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# The Impacts of Humanities and Social Science Research

Working Paper

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FEDERATION FOR THE  
HUMANITIES AND  
SOCIAL SCIENCES

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## Summary

- Research in the humanities, social sciences, and fine and creative arts has impact but defining, measuring, and comparing these impacts is an enormous challenge.
- This research contributes to a free and democratic society, public policy, quality of life, social cohesion, business innovation, the environment, creativity, commercial and economic activity, administrative and institutional development. Studying this impact leads to a better appreciation of the role of the humanities and social sciences in enriching society.
- This document proposes five broad ways this research has impact and a basket of indicators for each that can be used to measure them. These are presented on the second page of this summary.
- The intent is that organizations involved in measuring the impact of research in the humanities, social sciences, and fine and creative arts will be able to draw from these indicators to develop their methodology. Not all indicators will necessarily be used at any one point in time, but instead they provide a suite of indicators which can be deployed in various combinations depending on the type of impact being studied and the expertise, time, and budget available.
- The indicators in this document are not intended to be used to compare individual researchers, or to be relevant to tenure and promotion decisions, but to allow the exploration and, where appropriate, the comparison of research impact at aggregated levels - whether at the university, regional, national, or international scale.
- This is a living document. This draft focuses most on the conceptual background. With feedback and experience in implementation it is hoped that future versions of this document will be able to include some Canadian-specific “how-to” guidance.

## Summary

HSS research has impacts on

### SCHOLARSHIP

that can be measured using indicators such as:

- Bibliometric indicators
- Downloads from Open Access repositories
- Citations in grant applications
- Acknowledgements
- Prizes and awards
- Reputation as measured by survey
- Post-publication peer-review (book reviews, dedicated symposia)
- Juried exhibitions and performances

HSS research has impacts on

### CAPACITY

**through teaching and mentoring at the graduate and undergraduate levels**

that can be measured using indicators such as:

- Number and quality of experiential learning/ research opportunities for students
- Surveys of students and alumni
- Employer surveys
- Integration of research as a learning outcome in courses

HSS research has impacts on the

### ECONOMY

that can be measured using indicators such as:

- Advisory roles and board memberships
- Revenue opportunities and cost savings in the public, private and not-for-profit sectors resulting from research applied in practice
- Income derived from patents, patent licensing, copyright and trademarks
- Consulting contracts

HSS research has impacts on

### SOCIETY AND CULTURE

that can be measured using indicators such as:

- Number and quality of partnerships between researchers and community groups
- Requests for consultancy/advice from community groups
- Media coverage of research (newspapers/ tv/ online)
- Requests for media appearances
- Engagement of the public at events
- Research-related social media
- Public use of research-based web resources on social and cultural issues

HSS research has impacts on

### PRACTICE AND POLICY

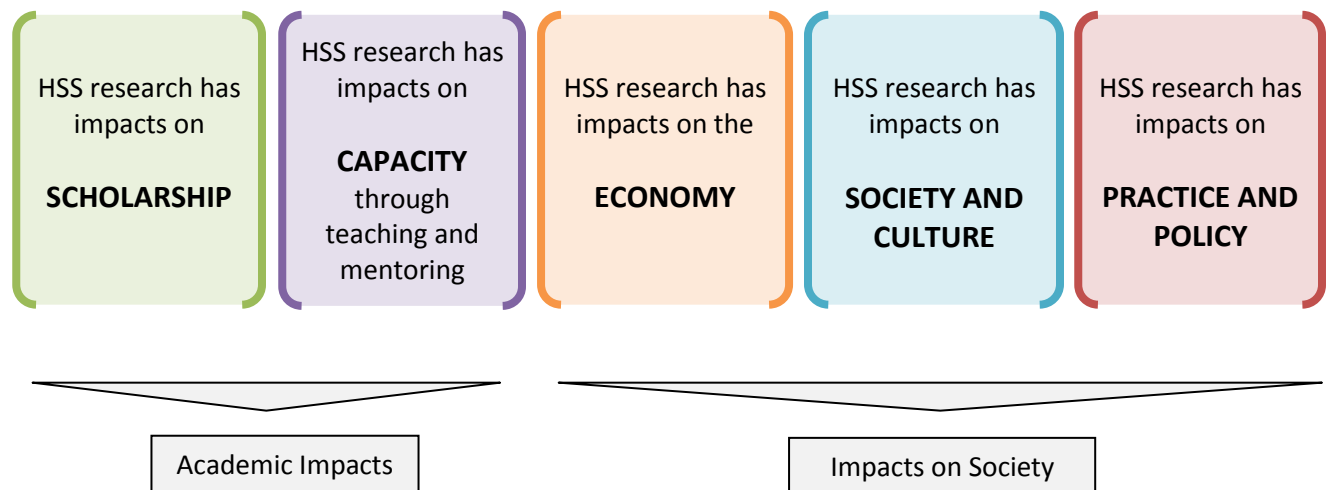
that can be measured using indicators such as:

- Invitations to participate as an expert witness, an advisor, on an expert panel or committee
- Citations in government documents
- Consulting for governments or think-tanks
- Commissioned reports

# The Impacts of Humanities and Social Science Research

## Section 1: Introduction

Research in the humanities and social sciences (HSS) profoundly influences Canada and Canadians in many ways:



Although the evidence of these impacts is visible everyday, documenting and defining these impacts is an enormous challenge. Identifying the impact of *any* research is very difficult. But HSS research in particular is recognized as being particularly difficult to evaluate as accessible measures commonly used in scientific and technical disciplines, such as citations, patents and licensing revenues, are less relevant.

Here, we propose a series of indicators with the potential to document, compare and aggregate at levels beyond an individual research project. In an era of ranking and impact measurement, it is increasingly important to develop an accepted and as comprehensive as possible set of indicators to document the impacts of HSS research, and for these to serve as a platform upon which further indicators can be grafted as they are identified

### 1.1 About this document

This document delves into some of the ways that HSS research has impact and draws from international practices in proposing indicators that can be used to illuminate the impacts of HSS research in Canada. It is important to note that this document deals with the impacts of HSS research. There are many benefits and impacts of other activities in the humanities and social sciences that will not be captured here.



This is not intended to be an academic document advancing the theory of impact measurement, but a plain-language practical document that makes use of advances in the field to propose ways of assessing the impact of HSS research in Canada including the all-important caveats as to the limitations of such indicators. The intent is that organizations involved in measuring the impact of HSS research will be able to draw from these indicators to inform their methodology and help better position their studies. It is not expected that all of these indicators will be used all of the time, but rather that a subset of indicators will be selected as appropriate. As organizations measuring impact have different aims, scope, time, budget, and study different disciplines or types of impact, relevant indicators can be chosen as needed.

HSS research impact is often demonstrated by case studies, which are extremely valuable and can be compelling.<sup>1</sup> Case studies demonstrate the impact of individual projects and the potential of all HSS research to have impact. They are undoubtedly an important way of communicating impact, but they are not dealt with in this document.

The indicators in this document are not intended to be used to compare individual researchers, or to be relevant to tenure and promotion decisions, but to allow the exploration and where appropriate the comparison of research efforts whether at the university, regional, national, or international level. Put simply, it is up to others to decide *whether* impact should be measured; and this document simply lays out some of the indicators of impact.

This is a living document. This draft focuses most on the conceptual background to the indicators proposed and provides examples of how they have been used internationally so that users can draw from current practice to develop their own methodologies. With Canadian experience it is hoped that future versions of this document will be able to include some Canadian-specific “how-to” guidance on methodologies as well as case studies of how these indicators have been applied.

This document is divided into two sections. Section one provides an introduction and situates the discussion within the ongoing international discussion and practice of impact measurement. Section 2 describes the proposed Canadian framework. It describes five ways that HSS research has impact along with a preliminary list of indicators that can be used to identify impact. Each indicator is then examined to describe the advantages and limitations; where possible or appropriate, links are provided to where and how the indicators have been used previously to measure impact.

## 1.2 Defining Impact

Research impact refers to the influence scholarly and creative enquiry has upon wider society, intended as well as unintended, immediate as well as protracted. It includes the influence such research has upon

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<sup>1</sup> For example: ESRC 2009 [http://www.esrc.ac.uk/\\_images/Taking%20Stock\\_tcm8-4545.pdf](http://www.esrc.ac.uk/_images/Taking%20Stock_tcm8-4545.pdf)

future researchers within the discipline as well as in other disciplines and on public policy, quality of life, social cohesion, business innovation, the environment, artistic and creative practices, commercial and economic activity, administrative and institutional development, and political and cultural understanding.

There are as many definitions of research impact as there are types of research. Canada's International Development Research Centre (IDRC) points out that there "is no universal definition for research impacts." In its recent report on "research excellence," the IDRC draws upon Sandra Nutley et al.'s cross-disciplinary study of research impact models, which differentiates between research that "brings about changes in levels of understanding, knowledge and attitude" and research that "results in changes in practice and policy making." These distinctions suggest multiple varieties of research impact, including the generation of new knowledge, new insights, changes in attitudes, beliefs, and behaviours, references to and citations in research, increased access to research, more research and the extension of research beyond disciplinary boundaries.

The IDRC study also draws attention to the Impact of Social Sciences project by the London School of Economics (LSE), which defines research impact as "an occasion of influence." For the LSE, research impact is defined by its influence on people, ideas, organizations, and industry, not by the outcome of the influence itself. The LSE differentiates and classifies research impact into academic impacts and non-academic impacts or impacts inside and outside universities. Academic impacts, based on the LSE's definition, are typically illuminated by citation indicators in other academic work, while non-academic impacts tend to be measured by references to research in anything from government documents and trade press materials to the media and the web.

Citation indicators, i.e. "occasions of influence," the LSE points out, generally demonstrate academic impacts and might include bibliometric (citations) and non-bibliometric (discussions, consultations, surveys of opinion) records as well as the "digital footprints" of research products. Research, in this instance, though, has an academic impact when the influence is upon another researcher and finds its way into his or her work.

But research, the LSE impact project also points out, has an external impact when its influence reaches beyond academic audiences and universities. The LSE cites business, government, non-government, and the media as potential non-academic venues for HSS research impact. In this case, citation indicators can take many forms, from references to and citations or discussions of a person or work in media, meetings, conferences, seminars, working groups, speeches or statements, to web links and the provision of external access to research materials. A researcher might also demonstrate research impact through direct involvement in the decision-making processes of non-academic institutions. Tracking down external references, though, or following the "footprints," digital or otherwise, of research influence outside academic work can be as difficult as ascertaining impact in external decision-making processes.



In a review for RAND of international practices related to research impacts, Jonathan Grant et al. argue that neither quantitative nor qualitative measures entirely suffice, so a combination of both, including case studies, narratives, questionnaires, self-evaluation, and other proxy indicators, should be employed. RAND, the IRDC, along with a number of related studies do arrive at one consensus, however, which is that no matter how well impact is defined “it takes an uncertain amount of time for research to have influence,” making it “difficult to evaluate impacts in the short-term.” Moreover, research impact in external areas, such as policy, might be indirect, while the subjectivity and level of expertise of the research users and reviewers can skew the way research is received, evaluated, and used.<sup>2</sup>

In other words, any definition of research impact must take the long-view of research influence into account as well as the contradictory or inconsistent views of users and reviewers. But research that generates new knowledge both inside and outside universities, research that can improve subsequent research, as well as research that influences the decisions (regardless of outcome) that shape people’s lives, communities, governance, the environment, and elsewhere can be defined as having impact.

### 1.3 Why evaluate impact

HSS research is a driver of the “knowledge economy.” HSS research has proven qualitative benefits, such as contributing to culture and identity or more generally enriching and improving people’s lives, and proven quantitative benefits, such as contributing to economic growth, job creation, community development, and student learning. HSS research, though, is principally conducted in universities and there are increasing calls for demonstrations of the impact of HSS research both within and beyond the academy.

HSS research may be narrowly focused, intellectually-inclined, and discipline specific or it may be socially-engaged, problem-focused, and cross-disciplinary. It may serve the needs of one community or many. Increasingly, though, HSS research is being called upon by non-academics to solve complex problems outside the disciplines and institutions where HSS researchers typically work. This has led to a widening view of what constitutes research as well as how it should be used and is generally referred to as the “democratizing” of knowledge. Related to this phenomenon is the increasingly important role that HSS research plays in social innovation, or the development of new ideas, concepts, strategies, and

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<sup>2</sup> IDRC, “Evaluating Research Excellence: Main Debates.” URL: <http://www.idrc.ca/EN/Programs/Evaluation/Pages/evaluating-excellence.aspx>; LSE Public Policy Group, “Maximizing the impacts of your research: A Handbook for Social Scientists.” (London: LSE Public Policy Group, 2011). URL: [http://www.lse.ac.uk/government/research/resgroups/LSEPublicPolicy/Docs/LSE\\_Impact\\_Handbook\\_April\\_2011.pdf](http://www.lse.ac.uk/government/research/resgroups/LSEPublicPolicy/Docs/LSE_Impact_Handbook_April_2011.pdf); S. Nutley, et al., “Models of research impact: a cross-sector review of literature and practice.” (London: Learning and Skills Research Centre, 2003). URL: <http://www.st-andrews.ac.uk/~ruruweb/pdf/LSDA%20literature%20review%20final.pdf>; Jonathan Grant, et al., “Capturing Research Impacts.” (RAND, 2010). URL: [http://www.rand.org/pubs/documented\\_briefings/DB578.html](http://www.rand.org/pubs/documented_briefings/DB578.html)



organizations to meet social needs and social goals. Researchers whose work fosters innovation, including new ideas, technologies, patterns of growth, alliances, and relationships, across disciplinary and organizational boundaries have the opportunity to not only extend their own research networks but to play a critical role in the kind of innovation that addresses social needs and improves people's lives.<sup>3</sup>

These processes, though, also lead to new challenges when it comes to evaluating or measuring the impact of HSS research. Traditional (namely bibliometric) methods alone, for example, fall short of accounting for the qualitative or societal benefits of HSS research and do little to suggest potential returns on public investment. More robust, multi-pronged evaluation frameworks will improve our understanding of the value and impact of HSS research and help us find new ways to expand its scope.<sup>4</sup> Evidence of impact is presumed to be a sign of value; and as universities, research institutions, funding bodies, and governments assess and reassess their research budgets, the ability to substantiate impact is key to preserving, protecting, and increasing HSS research funding.

Evaluating impact helps HSS researchers demonstrate the wider social and economic contribution of their work as well as explore new avenues, audiences, venues, and applications for their research. A recent study of the value of arts and humanities research in an era of austerity by the Dublin Institute of Technology points out that while "universities differ in the emphasis they place on different disciplines, arts and humanities research has continued to remain at the heart of the belief that society benefits from the pursuit of knowledge and the scholarship generated by universities." The study emphasizes that the social and economic application of HSS research, not unlike the sciences, has underpinned university-based research agendas and defined the social contract between researchers, governments, and taxpayers since the Second World War.

For these reasons, then, a framework to evaluate research impact is needed. To traditional performance and productivity measures, such as bibliometrics and research grants, are being added newer measures, such as patents, licenses, and consultancy contracts. Material published in peer-reviewed journals is increasingly assessed for its potential spillover or economic benefit. Can it be commercialized? Can it be mobilized to benefit society more widely? Can it contribute to economic recovery? Evaluating research impact, in other words, has evolved from a linear model, usually assessed incompletely by bibliometric means, to a more holistic measure taking into account less obvious, often non-disciplinary but still interconnected factors.

The fact that HSS research can be so difficult to measure and judge in the first place constitutes one of the most compelling reasons for evaluating its impact. A less than robust rubric for evaluating HSS

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<sup>3</sup> Geoff Mulgan, "Social Innovation: What It Is, Why It Matters And How It Can Be Accelerated," Working Paper, Oxford's Said School of Business (2007). URL: [http://eureka.bodleian.ox.ac.uk/761/1/Social\\_Innovation.pdf](http://eureka.bodleian.ox.ac.uk/761/1/Social_Innovation.pdf)

<sup>4</sup> Ellen Hazelkorn, et al., "Recognising the Value of the Arts and Humanities in a Time of Austerity." (Dublin Institute of Technology, 2013). URL: <http://arrow.dit.ie/cgi/viewcontent.cgi?article=1042&context=cserrep>



research impact leads to the risk of overlooking or undervaluing the important contribution that HSS research makes to knowledge production, to society, culture, and the economy. HSS researchers cover an enormous breadth of disciplines – from history, literature, philosophy and the creative arts to law, linguistics, and policy and child studies – and while certain disciplines lend themselves more straightforwardly to social and economic impact measures, creative or what the Dublin study referred to as “curiosity-inspired” projects can be more difficult to assess, particularly in terms of their flow-through into society and the economy. But we know it is there and so finding new and non-traditional ways to understand and document the importance and purpose of HSS research as well as its audience is critical to a better appreciation of the role of the social sciences, humanities and creative and fine arts in enriching society.<sup>5</sup>

#### 1.4 Building on International and Canadian experiences

Research agencies and institutions throughout the world are exploring and experimenting with a variety of techniques to define and assess research impact. They are struggling with many of the same challenges we face in Canada, from acknowledging the relative paucity of measures for impact outside the academy to the increasingly diversified venues for scholarly dissemination. Whereas peer-reviewed articles, books, and conference papers were once considered the main examples of measurable research outputs, new types and categories are quickly being added to evaluation frameworks, including audio-visual material, original creative works, software, reports, legal cases, maps, newspaper and magazine articles, and works of translation. To meet the growing need for new, effective, cross-disciplinary evaluation metrics, Canada can both contribute to and build upon existing international examples of frameworks and tools for evaluating research.

In 2013, RAND performed a comparison of key international research evaluation frameworks.<sup>6</sup> RAND’s approach accounted for the origins and rationale that led to the development of each system, the scope of each system’s approach, including timescales used, the ways in which data was aggregated and analyzed, how the data was used, including audience, and was followed by RAND’s own analysis of the effectiveness and wider application of each approach. RAND itemized the most common tools used for research evaluation in each of the international frameworks. They included: bibliometrics, data mining, data visualization, logic models, case studies, document review, peer review, surveys, interviews, site visits, and economic analysis (see Fig. 1).

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<sup>5</sup> Ellen Hazelkorn, et al., “Recognising the Value of the Arts and Humanities in a Time of Austerity.” (Dublin Institute of Technology, 2013). URL: <http://arrow.dit.ie/cgi/viewcontent.cgi?article=1042&context=cserrep>

<sup>6</sup> The eight research evaluation frameworks surveyed by RAND included the Canadian Academy of Health Science Payback Framework (CAHS), Excellence in Research for Australia (ERA), the National Institute of Health Research Dashboard (England), the Research Excellence Framework (REF) (UK), Productive Interactions (Netherlands and European Commission), Science and Technology for America’s Reinvestment: Measuring the Effect of Research on Innovation, Competitiveness and Science (STAR METRICS) (US).

	REF	ERA	Productive Interactions	NIHR	CAHS	STAR METRICS
Bibliometrics	✓	✓		✓	✓	
Case studies	✓					
Interviews			✓			
Document review			✓			
Data mining			✓	✓		✓
Data visualisation						✓
Peer review	✓	✓				
Economic analysis					✓	✓
Surveys						
Logic models				✓	✓	
Site visits			✓			

**Fig. 1. Comparison of tools used in international evaluation frameworks. From RAND 2013.<sup>7</sup>**

This draft report draws from indicators used in a variety of international reports, such as the ones identified in RAND 2013. It also proposes new indicators that have not yet been successfully used. As a living document this is one step in a long conversation. Experience and feedback will help refine subsequent drafts of this document and will allow specificity to be added in terms of how these indicators can be rigorously applied in Canada.

The Federation hopes that this document, and future iterations of it, will be a useful contribution to understanding, comparing, and articulating the impact of humanities and social science research in Canada.

<sup>7</sup> We gratefully acknowledge RAND for granting permission to use the figure from document MG-1217-AAMC. Full citation: Susan Guthrie, et al, *Measuring Research: A guide to research evaluation frameworks and tools* (RAND, 2013). URL: <http://www.rand.org/pubs/monographs/MG1217.html>

## Section 2: Description of Indicators

This section of the report describes five baskets where HSS research has impact, and provides detail on the types of indicators that can be used to identify impact, along with examples of studies that have used the indicator. A summary of the types of impact and the basket of indicators appears below. The list of indicators in each basket is not exhaustive – these are examples and over time we expect many more will be identified and added to each. It is not expected that any study will use all of these indicators, rather a selection of indicators will be chosen based on the type of impact of interest, and the time, expertise and finances available for the study. This section of the document is not intended to be read in a linear way: each item is designed to stand alone, click to immediately access any part of the document.

HSS research has impacts on

### SCHOLARSHIP

that can be measured using indicators such as:

- Bibliometric indicators
- Downloads from Open Access repositories
- Citations in grant applications
- Acknowledgements
- Prizes and awards
- Reputation as measured by survey
- Post-publication peer-review (book reviews, dedicated symposia)

HSS research has impacts on

### CAPACITY

**through teaching and mentoring at the undergraduate and graduate levels**

that can be measured using indicators such as:

- Number and quality of experiential learning/ research opportunities for students
- Surveys of students and alumni
- Employer surveys
- Integration of research as a learning outcome in courses

HSS research has impacts on the

### ECONOMY

that can be measured using indicators such as:

- Advisory roles and board memberships
- Revenue opportunities and cost savings in the public, private and not-for-profit sectors resulting from research applied in practice
- Income derived from patents, patent licensing, copyright and trademarks
- Consulting contracts

HSS research has impacts on

### SOCIETY AND CULTURE

that can be measured using indicators such as:

- Number and quality of partnerships between researchers and community groups
- Requests for consultancy/advice from community groups
- Media coverage of research (newspapers/ tv/ online)
- Requests for media appearances
- Engagement of the public at events
- Research-related social media
- Public use of research-based web resources on social and cultural issues

HSS research has impacts on

### PRACTICE AND POLICY

that can be measured using indicators such as:

- Invitations to participate as an expert witness, an advisor, on an expert panel or committee
- Citations in government documents
- Consulting for governments or think-tanks
- Commissioned reports

HSS research has impacts on

## SCHOLARSHIP

HSS scholarship covers an enormous range of disciplines, encompassing everything from health, wellness, happiness, and cultural identity to history, literature, the fine arts, family life, democracy, civic engagement, and international affairs. The purpose of HSS research is to build upon existing knowledge as well as create new knowledge, insight, and understanding in the process. HSS researchers who make maximizing the impact of their work part of their research agenda will extend the influence of their ideas beyond disciplinary or university boundaries and into the public sphere.

The impact that HSS research has on scholarship is fundamental. It is what allows knowledge to move forward. Researchers are accustomed to maintaining a record of their scholarship for the purposes of demonstrating how their research has contributed to both the disciplinary and the wider social context in which he or she is working. To validate their work within their disciplines and home institutions as well as to governments and funding bodies, HSS researchers often quantify the influence of their work, usually through the use of agreed-upon indicators or metrics. However, these measures of scholarly impact are not always captured in discussions of impact. Impacts on scholarship might not be the focus of many studies of impact, but is an important type of impact to be considered.

**Indicators for measuring the impact of HSS research on research include:**

- Bibliometric indicators
- Downloads from Open Access repositories
- Citations and/or references in grant applications
- Published Acknowledgements
- Prizes and awards
- Reputation (as measured by survey among appropriate expert cohort)
- Post-publication peer-review (e.g., book reviews, dedicated symposia)

## Bibliometric Indicators

### SUMMARY TABLE:

Type of research output measured: **Peer-reviewed journal articles.**

Most relevant for: **Social science research.**

Time lag between research output and measureable impact: **4 years+**

Key advantages: **ARC index provides a quantitative, replicable, comparable measure of citations. Data is readily available.**

Key limitations: **Only relevant when peer-reviewed journal article is the primary means of research communication, results depend on database used, and time lag.**

Bibliometrics refer to quantitative or statistical means used to assess patterns in journal article publications within specific fields, literatures, and databases. They are a common way to study the impact of research. Thompson Reuter's *Social Science Citation Index* (SSCI), *Arts and Humanities Citation Index* (AHCI) and *Journal Citation Reports* (JCR), part of its Web of Science Core Collection, are the most commonly used sources of bibliometric data, but *Google Scholar* (GS) is gaining in popularity, in part because it provides a more comprehensive coverage of citations. Citation analysis programs such as *H-Index* and *Publish or Perish* both retrieve and analyze citations. These programs typically have the following goals: to return metrics on the total number of papers, the total number of citations, average citations per paper, citations per author, papers per author, and citations per year. In other words, bibliometric methods can be used to ascertain individual performance or to compare relationships between two or more authors or bodies of work. If an academic's work is well cited, it is likely that he or she has made a significant impact. Where the aim is to develop a set of metrics to study groups of researchers, however, the most relevant measure is currently the *Average Relative Citations* (ARC), which measure research impact based on how many times an article has been referenced relative to other research in a field. The benefit of bibliometrics is that they provide a quantitative and comparable measure of research impact.<sup>8</sup>

It is rarely appropriate, though, to use bibliometrics as the only measure of research impact. Bibliometrics are useful to measure research fields where the means of communicating research is through English-language peer-reviewed journal articles, as is the case in some social sciences. But in the humanities, books and in some instances book chapters tend to be more important, making bibliometrics less valuable. If an academic shows weak citation metrics, it may be the result of little or no impact in a field, but it may also be caused by an otherwise limited or small field to start with, or one who is publishing in languages other than English. Likewise, bibliometrics fail to accommodate for disciplinary and career-length differences and to delineate individual contributions to multi-authored articles. Misclassification of journal articles containing original research into auxiliary categories constitutes another shortcoming of automated bibliometrics; and since different databases include different journals, it is important to consider the type of database being used. Finally, it is important to recognize the four to five year time lag between research being performed, published, cited, and then measured.

### Examples of bibliometrics being used to measure the impact of HSS research:

Excellence for Research in Australia 2015 Submission Guidelines:

<http://www.arc.gov.au/pdf/ERA15/Draft%20ERA%202015%20Submission%20Guidelines.pdf>

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<sup>8</sup> Anne-Wil Harzing and Ron van der Wal, A.W. Harzing, *Publish or Perish* (2007). URL: <http://www.harzing.com/pop.htm>. See also "Google Scholar: the democratization of citation analysis?," *Ethics in Science and Environmental Politics* 8/1 (2007): 61-73; Harzing and van der Wal, "A Google Scholar h-index for journals: An alternative metric to measure journal impact in economics and business," *Journal of the American Society for Information Science and Technology* 60/1 (2009): 41-46.

International Comparative Performance of the UK Research Base, 2013:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf)

The State of S&T in Canada, 2012:

[http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/SandT\\_II/StateofST2012\\_fullreportEN.pdf](http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/SandT_II/StateofST2012_fullreportEN.pdf)

Times Higher Education World University Rankings: <http://www.timeshighereducation.co.uk/world-university-rankings/2013-14/subject-ranking/subject/arts-and-humanities/methodology>

QS World University Rankings:

[http://www.iu.qs.com/university-rankings/world-university-rankings/?\\_\\_hstc=238059679.9f3f58d109786dad29026d26e71d88b3.1389386050938.1389386050938.1389386050938.1&\\_\\_hssc=238059679.5.1389386050939&\\_\\_hsfp=3540311731](http://www.iu.qs.com/university-rankings/world-university-rankings/?__hstc=238059679.9f3f58d109786dad29026d26e71d88b3.1389386050938.1389386050938.1389386050938.1&__hssc=238059679.5.1389386050939&__hsfp=3540311731)

Leiden Ranking 2013:

<http://www.leidenranking.com/methodology/datacollection>

LSE Handbook for social scientists:

[http://www.lse.ac.uk/government/research/resgroups/LSEPublicPolicy/Docs/LSE\\_Impact\\_Handbook\\_April\\_2011.pdf](http://www.lse.ac.uk/government/research/resgroups/LSEPublicPolicy/Docs/LSE_Impact_Handbook_April_2011.pdf)

CAHS 2011: [http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI\\_FullReport.pdf](http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI_FullReport.pdf)

## Downloads from Open Access repositories

### SUMMARY TABLE:

Type of research output measured: **All HSS research that can be made available online.**

Most relevant for: **HSS research.**

Time lag between research output and measureable impact: **Immediate.**

Key advantages: **Strong indicator of research impact and individual reputation.**

Key limitations: **No formalized system currently exists. Data is not readily available and can be both unreliable and unrepresentative. Contingent on non-specialist users.**

Open access publishing offers new opportunities to increase the visibility and citation of HSS research products. And the extent to which downloads from open access repositories can serve as indicators of research impact constitutes one of the new questions in the impact debate. Studies conducted over the past 10 years have generally concluded that free online availability substantially increases a paper's impact. The key, though, is that articles need to be available online for free, not on a subscription or pay-per-use structure. A 2004 study found that peer-reviewed articles that had been deposited in an open-source repository "generated a citation impact up to 400 per cent higher than papers in the same journals that had not been posted in ArXiv," a Cornell-based open-source server. The same study also





found that researchers tended “to post their best articles freely the web” and that pre-print posting on open access databases also translated into more citations.<sup>9</sup>

Using downloads from open access repositories as indicators of research impact, though, can pose challenges. Citation indexes tend to be selective and reflect mainly the better-known journals in the various fields. Authors who publish in an otherwise select list of open-access journals will likely have access to these journals in the first place and will benefit from the increased visibility that these journals already afford. In other words, the open-access repository itself might be less of an indicator of research impact as the journal in which the article is originally published. But the open-access database is a necessary tool and one with comprehensive coverage might enable HSS researchers to better ascertain the value of open-access on citation and research impact. Different open-access databases provide different download statistics and some counting approaches are more reliable than others, while others yet are difficult to compare across databases. Complicating matters are hybrid databases that offer some pay-per-use and some free content. Also problematic is the fact that it remains difficult to determine post-download “usage,” which is to say that, like the problems associated with bibliometrics, downloads alone do not necessarily represent influence or impact.<sup>10</sup>

#### Examples of downloads being used to measure the impact of HSS research:

None found yet.

### Citations in grant applications

#### SUMMARY TABLE:

Type of research output measured: **Peer-reviewed journal articles and books.**

Most relevant for: **Social science and humanities research.**

Time lag between research output and measureable impact: **4 years+.**

Key advantages: **Strong indicator of research impact and individual reputation.**

Key limitations: **No formalized system currently exists. Data is not readily available and can be both unreliable and unrepresentative.**

Most grant applications require applicants to demonstrate their research track record and to situate their proposed research project within a body of scholarship. Through this process, applicants indicate their contribution to a field or discipline and highlight the research of other scholars that has had an impact in a field or discipline. Citation metrics for grant applications in HSS can be used to validate or quantify the claims applicants make about the quality of their work, the extent of their relationships, and the status of their research in a field. Similarly, citations in grant applications to an applicant’s

<sup>9</sup> Stevan Harnad and Tim Brody, “Comparing the impact of open access (OA) vs. non-OA articles in the same journals,” *D-Lib Magazine* (2004): 10/6. URL: <http://www.dlib.org/dlib/june04/harnad/06harnad.html> as cited in Henk Moed, “Does open access publishing increase citation or download rates?,” *Research Trends* Issue 28 (May 2012). URL: <http://www.researchtrends.com/issue28-may-2012/does-open-access-publishing-increase-citation-or-download-rates/>

<sup>10</sup> See Moed and OPCIT: The Open Citation Project, “The effect of open access and downloads ('hits') on citation impact: a bibliography of studies” (2012). URL: <http://opcit.eprints.org/oacitation-biblio.html>.



academic peers can be used as evidence of the national or international reputation in a field of those whose work is highlighted in the application.

Citation metrics for grant applications, like reputational surveys, are useful in assessing the extent to which research has set an agenda in a field or constituted a breakthrough. Citations in grants reveal the journals and books that are often considered to be the most influential and/or representative, while also revealing the cross-disciplinary use or application of research beyond immediate areas of interest and expertise. Citations in grant applications are a viable way for applicants to both quantify and qualify the impact of their research and for reviewers to measure it. But citations in grant applications are not usually exhaustive, they do not necessarily confirm intellectual debt, and they can be misleading or misrepresentative as some scholars may choose their references for tactical rather than scholarly reasons. Some grants limit the number of references/citations an applicant may use, which further circumscribes the data. Meanwhile, recent publications may be under-represented, if not excluded altogether, owing to the time lag between publication and citation.

### Examples of citations in grant applications being used to measure the impact of research:

Canada Graduate Scholarships-Master's Program:

[http://www.nserc-crsng.gc.ca/ResearchPortal-PortailDeRecherche/Instructions-Instructions/CGS\\_M-BESC\\_M\\_eng.asp](http://www.nserc-crsng.gc.ca/ResearchPortal-PortailDeRecherche/Instructions-Instructions/CGS_M-BESC_M_eng.asp)

Fulbright: <http://us.fulbrightonline.org/application-tips/academic>

National Institute of Health: <http://grants.nih.gov/grants/oer.htm>

CAHS 2011: [http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI\\_FullReport.pdf](http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI_FullReport.pdf)

## Acknowledgements

### SUMMARY TABLE:

Type of research output measured: **Peer-reviewed journal articles and books**

Most relevant for: **Social science and humanities research**

Time lag between research output and measureable impact: **4 years+**

Key advantages: **Valuable tool for analyzing relational impacts of acknowledged research, comparable measure of citations. Applicable to books.**

Key limitations: **Data is not readily available and requires costly technical software and coding.**

Acknowledgements in research publications and books indicate contributions, in the form of hands-on help, financial support, or influence, to a research project. Granting bodies and institutional sponsors often expect expressions of appreciation for research funding in publications. Whereas citations denote specific intellectual debts, acknowledgments can also be qualitative and of a more personal nature. Both manual and automated acknowledgment extraction efforts have shown acknowledgements to be a valuable tool for analyzing the relational impacts of acknowledged research contributions. The sciences



refer to this process as “mapping knowledge domains.”<sup>11</sup> But to be a viable analytic tool to measure HSS research, cost-effective, easy-to-use automated methods to distinguish substantive expressions of appreciation from obligatory expressions of debt need to be developed.

Although not yet in use to assess the impact of HSS research, the computer science community has developed automatic acknowledgment extraction and indexing tools to measure scientific contributions. Their algorithms can be extended to any documents that have acknowledgments, but the code is not designed for nontechnical users. The argument in favour of using acknowledgement metrics, particularly in combination with citation indexing, is that acknowledgement analysis measures not only the research impact of individuals or groups, funding agencies, government, corporate, and university sponsors, but also trends in individual or group research, trends within research communities, as well as trends in institutional or agency sponsorship. Acknowledgements uncover relationships between research stakeholders; they reveal indirect contributions to projects and they provide additional context for research. They are also indicative of the informal collaborative networks which are more common than formal partnerships in some disciplines. There are, however, generational and cultural differences in how scholars acknowledge their intellectual debts, while some monograph publishers actively discourage extensive acknowledgements. To date, the complex coding and cost of automating data extraction and indexing has prohibited the widespread use of acknowledgment metrics.<sup>12</sup>

#### Examples of acknowledgements being used to measure the impact of scientific research:

CiteSeer X Beta: <http://citeseer.ist.psu.edu/index>

Database Systems and Logic Programming (DBLP): <http://dblp.uni-trier.de>

### Prizes and awards

#### SUMMARY TABLE:

Type of research output measured: **Lifetime or high profile contributions.**

Most relevant for: **All HSS research, but mainly peer-reviewed journal articles and books and creative works, installations, performances.**

Time lag between research output and measureable impact: **2-4 years+.**

Key advantages: **Promotes innovation and rewards influential research.**

Key limitations: **Subject to potentially non-expert decision panels and could overshadow otherwise significant research contributions.**

Prizes either recognize research achievement or promote research innovation. Occasionally they aspire to do both. The role of prizes and shortlisting for prizes as a means to assess research impact is the subject of considerable debate, namely because it remains difficult to quantify the role that prizes and

<sup>11</sup> Richard M. Shiffrin and Katy Borner, “Mapping Knowledge Domains,” *PNAS* 101/1 (2004). URL: [http://www.pnas.org/content/101/suppl\\_1/5183.full](http://www.pnas.org/content/101/suppl_1/5183.full).

<sup>12</sup> C. Lee Giles and Isaac G. Councill, “Who gets acknowledged: Measuring scientific contributions through automatic acknowledgment indexing,” *PNAS* 101/51 (2004). URL: <http://www.pnas.org/content/101/51/17599.long>.

shortlists play in shaping a research profile or extending research impact beyond an uptick in popularity or sales. Certain prizes, such as the Nobel, Pulitzer, and MacArthur Fellowships, offer considerable prestige and come with profile-raising media coverage, while smaller prizes, regardless of prestige, may earn the winner little or no attention at all. Prizes may be most helpful in garnering individual and research groups further prizes, grant money, and professional advancement. Prizes may be antidotes to an overdependence on bibliometrics or high-profile journals as measures of research impact when those prizes identify or draw attention to important research regardless of where or how it was published.

Prizes can help to establish or identify research agendas and can be used as predictors of whom or which research groups will be effective. Conversely, they provide opportunities to recognize high quality research by new or non-brand-name scholars. General article or book prizes can promote inter-disciplinarity and collaboration. Limitations associated with decision panels can include the following: they may be composed of non-experts; they may be unmotivated, polarized, subject to “group-think,” or pre-occupied with what’s “on trend;” and the prizes themselves may have political or corporate agendas.<sup>13</sup> BookNet Canada tracks book sales, capturing roughly 75% of all trade sales at key times in the season, including awards season, and confirms that awards and the publicity surrounding them can have a significant impact on the title, namely because awards are seen as indicators of quality. The announcement of a prize shortlist, particularly for notable prizes such as the Scotiabank Giller Prize and CBC’s Canada Reads, is enough to spur attention and sales. Book publishers have dubbed this the “Giller Effect” or the “Canada Reads Effect.” But to date there is no metric to quantify or assess the role that prizes play in measuring research impact.<sup>14</sup>

#### **Examples of prizes being used to measure the impact of research:**

SSHRC Impact Awards:

<http://prezi.com/zxrdimzboxay/sshrc-impact-awards/>

Canadian Historical Association Prizes:

<http://www.cha-shc.ca/english/what-we-do/cha-prizes/cha-prizes.html#sthash.4PJgzt4.dpbs>

Canada Council Prizes (including Killam, Molson, Diefenbaker, and Governor General’s Awards):

<http://www.canadacouncil.ca/council/grants.aspx>

Book Net Canada: <http://www.booknetcanada.ca>

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<sup>13</sup> Bob Bruner, “What Were They Thinking?: And Other Questions for a Prize Committee,” University of Virginia, Darden School of Business Blog (17 October 2013). URL:

<http://blogs.darden.virginia.edu/deansblog/2013/10/what-were-they-thinking-and-other-questions-for-a-prize-committee/>; Rebecca Mann, “Using Google to gauge impact: the Nobel Prize in Economics,” LSE Impact Blog (2012). URL: <http://blogs.lse.ac.uk/impactofsocialsciences/2012/10/18/mann-using-google-impact-nobel/>; Ian Sample, “Nobel winner declares boycott of top science journals,” *The Guardian* (9 December 2013). URL: <http://www.theguardian.com/science/2013/dec/09/nobel-winner-boycott-science-journals>

<sup>14</sup> “BookNet Explains the ‘Canada Reads Effect,’” CBC Books (30 November 2010). URL: <http://www.cbc.ca/books/canadareads/2010/11/booknet-canada-explains-the-canada-reads-effect.html>; Vinay Minon, “The Giller Effect,” *Toronto Star* (1 November 2013). URL: [http://www.thestar.com/entertainment/books/2013/11/01/the\\_giller\\_effect.html](http://www.thestar.com/entertainment/books/2013/11/01/the_giller_effect.html)



Scotiabank Giller Prize: <http://www.scotiabank.com/gillerprize/0,,5813,00.html>

Charles Taylor Prize: <http://www.thecharlestaylorprize.ca>

BookNet Canada: <http://www.booknetcanada.ca>

*Maclean's* Rankings: <http://oncampus.macleans.ca/education/2013/10/30/measuring-excellence-2/>

White House Report on the Implementation of Federal Science and Technology Prizes:  
[http://www.whitehouse.gov/sites/default/files/microsites/ostp/competes\\_report\\_on\\_prizes\\_final.pdf](http://www.whitehouse.gov/sites/default/files/microsites/ostp/competes_report_on_prizes_final.pdf)

NASA's Centre of Excellent for Collaborative Innovation:  
<http://www.nasa.gov/offices/COECI/index.html#.UxzAPNy4mII>

## Reputation (as measured by survey among appropriate expert cohort)

### SUMMARY TABLE:

Type of research output measured: **Aggregated contributions across an institution or lifetime.**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **4 years+, but with the potential for immediate impact assessment.**

Key advantages: **Surveys are more qualitative and possibly alternatives to bibliometric tools.**

Key limitations: **Results are not replicable. Surveys must be intelligently designed and distributed. Data is not readily available.**

Reputation, as measured by a survey of experts, is an indication of the best work currently taking place within a field. Reputational surveys that measure the research impact of a particular researcher, compared with others working in the same field, can be viewed as alternatives to journal impact metrics or counting citations. The advantage of measuring research impact through reputational surveys, in other words, is that they provide a more balanced assessment within and between disciplines than bibliometric tools. For example, the total number of publications and citations reflects activity, but does not necessarily reflect the quality of the work. Surveys can also account for research output that is overlooked or misrepresented by citation indexes (i.e. books, conference or working papers, reviews, and social media contributions) and can attest to the national and international standing of the work. HSS subjects with lower citation rates might benefit from reputational surveys that give equal weight to responses from academics in different fields. Better yet, reputational surveys provide a consensus of opinion among experts, which may be particularly helpful for students and non-experts to measure research impact.

In order for reputational indices and analyses to be effective measures of HSS research impact, however, surveyors must adopt a common model of reputation upon which everyone can agree. From this model, questionnaires can be developed to assess the perspectives of all stakeholders and in a way that provides common rather than disparate data. Surveys should be comprehensive and collated over a number of years and participants cannot vote for themselves. One of the challenges of using reputation metrics is that status is a matter of perception and the reputation of HSS research, like scientific

research, is very much a function of its standing among its various stakeholders. Surveys must find a way to accommodate for or mitigate the “halo effect” as well as the fact that research trends can change quickly or take time to develop. For this reason, reputational surveys as tools to measure research impact should cover multiple categories over multiple years in order to gain a better overall indication of reputation.

#### Examples of reputation being used to measure the impact of HSS research:

The State of S&T in Canada, 2012:

[http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/SandT\\_II/StateofST2012\\_fullreportEN.pdf](http://www.scienceadvice.ca/uploads/eng/assessments%20and%20publications%20and%20news%20releases/SandT_II/StateofST2012_fullreportEN.pdf)

*Maclean's* rankings:

<http://oncampus.macleans.ca/education/2013/10/30/measuring-excellence-2/>

QS World University Rankings:

[http://www.iu.qs.com/university-rankings/world-university-rankings/?\\_\\_hstc=238059679.9f3f58d109786dad29026d26e71d88b3.1389386050938.1389386050938.1389386050938.1&\\_\\_hssc=238059679.5.1389386050939&\\_\\_hsfp=3540311731](http://www.iu.qs.com/university-rankings/world-university-rankings/?__hstc=238059679.9f3f58d109786dad29026d26e71d88b3.1389386050938.1389386050938.1389386050938.1&__hssc=238059679.5.1389386050939&__hsfp=3540311731)

#### Post-publication peer-review (e.g., book reviews, dedicated symposia, social media)

##### SUMMARY TABLE:

Type of research output measured: **Either lifetime research contributions or single high impact publications**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **6 months+, but with the potential for immediate impact assessment.**

Key advantages: **Qualitative and potentially an alternative to bibliometric tools. Mitigates disproportionate value placed on where work is published and could improve the overall quality of HSS research. Social media may provide new venues for post-publication review.**

Key limitations: **Results are subjective and not replicable. Post-publication peer review is time consuming and involves time lag between publication and post-publication review. There are also limited venues for formal review.**

Post-publication peer-review can take a number of forms, including book reviews, dedicated symposia, and, increasingly, comments, letters, and blogs on social media platforms. Whereas pre-publication peer review is limited to a select number of experts in a field, usually a journal's editorial board, post-publication peer review provides unlimited opportunities to assess the quality of research and its potential impact. Post-publication peer review can help to mitigate the disproportionate value placed on where research is published (i.e. in what journals or by which presses) in favour of assessing the value, importance, and impact of the work. Formalized systems of post-publication peer review can also assess research regardless of publication format; it can help to catch errors, clarify research, suggest avenues for follow-up work, and strengthen HSS research processes more generally. The truest form of post-



publication peer review is when research is absorbed into a field or the so-called “market-place of ideas” and leads to new practices and new research.

Increasingly, social media platforms, blogs, and other websites, such as Zotero, CiteULike, and Mendeley, are providing dynamic research storage and collation tools as well as responsive tools for post-publication peer review. Meanwhile, PubMed Commons, a post-publication peer review system for biomedical research, allows users to comment directly on PubMed’s indexed research articles. More formalized systems of post-publication peer review, such as Evidence Based Medicine, Faculty of 1000, and JournalWatch, apply stricter criteria to validate research and assess its impact. Social media platforms for post-publication peer review have the potential to open up or democratize peer review by relying less on exclusive editorial boards, to cut the time lag between publication and review, and to generate lists of trending topics when comments are aggregated. Disadvantages of post-publication peer review, both new and old-form methods, include the significant time lag that can arise between publication and post-publication review, compounded by the fact that the review process itself can be time consuming. Book reviews are subject to publishing schedules and subjective editorial oversight, while symposia are seasonal, and the data generated by either is not currently aggregated or analyzed. And while social media may go some way towards shortening the time lag and may provide new opportunities to aggregate data digitally, the medium might open post-publication peer review to non-experts, un-rigorous or self-interested reviews, and to potentially superficial preoccupations with research trends, which could erode the integrity of the process. At the moment, there are limited venues for formal post-publication peer review, beyond book reviews, especially in HSS research.<sup>15</sup>

**Examples of post-publication peer review being used to measure the impact of research:**

Zotero: <http://www.zotero.org>

CiteULike: <http://www.citeulike.org>

Mendeley: <http://www.mendeley.com>

PubMed Commons: <http://www.ncbi.nlm.nih.gov/pubmedcommons>

Evidence-Based Medicine: <http://ebm.bmj.com>

Faculty of 1000: <http://f1000.com>

Journal Watch: <http://www.jwatch.org>

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<sup>15</sup> Dan Cohen, “To Make Open Access Work, We Need To Do More Than Liberate Journal Articles,” *Wired* (15 January 2013). URL: <http://www.wired.com/2013/01/we-need-more-than-releasing-articles-to-make-open-access-work>; Michael Eisen, “Pub-Med Commons: Post-Publication Peer Review Goes Mainstream,” UC Berkeley Blog (22 October 2013). URL: <http://www.michael Eisen.org/blog/?p=1472>; Richard Smith, “What is Post-Publication Peer Review,” BMJ Group Blog (6 April 2011). URL: <http://blogs.bmj.com/bmj/2011/04/06/richard-smith-what-is-post-publication-peer-review/>; Aimee Swartz, “Post-publication Peer Review Mainstreamed,” *The Scientist* (22 October 2013). URL: <http://www.the-scientist.com/?articles.view/articleNo/37969/title/Post-Publication-Peer-Review-Mainstreamed/>



HSS research has impacts on  
**CAPACITY at the undergraduate and graduate levels**  
 through teaching

Universities and colleges are fundamentally places of learning and so developing metrics to assess how research translates into effective teaching and mentoring will provide new and invaluable measures not only of HSS research impact, but also of the quality of an HSS university education more generally. Teaching quality, however, is an abstract concept. In some instances it can take years or decades for students to understand the significance of university learning, just as it can take years or decades to understand the significance or contribution of an HSS research product. Students, though, like to know how teaching relates to the world around them and bringing research into the classroom is an ideal way to help them make those connections. Teaching provides opportunities to bring research questions to students, to expose ideas or tentative conclusions, to gain feedback or review, and to recruit more research students, all of which help to advance a research agenda and create more expert researchers. Ultimately it leads to citizens being more comfortable applying critical thinking and research methods in the workplace and in everyday life, contributing to a free and democratic society.

Research can be used to design a syllabus or course; it might be used to create experiential learning opportunities and internships, or to evaluate student learning in a way that translates into a peer-reviewed journal article. Moreover, work that a researcher has published might be assigned as reading in another class.<sup>16</sup> Institutional variations will nonetheless pose challenges to any metric that sets out to quantify and generalize HSS research impact on teaching and mentoring. In other words, metrics for assessing HSS research impact on teaching and mentoring must take into account the criterion for performance assessment at individual universities. Otherwise, there is the risk of undervaluing or misrepresenting either the research or the teaching. A strong researcher may not be required to teach, while a strong teacher may not have the same research requirements. Like bibliometrics, then, no one indicator will suffice. But graduate and undergraduate student numbers, career data for graduates, learning and research opportunities for students, and surveys of students will lead to a more balanced assessment of HSS research impact on teaching and mentoring.

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<sup>16</sup> Quentin Vicens and Philip Bourne, “Ten Simple Rules To Combine Teaching and Research,” *PLOS Computational Biology* 5/4 (2009). URL: <http://www.ploscompbiol.org/article/info%3Adoi%2F10.1371%2Fjournal.pcbi.1000358>

Indicators for measuring the impact of HSS research on teaching and mentoring include:

- Career data for graduates
- Number and quality of experiential learning / research opportunities for students
- Surveys of students and alumni
- Employer surveys
- Integration of research as a learning outcome in courses

## Career data for graduates

### SUMMARY TABLE:

Type of research output measured: **Knowledge transfer.**

Most relevant for: **All HSS research, but perhaps more so for social sciences or media-based humanities.**

Time lag between research output and measureable impact: **6 months+**

Key advantages: **Potential recruiting tool, improves the connections between HSS research and the public, private, and not-for-profit sector, and serves as an indicator of the value of an HSS education.**

Key limitations: **Research relevance, career-path infrastructure, and geography.**

The 2008 financial crisis set off a timeworn debate about the value of a humanities degree, replete with the media drumming up crisis narratives and pitting the so-called useful sciences against the supposedly less useful humanities. In the U.S. and the U.K., the Harvard Humanities Project and the U.K. Arts and Humanities Council have attempted “to expose the real contribution humanities in higher education makes to the economy and society, as well as to the betterment of individual lives.” Their alumni databases track the lifelong careers of humanities graduates in order to ascertain which career paths or occupational destinations humanities graduates pursued, with special emphasis on the number of graduates who went into growth sectors of the economy.<sup>17</sup> In Canada, university alumni offices no doubt track career data for graduates. But creating an accessible Canada-wide database of graduate career paths, particularly one that itemizes degrees taken, instances where HSS research was applied in the classroom, and where programs offered experiential learning and research opportunities for students, would serve as an indicator of the intrinsic value of a humanities education and it would denote the extent to which HSS research impacts graduate career paths. Career-path evidence could also be used as a recruiting tool for new HSS students and researchers.

Research relevance, infrastructure, and geography will pose the biggest challenges to collecting and analyzing career data for graduates as will using it as a measure of HSS research impact. Certain disciplines lend themselves more to the public and private sector than others, while others still, such as the creative or media arts, may generate more commercial interest. HSS researchers whose work translates into a public or private context or whose work is more engaged in commercialized activity may better prepare students for the school-to-work transition. Meanwhile, universities, researchers, and programs that have developed a range of partnerships with the public, private, and not-for-profit

<sup>17</sup> Shearer West, “A good humanities degree has real value and opens the door to a wide range of career paths,” *British Politics and Policy*, LSE Blog (30 July 2013). URL: <http://blogs.lse.ac.uk/politicsandpolicy/archives/35325>



sectors will encourage not only engagement, interaction, and knowledge transfer, but also the possibility of graduate hiring. A researcher in a major urban center will have a larger, more mobile student body and greater networking opportunities compared, say, to a researcher in Northern Ontario, while a financial crisis in one sector or many might lead to job contraction. In other words, career path data for graduates an invaluable measure of HSS research impact, but not a measure that can be taken in isolation.

### Examples of career data for graduates being used to measure the impact of HSS research:

Harvard Humanities Project:

<http://artsandhumanities.fas.harvard.edu/humanities-project>

Humanities Graduates and the British Economy: The Hidden Impact:

<http://www.torch.ox.ac.uk/graduateimpact>

The Economic Impact of UK Arts and Humanities Research:

<http://www.ahrc.ac.uk/News-and-Events/Publications/Documents/Leading-the-World.pdf>

Hidden Connections: Knowledge exchange between the arts and humanities and the private, public and third sectors:

<http://www.ahrc.ac.uk/News-and-Events/Publications/Documents/Hidden-Connections.pdf>

QS World University Rankings

[http://www.iu.qs.com/university-rankings/world-university-rankings/?\\_\\_hstc=238059679.9f3f58d109786dad29026d26e71d88b3.1389386050938.1389386050938.1389386050938.1&\\_\\_hssc=238059679.5.1389386050939&\\_\\_hsfp=3540311731](http://www.iu.qs.com/university-rankings/world-university-rankings/?__hstc=238059679.9f3f58d109786dad29026d26e71d88b3.1389386050938.1389386050938.1389386050938.1&__hssc=238059679.5.1389386050939&__hsfp=3540311731)

## Integration of research as a learning outcome in courses

### SUMMARY TABLE:

Type of research output measured: **All HSS Research.**

Most relevant for: **All HSS research, including digital humanities and the creative and fine arts.**

Time lag between research output and measureable impact: **Immediate**

Key advantages: **Improves the connections between HSS research and students, advances a research agenda, and increases the value of an HSS education.**

Key limitations: **The time involved in creating research-based learning outcomes.**

HSS researchers who have the opportunity to bring their work into the classroom not only extend their research impact, but improve both their research and their teaching by integrating the two. HSS researchers who teach must ask themselves what they want their students to learn, what assignments, classroom activities, and pedagogical approaches will help their students to master the knowledge and skills, and how they as teachers will determine whether students have accomplished what they have set out to teach them. HSS researchers can bring their research to the classroom to answer these questions and in so doing close the gap between teaching and research as well as extend their research impact. The net benefit to both researchers and students is that the university classroom becomes a space for



creating new knowledge as opposed to the simple transmission of knowledge. The explicit articulation of research as a learning outcome in syllabi and curriculum can take any number of forms.

A researcher might set out to equip students with research skills through projects, whereby a student builds content rather than memorizes it. Content can quickly become out-dated whereas researchers who provide students with critical thinking or analytic skills will empower their students for life. James Skidmore at the University of Waterloo highlights some of what professors at his university are doing to bring their research into the classroom: psychologists might ask their students to play both actor and observer roles in psychological inquiries, forcing them to shift their perspectives and understand issues from both sides; sports researchers can help students improve their writing by applying research on “coachability,” while historians might involve students in the development of digital history by having them collaborate on open-source textbooks. Researchers and students alike benefit by applying their critical reasoning skills and creativity to discuss research questions, design experiments, and test hypotheses.<sup>18</sup>

**Examples of integration of research as learning outcomes in courses being used to measure impact:**

None found yet

## Number and quality of experiential learning / research opportunities for students

### SUMMARY TABLE:

Type of research output measured: **Knowledge transfer.**

Most relevant for: **All HSS research, including digital humanities and the creative and fine arts.**

Time lag between research output and measureable impact: **6 months+**

Key advantages: **Potential recruiting tool, improves the connections between HSS research and the public, private, and not-for-profit sector, advances a research agenda, and increases the value of an HSS education.**

Key limitations: **Lack of time and bureaucracy, program infrastructure.**

*The Globe & Mail* recently reported that arts graduates in Canada are increasingly finding new career paths after acquiring skills through co-op and internship programs. Many universities offer experiential learning and research opportunities for students. Hands-on research and work experience allows students to develop discipline-specific skills; it allows them to network, gain valuable on-the-job training, and maximize their chance of finding employment after graduation.<sup>19</sup> The knowledge transfer or exchange between the HSS researcher, the student, and the work placement can also be an important measure of research impact. Researchers who provide experiential learning and research opportunities might, in the process, advance their research agendas. They might gain insights into their

<sup>18</sup> James Skidmore, “Bringing Research into the Undergraduate Classroom,” University of Waterloo (9 February 2014). URL: <https://uwaterloo.ca/arts/blog/post/bringing-research-undergraduate-classroom>

<sup>19</sup> Cassandra Jowett and Elias Da Silva-Powell, “Arts graduates find new career paths by adding skills,” *The Globe & Mail* (22 October 2012). URL: <http://www.theglobeandmail.com/news/national/education/canadian-university-report/arts-graduates-find-new-career-paths-by-adding-skills/article4620640/>

own research through student involvement and engagement with external organizations. Researchers might gain new platforms for collaboration, including new opportunities to present their research outside the classroom; they might develop new audiences for their work, access to new resources, and new sources of funding for their current and future research projects. When done well, experiential learning and research opportunities benefit both researchers and students alike and serve as practical indicators of HSS research impact both inside and outside the classroom.

HSS researchers might find that in some instances or fields, public, private, and not-for-profit partners have insufficient resources to connect with and manage learning or research exchanges, let alone one that is pertinent to the researcher's project or field. Providing students with experiential learning opportunities alone might not advance or benefit a research agenda, while the number of learning and research opportunities might not be an indicator of their quality. Although successful outcomes can be dependent upon variables beyond the researcher's control, including the ability of students and partners to follow through, potential obstacles can be mitigated through institutional support and infrastructure committed to managing students, their research, and work-placement programs. In any case, measuring the impact of HSS research through the number and quality of research opportunities it leads to or provides is an invaluable and in-demand way for researchers to mobilize and apply their work.

#### **Examples of experiential learning opportunities for students being used to measure the impact of HSS research:**

Experiential Learning, Centre for Teaching Excellence, University of Waterloo:

<https://uwaterloo.ca/centre-for-teaching-excellence/resources/integrative-learning/experiential-learning>

Ontario Centres of Excellence:

<https://uwaterloo.ca/centre-for-teaching-excellence/resources/integrative-learning/experiential-learning>

PRISM: <http://www.math.neu.edu/prism/>

Carleton College, Geosciences Dune Research Experience:

[http://serc.carleton.edu/integrate/workshops/broaden\\_access/essays/78658.html](http://serc.carleton.edu/integrate/workshops/broaden_access/essays/78658.html)

### **Surveys of students and alumni**

#### **SUMMARY TABLE:**

Type of research output measured: **Knowledge transfer.**

Most relevant for: **All HSS research**

Time lag between research output and measureable impact: **4 years+**

Key advantages: **Enhances a researcher's focus and development and extends his or her research impact by proxy through students.**

Key limitations: **Highly dependent on subjective student feedback, the representativeness of students, and the quality of the surveys.**



*Maclean's* annual university ranking guide remains one of its most popular issues. The magazine evaluates universities in three categories itemizing variations in institutional type (primarily undergraduate, comprehensive, and doctoral), levels of research funding, offerings, and range of programs. It bases its rankings on data collected from Statistics Canada, Common University Data Ontario, the Atlantic Common University Data Set, university operating budgets and financial figures, including scholarship and awards information, student and faculty numbers, figures from the Canadian Association of Research Libraries, as well as data from SSHRC, NSERC, and CIHR. The magazine also sends reputational surveys to university officials, high school counselors, and interested stakeholders across the country.<sup>20</sup> Surprisingly, little effort is made to canvas students. *The Globe & Mail's* annual *Canadian University Report* attempts to redress this shortcoming with its student satisfaction survey. And while the survey asks students for feedback on student-faculty interaction, research opportunities, quality of teaching and learning, and career preparation, among other things, the data collected amounts to little more than an overall grade for each category.

Surveys of students, however, can be a vital measure of HSS research impact and more efforts could be made to unify, collate, and analyze course evaluations. Limitations in using student survey data include variations in the vocabulary of student course evaluations or questionnaires, student perceptions of surveys and evaluations, class attendance and engagement, response rates, errors in administration, the representativeness of respondents, as well as the profile of respondents. Studies have shown that variations in the student group, including discipline, gender, ethnicity, location, mode of study, and year of study, can lead to differences in overall experience.<sup>21</sup> Studies have also shown that students tend to evaluate different academic fields differently, while some faculty and researchers question whether students can be effective evaluators of research and teaching at all.<sup>22</sup>

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<sup>20</sup> Mary Dwyer, "Measuring Excellence: Details of how *Maclean's* ranks 49 universities each year," *Maclean's* (30 October 2013). URL: <http://www.macleans.ca/education/unirankings/measuring-excellence-2-2/>

<sup>21</sup> Pamela Gravestock and Emily Gregor-Greeleaf, *Student Course Evaluations: Research, Models, and Trends*, Higher Education Quality Council of Ontario (2008). URL: <http://www.heqco.ca/SiteCollectionDocuments/Student%20Course%20Evaluations.pdf>; Paul Bennett and Gosia Taylor, *PRES 2013: Results from the Postgraduate Research Experience Survey*, The UK Higher Education Academy (2013). URL: [http://www.heacademy.ac.uk/resources/detail/postgraduate/PRES\\_2013\\_UK\\_report](http://www.heacademy.ac.uk/resources/detail/postgraduate/PRES_2013_UK_report)

<sup>22</sup> The National Survey of Student Engagement (NSSE). URL: <http://nsse.iub.edu>; Canadian Graduate and Professional Student Survey. URL: <http://www.cags.ca/cgpss/index.html>. See also William E. Cashin, "Students do rate different academic fields differently," *New Directions for Teaching and Learning* 43 (1990). URL: <http://onlinelibrary.wiley.com/doi/10.1002/tl.37219904310/abstract>. See also Tanya Beran, Claudio Violato, and Don Kline, "What's the 'use' of student ratings of instruction for administrators? One university's experience," *Canadian Journal of Higher Education*, 37/1 (2007). URL: <http://ojs.library.ubc.ca/index.php/cjhe/article/view/183545>; Beran, Violato, Kline and Jim Frideres, "The utility of student ratings of instruction for students, faculty, and administrators: A "consequential validity" study," *Canadian Journal of Higher Education*, 35/2 (2005). URL: <http://ojs.library.ubc.ca/index.php/cjhe/article/view/183500>; and Judith Prugh Campbell and William C. Bozeman, "The value of student ratings: Perceptions of students, teachers and administrators," *Community College Journal of Research and Practice*, 32/1 (2007). URL: <http://www.tandfonline.com/doi/full/10.1080/10668920600864137#.VA8K82NAGm0>

**Examples of surveys of students being used to measure the impact of HSS research:**

*Maclean's* Rankings

<http://oncampus.macleans.ca/education/2013/10/30/measuring-excellence-2/>

*Globe & Mail* University Report:

<http://www.theglobeandmail.com/news/national/education/canadian-university-report/canadian-university-report-2013-student-satisfaction-survey-results/article4631980/>

National Survey of Student Engagement (Indiana University):

<http://www.nsse.iub.edu>

Postgraduate Research Experience Survey (PRES): <http://www.heacademy.ac.uk/pres>

HSS research has impacts on the

## **ECONOMY**

Research impacts the economy when it informs decision-making in economic sectors, shapes government policy, and provides new ideas and technologies that can be commercialized. Research that improves quality of life in areas such as health, education, the environment, city or community cohesion, social or ethical values, or that improves creative production or cultural understanding, will have both an economic impact and a broader benefit. Quality-of-life research can impact policies that shape key parts of the economy. Research that saves costs and improves productivity or financial gains can also have a direct impact on the economy. Through the Science and Technology Strategy, the Government of Canada has increased its investment in science and technology, including new business innovation, in the hopes that it leads to new industry partnerships and new jobs, attracts skilled researchers, incentivizes private sector investment, and improves Canada's knowledge base and investments in discovery-based research. The goal, in other words, is to encourage research collaboration that promotes the commercialization of research and development.<sup>23</sup>

At present, there is no single strategy to commercialize HSS research and no single metric to assess the rich, diverse, but sometimes difficult-to-understand impact that HSS research has on the economy. Like the Federal S&T Strategy, SSHRC-funded partnerships help to connect HSS researchers with researchers in other fields as well as with business, community, government, and international partners. As metrics are developed to assess the economic impact of HSS research, special consideration will no doubt need to be given to humanities research to prevent it from being valued or de-valued unfairly. In the meantime, cost savings to the public, private, and not-for-profit sector and research-related income from patents, patent licensing, copyright, and trademarks, as well as consulting contracts remain the key measures of research impact or the means by which HSS research might best be monetized.

### **Indicators for measuring the impact of HSS research on the economy include:**

- Income derived from patents, patent licensing, copyright and trademarks
- Consulting contracts
- Advisory roles and board memberships
- Revenue opportunities and cost savings in the public, private and not-for-profit sectors resulting from research applied in practice

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<sup>23</sup> "Seizing Canada's Moment Moving Forward in Science, Technology and Innovation," Industry Canada, Science and Technology Consultation Paper (2014). URL: [http://www.ic.gc.ca/eic/site/icgc.nsf/eng/h\\_07416.html](http://www.ic.gc.ca/eic/site/icgc.nsf/eng/h_07416.html)

## Income derived from patents, patent licensing, copyright and trademarks

### SUMMARY TABLE:

Type of research output measured: **Commercialised research outputs.**

Most relevant for: **All HSS research, including the creative and fine arts.**

Time lag between research output and measureable impact: **Subject to patenting, licensing, copyright, and trademarking processes.**

Key advantages: **Income generating. Increases knowledge transfer and industry links.**

Key limitations: **Costly set up, requiring support staff and software.**

Income derived from patents, patent licensing, copyright, and trademarks is a billion dollar industry in U.S. universities, owing to a commercialization approach to university research and technology that was legislated (in the form of the Bayh-Dole Act) in the 1980s.<sup>24</sup> Comparatively speaking, the commercialization of intellectual property by Canadian universities lags far behind the U.S. The last report by Statistics Canada, based on 2008 data, found that total income derived from intellectual property (chiefly licensing) by Canadian universities was \$53.2 million. Staffing costs amounted, however, to \$51.1 million, leaving a total surplus of just \$2.1 million for all Canadian universities, which averaged out to less than half a million dollars per reporting university. Generally speaking, OECD countries do a lacklustre job of commercializing academic patenting and licensing. A report by the OECD Directorate for Science, Technology and Industry found that in Europe “only 10% of universities account for 85% of the total income generated by inventions.”<sup>25</sup> More effective commercialization strategies need to be developed, not only in Canada.<sup>26</sup>

Patents, licensing income, and other research spin-offs are nonetheless important ways to assess HSS research impact, assuming metrics can be developed to assess the extent to which institutions are able to turn publicly-funded research into revenue-generating innovation. Providing access to HSS research is crucial to transferring knowledge to society and to private companies. It encourages industry engagement as well as legislative and administrative procedures that help to bring researchers, universities, and companies together. Knowledge transfer and commercialization initiatives help to cultivate and adapt research to specific economic environments or regions. It helps to maintain research excellence, to develop new strategies that link university-based research to commercialization opportunities, including business innovation, and it brings together academics and entrepreneurs. In full swing, commercialization provides new performance measurement indicators for HSS research. To expand the economic impact of HSS research, however, universities need to facilitate public access to research; they need to develop research and technology transfer offices, replete with new forms or models of knowledge transfer, to help bring new research and discoveries to market. Universities need patent, trademark, and copyright databases, perhaps linked with the Canadian Intellectual Property

<sup>24</sup> Maureen Farrell, “Universities that turn research into revenue,” *Forbes* (December 2008). URL: [http://www.forbes.com/2008/09/12/google-general-electric-ent-tech-cx\\_mf\\_0912universitypatent.html](http://www.forbes.com/2008/09/12/google-general-electric-ent-tech-cx_mf_0912universitypatent.html)

<sup>25</sup> *Commercialising Public Research: New Trends and Strategies*, OECD Report (December 2013). URL: [www.oecd.org/sti/sci-tech/commercialising-public-research.htm](http://www.oecd.org/sti/sci-tech/commercialising-public-research.htm)

<sup>26</sup> Michael Geist, “Commercialization of IP in Canadian Universities: Barely Better Than Break Even,” Blog (31 August 2010). URL: <http://www.michaelgeist.ca/content/view/5284/125/>. See also *Survey of Intellectual Property Commercialization in the Higher Education Sector*, Statistic Canada Report (2008). URL: <http://www.statcan.gc.ca/pub/88-222-x/88-222-x2010000-eng.htm>





Office, as well as collaborative tools and funds, staff to do the required paperwork, and committees to decide which research needs to be protected and subsequently licensed, all of which are costly to set up.

#### Examples of patents being used to measure the impact of HSS research:

The State of S&T in Canada:

<http://www.scienceadvice.ca/en/assessments/completed/science-tech.aspx>

Times Higher Education World University Rankings:

<http://www.timeshighereducation.co.uk/world-university-rankings/2013-14/subject-ranking/subject/arts-and-humanities/methodology>

International Comparative Performance of the UK Research Base, 2013:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/263729/bis-13-1297-international-comparative-performance-of-the-UK-research-base-2013.pdf)

Excellence for Research in Australia 2015 Submission Guidelines:

<http://www.arc.gov.au/pdf/ERA15/Draft%20ERA%202015%20Submission%20Guidelines.pdf>

CAHS 2011:

[http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI\\_FullReport.pdf](http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI_FullReport.pdf)

Hidden Connections: Knowledge exchange between the arts and humanities and the private, public and third sectors:

<http://www.ahrc.ac.uk/News-and-Events/Publications/Documents/Hidden-Connections.pdf>

### Consulting contracts

Type of research output measured: **Lifetime contributions/ reputation.**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **Subject to contract negotiations and length.**

Key advantages: **Income generating. Increases knowledge transfer and industry links.**

Key limitations: **Requires non-academic project management skills, is often shaped by short-term issues specific to a particular sector, and opens HSS researchers to professional and financial risks.**

Consultancy, paid and unpaid, in the social sciences and humanities is an important way to channel expertise and to ensure that publicly funded researchers not only engage with society but that their research has a positive social and economic impact. Consulting activity allows HSS researchers to make their knowledge and expertise available to governments, public sector organizations, community groups, and businesses. These interactions expand research networks and research impact beyond the university, while enhancing the reputation of the researcher and the university in the process. They can also be invaluable ways to demonstrate and assess the impact of HSS research beyond a specific discipline, while also providing HSS researchers with new experiences, professional approaches, and skill sets, such as communicating research findings to interested, non-academic stakeholders; designing and



facilitating strategic planning processes for integrating HSS research into educational, artistic, governmental, non-governmental, and business environments; negotiating, writing and executing contracts; arranging logistical details with clients; and billing and collecting.

Consultancy brings HSS researchers into contact with experts and frontline staff in non-academic sectors that stand to benefit from as well as inform HSS research. In other words, consultancy is a knowledge transfer-and-capture exchange and it is one that can benefit researchers in the social sciences as fully as in the humanities. Researchers in Education, Archaeology, History, English Literature, or Theatre might be brought in as consultants to shape policy across the spectrum of educational age ranges, to help with digitization projects, or to inform cultural initiatives, while researchers in Economics, Sociology, Politics, or International Development might be brought in to inform tax policy, to evaluate relationships with diasporas, or to develop international trade partnerships. Negotiating contracts, acquiring insurance, and protecting the interests of the individual researcher and the university constitute risks. But universities with offices or divisions that offer consultancy services can help HSS researchers to maximize (and monetize) their research impact and minimize their risk in doing so.<sup>27</sup>

#### Examples of consultancy being used to measure the impact of HSS research:

ISIS Innovation, Oxford University: <http://www.isis-innovation.com>

UC Davis, Social Science Data Service: <http://www.ssds.ucdavis.edu>

UMass Amherst, Institute for Social Science Research: <http://www.umass.edu/issr/people>

Field Guide to Statistical Consulting for the Social Sciences at University of Washington:  
[faculty.washington.edu/jansp/HUDE516/.../StatisticalConsultingUW.doc](http://faculty.washington.edu/jansp/HUDE516/.../StatisticalConsultingUW.doc)

### Advisory roles and board memberships

Type of research output measured: **Lifetime contributions / reputation**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **Subject to the time frame and agenda of the board.**

Key advantages: **Increases knowledge transfer and industry links and provides the opportunity to play a role in resource allocation.**

Key limitations: **Lack of resources or infrastructure to incorporate HSS recommendations and research**

When HSS researchers serve in advisory roles or as board members they have the opportunity to extend, develop and strengthen their research by applying their work in governmental, non-governmental, not-for-profit, and for-profit environments. They can help research partners and stakeholders identify existing areas of weakness and integrate HSS research into their decision-making

<sup>27</sup> *Consultancy in the Social Sciences*, Oxford University Consulting (2011). URL: [http://www.isis-innovation.com/documents/OUC\\_Social\\_Sciences/OUC\\_SocSci.pdf](http://www.isis-innovation.com/documents/OUC_Social_Sciences/OUC_SocSci.pdf). See also Daniel Nehring, "The Sociologist, the Consultant, the University and the Real World," *Social Science Space* (28 July 2013). URL: <http://www.socialsciencespace.com/2013/07/the-sociologist-the-consultant-the-university-and-the-real-world/>



processes. HSS researchers can gain a better understanding of how their research can be used in non-disciplinary ways to both save and generate money. In advisory or board roles, HSS researchers might play a role in resource allocation decisions that affect an institution, if not a city, province, or nation's health and wealth. In this way, HSS researchers can have a direct influence on the economic planning, analysis, and decision-making of individuals, agencies, firms, and governing institutions.

Non-HSS firms, agencies, and institutions, however, may not have the infrastructure, i.e. the disciplinary speciality or the resources to improve programs and research structures, to effectively incorporate HSS research and advice. HSS researchers might be under-represented on panels and boards and may either struggle to achieve their objectives or feel pressure to tailor their findings to the disposition of a board. Ideally, though, serving on an independent multi-disciplinary board comprised of research leaders is an important opportunity to provide advice to external stakeholders through active participation in meetings and the active monitoring of a project or initiative through its various stages. The opportunity increases the rigour, outreach, and potential economic impact of HSS research.<sup>28</sup>

#### **Examples of advisory roles and board memberships being used to measure the impact of HSS research:**

None yet found.

### **Revenue opportunities and cost savings in the public, private and not-for-profit sectors resulting from research applied in practice**

Type of research output measured: **Applied research outputs.**

Most relevant for: **Mainly social sciences.**

Time lag between research output and measureable impact: **Lengthy time lag, dependent on policy cycles and short, medium, and long-term program assessments post implementation.**

Key advantages: **Possibility to improve effectiveness, including cost-effectiveness, of programs.**

Key limitations: **Modeling or forecasting cost-savings, assigning value to outcomes, and convincing beneficiaries of value.**

In an era of cutbacks and austerity in public budgets, an increasingly important measure of research impact is the extent to which it can generate cost savings to the public. Cost-benefit approaches and decision-modeling techniques can estimate instances where applied research might lead to savings in the public, private, and not-for-profit sectors, but to date evidence remains limited. Still, social scientists, in particular, can make a strong cost-saving case, particularly when their research is applied to social and health policy and community-building initiatives. For example, HSS research that supports independent living for seniors or the disabled could, if applied, translate into dramatic cost savings to both the public and private sectors by freeing up staff, resources, and time. Similarly, HSS research that demonstrates how resources could be better used to achieve outcomes could also translate into cost

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<sup>28</sup> Integrating Social Science into NOAA Planning, Evaluation and Decision Making, NOAA Science Advisory Board (2 May 2010). URL: [http://www.sab.noaa.gov/Reports/sswg/2010/NOAA\\_response\\_SSWG\\_FINAL.pdf](http://www.sab.noaa.gov/Reports/sswg/2010/NOAA_response_SSWG_FINAL.pdf)

savings, as would research that revealed concrete ways to build and mobilize community capital and capacity.<sup>29</sup>

HSS researchers studying public-run services, social and healthcare needs, aging, employment and unemployment, marginalized groups, anti-social behaviour, neighbourhood renewal, or volunteering, to list only a few examples, may find better and more cost-effective ways to allocate resources or systems of care and support. In other words, research that finds ways to minimize the risk of developing needs for support may improve the effectiveness of the services and their cost-effectiveness as well. Research that leads to improvements in well-being, including emotional, physical, social, financial, or practical health, use of time by paid and unpaid staff, volunteer participation, regulation and monitoring activities, or community involvement will also encourage cost savings. There are, however, significant challenges or obstacles in assessing cost savings to the public, private, and not-for-profit sectors resulting from research applied in practice. They include modeling the economic consequences of what might happen in the absence of HSS initiatives, forecasting the potential savings, and assigning a monetary value to specific outcomes. Integrating HSS researchers with decision-makers in the public, private, and not-for-profit sectors as well as imparting HSS objectives to those who may benefit most may also be a protracted process.<sup>30</sup>

#### **Examples of cost-savings being used to measure the impact of HSS research:**

None yet found.

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<sup>29</sup> Martin Knapp, et al, "Building community capital in social care: is there an economic case?," LSE Research Online (2012/2013): URL: [http://eprints.lse.ac.uk/46440/1/Knapp\\_Building\\_community\\_capital.pdf](http://eprints.lse.ac.uk/46440/1/Knapp_Building_community_capital.pdf); Tripp Umbach, The Economic Impact of Publicly Funded Research Conducted by AAMC-Member Medical Schools and Teaching Hospitals (2011): <https://www.aamc.org/download/265994/data/tripp-umbach-research.pdf>

<sup>30</sup> Prisons, Jobs, Privatization: The Impact of Prisons on Employment Growth in Rural US Counties, 1997-2004: <http://cooley.libarts.wsu.edu/hooks/prisonsJobsPrivatization%20SSR.pdf>; Money, Recent Examples from RAND's Federally Funded Research and Development Centers, RAND (2013): [http://www.rand.org/pubs/corporate\\_pubs/CP485-2013-08.html](http://www.rand.org/pubs/corporate_pubs/CP485-2013-08.html).



HSS research  
has impacts on

**SOCIETY AND  
CULTURE**

HSS research that is relevant to local needs and benefits the community will engage with, influence, and aid society in ways that extend beyond the classroom and the otherwise narrow focus on counting citations or research commercialization. Researchers who recognize how to interact with the community and integrate their own research agendas with community agendas will dramatically expand the impacts and outcomes of their work, including the economic value to the public, private, and not-for-profit sectors. In turn, HSS researchers will benefit by inviting different communities to participate and inform their research, which may lead to exciting new research directions and outcomes. In this way, HSS researchers stand to gain practically, ethically, and strategically from community partnerships. SSHRC-funded research on the economic security of senior immigrants in Canada, for example, led to relationship-building opportunities, shared decision making, and mutual outcomes. Agreements were reached about protecting broader values and goals as well as open processes and privacy, while new opportunities for social change emerged through coalition building and collective efforts to solve existing policy, organizational, and institutional problems.<sup>31</sup>

In most instances, the positive gains from community engagement will outweigh the challenges, though HSS researchers will need new or additional skill sets to facilitate effective partnership building and to navigate their way through the media and the public domain. HSS researchers who view themselves as “co-learners” will nonetheless empower the community and, in turn, encourage community partners to invest in HSS research. Mobilizing community members to collect data and resources or to conduct focus groups might also be a valuable way to offset the high cost of research. Meanwhile, collaborative, community-based research committed to achieving mutual outcomes might lead to new projects, new knowledge bases, new community partners and participants, including new opportunities for campus-community collaboration, new advisory boards, and new problem-solving capacities, all of which extend the social value and impact of HSS research. In general, researchers whose work is relevant to local needs and who become involved in society as experts will help to bring about change in their communities through their work.

**Indicators for measuring the impact of HSS research on society and culture include:**

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<sup>31</sup> Nancy Mandell, et al., “Community-Academic Research Partnerships: Practical, Ethical and Strategic Approaches to fostering engaged scholarship,” York University Research Snapshot (2013). URL: [http://www.academia.edu/4810377/COMMUNITY-ACADEMIC\\_RESEARCH\\_PARTNERSHIPS\\_PRACTICAL\\_ETHICAL\\_AND\\_STRATEGIC\\_APPROACHES\\_TO\\_FOSTERING\\_ENGAGED\\_SCHOLARSHIP](http://www.academia.edu/4810377/COMMUNITY-ACADEMIC_RESEARCH_PARTNERSHIPS_PRACTICAL_ETHICAL_AND_STRATEGIC_APPROACHES_TO_FOSTERING_ENGAGED_SCHOLARSHIP)

- Number and quality of partnerships between researchers and community groups
- Requests for consultancy/advice from community groups
- Media coverage of research (newspapers/ TV / online)
- Requests for media appearances
- Attendance at public events
- Research-related social media
- Public use of research-based web resources on social issues

## Number and quality of partnerships between researchers and community groups to enable social innovation

Type of research output measured: **Knowledge transfer and partnerships.**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **Subject to the time frame and agenda of the partnership agreement.**

Key advantages: **Increases knowledge transfer and community links and provides the opportunity to play a role in bringing about change in a community.**

Key limitations: **Time, brokering relationships, planning and implementation.**

Often discussed under the umbrella term of social innovation, partnerships between researchers and community groups strengthen data, information, and knowledge transfer. Partnerships are vital to knowledge mobilization, particularly when the goal is to improve communities, workplaces, health, education, and policy through applied research and collaborative problem solving. Reciprocal exchanges increase community engagement in ongoing and future research projects; they facilitate knowledge-based collaboration; and they increase community awareness of HSS research. Studies have shown that partnerships between researchers and community groups promote civic engagement and social responsibility through the integration of common areas of interest and inquiry and the shared commitment to achieving common goals. Partnerships involve researchers and community groups in meaningful community-building services, which strengthen or enhance the image and reputation of the HSS researcher's discipline and university. More importantly, collaboration helps researchers to understand better the causes, effects, and other factors that place certain people and communities at risk, locally, nationally, or internationally. In this way, HSS researchers can mobilize their research to be relevant to public policy as well as to the public, private, and not-for-profit sectors.

Becoming involved in community partnerships comes with a long list of demands, some of which may pose challenges to HSS researchers. Knowledge mobilization and community engagement plans will need to be drawn up and communicated to university and granting bodies. Building trust and brokering relationships with the community and the university, including other relevant researchers and faculties, may challenge or slow the processes of research collaboration. Meanwhile, the planning and implementation of research partnerships, through to and including developing effective means of communication, which will likely involve creating a digital identity in the form of websites and social media platforms, will be time consuming to establish and manage. But community partnership support services at the university level often mitigate challenges by helping HSS researchers with the planning,



writing, and implementing stages of knowledge transfer through partnerships and community involvement. HSS researchers and community partners who have support at every stage of the research cycle will have the greatest opportunity to mobilize and extend their research impact in the community, though the number of partnerships an HSS researcher develops should always be viewed in the context of their value and quality.

#### Examples of partnerships being used to measure the impact of HSS research:

None found yet

### Requests for consultancy/advice from community groups

Type of research output measured: **Lifetime contributions/ reputation.**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **Subject to the time frame and agenda of the community groups.**

Key advantages: **Creates opportunities to develop awareness of community issues and sensitivities. Increases knowledge transfer and community links and provides the opportunity to play a role in bringing about change in a community.**

Key limitations: **Time, brokering relationships, planning and implementation. Contingent on need.**

Requests for consultancy and advice from community groups open up new avenues for HSS researchers to conduct research and interviews and to provide advice to stakeholders, managers, and officials on issues that are relevant to their own research agendas. Consultancy or advisory roles in the community allow researchers to become involved in the design and implementation stages of public, private, and not-for-profit projects and programs. Through their involvement, HSS researchers might gain access to new resources or databases, thereby creating new opportunities to compile and analyze information. Consultants also have the opportunity to monitor and evaluate programs and their operation, to respond to internal and external requests for information or insight, and to present their research to interested non-specialist, non-disciplinary groups, which might include politicians, government officials, the media, or the general public. Consultancy plays a crucial role in the knowledge transfer-and-capture exchange and can extend the impact of HSS research by bringing it to bear on community-based issues and problems. Generating either savings or revenue to the community through consultancy or advice will also extend the value of HSS research.

Consulting or advising community groups, however, can be time consuming and, in some instances, may detract from a research agenda if the exchange is not mutual. Connecting with the community formally or informally will in most instances require an HSS researcher to familiarize him or herself with new sets of issues, existing power relations, and community dynamics. In addition to the demands of non-academic project and time management, researchers will need to understand the context in which they are offering advice, including existing issues and conflicts including on issues of intellectual property, the nature of their engagement, how it might affect outcomes, and how to encourage solutions without reinforcing old problems or creating new ones. HSS researchers will need to be in tune with the concerns of the community and interested stakeholders and will need to ensure that their advice not



only benefits community groups equally, but can be reasonably and responsibly implemented. Requests for consultancy or advice might vary based on an HSS researcher's seniority, age, gender, or discipline. In other words, particular community groups might seek the advice of particular researchers, while the intensity of the interaction itself will vary, from a phone conversation or email to a sustained engagement over weeks or months. In this way, community requests for consultancy and advice are highly contingent barometers of research impact.

#### Examples of consultancy being used to measure the impact of HSS research:

None yet found.

### Media coverage of research (proactive media)

Type of research output measured: **Peer reviewed publications, books, events.**  
 Most relevant for: **All HSS research.**  
 Time lag between research output and measureable impact: **Immediate.**  
 Key advantages: **Creates opportunities to raise awareness and expand research and disciplinary impact to the public. Increases knowledge transfer and media links.**  
 Key limitations: **Time and media training or preparedness.**

Media coverage of HSS research indicates interest in a field or topic. Regional, national, or international events may spur interest and so might policy agendas. Meanwhile, media coverage might wane or dry up entirely as the events and policies come to pass. But examples abound, from educational research, census, crime, and economic analysis to psychology and political theory, in which HSS researchers can have something of value and interest to communicate and contribute to the media. A systematic study of when, where, how often, and which HSS disciplines appear in the media, along with an analysis of how effectively HSS research is communicated, could be a valuable indicator of research impact as well as the social value and prestige of HSS research more generally.

Communicating HSS research to non-specialist media constitutes perhaps the greatest challenge to an HSS researcher. Media coverage takes many forms and happens across many platforms. In general, HSS researchers need to be prepared to deal with everything from sensationalism and inaccuracy to simple lack of understanding in the media and in the public. Bias in the media as well as popular ideas (with little basis in fact) may challenge or undermine an HSS researcher's agenda, as might competition for space and time in interviews and panels. Researchers in urban centres, at better known universities, or institutions with advanced media services, might benefit disproportionately from media coverage. There is a fine line, however, between the promotion of HSS research and actual engagement with the community and with the issues at hand. But researchers who can navigate their way through the media and who can communicate their message evenly and effectively across all forms and platforms will create opportunities to extend the impact of their research to the general public.<sup>32</sup>

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<sup>32</sup> Angela Cassidy, "Communicating the Social Sciences," in M. Bucchi and B. Trench, eds, *Handbook of Public Communication of Science and Technology* (London: Routledge, 2008). URL: [http://www.academia.edu/218134/Communicating\\_the\\_Social\\_Sciences](http://www.academia.edu/218134/Communicating_the_Social_Sciences)





#### Examples of media coverage being used to measure the impact of HSS research:

CAHS 2011

[http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI\\_FullReport.pdf](http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI_FullReport.pdf)

#### Requests for media appearances (reactive media)

Type of research output measured: **Primarily reputation**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **Immediate.**

Key advantages: **Creates opportunities to raise awareness and expand research and disciplinary impact to the public. Increases knowledge transfer and media links.**

Key limitations: **Time, media training or preparedness, and the possibility that messages will be changed or obscured; subject of appearance often determined by factors beyond the researcher's control.**

Researchers who are called upon by the media for interviews may be engaged in high impact research. They may have been picked from a university list of faculty experts available to talk to the media or they may already have a public image. Regardless, an HSS researcher who is able to engage the community through interviews and debates in the public domain has a unique opportunity to extend his or her research impact beyond the discipline and the classroom. In fact, humanities and social science researchers tend to be more successful than scientists at playing the role of the “public intellectual.” Social scientists feature prominently year in and year out in surveys by the UK magazine *Prospect* of the world’s top public intellectuals. Through media interviews, HSS researchers can reach local, national, and transnational audiences and advance their subject, discipline, and research agendas. In other words, media interviews are important opportunities for HSS researchers to raise their profile by framing and re-framing debates through the public application of their research findings.

Some HSS researchers, however, might struggle to decide how to go about representing their research and their disciplines in the public domain as well as how to distinguish themselves from other experts. HSS researchers may be asked to comment on a broader range of issues or phenomena and may feel on-the-spot pressure to comment on issues outside their areas of speciality; they may feel the need to compete with other experts in the public domain. The time media interviews take away from research (and teaching and administrative duties) and the sense of duty some feel to engage with the community or to make their work public may serve as drawbacks to accepting interview requests. Moreover, the subjects or topics about which they are asked to comment are often driven by circumstances beyond their control.

#### Examples of requests for media appearances being used to measure the impact of HSS research:

None yet found.

## Engagement by the public at events

Type of research output measured: **Lifetime research contributions/ reputation.**  
 Most relevant for: **All HSS research.**  
 Time lag between research output and measureable impact: **Immediate.**  
 Key advantages: **Creates opportunities to raise awareness and expand research and disciplinary impact to the public. Increases knowledge transfer.**  
 Key limitations: **Highly contingent on scheduling, location, and variations in attendance. No effective way of assessing what individual attendees have taken away from the event**

Attendance by community members at public lectures, presentations, workshops, exhibitions and performances is one of the means by which HSS researchers connect with the public and bring their research insight to the community. It serves as an opportunity for community members to meet with researchers and to hear first-hand the work they are doing. Effective HSS lecturers have the opportunity to arouse interest in their research by communicating their enthusiasm for it; where possible, they can tailor their presentations to the community; and they can present larger cross-sections of information in a public lecture than they can in, say, a media interview, tweet, or blog. Conversely, they can present their research more informally and at a more tentative stage in a public lecture as opposed to a peer-reviewed journal article or book. In the lecture, HSS researchers can demonstrate to the community how they go about answering research questions and why their answers are relevant to the everyday lives of members of the community. Public lectures offer a rare opportunity to communicate a research agenda in an otherwise controlled environment composed of specialists and non-specialists alike.

Public lectures are not without their limitations. “Brand name” lecturers might garner higher attendance than lesser-known researchers doing leading work. In general, public lectures tend to be scripted and not overly interactive, so opportunities to clarify misunderstandings or gain feedback are limited. Scheduling, travel time, available space, cost of admission, and event advertising influence attendance. There are often little to no mechanisms in public lectures to ensure that the audience or community is engaged and of course different audience members will learn or understand material in different ways. Public lectures tend not to be ideal venues for communicating abstract or complicated ideas, which may disadvantage HSS researchers, but the extent to which researchers are invited to give them and that audiences show up to listen may be used in conjunction with other metrics as indicators of an HSS researcher’s impact on the community.

### Examples of attendance at public lectures being used to measure the impact of HSS research:

CAHS 2011: [http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI\\_FullReport.pdf](http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI_FullReport.pdf)

## Altmetrics - Research-related social media

Type of research output measured: **Research disseminated via social media.**  
 Most relevant for: **All HSS research.**  
 Time lag between research output and measureable impact: **Immediate.**  
 Key advantages: **New opportunities for collaboration, feedback, review, access to information (new and old), and new metrics to measure web-based research impact.**

Key limitations: **Highly subject to the quality of the participants, at the risk of softening academic rigor. Traffic data is not considered a barometer of research quality.**

Advancements in digital media and the rapid rise of social networking sites have had a dramatic effect on HSS research. Digitization and social technologies foster new forms of communication, new communities, and in the process provide new opportunities for collaboration on collective, open-source projects. New media have also led to new questions and debates about how best to measure scholarly impact. Traditional measures, namely bibliometrics, are increasingly being challenged by the rapid rise of more nuanced disciplines and the influence of social media and blogs. Emerging web-based alternatives, known as altmetrics (and sometimes referred to as cybermetrics or webometrics) are helping academics navigate the digital landscape and find new ways to evaluate their research impact. Altmetrics are defined as “the creation and study of new metrics based on the Social Web for analyzing and informing scholarship.” Its creators insist that altmetrics can improve existing scholarly filters. Peer review and citation measures, they argue, are failing.<sup>33</sup>

The movement towards web-based publication and online reference managers, such as Zotero, Mendeley, and PubMed, means that millions of research articles are stored online. Pre-digital-era publications are increasingly being uploaded, counted, and finding new life. Meanwhile, conversations that were once relegated to hallways, offices, conferences, and classrooms are happening more and more on Twitter, blogs, and other social media outlets. These new forms, argue the creators of altmetrics, reflect and transmit scholarly impact. They expand the possibilities for research impact through ease-of-sharing, including self-publishing, and they expand the opportunities for citation, engagement, commenting, and post-publication peer review. By counting usernames, timestamps, and tags or bookmarks, altmetrics also offer new usage metrics and new ways to measure research impact.<sup>34</sup> Critics argue, however, that crowd sourcing can lead to the softening of peer-review and with roughly only a third of university faculty on twitter, and less subscribed to altmetric sites, the reliability of social media becomes a question of who is participating and who is not. The rate of growth of social media adoption among researchers and the popularity or privileging of certain platforms are also mitigating factors.<sup>35</sup> And while the almost real-time speed of online publishing can shrink communication and impact cycles, traffic data and “buzz” are not measures of research quality. Social media definitely provides additional avenues to make new and existing research available and to assess its impact, but for now its greatest value might be in filling a gap between traditional bibliometrics and other usage metrics.

<sup>33</sup> “Altmetrics: A Manifesto” (accessed April 2014). URL: <http://altmetrics.org/manifesto/>

<sup>34</sup> Ibid.

<sup>35</sup> D. Taraborelli, “Soft peer review: social software and distributed scientific evaluation,” in P. Hassanaly, et al, eds, *Proceedings of the 8th International Conference on the Design of Cooperative Systems, Carry-le-Rouet*, (May 2008. (99-110). URL: <http://eprints.ucl.ac.uk/8279/>; C. Neylon and Shirley Wu, “Article-Level Metrics and the Evolution of Scientific Impact,” *PLoS Biol* 7/11 (2009). URL: <http://www.plosbiology.org/article/info:doi/10.1371/journal.pbio.1000242>; J. Priem and B.M. Hemminger, “Scientometrics 2.0: Toward New Metrics of Scholarly Impact on the Social Web,” *First Monday* 15/7 (2010). URL: <http://firstmonday.org/ojs/index.php/fm/article/view/2874/2570>; and R.K. Hai, “Twitter in Higher Education: Usage Habits and Trends of Today's College Faculty,” *Faculty Focus: Special Report* (2009). URL: <http://www.scribd.com/doc/19253028/Twitter-in-Higher-Education-Usage-Habits-and-Trends-of-Todays-College-Faculty>

## Examples of altmetrics being used to measure the impact of HSS research:

The Altmetrics Collection: <http://altmetrics.org/tools/>

## Public use of research-based web resources on social issues

Type of research output measured: **Research disseminated online.**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **Immediate.**

Key advantages: **New opportunities for collaboration, feedback, review, access to information (new and old), and new metrics to measure web-based research impact.**

Key limitations: **Highly subject to the quality of the participants who use the research at the risk of softening academic rigor. Traffic data is not considered a barometer of research quality.**

Public use of research-based web resources, especially relating to health and social issues, is a fast-growing phenomenon and opens up the potential for new digital forms of research impact. Few studies, however, have set out to examine the broader utility of web resources for evaluating research impact, let alone their ability to promote healthier or safer behaviours among the public. Research-based web resources on social issues nonetheless provide exciting opportunities for HSS researchers to communicate with and deliver a wide range of content, particularly through social media platforms, all of which extends the reach and potential impact of their work. The public use of research-based web resources also enables researchers to mobilize their research for a wider variety of purposes, including advocacy; social issue messaging; fund raising; recruitment for surveys, case studies, or trials; professional development and training of social leaders; inter-community communication, coordination, and development.

The abundance of web resources, both scholarly and non-scholarly alike, however, raises concerns about the viability of the web in general and its use by the public in particular as an indicator of research impact. Public users must wade through a plethora of information on a variety of competing platforms. The public will be exposed to competing viewpoints and must be equipped to distinguish between research-based information and, say, targeted or user-generated content. Certain web-based or social media platforms might do more to engage users, which may artificially increase their trust or relationship with the site regardless of the quality of the content. In the process, researchers might also need to find new ways to communicate their work to the general public without compromising their authority or their fields. But public use of research-based web resources that employ strategies and methods to engage with the public in interactive, multi-way conversations may soon become a valuable vehicle for and indicator of research impact.

## Examples of altmetrics being used to measure the impact of HSS research:

None yet found.



**HSS research  
has impacts on  
PUBLIC POLICY**

Ongoing debates about the changing role of universities have focused on the university's place in a fast-evolving global arena. Universities can distinguish themselves by affecting public policy through HSS research. Academic researchers and government policy-makers addressing similar problems from different directions and with different objectives can close policy-theory gaps by working together on issues of local, national, and international relevance. HSS researchers who address issues of public interest can participate in and inform the policy-making process by finding solutions to the social and economic challenges facing governments at home and abroad, especially when HSS researchers work directly with governments, not-for-profit organizations, and the private sector to raise the profile of their work. HSS research has for a long time played an invaluable role in the public policy-making process.<sup>36</sup>

HSS research on inequality has helped shape international policy agendas; research by social psychologists on social cohesion has impacted integration policy at the community level; research on migration has informed immigration policy; and research on cities, criminality, poverty, voting, families, women's rights, the rights of minorities, political apathy, and political extremism has and continues to shape policy debates at all levels of government. In other words, well-tested, socially-relevant, social scientific data, couched in clear theories, can have a positive impact on policy.<sup>37</sup> It is also clear that policy-makers are not only staying up-to-date on HSS research but that it is in fact informing decision-making, especially at the federal level, discrediting in the process the notion that HSS research and public policy realms are separate and distinct.<sup>38</sup>

**Indicators for measuring the impact of HSS research on public policy include:**

- Invitations to participate as an expert witness, an advisor, on an expert panel or committee
- Citations in government documents
- Consulting for governments or think-tanks

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<sup>36</sup> Simon Bastow, Jane Tinkler, and Patrick Dunleavy, *The Impact of the Social Sciences: How Academics and their Research Make a Difference* (London: Sage, 2014).

<sup>37</sup> Robert Ford and Matthew Goodwin, "Phillip Blond needs to do his research on the impact of British academics," *The Guardian*. Higher Education Network. (13 June 2013). URL: <http://www.theguardian.com/higher-education-network/blog/2013/jun/13/philip-blond-academics-big-idea>

<sup>38</sup> Paul C. Avey and Michael C. Desch, "What Do Policymakers Want From Us? Results of a Survey of Current and Former Senior National Security Decision-Makers," *International Studies Quarterly* 58/4 (December 2014). URL: [http://www3.nd.edu/~carnrank/PDFs/What%20Do%20Policymakers%20Want%20from%20Us\\_MC.pdf](http://www3.nd.edu/~carnrank/PDFs/What%20Do%20Policymakers%20Want%20from%20Us_MC.pdf)

- Commissioned reports

## Invitations to participate as an expert witness, an advisor, or on an expert panel or committee

Type of research output measured: **Peer-reviewed books, articles and reputation.**  
 Most relevant for: **All HSS research.**  
 Time lag between research output and measureable impact: **Immediate.**  
 Key advantages: **Creates opportunities to raise awareness and expand research and disciplinary impact to the public. Increases knowledge transfer.**  
 Key limitations: **Politicization of research, communication challenges. Time and input restrictions.**

Invitations to participate as an expert witness or advisor on a panel or committee are indicators of an HSS researcher's reputation and provide an opportunity for a researcher to help improve policy or decision-making through his or her research and analysis. The experience brings the researcher into contact with other experts and policy-makers who, in turn, become more familiar with the policy-relevance of the HSS researcher's work. Serving as a witness or expert can help to enhance the credibility of the HSS researcher, while also providing the researcher with opportunities to improve his or her own ability to interact and communicate with non-academic communities, including committee members, external colleagues, stakeholders, and policy-makers. In the process, the HSS researcher can apprise the panel of new ideas, methods, and approaches and can intervene in the panel's findings or conclusions. Serving as a witness or panel member, like consulting for governments and think tanks, becomes a way of maintaining open lines of communication between HSS and non-HSS communities that are otherwise working to solve the same or similar problems.

Differences in communication between HSS researchers and those working in more technical fields can pose challenges to panels and policy-makers. Panel participation may be limited or defined by certain time frames; it may require certain behaviours or interactions; and it may involve question sequences to which HSS researchers will find it difficult to adapt or that otherwise contravene client-researcher confidentiality. Participation as a witness or expert on a panel is nonetheless a valuable way to build relationships, to draw attention to HSS research, to frame and reframe research questions, and to become involved in policy development, all of which help to extend the impact of HSS research.<sup>39</sup>

### Examples of invitations to participate being used to measure the impact of HSS research:

European Union Platform for Investing in Children:

[http://europa.eu/epic/practices-that-work/evidence-based-practices/external-expert-panel\\_en.htm](http://europa.eu/epic/practices-that-work/evidence-based-practices/external-expert-panel_en.htm)

Ellen Macarthur Foundation: Independent Experts Advisory Panel:

<http://www.ellenmacarthurfoundation.org/about/advisors>

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<sup>39</sup> Mariell Juhlin, Puay Tang, and Jordi Mollas Gallart, "How and when social scientists in Government contribute to policy," *The Impact Blog*. London School of Economics and Political Science (12 October 2012). URL: <http://blogs.lse.ac.uk/impactofsocialsciences/2012/10/12/juhlin-social-scientists-contribute-policy/>





Excellence for Research in Australia 2015 Submission Guidelines

<http://www.arc.gov.au/pdf/ERA15/Draft%20ERA%202015%20Submission%20Guidelines.pdf>

## Citations in government documents

Type of research output measured: **Peer-reviewed journal articles and books.**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **Immediate to 4+ years.**

Key advantages: **Creates opportunities to raise awareness and expand research and disciplinary impact to the public. Increases knowledge transfer.**

Key limitations: **Difficult to quantify.**

Citations in government documents constitute a measurable impact of HSS research outside the university. While the environmental, biological, and physical sciences once led the pack in terms of citations in government research, the social sciences and humanities have caught up over the past decade in North America, Europe, and Australia. This is due in part to the steadily increasing social application of HSS research and to the gradual shift of HSS research output into formats other than monographs and journal articles. When HSS research finds its way into government documents, it helps to close the so-called “impact gap” by fulfilling its potential to influence policy and society in general. In some fields, citations, particularly extensive use in government documents of key HSS ideas, themes, or findings, might be as relevant as bibliometrics. Moreover, evidence of an HSS researcher’s influence or involvement in an external agency, organization, or institution’s decision-making might be a greater realization of research impact than metrics that measure disciplinary influence alone.<sup>40</sup>

It is rarely easy, however, to measure or assess the external use and users of HSS research. It is difficult to quantify how much contact the external users had with the research itself, and how familiar they were with the problems and literatures to which the research contributed. Government decision-making can be partisan and idiosyncratic, it can derive from consensus building or elicitation, and it can be prone to if not rely upon distortions. HSS research that does factor into government documents, or the work and decision-making of other external agencies for that matter, nonetheless has the potential to contribute to and shape not only policy but what the philosopher Michael Oakeshott referred to as the “dynamic knowledge inventory,” which stretches well beyond the walls of academia.<sup>41</sup>

### Examples of citations in government documents being used to measure the impact of HSS research:

CAHS 2011

[http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI\\_FullReport.pdf](http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI_FullReport.pdf)

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<sup>40</sup> See “Maximizing the Impact of Your Research: A Handbook for Social Scientists,” LSE Public Policy Group (April 2011). URL: [http://www.lse.ac.uk/government/research/resgroups/lsepublicpolicy/docs/lse\\_impact\\_handbook\\_april\\_2011.pdf](http://www.lse.ac.uk/government/research/resgroups/lsepublicpolicy/docs/lse_impact_handbook_april_2011.pdf).

<sup>41</sup> Oakeshott is cited in the LSE handbook. The original quote is from “The study of politics” in *University: An Essay in Appropriateness* (1962), republished in *Rationalism in Politics and Other Essays* (Indianapolis: Liberty Fund, 1994).



## Consulting for governments or think-tanks

Type of research output measured: **Peer-reviewed journal articles and books, reputation.**

Most relevant for: **All HSS research.**

Time lag between research output and measureable impact: **Immediate to 4+ years.**

Key advantages: **Creates opportunities to raise awareness and expand research and disciplinary impact to the public. Increases knowledge transfer.**

Key limitations: **Politicization of research, potential lack of peer-review, research restrictions due to funding requirements, partisan nature of some think-tanks.**

Think tanks tend to be more influential at shaping policy than academics alone. They represent a crucial link between the explication of policy ideas and their eventual implementation by governments. When HSS researchers are brought in as consultants for governments or think tanks it creates new opportunities to extend the impact of their research, in particular by finding new users or audiences for HSS research, by helping policy makers make more informed decisions, and by contributing to the creation of public knowledge.<sup>42</sup> Governments and think tanks also allow researchers new opportunities to identify problems that can potentially be solved, to clarify the policy implications of their work, and to become more involved at various stages, not just the beginning or end, of policy-making cycles.<sup>43</sup> They can also assist researchers to frame their work in ways that are more readily and easily disseminated to a non-academic audience. In turn, governments and think tanks gain new opportunities to understand the relevance of HSS research to the policy-making process. Think tanks are normally autonomous from governments. They can provide HSS researchers with access to additional resources as well as unique opportunities to generate, analyze, and communicate data to the public and to policy-makers. Think tanks can serve as go-betweens for HSS researchers and decision-makers, while governments can bring researchers into closer relationships with bureaucrats and policy-makers. Both think tanks and governments can help HSS researchers communicate their findings in new ways and to wider audiences.

Some of the drawbacks of consulting for governments and think tanks include potential limitations on researcher autonomy, more limited opportunities to network than might otherwise be assumed, variations in research methodologies, and differences in media accountability. Think tanks can be partisan, lobbying governments for specific policies, or in a relationship with government that may be perceived as too close, while other think tanks can be composed of consensus builders. Others yet are beholden to funders. They may not subject their research to the same checks-and-balances or present research in ways that HSS researchers in academia find useful or credible.<sup>44</sup> Governments, of course, can pose a similar list of challenges.<sup>45</sup>

<sup>42</sup> Ruth Levitt, et al, "Assessing the Impact of Arts and Humanities Research at Cambridge University," Rand Technical Report (2010). URL: [http://www.rand.org/pubs/technical\\_reports/TR816.html](http://www.rand.org/pubs/technical_reports/TR816.html)

<sup>43</sup> Lawrence MacDonald and Ruth Levine, "Learning While Doing: A 12-Step Program for Policy Change," Centre for Global Development Essay (February 2008). URL: [http://www.cgdev.org/sites/default/files/15417\\_file\\_PolicyChange.pdf](http://www.cgdev.org/sites/default/files/15417_file_PolicyChange.pdf)

<sup>44</sup> On the limitation of think tanks, see Stephen J. Ball, *Politics and Policy Making in Education: Explorations in Policy Sociology* (London: Routledge, 1990); Geetha B. Nambissan and Stephen J. Ball, "Advocacy networks, choice and private schooling of the poor in India," *Global Networks* 10/3 (2010). URL: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.398.1650&rep=rep1&type=pdf>; and Diane Stone, "Think Tanks and Policy Advice in Countries in Transition," Discussion Paper commissioned by the Japan Fund for



## Examples of consulting for governments and think tanks being used to measure the impact of HSS research:

Study of the Contribution of Social Scientists to Government Policy and Practice (2012):  
[http://www.esrc.ac.uk/\\_images/GESR%20FINAL%20REPORT\\_tcm8-23493.pdf](http://www.esrc.ac.uk/_images/GESR%20FINAL%20REPORT_tcm8-23493.pdf)

CAHS 2011  
[http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI\\_FullReport.pdf](http://www.cahs-acss.ca/wp-content/uploads/2011/09/ROI_FullReport.pdf)

## Commissioned reports

Type of research output measured: **All HSS Research**  
Most relevant for: **All HSS research.**  
Time lag between research output and measureable impact: **Immediate to 4+ years.**  
Key advantages: **May help policy makers to rethink their assumptions and consider alternative options for analysis and intervention**  
Key limitations: **May be used for symbolic purposes only.**

Another way for HSS research to impact public policy is through commissioned reports. A recent study of how immigration policy makers in the U.K., Germany, and the European Commission used commissioned research found that in most cases it served legitimizing or substantiating functions. Policy makers might point to commissioned reports to legitimize their decisions when their goal is to show that the research was done and the analysis carried out. In other words, there is little in the way of iterative engagement with the research itself. Policy makers point to commissioned reports to substantiate their decisions when they wish to “back up” or add weight to their decisions. In which case, they might mine the research for claims that support their objectives. In both instances, the impact of commissioned reports may be more symbolic than researchers might otherwise prefer.

But there are indicators of a commissioned report’s impact beyond its symbolic value. The publicizing of a report by the government or agency that commissioned it might highlight the authority of the research and its author. Research that influences decisions or improves policy outcomes and performance might also be assumed to have had an impact, though it can be difficult to ascertain specifically how the ideas or findings in the research shifted the policy-maker’s thinking. That said, commissioned reports can play a major role in framing or re-framing policy problems, identifying problems or limitations in existing policy, suggesting possible targets for intervention, as well as policy options that might best be avoided. Commissioned reports that help policy makers to rethink their assumptions and consider alternative

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the Public Policy Training symposium (2005). URL: <http://www.adbi.org/discussion-paper/2005/09/09/1356.think.tanks/>

<sup>45</sup> Judy Sheeba, “Getting Research into Policy: The Role of Think Tanks and Other Mediators,” *The Impact Blog*. The London School of Economics and Political Science (7 March 2011). URL: <http://blogs.lse.ac.uk/impactofsocialsciences/2011/03/07/getting-research-into-policy-the-role-of-think-tanks-and-other-mediators/>

options for analysis and intervention will demonstrate significant utility and impact beyond disciplinary and university borders. Commissioned reports can be brief summaries or large-scale, multi-year undertakings; they may combine a variety of research materials and approaches. To assess their impact, their weight or value in relation to other research products, such as journal articles or books, will need to be determined.<sup>46</sup>

**Examples of commissioned reports being used to measure the impact of HSS research:**

None found yet

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<sup>46</sup> Christina Boswell, “Research impact on policy-making is often understood in instrumentalist terms, but more often plays symbolic role,” LSE Impact Blog (2014). URL: <http://blogs.lse.ac.uk/impactofsocialsciences/2014/07/17/research-impact-policy-symbolic-instrumental/>. See also Boswell, *The Political Uses of Expert Knowledge: Immigration Policy and Social Research* (Cambridge: Cambridge University Press, 2012).

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