams and the Library, responsible for providing advice and support to researchers on security and privacy of research data and results. Responsible for ensuring the integrity and accuracy of research data reported both externally and internally. Responsible for providing key research data analytics and performance metrics as an aid to senior leadership decision making.
- **Decision-Making Authority:** Makes high-level material decisions pertaining to the implementation, upgrading, management and operation of new research systems and reporting tools. Provides expert strategic decision-making support to the VPRI and senior leadership team on research systems and analytics. Establishes the priorities of the Research Systems and Analytics team to meet objectives.
- **Physical and Sensory Demands:** Minimal demands typical of a leadership position operating within an office environment.
- **Working Environment:** Minimal exposure to disagreeable conditions typical of a leadership position; exposure to stress and pressure associated with senior-level responsibilities.