

REPORT OF THE CCR SUBCOMMITTEE ON RESEARCH IMPACT

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INTRODUCTION

The University of Regina's Strategic Plan "*peyak aski kikawina - Together we are Stronger*" (URSP 2015-2020) has identified research impact as one of three key strategic priority areas. The URSP defines research as "creative and other scholarly endeavors that foster new knowledge", and indicates that research should have "...meaningful impact at home and beyond". The Implementation Framework of the URSP calls for routine measurement of research impact as a means of tracking success in achieving the institution's objectives, ultimately feeding directly into the Performance Management Component of the plan which sets out "to assess three levels of performance in relation to the strategic and operational plans: 1) Institutional level, 2) Academic, Administrative and Research Unit level, 3) Individual level" (URSP, 2015-2020, p. 18). Moreover, in early Fall 2016, the University of Regina is scheduled to adopt a new Strategic Research Plan (SRP): "*Together We Are Stronger: Serving Through Research The University of Regina's Strategic Research Plan 2016-2021*", which also sets out to develop indicators of research impact performance (SRP Draft for Review Group, May 2016, pp. 8-10). Thus, it is clear that the University of Regina places great importance on research impact which parallels the position of most other universities and major granting agencies. Nevertheless, given how research and research impact may vary across a campus by faculty, department, or unit, the URSP and the forthcoming SRP purposely and appropriately make no attempt to prescribe a particular method for measuring research impact. The draft SRP rather outlines some of the possibilities in which research impact may be captured and reported. This report supports this perspective and offers further insights into different forms of research impact and a variety of possible indicators.

The definition of research impact and the metrics used to quantify or describe it are likely to vary substantially in different research areas; for example, conceptions of impact may be limited to an academic discipline, or may be broadly thought to include community impact on policy, organizations, practices, or even observers at an art show or concert. Consequently, traditional bibliometric indices based on journal publications (e.g., h-index, impact factor, etc.) may adequately capture research impact for certain areas of study (e.g., Science, Engineering, etc.), but would be of little value for measuring impact in others (e.g., Fine Arts, community-based research, etc.). In addition, measurement of research impact cannot simply be a counting exercise; it must also assess the quality and importance of the work. Based on the uncertainties surrounding measuring or describing research impact, a subcommittee of the Council Committee on Research was created to provide some guidance regarding how to move forward. The subcommittee had two major goals:

- 1. Determine what the University of Regina currently values as research impact in different areas on campus.**

2. Identify those areas or types of research that need closer attention as the UR Strategic Plan unfolds over the next five years.

The subcommittee gathered information about research impact assessment from faculty criteria documents and strategic research plans across campus, and created a summary description of research impact and associated indicators. The subcommittee held discussions on the question of key areas that need further attention. These areas were identified on the basis of either a lack of information in criteria documents and strategic research plans or confusion regarding how research impact and quality could be reported and assessed in particular areas. This report summarizes the subcommittee's findings based on the two objectives above.

Before presenting its findings, the subcommittee emphasizes the following important caveats when considering research and research impact.

1. There are different types of impact. Valuable impact may occur in a variety of spheres, including, academic, social, cultural, political, and economic as is explained later in this report.
2. The dominant modes of assessing research impact, such as peer-reviewed publications, journal rankings, and Tri-council funding, are important and should be valued, but they do not capture the full and diverse complement of research and research impact.
3. While it may be possible to 'measure' discrete pieces or components of research impact, many dimensions of research and research impact are quite difficult (perhaps even impossible) to measure; for example, how might one determine all the important dimensions of the impact of George Orwell's novel *1984*, the impact of Judy Chicago's art installation "The Dinner Party", changes to health services delivery in a northern community following a policy report, or the full impact of Albert Einstein's publication of *The General Theory of Relativity*?
4. When assessing research impact, it is necessary to take into account the timeframe. Some forms of research have more immediate impact whereas other forms of research require longer time to show any significant impact.

Thus, the CRC Subcommittee on Research Impact suggests that there cannot be a good one-size-fits-all approach to assessing research performance and measuring research impact. Uniform measures or metrics are more likely to be misleading or distorting than helpful because of diversity of research activities and many different forms of research impact across disciplines. It is important to recognize and value different types of research and research impact.

CURRENT RESEARCH IMPACT MEASUREMENT PRACTICES

The University of Regina faculty performance criteria documents and strategic research plans provide a rich assortment of important impact measurements. Research impact is measured at three different levels within the university environment: 1) individual faculty members; 2) departments and faculties; and 3) university as a whole. Moreover, measurement of research

impact is not limited solely to an end product; it also includes assessments and narrative-based reflections of the effects of research that may not always represent a quantifiable output. Research output, as well as the effects of research, including the process of knowledge creation itself, has the potential to impact academia, government, community, and society; and this situation is reflected in the diverse array of campus criteria documents.

Scholarly Output and Dissemination

The documents the subcommittee reviewed describe output, engagement, and dissemination as vital components of research impact. The use of peer-evaluated mediums to assess research impact is stated in all documents; these mediums include: refereed journal articles, monographs, edited books, book chapters, working papers in established series, maps, refereed conference presentations, papers published in conference proceedings, bibliographic studies; translations, invited research presentations, peer-evaluated art installations, public performances, exhibitions, videos, films, published and performed plays, music compositions, sound recordings, concerts, recitals, curatorial work and dramaturgy which integrate scholarly and creative work, creative writing and drama scripts, and software programs. It should be noted that when peer evaluation is not feasible or common in a particular area of creative or performance- or community-based scholarship, the relevant professional community's reception or public acknowledgement of the scholarly work is considered an indication of research impact. In the case of some forms of "non-traditional" scholarship, definition of who counts as a peer is often expanded to include community participants in the research process, community organizations, professional associations, government agencies, and international organizations. The types of scholarship or research output that do not go through the conventional academic peer-review process but usually receive or elicit response from individuals, groups, or organizations which possess relevant expertise or knowledge include: technical, or policy reports to government agencies, professional associations, community organizations, international organizations and other relevant constituencies; publications in practitioner journals, magazines, newspaper articles; op-eds; and media interviews.

Assessment of Research Impact

Faculty performance criteria documents recognize several major areas or constituencies for research impact: one's academic discipline and research community; academia, a particular professional area of expertise; public community or society; and government and public policy. As expected, different faculties put varying degrees of emphasis on these areas/constituencies and the different types of research impact associated with them. It is important to note that there are no clear boundaries separating these constituencies; they overlap and are interwoven to a significant extent; as a result, research impact in one area can often produce effects in other areas, if not immediately, then over a longer period of time.

Research impact on disciplinary knowledge and academia

A range of indicators can be used to assess research impact with respect to one's academic discipline and the more broadly defined academia. Indicators include but not necessarily limited to:

- Bibliometric indices
- Peer reviews of publications and scholarly creative activities (e.g., art installations, public performances, exhibitions, etc.)
- Count of downloads from peer-review online publications
- Research grants, either as an individual or as a member of a group of researchers (prestige of the grant, amount of the grant, and rigor of the competition, and success rates to be taken into account)
- External grants / funds for research centers / institutes
- Editorship of a journal
- Editorial board membership
- Refereeing journal and conference papers
- Refereeing research grant applications
- Membership on a grant selection committee
- External examiner for graduate theses at other institutions
- Supervising graduate students' research
- Training highly qualified personnel
- Induction into academic societies and similar other recognitions
- Organizing and hosting research events such as conferences, workshops, and seminars (individual and institutional research impact)
- Count of copies of publications sold by the University press; public reception of the University press's publications; reviews of these publications etc. (institutional impact)

Research Impact in a professional area of expertise

- Providing consultation, guidance, or knowledge to a professional association
- Technical reports
- Contributions to invention and innovation in professional practice
- Membership on a professional association's governing board or similar other professional bodies
- Professional prizes and awards

Research Impact on the broader community and society

- Contributions to the social and economic well-being of society
- Providing consultation, guidance, knowledge to organizations, associations and communities outside the University
- Impact in terms of framing public issues and influencing public discourse
- Community-engaged research activities; research on issues critical to the community (local, national, international, global)

- Workshops and training seminars for groups and institutions outside the University,
- Contribution to invention and innovation in product and process and technology development (economic as well as societal impact)
- Industry applications of research outputs (techniques and technologies) as evidenced by, e.g., registered patents and copy rights (economic as well as societal impact)
- Accessibility of research results to broader audiences than a small group of specialists

Research Impact in the area of public policy (governments and official international organizations [intergovernmental organizations])

- Policy reports to public-policy makers (governments and intergovernmental organizations)
- Advising public-policy makers
- Influencing the objectives, content and instruments of public policy through production and dissemination of knowledge

EMERGING FORMS OF RESEARCH AND RESEARCH IMPACT

The second goal of the Subcommittee on Research Impact was to identify the emerging forms of research and research impact that require closer attention as the UR Strategic Plan continues to be implemented during the next five years. In its strategic plan 2015-2020, the University has adopted *Indigenization* as an area of emphasis that is to be integrated into each of the three strategic priorities, namely “student success, research impact, and commitment to our communities”. The subcommittee urges greater awareness and recognition of Indigenous research as part of the University’s avowed commitment to Indigenization. The Strategic Plan adopts the following definition of Indigenization as formulated by the Aboriginal Advisory Circle to the President.

Indigenization is “the transformation of the existing academy by including Indigenous knowledges, voices, critiques, scholars, students and materials as well as the establishment of physical and epistemic spaces that facilitate the ethical stewardship of a plurality of Indigenous knowledges and practices so thoroughly as to constitute an essential element of the university. It is not limited to Indigenous people, but encompasses all students and faculty, for the benefit of our academic integrity and our social viability” (URSP 2015-2020, ft 3, p. 9).

To meet the objective of Indigenization, we need to ask how research and research impact can be assessed from Indigenous perspectives. First, it is important to recognize that Indigenous peoples (First Nations, Inuit, and Metis peoples) are a highly diverse segment of the Canadian population. Every Indigenous ethnicity has its own history, priorities and protocols that must be considered relevant to how researchers should conduct themselves and seek to partner with community members. Second, Indigenous peoples have a long history of being the subjects of

research, much of which has supported the social programs of non-Indigenous societies, marginalized the voices of Indigenous peoples and minimized their right to determine their own priorities based on their values and needs. Therefore, it should be a priority for the University researchers to seek partnerships with Indigenous researchers and communities that will lead to their empowerment to define, fund research, and resolve issues facing Indigenous communities.

Research partnerships should be founded on principles of respectful, accountable relationships, reciprocity, and shared benefit for the creation of relevant research results. Indigenous community members and personnel must have the opportunity of meaningful involvement in the research process from the outset. In other words, such involvement must be meaningful to Indigenous participants themselves as opposed to an act of tokenism on the part of researchers or researchers' objectives taking priority. Research whose end result is not clearly understood or which is not valued by Indigenous peoples themselves is likely to be seen as exploitive. Indigenous participants should contribute to determining their degree of involvement in research objectives, design, data collection, analysis, interpretation, reporting, and implementation. Periodic assessments of research processes and relationships should be undertaken.

Indicators of research impact from Indigenous perspectives include the following:

- Number of funded Indigenous graduate students; number of community projects with First Nations, Inuit, Metis organizations or communities
- Evidence of Indigenous project leadership (e.g., co-principal investigators from Aboriginal organizations, council members from First Nations)
- Portion of funding budget that directly supports Indigenous organizations, researchers, communities and participants
- Appropriate acknowledgement of Indigenous contributions to research publications through co-authorship with Indigenous research collaborators (community knowledge holders, researchers and community leaders)
- Publications for community use that include descriptions of research purpose, processes, results and implications using an accessible language. Community resources can include newsletters, short videos and other recordings. It may be appropriate to support Indigenous language revitalization by making recordings and text of research findings available in Indigenous languages.

Another emerging form of research and research impact that needs closer attention is community-engaged research. As noted earlier, “commitment to our communities” is one of the three strategic priorities in the U of R Strategic Plan 2015-2020. The URSP also refers to “professional recognition of community engaged research” as one of the success indicators in delivering its research impact objective (p. 13). It is important to recognize that the impact of community-engaged research is generated not only through the end product of research activity but also in the very process of research. That is because community-engaged research usually allows community members to participate in the research process as active agents not merely

subjects of research; thus, community participants' experiences and perspectives as well as the researcher's may transform as a result of participating in the research process itself.

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