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FROM CONCEPT TO ACTION:

Good practices for equity, diversity and inclusion (EDI) in research, teaching and knowledge mobilization at the interface of science, society & policy

Dr. Marisa Beck, Research Director, ISSP with the Project Team

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This discussion paper was prepared by Dr. Marisa Beck, Research Director, Institute for Science, Society and Policy at the University of Ottawa, with the help and support of the project team and project advisors.

The project team included:

Rukhsana Ahmed, Adjunct Professor, Department of Communication, Faculty of Arts, uOttawa; Associate Professor, Department of Communication, University at Albany, SUNY; Faculty Affiliate, ISSP

Jordan Barret-Choy, MA Candidate in Public Administration, School of Political Studies, uOttawa; Graduate Research Assistant, ISSP

Marisa Beck, Research Director, ISSP, uOttawa

Monica Gattinger, Director, ISSP; Full Professor, School of Political Studies, uOttawa

Sarah Laframboise, PhD student in Biochemistry, uOttawa; President, Ottawa Science Policy Network

Jason Millar, Canada Research Chair (Tier 2) in Ethical Engineering of Robotics and AI; Assistant Professor, School of Engineering Design and Teaching Innovation, with a cross-appointment in the Department of Philosophy, uOttawa; Core Member, ISSP

Kaela O'Connor, MSc Candidate in Cellular & Molecular Medicine at the University of Ottawa; VP Communications, Ottawa Science Policy Network

Gregor Wolbring, Full Professor, Cumming School of Medicine, University of Calgary; Senior Fellow, ISSP

The project advisors were **Kelly Bronson** (Canada Research Chair (Tier 2) in Science and Society, Assistant Professor, Sociological and Anthropological Studies, Faculty of Social Sciences, uOttawa, Core Member, ISSP), **Terry Campbell** (Assistant Vice-President, Research Operations and Strategies, uOttawa), and **Louise Earl** (Senior Fellow, ISSP).

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Introduction

Universities, funding agencies, and governments across Canada are taking action to promote equity, diversity, and inclusion (EDI) in research, teaching, and knowledge mobilization (KMb) activities. Identifying how to transform research and KMb to incorporate EDI principles is an urgent imperative, but there are gaps between EDI ambitions and EDI know-how.

Scholars and practitioners at the ISSP have deep long-standing expertise in inclusive research and engagement practices at the science-society-policy (SSP) interface (e.g., public health, energy and environment, AI and genomics, and practices that engage Indigenous, African, Caribbean and Black, immigrant, disabled and other marginalized, equity-seeking communities).

This project aimed to mobilize this expertise to help Canada transform decision-making as rapidly and effectively as possible. It helps advance the Institute's five-year strategic vision (2021-2026): helping Canada transform decision-making to meet the grand challenges of our time by strengthening relationships within and among academic, public, private and civil society sectors to align SSP imperatives. EDI is a core plank of the ISSP's strategic plan.

We heard during the workshops and through the online survey that projects and conversations like these are needed. We heard that Canadian SSP organizations have made important progress on EDI in the past five years. EDI is now at the centre of the mainstream discourse in the SSP community. For instance, 'manels' have become unacceptable. It is now widely recognized that diversity has merit in itself and that including a variety of perspectives enhances the quality of the discussion.

But a lot of work remains to be done. To start with, Canada's SSP community is not diverse or representative. Project participants agreed that the field is still very male-dominated and suffering from implicit biases and sexism.

Research, teaching, and KMb activities at the SSP interface include activities that investigate or strengthen the mutual relationships between the science and policy sectors and society at large. These activities may face special responsibilities, opportunities and challenges when it comes to EDI. First of all, these activities are inherently policy-relevant and often explicitly aim to inform decision-making by governments and regulators. These activities also frequently pursue a co-productive approach, involving actors from academic, public, private and civil society sectors, and they typically aim at providing holistic solutions to 'real-world' problems. Such problems rarely (never?) align neatly with disciplinary boundaries. As a result, research, education and KMb at the SSP interface are typically conducted by multi-disciplinary teams of researchers applying multiple theoretical and conceptual frameworks. Some of the good practices on EDI identified in this brief directly refer to these characteristics of working at the SSP interface.

The SSP community has a great opportunity to make an impact within and across the sectors with which it engages and connects – research, policymakers and society, including both civil society and the private sector. Its cross-sectoral nature puts the SSP community in a powerful position to foster innovations within each sector and in their interactions with other sectors.

Before turning to the discussion of good practices for achieving such innovations, definitions of key terms are warranted. First, no singular definition of EDI has been adopted in this project. Rather, the workshop discussions explored participants' understanding and approaches to EDI in their own work (see good practice #1). Second, at the ISSP and in this project, we are thinking of KMb as a two-way interaction that applies throughout the entire research process from research design and conceptualization all the way through to mobilization of research findings once a study is complete. It is a process of learning from each other, rather than a one-way dissemination of knowledge from

producers to users at the end of a research project. In short, KMb refers to the ongoing co-production and sharing of knowledge.

We hope that this project and the identified ‘good practices’ discussed in this brief will contribute to a collective learning process that, over time, moves Canada’s SSP community toward greater equity, diversity and inclusion. We deliberately identify ‘good’ rather than ‘best’ practices; this brief is meant to be a conversation starter, rather than the final word.

Throughout this project it has been our intention to respect all communities. If you have comments, concerns, or questions concerning this policy discussion paper, we invite you to [contact us](#).

Project objectives and methodology

The project objectives were to:

- mobilize knowledge from researchers and senior practitioners in the ISSP network about how to define and embrace EDI in research, teaching, and KMb activities at the SSP interface
- identify challenges and how to overcome them, ‘lessons learned’ and ‘good practices’
- disseminate findings to the SSP community, including researchers, policymakers, students, funding agencies, and the public
- promote collective learning, cross-disciplinary and cross-sectoral collaborations among participating researchers, students, partner organizations, and knowledge users
- encourage and enable EDI in research and knowledge mobilization at the SSP interface.

The ISSP hosted three virtual workshops in March/April 2022, inviting ISSP network members to engage in conversation about their experiences with EDI at the SSP interface. In preparation for the workshops, we conducted a scan of organizational practices and policies to inform a resource sheet shared with workshop participants. Each workshop addressed a different question:

Workshop 1: What does EDI mean in the context of your research, teaching, and KMb activities at the interface of science, society and policy?

Workshop 2: What challenges are you encountering around EDI in the context of your research, teaching, and KMb activities at the SSP interface? How can they be addressed?

Workshop 3: What are some ‘lessons learned’ / ‘good practices’ based on your experience with EDI in your work at the SSP interface?

In total, 28 people participated in the workshops, including researchers, students, postdoctoral fellows, and practitioners. Since the workshop proceeded under Chatham House rule, this report does not disclose the identity and affiliation of the workshop participants whose discussions shaped this brief. Individual ‘What We Heard’ reports for each workshop are available [here](#).

In addition to the workshop sessions, ISSP network members also had the opportunity to share their thoughts through a bilingual online survey that included the three workshop questions. In total, 6 people responded to the online survey, 4 in English and 2 in French. These responses also informed this policy discussion paper.

It is important to underscore that the purpose of this project was to provide a ‘snapshot’ of EDI experiences, practices and challenges in the ISSP’s membership and to foster a constructive

dialogue; the intention was not to produce representative, generalizable findings. This is important given that the number of workshop participants and survey respondents is relatively small, and participants were by no means representative of all equity-seeking groups.

Good Practices for EDI in Research, Teaching, and KMb at the SSP interface

This report identifies seven good practices that aim to help researchers, instructors, KMb practitioners, and policymakers and their teams take action on EDI in their everyday work. As noted above, these practices were distilled from workshop discussions and online survey responses.

Good practices #1 and #2 refer to the conceptualization of EDI, #3 to #6 outline key ideas for steps that individuals and their teams can take, while #7 more explicitly addresses institutional change.

1. Embrace EDI as a broad, multi-dimensional set of ideas that shapes all aspects of research, KMb, and teaching activities at the SSP interface.

EDI is complex. While EDI terminology is used widely in the academic, policy, and media discourse and while many organizations in the SSP community have developed definitions of EDI, it is not clear that a common understanding or unified approach exists.

It was not a goal of this project to produce another definition of EDI, but rather, workshop discussions revealed some fundamental guiding principles for thinking about EDI and its implementation at the SSP interface. These guiding principles, outlined below, embrace a broad, holistic approach to EDI.

Include affected groups. The process of defining equity, diversity and inclusion needs itself to be inclusive for the outcomes to be relevant to the groups that should benefit. What do under-represented groups understand by 'diversity'? How do disadvantaged groups define 'equity'? What makes excluded groups feel that they belong?

Explore the relationships between the three components – equity, diversity, inclusion. Diversity is a necessary but insufficient condition for equity and inclusion. It is a crucial first step to invite a diverse group of people to the table, but it does not automatically translate into equitable and inclusive decision processes and outcomes. Focusing exclusively on diversity – because it may be the most tangible and visible of the three ideas – risks playing to optics rather than creating substantive change.

Recognize EDI starts with the individual and ends with society. Taking EDI seriously in research, KMb activities, and teaching starts with each individual recognizing their own privilege and biases through listening and learning. Participants indicated that individuals and leaders can make a difference. At the societal level, EDI requires a reckoning with systemic and institutionalized barriers, inequities, and exclusions.

Treat EDI as an ever-evolving process. Implementing EDI principles is not a one-off task. Rather, it requires ongoing conversations, reflections, and actions. Biases and exclusions can occur in unexpected places. Multiple participants said that a truly EDI-centred approach requires continuous reflection on potential ways to make processes even more inclusive and continuously ask collaborators and participants for feedback on what can be done better.

EDI impacts more than hiring. Workshop discussions emphasized that implementing EDI principles in research, KMb and teaching at the SSP interface incorporates multiple dimensions – and goes far beyond hiring decisions. The goal is to ‘mainstream’ EDI in all decision-making, including research design, partnership building, team dynamics, student supervision, course design, publishing, and communications.

2. Be intellectually humble.

Workshop discussions explored how EDI may challenge fundamental ideas about truth, Western science, and positivist research paradigms. EDI requires researchers, knowledge mobilizers and instructors to adopt intellectual humility and avoid over-confidence in their roles as scholars and communicators. EDI asks the SSP community to see itself as a community of learners. Sometimes, this kind of intellectual humility requires the unlearning of assumptions.

Workshop discussions suggested inclusion should be understood as embracing knowledge plurality: science is an important way to seek the truth, but it is one way among many. Scientists are not the sole holders of truth, but rather, their task is to help assemble the various elements of truth held by different people and communities through a process of knowledge co-creation. For instance, as one participant pointed out, it is not about ‘including’ Indigenous knowledge in Western science but fully recognizing Indigenous knowledge as its own knowledge system parallel and equal to Western science.

What does such intellectual humility look like in an EDI-centered practice? Workshop participants indicated that interdisciplinary research designs that use qualitative or mixed method approaches tend to be more capable of capturing these complexities. They also allow for a more honest recognition that values and politics are necessarily part of knowledge creation. In an EDI-centred practice, researchers need to ask: Are we asking the right questions? How representative are our data sets? Do they reflect a diverse population? How can we best include affected communities very early on and at all stages of the research process?

To incentivize such changes in thought and practice, it is important to expand traditional ideas about research excellence and reform academic incentive structures (see good practice #7).

3. Invest in relationships.

Relationship building is an integral element of building an EDI-centred practice in research, teaching, and KMb. Building trusting, iterative, long-term connections with affected communities, students, research partners, and research participants is key to advancing EDI.

Workshop discussion particularly focused on meaningfully including affected communities in research and KMb activities. For instance, a one-off workshop will not be sufficient to truly understand these communities’ perspectives and lived experiences.

Communities affected by research and KMb activities need to be involved in the design and implementation of these activities. Interactions with these communities and other research participants also need to be reciprocal in nature: researchers, participants and affected communities need to benefit from the collaboration and develop ownership of its process and outcomes. For instance, participants in a research study may benefit from acquiring new knowledge and skills or from gaining valuable work experience.

It is essential to communicate frequently and clearly with partners and participants. It is important to discuss expectations on both sides of these relationships. This can be tricky at times. For instance,

scientific procedures to validate evidence may clash with study participants' lived experiences. Clarifying and co-developing policies and procedures in advance will help prevent conflict.

Partnerships with affected communities are important in both research and KMb activities, but it can be difficult to find the right partners. On-campus resources can provide support. For example, uOttawa's [Indigenous Resource Centre](#) can be helpful for connecting with Indigenous communities.

4. Co-create evidence and foster collective learning about EDI at the SSP interface.

Research, teaching, and KMb activities are always complex and taking place in their unique context. Hence, a 'one-size-fits-all' approach for incorporating EDI principles is neither feasible nor desirable. Rather, project participants indicated a need for establishing common metrics for assessing the success of EDI initiatives to facilitate learning.

There is a lack of evidence/data on the impacts – intended and unintended – of different EDI-centred practices. This makes it difficult to identify 'good practices' on EDI, which slows collective learning about it. In practice, comprehensive documentation of experiences with EDI-centred practices and routine evaluation of EDI initiatives is often lacking, but it is necessary to foster collective learning and to avoid 'reinventing the wheel'. For instance, some project participants noted that there is more experience with EDI-centred research practices in the social sciences than in other disciplines.

A monitoring report could start by asking participants, team members, and affected communities about their experiences with and views on a research project or KMb project. Also, [GBA+ analysis principles](#) that are used by the federal government may be a helpful starting point.

5. Engage the next generation.

It is important to involve students and trainees in EDI discussions and initiatives, to teach them what we have learnt so far while also learning from them about their EDI practices, approaches, and principles. This may include training in qualitative and mixed method approaches and mandatory EDI training for all incoming students. The key is that these efforts need to lead to truly meaningful student involvement – they should not simply be a one-way communication.

Project participants discussed ideas for incorporating EDI principles into academic teaching:

- In terms of content, it is useful to include various applications and a range of examples, because they speak differently to diverse students.
- In terms of activities, virtual teaching and the use of breakout rooms may be helpful, because it encourages all students to interact more directly.
- In terms of incentives, grants and resources on EDI can be useful to engage students around EDI.

Ultimately, universities and other organizations need to work on creating a pipeline of diverse and EDI-literate future employees. SSP organizations today need to train the workforce of the future. Project participants also discussed opportunities for the SSP community to foster change on EDI issues by routinely including ('mainstreaming') EDI-related themes in the general training for science-policy professionals.

6. Take small steps to make big changes.

While substantial reforms and innovations are necessary to implement EDI principles in research, KMb, and teaching activities at the SSP interface, project participants indicated that radical changes can be difficult to achieve and ultimately dangerous, because they are more likely to create backlash. Gradual progress on EDI implementation is more promising, but its effects need to be continuously monitored and its impacts evaluated in the future. Also, project participants pointed out that the actions of individuals and leaders can make a difference.

7. Advocate for EDI-centred incentive structures.

EDI requires researchers, instructors, and knowledge mobilizers at the SSP interface to think differently about research excellence, placing greater weight on interdisciplinarity, qualitative/mixed method approaches, and recognizing that science alone often cannot generate knowledge that can readily be put into practice (see good practice # 2).

There are no clear reward systems for addressing EDI in research, KMb activities, or teaching. Workshop discussions indicated that institutional structures in academia manifest a perception of research excellence that may even discourage EDI-centred practices. Current ideas about academic excellence are too rigid to include EDI-centred performance criteria, as well as criteria to measure EDI performance. Existing incentive structures often fail to reward either. For instance, publishing articles in open-access journals is more in line with EDI principles because students and people outside of academia, including marginalized groups, will enjoy greater access to the materials, but often this is less valuable on academic CVs than more exclusive high-impact journals. In addition, multi-disciplinary, qualitative research projects are typically better able to capture the complex realities of constructed truths, but they can be more difficult to place in high-profile disciplinary journals. Similarly, KMb activities that reach out to decision-makers and affected, interested communities to increase accessibility to scientific findings – e.g., writing newspaper editorials, engaging with policymakers, hosting community workshops – may not be highly valued in tenure-track applications.

As long as these institutionalized ideas of research excellence and standard performance evaluations do not change, researchers will have little incentive to implement EDI. Right now, meaningful incorporation of EDI considerations into academic research and knowledge mobilization typically requires researchers to take a risky ‘leap of faith’. This is particularly hard to do for untenured faculty.

This project finds that while granting agencies and universities often ask for commitments to EDI principles, researchers, instructors and KMb practitioners indicated that there is still poor institutional support for making genuine change. That said, one participant indicated there has been an explosion in the number of mandatory training activities on EDI and felt that the requirements and explanations with regards to sensitivity to EDI issues and a change of perspective are intense and overwhelming.

Organizations at the SSP interface, including universities and funding agencies, need to transform ‘lip service’ to EDI principles into tangible actions by identifying biases, barriers, and discrimination and by reforming institutional structures and norms to encourage EDI-centred research, teaching, and KMb. The incentive structure for researchers needs to change to better reward actions on EDI, e.g., through creating new prizes and acknowledgments for EDI initiatives, and perhaps modifying promotion and tenure evaluation processes to measure and reward EDI-related activities. At the same time, institutions should work to deliver the kind of support that researchers, instructors, and knowledge mobilizers need to comply with the increasing number of EDI requirements.

Concluding thoughts

Defining and implementing EDI principles in the daily practice of researchers, instructors, and knowledge mobilizers at the SSP interface is a collective learning process. We hope that by drawing on the collective experiences of the ISSP network, this project and the resulting collection of good practices contributes new ideas and inspiration to the growing EDI discourse in Canada's SSP community.

In short, these good practices encourage us to begin or continue to take small steps toward an EDI-centred practice, to act on our promises, and to talk about our experiences so we can learn from others and enable them to learn from us. This work is not easy. It requires personal growth and systemic change, and it may at times challenge our core beliefs – but the benefits for us, our colleagues and partners, the SSP community and Canadian society as a whole will be invaluable.

