

# Technology and Society Task Force Report

# Leading the Way in Addressing the Societal Impacts of Emerging Technology

June 30, 2022

# Letter from the Task Force / Executive Summary

We, the undersigned members of the President and Provost Technology and Society Task Force, were honored to spend the 2021-2022 academic year identifying the outstanding work across our three University of Washington campuses and School of Medicine at the intersection of technology and society and soliciting feedback regarding barriers and best practices in order to position the University as a standout leader in this area.

We represent eight faculty from UW Bothell, Seattle, Tacoma, and the School of Medicine of differing training, track, and rank who research and teach technology as an aspect of society. We were supported in this work by a full-time staff member and UW Department of Communication alumna, Dr. Anna Swan.

The work of the task force began in earnest in September of 2021 and ran through June of 2022. During this period, we met many times in large and small groups, interviewed dozens of administrators and faculty, conducted focus groups on all three campuses, surveyed hundreds of faculty, staff, and students, mapped over a hundred University organizations and institutions working at the intersection of technology and society, and researched many of our peer schools.

The task force was awestruck by the volume and diversity of technology and society work across the University and heartened by its interdisciplinary, collaborative culture. Nevertheless, our colleagues identified significant impediments to researching, teaching, and learning about the societal aspects of technology, including insufficient or uneven infrastructure, bureaucratic or budgetary barriers to collaborative teaching and learning, and the perception that the University tends to emphasize technical work over societal. Our discussions and information-gathering also surfaced many opportunities and recommendations for improvement.

We lay out our full findings in detail below. Following a short introduction, this report describes the steps and methods we used to gather data and develops our preliminary analysis. We then turn to a series of top-level and more granular recommendations aimed at supporting technology and society work at UW and positioning the University as a global leader. Speaking generally, we recommend (1) developing a distinct vision for technology and society work at UW that foregrounds the social, societal, and justice aspects of technology and draws from the perspectives of diverse communities; (2) assemble, connect, and render visible the extensive work already occurring at the intersection of technology and society across campus; and (3) invest in an infrastructure of interdisciplinary teaching, learning, and research to support the existing culture.

The task force is grateful for this opportunity to serve the University and welcomes feedback on all aspects of this initiative and report. Thank you for reading.

Ryan Calo Saadia Pekkanen Timothy Brown Carole Palmer Katharina Reinecke Adam Romero Kate Starbird Matthew Weinstein June 30, 2022

# Introduction

This report laying out the findings of the University of Washington Task Force on Technology and Society comes at an inflection point. Technology—in the sense of physical, digital, biomedical, and chemical devices, artifacts, and systems—touches nearly every aspect of contemporary life. There is a growing sense of both wonder and trepidation around emerging technology, and mounting calls for local, national, and global leaders to take a more active approach to ensuring technology advances human flourishing.

Universities—especially large, public institutions such as UW located in a region long associated with technical innovation, entrepreneurship, and community activism—have a vital role to play. Our primary mission at UW, "the preservation, advancement, and dissemination of knowledge," applies to all consequential aspects of society, including technology, and extends to the UW vision of educating "a diverse student body to become responsible global citizens and future leaders." Our University is advancing this mission and vision through innumerable technical contributions to a wide variety of fields but also renowned research and education on the ethical, legal, historical, cultural, and other aspects of technology.

In the Fall of 2021, the President and Provost assembled an interdisciplinary task force to study technology and society work at the University, broadly conceived. More specifically, the task force was charged with bringing together existing work on technology as an integral part of society, identifying impediments to impact, and capturing best practices. The task force was also charged with making recommendations on how to position the University as a standout leader in the field of technology and society and thereby to attract and retain resources, faculty, and students, as well as become an indispensable resource to state, federal, and international policymakers grappling with rapid technologic change.

The task force consists of eight faculty from three campuses and the School of Medicine with training in philosophy, education, computer science, law, public policy, information science, and science and technology studies (STS), which includes qualitative, quantitative, and critical methods. The team also had a dedicated, full-time staff member with graduate-level (PhD) interdisciplinary training in qualitative methods. The task force undertook the following work over the course of the 2021-2022 academic year:

- Met as a full task force in person or online 8 times for a total of 15 hours. Smaller groups of the task force also met separately throughout the year.
- Conducted 45- to 60-minute individual interviews with 20 administrators and faculty.
- Conducted focus groups in Bothell, Tacoma, and the School of Medicine.
- Circulated a University-wide survey through the Office of the Provost with 250 faculty, staff, and student (both graduate and undergraduate) respondents.
- Presented our progress to, and sought feedback from, UW leaders such as the Faculty Senate Council on Information Technology and Cybersecurity, the UW Research Advisory Board, and the Vice Provost for Research.
- Conducted an inventory of the organizations and institutions across the three campuses and the School of Medicine associated with the study of technology and society.
- Researched the technology and society programs of peer institutions.



The task force was awestruck by the volume, diversity, and impact of work at the intersection of technology and society. Many people and institutions at UW explore the social aspects of technology or the impact of technology on society. Others apply socio-technical insights to design or build technology in the public interest. Our exploration surfaced a handful of highly visible, interdisciplinary initiatives and dozens of less visible—yet still rigorous and impactful—efforts and networks across all three of our campuses and the School of Medicine. Moreover, we heard time and again about the centers of excellence and interdisciplinary and collaborative culture across many parts of the University.

But our analysis also identified many challenges and unfortunate patterns. There is the perception that the University has a tendency to emphasize technical approaches and solutions over social concerns, and undervalue social science and humanities contributions, despite the actual distribution of faculty interest. Respondents expressed concerns with the potential for corporate and government interests to influence agendas and access to resources, with significant consequences for social justice. We also heard about missing or uneven infrastructure to support both research and education, including several bureaucratic or budgetary hurdles to collaborative teaching and learning—for example, insufficient unit or central support for certificate programs or difficulty cross-listing courses.

Generally speaking, the task force believes the University can do at least three things to enhance our technology and society work and position UW as a standout leader in the field:

- Articulate a shared vision for technology and society work at UW that (1) foregrounds the social, cultural, ethical, justice, and other societal and normative dimensions of technology and (2) draws from a diverse and equitable array of community stakeholders. This vision must match our values and differentiate the UW from other sectors of society such as industry and government as well as from our peer schools.
- Assemble, connect, and render visible the technology and society work already occurring across the entire University. This item has an internal component, insofar as we should know what one another are doing, and an external one, insofar as making policymakers, the press, and the public aware of the vital work occurring at UW on technology and society.

 Invest in an infrastructure for interdisciplinary collaboration that reinforces the existing culture. This involves dedicated, more centralized support for attracting resources and coordinating coursework. It also involves the formalization and investment in cross-cutting programs at the intersection of technology and society.

More specific and granular recommendations—which arose through the task force analysis and deliberations—appear in Section III.

Twenty years into the millennium, society finds itself at yet another critical moment around the opportunities and risks of technology. The danger of inaction is significant. The University—despite its many, ongoing efforts—is falling behind other institutions that are rising to meet the challenge. We risk losing additional faculty, students, and resources to other schools and furthering the perception that technology is somehow paramount at UW and across society. The opportunity is just as great. Building upon existing excellence in technology and society has at least the following benefits

- Shaping how technology serves local and global communities and societies.
- Recruiting and retaining excellent faculty, staff, and students interested in technology as an aspect of society.
- Training a new generation of professionals, activists, and community leaders capable of developing technology for and channeling technology in the public interest.
- Bringing in resources and ideas from a wider range of sources.
- Enhancing the individual and collective reputation of the University (e.g., in rankings).

The authors of this report hope that our work becomes an opening for conversation among colleagues. We so appreciate the time you take in reading through this report and appended documentation. We sought and received extensive input from the community—yet continued feedback remains of utmost importance. Since not every member of our community was consulted, and we cannot be sure we have perfectly or even adequately reflected the wisdom we encountered, we continue to welcome thoughts and input from the UW community at annaswn@uw.edu. The task force members are grateful for the opportunity to carry through on this important charge and have high hopes for the future of society and technology at the University of Washington.



# Methods and Results

This section presents our methods and data analysis and an overview of our results. The task force was charged with uncovering the "existing and anticipated work at the intersection of technology and society across the University of Washington" and to "assess barriers and best practices" to inform recommendations. The charge also directed the group to "[s]eek input from all three campuses." While we began with representation from the School of Medicine, other Seattle units, and Bothell, a focus group the task force conducted in Tacoma led us to recognize and correct a serious initial oversight by adding an invaluable representative from the Tacoma campus as well. With this broad goal and tri-campus representation, the task force used a variety of qualitative methods to learn about strengths and challenges across the Bothell, Tacoma, and Seattle campuses. Specifically, we used semi-structured interviews, focus groups, and a survey to capture the diverse experiences of leadership, faculty, staff, and students working in the area of technology and society, broadly defined.

In addition, the task force was able to solicit feedback in formal settings with campus wide faculty through presentations to the Research Advisory Board at the request of the UW Vice Provost for Research, and to the Faculty Senate Council on Information Technology and Cybersecurity at the request of the Faculty Senate Chair. The task force met monthly for internal deliberations, which allowed us to learn from and refine our processes. In addition, members of the task force held several smaller group meetings to synthesize data collection and analysis.

# 1. METHODS

In order to identify existing technology and society efforts, gain an understanding of interdisciplinary technology and society research and training, and reflect on the best pathways to position the University of Washington as a leader in this space, we relied on three data collection methods: (a) semi-structured interviews with key faculty, (b) focus groups with key leaders, and (c) a survey distributed across campuses. The principal findings from each of these methods, as well as the challenges related to positioning technology and society at UW, are summarized below.

# A. Semi-Structured Interviews

From January to April of 2022, the task force conducted interviews with University of Washington leadership and representative faculty members for whom "technology and society" represents a core area of research, teaching, or outreach. We conducted 20 total interviews (11 with leadership, 9 with faculty), representing more than 16 distinct campus units. Interviews lasted from 45 to 60 minutes and included participants from the College of Arts & Science, College of Engineering, and the School of Medicine, among others. Interviewees were recruited via email and conversations were led by one or more task force members via Zoom. Given the time and resource constraints, we chose to conduct interviews with faculty—gathering the perspectives of staff, graduate students, or postdoctoral fellows through the survey.

In the beginning of each interview, interviewees were asked to discuss their understanding of "technology and society" at the University of Washington, identify the strengths of our institution, identify the challenges they have encountered in their work, and offer suggestions to address these challenges.<sup>1</sup>

After conducting and transcribing interviews, we began a process of qualitative coding where task force members conducted a close reading of the interview transcripts, identifying themes raised in each, and characterized those themes through both short descriptions and representative quotations. Two task force members were involved in the creation of analytic memos for each interview. A quorum of task force members compared memos across interviews, synthesizing common themes into coherent narratives and excluding less common themes. The resultant catalogue of themes was used to guide the design and analysis of the survey.

# B. Focus Groups

We also carried out three focus groups to include a broader set of respondents from the Tacoma and Bothell campuses as well as the School of Medicine. Focus groups were conducted in April and June 2022 and each lasted 1-1.5 hours. Focus group discussions were guided by the same questions used in semistructured interviews and were later analyzed using the same qualitative approach. Focus groups ranged in size from 2-7 participants and were moderated by one or more task force members. Focus group participants were asked to reflect on the following topics: defining "technology and society" at the University of Washington, identifying strengths of our institution, identifying challenges they have encountered in their work, offering suggestions to address these challenges. The same process of analysis was carried out by the task force and results were triangulated with those from interviews and surveys.

# C. Survey

Finally, we leveraged the insights from the semi-structured interviews and focus groups to design a University-wide survey.<sup>2</sup> To engage as broad a set of university respondents as possible, the survey was distributed to all UW faculty, staff, and students directly from the Office of the Provost on May 23, 2022, with follow up from the University deans. The survey was twice extended and closed on June 17, 2022.

We received 250 responses during this time period. Most respondents were professors, with 42% (n=105) identifying themselves as Professor, Associate Professor, or Assistant Professor. We also received a notable number (n=69 / 27.6%) of staff members in various positions and graduate students (n=41 / 16.4%). One important limitation in our demographic data collection is that several possible positions were classified as "staff." This, however, obscured important differences in the experiences of different types of staff members. As several survey respondents noted, research scientists (for example) often do similar work to tenure-track faculty, yet also face unique challenges, especially when it comes to the instability of funding their positions.

<sup>&</sup>lt;sup>1</sup> For a complete list of interview questions, see Appendix D.

<sup>&</sup>lt;sup>2</sup> For a complete list of survey questions, see Appendix E. For additional survey results, see Appendix F.

**Current Position** 



Respondents were asked to identify their home campus. Seattle campus was heavily over-represented at **96%** (n=240), with some respondents identifying their campus as both Seattle and Harborview Medical Center (n=2). **0.8%** of respondents (n=2) were from Bothell and **2%** (n=5) were from Tacoma. The low response rate across these campuses appears to be a limitation individual campus and University leadership may wish to address in future assessments.

We also asked respondents to identify their home department or school. The most represented campus units among respondents were the **Information School** (n=33) and the **Allen School** (n=32). Other highly represented units included **Human Centered Design and Engineering** (n=22), the **School of Public Health** (n=20) with an emphasis on the Department of Environmental & Occupational Health Sciences, the **School of Medicine** (n=16) with an emphasis on Genome Sciences, and the Department of **Communication** (n=15). While these units were more commonly identified than others, respondents' affiliations ranged widely across units such as History, Linguistics, Bioengineering, International Studies, Global Health, and the School of Engineering and Technology.

In addition to respondents' home departments or schools, we asked which campus units or programs came to mind when thinking about "technology and society." Although some respondents said that they could not think of any units (n=12), most respondents listed several. Many respondents listed technology-centered units such as the iSchool, Computer Science, HCDE, and Bioengineering, as well as humanistic or social scientific departments such as Communication, History, Philosophy, and Geography. In addition to



100+"technology & society" units/programs at the University of Washington departments/disciplines, many respondents listed labs, centers, or organizations such as the Tech Policy Lab, RAISE, Center for an Informed Public, DUB, CREATE, TASCHA, Taskar Center, and the eScience Institute. **Over 100 distinct units and/or programs**<sup>3</sup> were identified as fitting within the scope of "technology and society."

<sup>&</sup>lt;sup>3</sup> For a more detailed depiction of select initiatives that have been identified by participants and task force members as within the scope of "technology and society," see Appendix C.

Finally, participants were asked to select their own orientation to technology and society as an area of interest. **66.4%** of respondents (n=166) said they were **"interested or involved in the study of the social impacts of technology." 51.2%** (n=128) said they were **"interested or involved in designing and/or building technology for society,"** and **46.4%** (n=116) said they were **"interested or involved in studying the social underpinnings of technology."** Many respondents identified with multiple statements, and 21 respondents wrote in their own answers (e.g., "Interested in tech that integrates with society and natural environment," "I'm also interested in the humanistic understanding of technological effects and its application to the arts").

# 2. QUALITATIVE DATA ANALYSIS AND RESULTS

Our analysis of the data led to a cluster of broad-based conclusions; these results, combined with suggestions solicited from participants, underpin our recommendations in the next section. Below we summarize the principal analytical strands, highlighting the strengths, challenges, and suggestions organized around six core themes that triangulated across all data sources.

Most interviewees mentioned UW's culture of **interdisciplinarity** and **collaboration**. For example, one unit leader said that they felt UW is unique in its culture of collaboration and breaking down disciplinary divides. Another faculty member characterized the UW as "an entrepreneurial place" and that our "core strength" is our culture of individuals reaching across departments to collaborate with one another. Focus group participants and survey respondents echoed these responses, characterizing UW's interdisciplinarity and collaboration as core strengths across the institution. Forty-four percent of respondents (n=110) included "interdisciplinar(ity)," "collaboration," or both when naming UW's strengths. Other notable strengths mentioned by survey respondents, interviewees, and/or focus group participants included our **geographic location** and **proximity to tech**, as well as having **excellent faculty and students**.

Although most participants in our data collection praised UW for allowing them flexibility in their work, for not standing in the way of collaboration, and for continuing to recruit top faculty and students, they also identified several challenges. First, many interviewees and focus group participants pointed out the difficulty in clearly defining the scope of "technology and society"; this understanding also arose in some survey responses. Some other challenges that emerged related to the availability of funding; disconnects between campuses/campus units; release from teaching responsibilities; difficulties with cross-listing courses; and lack of staff support, sustainable programming, and incentives for taking on interdisciplinary work.

These challenges, as well as some broad suggestions to address these challenges, are addressed below; we expand upon these suggestions in detail and offer specific recommendations in the following section of the report.

#### Difficulty in defining technology and society

"Don't start with a focus on tech. Start with a focus on society." All interviewees offered their own definitions of "technology and society" and acknowledged that a singular definition was difficult to pin down. Several individuals spoke to the inseparability of "technology" and "society," emphasizing the interrelationship between the two concepts and the need to ensure that **technological solutions were not prioritized over societal impact**. Another common theme was the lack of prioritization of the humanities and humanistic approaches to the study and

development of new technologies. Interviewees, focus group participants, and survey respondents indicated that we need to be inclusive when determining who and what is included under the umbrella of "technology and society." As one survey respondent expressed, there is a "problem of 'tech & society' flattening the terrain so challenges of critique (e.g., in tradition of critical theory or French social theory), philosophy of technology, and (humanistic) cultural study of technology remain under-considered and under-addressed." This was a core theme that emerged from the survey: respondents desired a more serious commitment to and significant investment in the intersection of technology and policy, the humanities, social science, and the arts.

Relatedly, many of our community members stressed the importance of **considering social justice** issues more specifically to ensure both that technological research incorporates marginalized perspectives and that marginalized researchers in this space are well-supported. One survey respondent urged that tech and society efforts should, "design DEI [(diversity, equity, and inclusion)] into any initiatives from the very start," "make funding available specifically to recruit URM [(under-represented minority)] scholars at every level and then support them while they are here," and "create accountability structures that ensure that programs & the university are responsive if/when these scholars report experiences of marginalization." A School of Medicine focus group participant recommended the creation of an **"equity consultation"** service for research projects—a group of stakeholders who review and evaluate the equity dimensions of proposed research projects.

#### Difficulty in sustaining and stabilizing programs

"If I had a staff member...if we had a dedicated fund that could allow us to teach these courses...it would allow the program to accommodate a lot more students." One major challenge when it comes to technology and society work at UW is sustainability of programming; interviewees mentioned time and again difficulties maintaining stable funding sources or support for programs with changes in leadership and the limited capacity of faculty. For example, the STSS Graduate Certificate program was described as a **"labor of love"** without staff support or funding and lack of consistency in courses offered. Two leaders also noted that, despite there being high demand for

certain technology and society courses, other burdens (lack of staffing, financial burdens, limited capacity to share credit for co-teaching, etc.) prevented these courses from being offered regularly. Relatedly, some survey respondents also mentioned the issue of instability; beyond several mentions of STSS, the QUAL Program (focusing on qualitative and policy-relevant data analysis, as well as technology and international security) was also offered as an example of something that is "at risk of shutting down due to insufficient funding for staff support."

Interviewees and survey respondents recommended not only more resources dedicated to undersupported programs/units, but also an emphasis on concrete investment in the long-term; **"we need infrastructure to do this work,"** one faculty member said. A unit leader also suggested paying attention to implementation early on and relying on known models of how to do things, rather than re-inventing the wheel.

# Challenges of disconnect, siloing, and networking

"[Tacoma] campus gets treated in some ways as a College in terms of our relationship to Seattle." Despite praising our culture of collaboration, several interviewees mentioned the continued disconnection between departments and campuses. Some noted that they were often unaware of what other departments or faculty members were doing, even if they were doing similar work. Faculty also pointed out that offering courses outside of the core curriculum is not just difficult but actually disincentivized by the funding structure of the UW.

One leader indicated that true collaboration was stymied by the expectations of individual units. Higher teaching loads and other factors at Bothell and Tacoma seemed to foster a sense of disconnection from Seattle. The theme of disconnection also arose within the School of Medicine, which one leader described as **"its own little kingdom"** fostering little interdisciplinary collaboration. Participants in the School of Medicine focus group also spoke to some interdisciplinary disconnection, agreeing that the technical is often separate from and foregrounded over the societal or social.

Several participants commented on disconnection between disciplines and campuses, both in terms of knowing what other folks are working on and in terms of the general perception of Seattle as the center of research and teaching. Most participants across interviews, focus groups, and the survey discussed some need for a more centralized infrastructure to facilitate connection, and some also commented on a desire for more intentional integration of the humanities and social sciences into technical disciplines. One participant from UWB said they felt UW should host a yearly tech and society conference (comparing this to the University of Oregon), and/or hold a stable series of public lectures like the Annenberg lectures at UPenn. This person noted that these changes could help legitimize interdisciplinary fields.

Additional suggestions related to alleviating some feelings of disconnection included creating and maintaining a website, creating a **directory** of tech & society faculty formally committed to co-advising students, hosting informal **networking events**, sponsoring a stable **lecture series**, hiring **staff** dedicated to building collaborations, and creating a **cross-university program** to support multidisciplinary tech & society postdocs.

#### Challenges of decentralization and limited infrastructure

"One of our challenges as I see it as a newcomer...[UW] is *really* decentralized. I think that has its advantages, but it also means that pulling people together is really hard." Decentralization was a related, but primary concern among participants. One faculty member was concerned about the lack of "systemic" ways to connect folks across departments and that there is "a lot of redundancy in our teaching at UW" because of this. A leader of a different unit said that accommodating students from other programs can be challenging. Another faculty member discussed their work co-advising and funding PhD students, noting that there was an imbalance in which department benefited from

this work. Finally, merit review was also discussed as a barrier to interdisciplinarity and collaboration; two leaders from different campuses emphasized that interdisciplinary and other collaborative work is structurally devalued and often disincentivized.

While one leader (as well as one task force member) suggested making a physical "center of centers" to bridge gaps between programs and faculty, it was more common to suggest implementing any type of **centralized infrastructure** specifically tailored to technology and society as an area of interest.

UWB and UWT faculty also emphasized the problem of decentralization or a lack of centralized infrastructure to enable collaborative work. The lack of a centralized infrastructure also meant that faculty were sometimes unaware of when others were doing similar work on a different campus. Funding-related bureaucracy was a specific challenge discussed by UWT and UWS faculty, who commented on the difficult processes involved in compensating participants—including those located in other countries—and facilitating relationships with community partners.

## Challenges of pecuniary and physical resources

"It's time and money. It's teaching release. I can teach a quarter, or I can do research a quarter. I can't really advance both in a meaningful way." Limitations linked to time and money were the most prominent challenge described by interviewees. Several folks discussed a lack of funding for technology and society programming (e.g., STSS and QUAL)); relatedly, some faculty members pointed out the imbalance in the dissemination of resources to the social sciences and humanities. Some interviewees were concerned that **Activity Based Budgeting (ABB) created barriers** to activities like sharing credit for co-teaching or allocating resources for cross-disciplinary

centers. One leader posited that "the biggest problem we face is pessimism, cynicism, and exhaustion," while some faculty members emphasized their limited time. For example, "if you want to do community-engaged research," one person said, "we have to have teaching releases."

Beyond allocating more resources in an equitable manner, interviewees suggested providing **more support for graduate programming**, especially programs that are not currently funded. Hiring **dedicated staff**, including those with grant-writing expertise, was also a core recommendation. In a conversation between two tenure track faculty members, the idea of **fundraising** arose; by holding events to get interest and funding from industry or community partners, funds could be pooled to support technology and society activities across departments.

Several focus group participants mentioned a lack of funding. For example, one participant at UWB emphasized that they found the issue of funding disrupted their teaching insofar as they could not always access the right technical equipment. Several other participants commented on their **significant teaching load and service demands** which served as a barrier to conducting research, especially that which is community-engaged. Funding was also a major issue discussed by survey respondents, 68 of whom had funding-related suggestions when asked about the resources they needed most. Among survey respondents, the following areas were discussed in relation to funding: course development, hiring teaching-track faculty, decentralized/interdisciplinary funding pools, teaching release, RA/TA support, increased salaries, cross-department events, pilot funding for graduate students, seed funding, community-engaged events, community partnerships, and more funding opportunities for staff, researchers, and teaching faculty.

Related to issues of disconnection and structure, some interviewees and survey respondents suggested having a tri-campus interdisciplinary funding mechanism to equitably distribute resources. Some participants also alluded to hiring staff to manage funding or programming, especially that which engages with community partners, as faculty are already often at capacity.

### Limited visibility of university-wide and department-level work

"There could just be a lot more visibility for the work that already exists here." Challenges related to visibility include a perceived lack of good PR/press, especially at an institutional level. This is an issue both internally and externally; there seems to be limited knowledge about current research projects and labs or centers across departments, for example, while there is also limited publicity of research, teaching, or outreach to a public audience. A faculty member who straddled multiple disciplines also indicated that this lack of visibility disrupts graduate student recruitment. At least

one participant mentioned the issue of publicity, especially when it came to work being done in the social sciences and humanities.

In addition to focusing on better/increased communication and press releases in general, interviewees suggested having dedicated staff (e.g., a "PR machine," as one faculty member put it) to maintain public-facing media. **"We need a website and ways to find one another,"** one member of leadership said, as well as better social outreach and storytelling. Another campus leader suggested focusing our efforts on **university-wide "grand challenges"** related to technology and society as some peer institutions have, in part due to their public salience. While this suggestion was discussed in relation to organizing around common goals for research, articulating grand challenges may also contribute to publicizing a university-wide vision. Survey respondents also offered broad suggestions such as investing in better public communications and increasing the public visibility of scholars/practitioners and innovations in education, research, and community engagement.

# Recommendations

This section details the task force's high-level recommendations, based on our collection and analysis of data, for positioning UW as a standout leader in technology and society. The section also highlights specific examples of ways the University could help achieve its goals of leadership and excellence in research and learning. Additional helpful ideas that surfaced during our discussions, interviews, focus groups, and surveys appear in the appendix.

The University is well on the road to excellence in technology and society. Our data highlights the worldclass faculty, programs, and centers distributed across numerous colleges and departments that broadly address the social and societal aspects of technology. UW is a public institution geographically situated within the second largest tech hub in the U.S., and deeply connected to the local communities, tribes, and environmental ecosystems that surround it. And UW has a unique, collaborative culture with many interdisciplinary initiatives across our three campuses and School of Medicine.

Our findings show that the University builds on an incredibly strong foundation. We now provide a vision for differentiating UW from other universities and institutions, as well as recommendations for specific steps the University could take. Our high-level recommendations are for UW to: (1) develop a distinct vision for technology and society work at UW that foregrounds the social, societal, and justice aspects of technology and draws from the perspectives of diverse communities; (2) assemble, connect, and render visible the extensive work already occurring at the intersection of society and technology across campus; and (3) invest in an infrastructure of interdisciplinary teaching, learning, and research to support the existing culture.



Putting society first



Bringing our work together



Supporting the culture

# 1. SOCIETY AND TECHNOLOGY: PUTTING SOCIETY FIRST

A core recommendation that evolved over the course of our work was that the UW must propose a vision for society and technology that puts society first. Our data suggests that no one "owns" the field of technology and society, and that indeed technology itself is best understood as an aspect of society that is of interest to many colleges, schools, and departments irrespective of their methods. UW's strength in society and technology emerges from broad participation from diverse units across our campuses as well as interdisciplinary departments, schools, centers, and programs dedicated to the study of this intersection. Through our work, we advocate for foregrounding *society*, recognizing technology as a feature of society, and bringing societal impacts into balance with technological innovation.

Among UW's strengths is our deep expertise in a variety of technological paradigms, from artificial intelligence to bioengineering to nanotechnology. Yet the vision that emerges from our conversations and

surveys with people working across and at the intersections of these different fields is one where societal need, rather than specific technologies, must be centered. We recommend a proactive approach driven by societal challenges rather than a reactive approach driven by technological innovation.

Finally, we believe the University must find ways to give voice to community partners, especially those facing the gravest societal challenges, and invite broad participation in society and technology initiatives by scholars across the university and its campuses. In our digital environment, communities are dynamic. They can be local or global, or both. Increasingly, technological advances need to be designed to advance and enrich lives for individuals, households, and neighborhoods but also for distributed online networks that may be regional, national, or international.

One way for UW to develop a vision that puts society first is to provide pathways for a wide array of regional, national, and global stakeholders, including community organizations, educators, government and non-government organizations, industry partners and UW employees to provide input and guidance for UW's society and technology-focused research and education. UW could balance "corporate affiliate" programs with "community affiliate" programs centered around such groups. The University could seek funding for a sustainable, interdisciplinary funding pool that supports society and technology research and educational initiatives beyond specific, technology-focused goals and across the three campuses.

Following input from a diverse array of stakeholders, the University could identify, announce, and take on "societal grand challenges" that leverage the diverse society and technology expertise across the UW. These grand challenges could be defined by a board of interdisciplinary stakeholders from local, national, and international communities, including national and international scholars, policy makers, and public representatives, and should focus on pressing needs that society (at the local and global level) faces. The University could provide resources in the form of staffing and funds to support UW researchers in organizing interdisciplinary teams to work towards addressing these challenges, as well as to incentivize the translation of such efforts into new courses and degrees. Importantly, such efforts are necessarily long-term and should be reliably funded and supported accordingly.

# 2. BRINGING OUR WORK TOGETHER, AND INTO FOCUS

UW's excellent research and teaching efforts in the area of society and technology are distributed across all three campuses and the School of Medicine. Such broad distribution constitutes a unique strength of the University given the diversity, impact, and sheer number of efforts and focus areas. But it also poses multiple challenges imposed by geographic distance and unequal campus resources. Moreover, there is a widely shared sense that neither the UW community, nor the broader public, is necessarily aware of all the work being undertaken already at the intersection of society and technology.

A key recommendation is therefore to join forces and build bridges. The University must cultivate a sense of "there" by bringing together the many people and institutions working at the intersection of society and technology into a common community with no disciplinary or geographic boundary or priority. The University must also be more effective at telling this community's story to the outside world, by surfacing and highlighting the full range of UW initiatives for the public, the press, and policymakers.

The University can help accomplish the first, internal goal by generating opportunities for different units to share their work university-wide, such as an annual, UW-focused society and technology workshop that rotates campuses. UW could create and maintain a publicly accessible and easily searchable online

database of all self-identified society and technology efforts at the UW—including courses in society and technology available to students. The University could connect staff dedicated to supporting society and technology work across campuses and encourage regular, all-university staff meetings. The "societal grand challenges" identified above could also help build bridges between campuses and units.

UW could accomplish the second goal of more effectively publicizing the broad range of UW initiatives by hiring dedicated staff, distributed across the campuses, to communicate specifically about society and technology work. Such staff could support internal communications, in the form of assembling and sharing research and learning within the community, as well as external communications, in the form of press releases, op-eds, or other storytelling to the press and public. Separately, the University could hire more staff that interface with local, national, and international policymakers to bring UW research, tools, and insights to the attention of the individuals and groups who generate technology policy.

# 3. SUPPORTING THE COLLABORATIVE CULTURE

Finally, the University should invest in and formally support the existing culture of interdisciplinary collaboration. Again and again, the task force heard about the deeply collaborative nature of the work at UW and the general sense that few complex societal problems exist that can be resolved by reference to a single discipline. We identified many existing efforts—from large institutes and centers to cross-campus certificates and programs to small labs and reading groups—that bring together a diverse swath of the UW community to engage with issues at the intersection of society and technology. Yet we also heard, time and again, about the lack of formal support or infrastructure for these programs, resulting in instability, faculty, staff, and student attrition, and other costs.

UW could invest in and build infrastructure around the existing culture through a variety of means. In the area of research, UW could hire dedicated staff to foster interdisciplinary and cross-university collaborations by identifying grants and supporting proposals. It could establish a "faculty fellows" program for two or more UW scholars to collaborate across units and campuses with specific deliverables such as grant proposals, publications, or public talks. The University could allocate interdisciplinary funds to support new and existing cross-campus research collaborations in the area of society and technology. UW could incentivize collaborations between more technical units and the humanities and social sciences, including cluster hires in areas such as the history, ethics, philosophy, sociology, and security of technology. Finally, UW could provide support for work engaging with the broader region through community-based partnerships, which can otherwise be hindered by University policies and rules.

In the area of learning, a key concern identified in our data was that establishing cross-unit courses is financially disincentivized and administratively burdensome. The University could hire dedicated staff to support the development and administration of cross-unit and cross-campus courses and curricula, including certificates, concentrations, and minors in society and technology topics. Another concern identified in our data was a lack of stability for existing programs, such as the Science, Technology, and Society Studies certificate (STSS) or the UW QUAL program, that lack formal support. The UW could build on these existing efforts by providing funding and staff as well as teaching buyouts to support faculty to update curricula and establish collaborations with others across campus, thereby assuring that students have reliable access to the full range of offerings over a reasonable timeframe.

Irrespective of how the high-level goals described in this section are accomplished in practice, they have the potential to bring enormous benefits to the University. First, accomplishing these goals would position

the University to shape the direction of technology, reducing harm, raising public awareness, and advancing individual and societal well-being. Second, doing so would bring our community together and raise our visibility with the outside world. Third, it could help the University attract and retain excellent faculty, staff, and students. And fourth, realizing these goals can enhance the overall reputation of the University and attract more or new resources to carry out our mission.

Society and technology work at UW has tremendous momentum. A significant and timely investment in vision, community, and culture would cement the University of Washington as a critical institution of our time addressing the societal aspects of technology.

# Conclusion

This report is the culmination of a year-long effort to identify technology and society research and study at the University of Washington and learn from our community on how we might better celebrate and support one another in this vital work. Following this report, you will find extensive appendices further detailing the efforts of the task force faculty and staff. We encourage you to review this additional material if inclined.

The efforts of the task force represent an important step toward establishing technology and society as an area of excellence at the University. We are hardly starting from scratch. Across our entire University, faculty, staff, and students already engage in a dizzying array of research, learning, and building around the social and societal aspects of technology. Nor is the report meant to be the last word. We expect a continuing conversation with internal and outside stakeholders in the months and years to come.

We believe that following the recommendations laid out in this report will position the University to attract and retain resources, faculty, and students, and to prove ourselves as an indispensable resource to state, federal, and international policymakers grappling with rapid technologic change. UW is poised to be a standout leader in technology and society.

The task force wishes to express our gratitude to President Ana Mari Cauce and Provost Mark Richards for creating this charge, to Dr. Anna Swan for supporting our work, and to the many faculty and staff who offered their wisdom. We also thank each of the readers of this report for your time and engagement. We look forward to working with the entire University community on this important, ongoing project.

# Appendices

# Appendix A: Charge Letter

October 25, 2021

# Technology and Society Task Force: Leading the Way in Addressing the Societal Impacts of Emerging Technology

Ryan Calo, Professor, School of Law, chair

Tim Brown, Assistant Professor, Bioethics & Humanities, School of Medicine Carole Palmer, Professor and Associate Dean for Research, Information School

Saadia Pekkanen, Professor, Jackson School of International Studies, College of Arts and Sciences Katharina Reinecke, Associate Professor, Paul G. Allen School of Computer Science and Engineering, College of Engineering

Adam Romero, Assistant Professor, Science, Technology, and Society, School of Interdisciplinary Arts and Sciences, UW Bothell

Matthew Weinstein, Professor, Science, Technology, and Society, School of Education, UW Tacoma Kate Starbird, Associate Professor, Human Centered Design and Engineering, College of Engineering

Dear Colleagues,

Thank you for agreeing to take part in the Technology and Society Task Force. We have an important task ahead of us this year: helping University of Washington leadership position UW as a leading institution in the area of technology and society. We look forward to working with you.

Background:

In the late 1960s, in response to perceived dangers and misuses of nuclear, chemical, and biomedical technology, several major universities in the United States and Europe founded programs devoted to studying the interplay between technology and society. The impact was significant: the U.S. government drew upon these programs in developing the model of "technology assessment," resulting in the creation of expert bodies such as the Congressional Office of Technology Assessment (1972 to 1995) and the White House Office of Science and Technology Policy (1976 to today).

Recent years have seen renewed attention within academia, industry, and government to the impacts of technology on society. Private philanthropy has invested hundreds of millions of dollars in this area in recent years, and Congress and other government bodies have held multiple hearings and workshops on genetic engineering, online misinformation, quantum computing and other topics. There has been a flurry of legislative and regulatory activity among U.S. states and federal agencies and Europe recently proposed comprehensive rules to govern artificial intelligence.

The University has often found itself at the forefront of these conversations. We are considered a leading school for computer science, information science, and biotechnology, among many other areas. Individual faculty across our campuses are renown for their work on the ethical, legal, historical, cultural, and other societal aspects of technology. We are located in a region long associated with technical innovation. Nevertheless, the University of Washington *as a whole* is not widely recognized as a standout leader in the societal aspects of emerging technology.

It's time for this to change. The task force represents an important, preliminary step toward establishing technology and society as an area of excellence at the University of Washington. By bringing together existing work in technology and society, identifying impediments to impact, and capturing best practices, the task force will position the University to attract resources, faculty, and students, and to prove ourselves as an indispensable resource to state, federal, and international policymakers grappling with rapid technologic change.

Goals:

- Catalog existing efforts around technology and society across all three campuses and the School of Medicine, including mature proposals for future work;
- Assess barriers to, and develop best practices in, technology and society research and learning, with particular emphasis on interdisciplinary impact;
- Produce a report to University leadership detailing a strategy to position the University as a standout leader in technology and society and a model for other universities and colleges around the world.

# Charge:

This task force will bring together existing and anticipated work at the intersection of technology and society across the University of Washington, assess barriers and best practices, and recommend action to position the University as a standout leader in the field.

In conducting this work, the task force will:

- 1. Understand "technology" broadly to encompass physical, digital, chemical, and biomedical artifacts, devices, and systems;
- 2. Understand "society" broadly to include regional, national, and international communities;
- 3. Seek input from across all three campuses and the School of Medicine;
- 4. Emphasize the role of interdisciplinary; and
- 5. Foreground the importance of diversity, equity, and inclusion.

Faculty Membership:

	Professor, School of Law Co-Founder, Tech Policy Lab Co-Founder, Center for an Informed Public
Dr. Tim Brown	Assistant Professor, Bioethics & Humanities, School of Medicine

Dr. Carole Palmer	Professor and Associate Dean for Research, Information School
Dr. Saadia Pekkanen	Professor, Jackson School of International Studies Co-Founder, Space Policy and Research Center
Dr. Katharina Reinecke	Associate Professor, Paul G. Allen School of Computer Science and Engineering Co-Founder, Lab in the Wild
Dr. Adam Romero	Assistant Professor, Science, Technology, and Society, School of Interdisciplinary Arts and Sciences
Dr. Matthew Weinstein	Professor, Science, Technology, and Society, School of Education
Dr. Kate Starbird	Associate Professor, Human Centered Design and Engineering Co- Founder, Center for an Informed Public

Timeline:

The task force will meet from Fall 2021 through June 2022. Deliverables are due in June 2022, with a progress report due in March 2022.

Deliverables:

By the end of June 2022, the task force shall produce a report to the President and Provost consistent with the charge and scope listed above. The report should include recommendations for positioning the University as a standout leader in technology and society and recommended specific next steps. If there are any objectives that need additional evaluation and work, the task force will identify these and make recommendations for the process needed for completion.

Thank you for your willingness to serve on this important task force.

Ano Mai Cauce

Ana Mari Cauce President Professor of Psychology Professor of Earth and Space Sciences

Marl a. Richand

Mark A. Richards Provost and Executive Vice President for Academic Affairs

#### Appendix B: Peer Institutions

This appendix offers insight into other U.S. institutions that are investing in technology and society research, teaching, and outreach. It is divided into the following sections: (a) peer institutions' (e.g., large public research universities) investments at a glance, (b) selected private institutions investing in technology and society as a competitive differentiator, and (c) narrative overview. The listed institutions are examples only. There are many other institutions doing significant work in this area.

#### (a) Public Institutions

#### University of California – Berkeley

#### **Research Centers**

e.g., Center for Science, Technology, Medicine, & Society; Kavli Centers for Ethics, Science, and the Public

#### STS Degree Programs

Division of Computing, Data Science, and Society

2022 National Workshop on Data Science Education; Berkeley Al Research Climate Initiative

\*Center for Technology, Society, & Policy supports a yearly fellowship program with projects anchored around four focus areas.

#### University of Michigan

#### Research Centers

e.g., Center for Social Media Responsibility; Community Health Informatics Lab; Educational Technology Collective

STS Degree Programs + Joint Degrees (e.g., Engineering + Liberal Arts)

DISCO Network – interdisciplinary, crossinstitution research collaborative

\*Science, Technology, & Public Policy Program received \$400K+ in grant funding in 2021, sponsored lecture series and certificate program.

#### University of Virginia

#### Research Centers

e.g., Cyber Innovation and Society Institute; Center for Ethics and Data Justice

**STS Degree Programs** 

School of Data Science

Biocomplexity Institute – Data Science for the Public Good

\*95% increase in research funding from 2016-2021, including a strategic approach to hiring in multidisciplinary areas such as Engineering for Healthcare.

#### Georgia Institute of Technology

Institution-wide and Interdisciplinary Research Initiatives e.g., Artificial Intelligence; Quantum Information Systems; Pediatric Technology; Internet of Things

STS Degree Programs

Interdisciplinary Research Institutes e.g., Digital Humanities Lab

\*2021 Research Report highlights \$40M NSF award for advances in AI – award allows Tech to hire 100 additional AI researchers and solidify its standing as a leader in machine learning.

#### University of Texas at Austin

#### **Research Centers**

e.g., Technology & Information Policy Institute; Institute for Computational Engineering and Sciences

**Dual /Interdisciplinary Degree Programs** 

Bridging Barriers - interdisciplinary incubator Grand Challenges: "Good Systems," "Planet Texas 2050," "Whole Communities-Whole Health"

\*Texas Advanced Computing Center awarded \$60M NSF grant to build and deploy Frontera, the fastest super-computer at any university in the world.

#### (b) Private Institutions

#### Massachusetts Institute of Technology

\$1B commitment to launch the College of Computing

Postdoctoral Fellowship Program in Computing and Society

Institute for Data, Systems, and Society

#### University of Pennsylvania

NSF Science and Technology Centers partner

Interdisciplinary Center for Engineering MecahnoBiology

New host of the History of Science Society

### University of California – San Diego

**Research Centers** 

e.g., Center for Ethics in Science and Technology; Indigenous Futures Institute

**STS Degree Programs** 

Qualcomm Institute – interdisciplinary innovation collaborative

\*2021 Design and Innovation Building + new Center for Health Innovation. UCSD AI Research Institute also received \$20M in NSF funding.

#### **Georgetown University**

2022 Initiative on Tech & Society

**Center for Digital Ethics** 

Funding for three tenure-track cluster hires

Development of interdisciplinary undergraduate curriculum

#### Stanford University

Ethics, Society and Technology Hub + McCoy Family Center for Ethics in Society

Grants for interdisciplinary course development, collaborative research projects

Stanford Institute for Human-Centered AI

### (c) Narrative Overview

Preliminary research on the reputations of "technology and society" programs in the United States revealed that the University of Washington is largely unrecognized in this area. Stanford University was most frequently recognized for its technology-oriented research and education; its reputation appeared to be largely based on its longstanding Science, Technology, and Society (STS) program, its Program in History & Philosophy of Science, and its proximity to the tech industry. Other institutions that ranked highly, such as Cornell University and several University of California schools, also had robust STS programs. Due to its established formal STS degree program, the University of Washington Bothell is ranked amongst the top 50 institutions.

Beyond offering STS degree programs, our peer institutions—that is, other large public research universities—have and continue to invest in technology and society research, teaching, and outreach. Interdisciplinary research centers, labs, and initiatives are present across the board, and often centered around core foci; for example, the Center for Technology, Society, & Policy at UC-Berkeley foci are: Health + Sensors, Sustaining Democracy and Building Community, Integrating Safety & Privacy, and Just Algorithms: Fairness, Transparency, and Justice. The "Bridging Barriers" incubator at UT-Austin is anchored around grand challenges related to climate change, communityengaged research, and values-driven AI. Peer schools have also made investments in funding interdisciplinary work; for example, UVA orients its engineering research program around societal challenges related to health, the "cyber future," and sustainability.

Private universities are also investing in technology and society as a competitive differentiator. Georgetown is a prime example, as it launched a formal, university-wide "tech & society" initiative in 2022. This initiative is highly interdisciplinary, joining together all nine schools at GU, and has sponsored a speaker series, led to the development of a new, interdisciplinary undergraduate curriculum, launched a new Center for Digital Ethics, and initiated a search for three tenure-track hires in technology and society. MIT is another institution that has committed significant resources in this area; namely, in 2018, MIT, following a \$350 million donation from Stephen A. Schwarzman, committed \$1 billion to establish the Schwarzman College of Computing and address global challenges related to AI. The College now supports a Postdoctoral Fellowship Program in Computing and Society, as well as a Social and Ethical Responsibilities of Computing Scholars Program. MIT's Institute for Data, Systems, and Society also formally links engineering and social sciences, supporting problem-solving across the domains of energy, finance, healthcare, social networks, and urban systems.

Select institutions are also investing in innovative cross-cutting curricula. For example, Brown University's Socially Responsible Computing (SRC) program reimagines computer science education by integrating ethics into undergraduate courses. In 2019, Brown began the SRC Teaching Assistants program which trains undergraduates to work with faculty to connect technical coursework with topics related to responsible computing. Another example includes Northwestern University, which supports opportunities for undergraduates to complete coursework across two schools concurrently; examples of interdisciplinary dual degree programs anchored in technology and society include BA/BS in Liberal Arts and Engineering and BA/BS or BS/BS in Communication and Engineering.

#### Appendix C: Selected Initiatives



# Appendix D: Interview Questions

Our objective is to discuss the following topics as they intersect with technology and society at the University of Washington: pedagogy/teaching, research, impact, and public outreach (including visibility and the recruitment of top faculty and students). The questions below are not exhaustive but are meant to guide our conversation.

# Technology and Society

- What does "technology and society" mean to you?
- Who does "technology and society" research serve? (e.g., which communities? what is the proposed impact?)

# Department / Unit

- How does your department/school/unit see its work intersecting with "technology and society"?
- What barriers have you seen hinder teaching, research, and outreach in this area in your department/school/unit?
- What other departments does your unit collaborate with that are critical to this kind of work?
- What specific benefits do you think can come to your unit and the people you serve?

## **Other Departments**

- Are you aware of any collaborative initiatives at the UW that you think are a good example of "technology and society"?
- How would you compare UW's strengths in this area to other universities? Is there anything that we are particularly strong in that could distinguish us from others?

## **Future Support and Visibility**

- What does the University do to support/promote work intersecting with technology and society?
- What resources should be made available to support this area?
- How should responsibility be distributed in regard to these resources?
- How could we show that we, as the University of Washington, are a leader in this area?

## **Final Thoughts**

• What questions do you have for us?

# Appendix E: Survey Questions

The University of Washington seeks to establish technology and society as an area of excellence at the university. As charged by the President and Provost, the Technology & Society Task Force looks to bring together existing and anticipated work at the intersection of technology and society across the university, assess barriers and best practices, and recommend action to position the University as a standout leader in the field.

For the purposes of this survey, please:

- 1. Understand "technology" broadly to encompass physical, digital, chemical, and biomedical artifacts, devices, and systems;
- 2. Understand "society" broadly to include regional, national, and international communities.

# Current Position\*

Check all that apply.

- Professor Emeritus
- Professor
- Associate Professor
- Assistant Professor
- Teaching Faculty
- Staff (Research Scientist, etc.)
- Postdoc
- Graduate Student
- Undergraduate Student

Department/School (e.g., iSchool)\*

Campus (e.g., Tacoma)\*

When you think of "technology & society," what University of Washington campus units or programs come to mind?\*

Which of the following statements reflect your orientation in the area of technology & society?\* *Check all that apply.* 

- I am interested or involved in the study of the social underpinnings of technology
- I am interested or involved in the study of the social impacts of technology
- I am interested or involved in designing and/or building technology for society
- None of the above
- Other: \_\_\_\_\_

In your opinion, what are some of the University of Washington's strengths in the area of technology & society? (e.g., culture of collaboration, interdisciplinary education, etc.)

Which of the following challenges, if any, have you experienced in your work at the University of Washington?\*

Check all that apply.

- Lack of opportunities to collaborate with other campus units
- Disconnection from Seattle, Tacoma, or Bothell campuses and/or the School of Medicine
- Uncertainty about resources that may be relevant/available to you
- Unsustainable programming (e.g., certain courses are not consistently available)
- Lack of sufficient funding for research
- Lack of sufficient funding for labs, centers, and/or programs
- Lack of labs, centers, programs, and/or courses relevant to my interests
- Lack of sufficient funding for new course development
- Limited opportunity for teaching release
- Being the "only" tech & society researcher and/or teacher in your department/unit
- Lack of incentives for interdisciplinary and/or collaborative work
- Difficulty engaging with community partners or doing community-based work
- Difficulty finding the right collaborators or advisees/advisors
- Lack of public visibility or sufficient PR
- I have not faced any notable challenges
- Other: \_\_\_\_\_

In your opinion, what resources could be made available to address some of these challenges?\*

One of our goals is to make the University of Washington a standout leader in the field of technology and society. Do you have any specific suggestions to strengthen research, teaching, and outreach in this area and/or how we might distinguish ourselves from other institutions?\*

If you would like to stay involved and be one of the first to be informed of the outcomes of our initiative, please provide your email address:

Do you have any other comments you would like to share with us?

# Appendix F: Additional Survey Results

# **Strengths**

Beyond the emphasis on interdisciplinarity and collaboration – as described in the "Methods and Results" section of this report – survey respondents mentioned several other aspects of the University of Washington they felt were unique strengths. Respondents primarily identified strengths related to having expert faculty and top students, as well as UW's geographic location (both based on proximity to the tech industry, as well as having unique regional resources). The following lists a selection of other strengths that do not fall within these categories:

- "UW is at the forefront of technology development in many fields"
- "DUB has been a unique strength of the UW for the past 15 years...building multidisciplinary bridges that have boosted multiple units across technology and society. It has made us the leading institution for HCI & Design research and education, connecting more than 50 faculty across campus (e.g., in Engineering, in the Information School, in Arts & Sciences)."
- "The computational linguistics program does a lot of work with low resource languages, which is a good step forward."
- "Looking toward future impacts"
- "The pandemic metrics and global health initiatives."
- "well-regarded institutes and programs"
- "Reputation, high quality of education, research, inclusion of various cultural perspectives and points of view"
- "DEI efforts in STEM admissions and faculty / staff hiring"
- "Solving immediate crises with cutting edge ideas and being thought leaders in emerging technologies and their implications."
- "Science and technology development in medicine"

Some respondents said that they felt the University had no notable strengths compared to other institutions (n=11). Other respondents discussed strengths alongside possible improvements; for example, one individual explained that "UW prides itself on being interdisciplinary, so I would want to see units focus on a greater value for interdisciplinary work."

# **Challenges**

When asked about any challenges, the most popular answer among survey respondents was **"Uncertainty about resources that may be relevant/available to you**" at 53.6% (n=134). The next most selected challenges were: **"Lack of sufficient funding for research"** (36.8%), **"Lack of sufficient funding for labs, centers, and/or programs"** (36%), **"Lack of incentives for interdisciplinary and/or collaborative work"** (32.8%), **"Disconnection from Seattle, Tacoma, or Bothell campuses and/or the School of Medicine"** (29.6%), **"Lack of sufficient funding for new course development"** (28.4%), and **"Lack of opportunities to collaborate with other campus units"** (26%).

Which of the following challenges, if any, have you experienced in your work at the University of Washington?

250 responses



Most survey respondents chose multiple answers to this question. Additionally, several respondents contributed their own unique answers in the "Other" option; there were forty-eight individual responses not reflected in the chart above. A small sample of challenges written in by respondents include:

- "Program faces shifting funding and funding shortfalls; staff transitions"
- "Disability Accessibility and consideration for disabled talent"
- "The private sector and the university want to work with each other, they just don't really understand how"
- "it takes forever to hire staff"
- "I'm a Research Scientist & many funding opportunities prioritize faculty. Paying community partners for their work is too burdensome for partners."
- "Increasing service expectations as my career advances"
- "Lack of support for existing STSS program"
- "Lack of processional [sic] support for faculty at UWT for writing grant proposals; lack of support for PhD students at UWT for writing fellowship applications; Lack of competent administrative staff for post award management (resulting in the need for faculty to spend a lot of time on administration tasks themselves and even in awarded funding not being used because staff can't figure out the process)"
- "Lack of funding for graduate student support"

# **Suggestions**

When asked what, if any, changes could help make the University of Washington a standout leader in the field of technology and society, survey respondents offered several suggestions. The following reflects a consolidated list of all suggestions offered in the survey:

- Build an interdisciplinary center
- Implement sustainable funding mechanisms
- Offer cross-departmental funding

- Cultivate/strengthen partnerships with industry
- Form a \*funded\* STS grad certificate program + undergrad STS minor/major
- Strengthen community partnerships
- Implement up-to-date technologies for teaching
- Equally incorporate research and teaching/education
- Improve societal progress, don't just benefit academia
- Equally incorporate social sciences/humanities/arts into initiative
- Value and reward community engagement
- "Put sustainability and social responsibility above profit."
- Focus on health impacts of technology
- Provide professional development for course design
- Institutionalized cross-unit efforts + dedicated staff
- Newsletter/website about research, grants, etc.
- Offer tri-campus workshops to get initiative off the ground/form a strategic plan
- Offer more tech workshops for "non-tech" students
- Hire dedicated staff member to serve as community liaison
- Reduce bureaucratic burden on faculty
- Create separate TT for research- vs. teaching- faculty
- Enabled more collaborations (especially between social science/humanities and tech)
- Adequately address issues of equity and inclusion
- Create a broad interdisciplinary group
- Better PR / engagement with social media
- More opportunities for teaching release
- Tenure teaching professors
- Make campus / initiatives accessible
- Hire PhDs specializing in History of Science and Technology
- Create new tech & society courses
- Approach large Seattle donor base to invest in tech & society work
- Invest in critical/cultural study of technology for its own sake; create systems to consistently train PhD students in this area
- Make DEI a priority
- Increase online visibility
- Continue hiring outstanding/forward facing faculty
- Build internal infrastructure/network for collaboration
- Create more opportunities/training for communicating science to the public
- Develop an online, affordable continuing ed degree
- Enable reduced teaching load and encourage faculty affiliation with a center
- Start fellowship model -- bring in mid-career experts each year and allow them to work on a substantive research project
- Invest in resources for staff
- Re-design technical courses to incorporate impact/ethics
- Fund/support/partner with K-12 programs
- Ensuring work has an impact on policy

- Cross-unit initiative to build community partnerships
- Share list of relevant courses
- Create more public-facing media (YouTube channel, podcasts, etc.) to communicate tech research, etc. to a wider audience
- Visiting scholar fellowship program
- Have more university-wide events to showcase tech & society work
- Create more opportunities for tri-campus collaboration
- Incentivize early career faculty for taking risks in this area
- Better publicity for work done at UWT and UWB
- "focus on DEI to consider "society" equitably by engaging vulnerable or historically marginalized populations in our work to refocus technology on the people who may need solutions most but be least served"
- Launch an outreach center to support collaborations with industry partners
- Recruit faculty, staff, and students from minoritized backgrounds



Ryan Calo (Chair) Professor, School of Law Director: Tech Policy Lab



Dr. Timothy Brown Assistant Professor, Bioethics & Humanities



**Dr. Carole Palmer** Professor and Associate Dean for Research, iSchool



Dr. Saadia Pekkanen Professor, JSIS Director: SPARC, QUAL



Dr. Katharina Reinecke Associate Professor, CSE Director: Wildlab



Dr. Adam Romero Assistant Professor, STS, IA&S (UW-Bothell)



Dr. Kate Starbird Associate Professor, HCDE Director: Center for an Informed Public



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