

Researching AI and Data Governance: Meta-Reflections on Research Methods and Practice

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1. The Nature of CAIDG's Research Projects

Methodology is simply an organised way of *doing* research. As researchers, we develop our own research styles and systems of investigation to be efficient at fulfilling the requirements of our research pieces. Despite the need to apply tested research methodologies, a method is nothing more than adapting and settling a useful way of achieving research goals, within the realities of capacity, resources and time. Thus, the types of research methodologies employed will naturally be highly responsive to the specific applications, scopes and aims of the projects at hand.

It is not uncommon for the team at the Centre for AI and Data Governance (CAIDG) to conduct research as an organic process of discovery, guided by an intuitive sense of what information is useful or otherwise. It can be tricky to adopt a meta-approach of research, as the quality of self-reflexivity fades in and out whenever one is engrossed in the research task, or dictated by the inflexible parameters of research methods.

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In the process of interviewing the research team, however, it becomes apparent that the various types of research projects are underpinned by a common core: CAIDG's mission to directly influence the AI and Data Governance scholarly and policy discourses with the intention to shape the policy-making agenda on a local, regional and global level. Associated with this aim is the desire to emphasise the importance of clear theoretical foundations, aligned with creative method applications for research rigor. Although the work streams are individually diverse and interdisciplinary, these projects also intersect with each other along key themes: power, legitimacy, surveillance, vulnerability, equity, justice, trust, duty, community, etc. The research team generates original analysis and insights in service of CAIDG's mission by connecting their academic research with clear policy implications and outputs in the context of critical contemporary challenges. As such, the research methodologies most frequently employed generally embody these characteristics:

- Comparing local, regional, and global perspectives to dissect a topic – comparative contextual analysis, drilling down into referents before attempting comparison.
- Comparing and consolidating insights from other scholarly fields outside of law – cross-disciplinary, multi-disciplinary and pluralist research sourcing and contextualizing
- Grounding theoretical research with specific policy considerations – action-oriented researching into specific contemporary challenges.

This comparative research approach is flexible, dynamic, and interdisciplinary in nature. It complements the various academic backgrounds of the research team at CAIDG, who offer their distinct fields of expertise either through informal discussions or in specific collaborative research frames. By seeing academic research as a healthy balance between an individual and team-based activity, the research outputs of CAIDG offer a unique blend of legal and social sciences perspectives to better meet the demands of emerging and nascent fields of academic scholarship (i.e., AI governance, law and technology, STS studies). The cross-disciplinary interaction leading to new research directions is explored in the author's interview with Nydia Remolina (Research Associate at CAIDG):

“When bringing up research pieces or a working paper to light, we should, for example, hold a seminar or discussion with the School of Information Systems, the philosophy department, or other people who are interested in the same type of topic from their perspective, to see what they think our reading of the theories. What I've done so far is to discuss internally in the Centre, but I'm aware that most of us come from the same discipline.

But even coming from the same discipline, it's been useful to have these internal discussions ... we have different perspectives because we are thinking about different criticisms and theories. It's helpful to have those discussions, but I think we need more involvement with people out of our fields.”

Whether this comparative research approach favours a more specific manifestation, such as content analysis or literature review, the main purpose is to expand the research beyond

the local perspective to cultivate a greater multi-jurisdictional and multi-cultural understanding of issues in AI and data governance.

The wider implication of this comparative research approach is to recognize law as sitting within a society and move beyond comparing the law in abstract terms,² especially when confronted by international companies that challenge the very concept of a 'legal system'.³ By understanding the real-world applications, relevance and impacts of the law (and so too the various rationales behind why certain laws are created), this comparative approach integrate the wider interests of society into academic discourses.

2. Overview of CAIDG's Research Methodologies

Critical Voices

On a meta-analysis level, this paper is built on the critical voices of the research population relaying their methodological experiences at CAIDG. Prior to writing this paper, the author is charged with conducting an interview exercise to gather the research team's holistic reflections on their research methodologies and to chart and synthesise these observations, for the purpose of making available to other like-minded researchers an oral history of researching AI and data governance.

Because of the nature of using critical voice in research, and the manner in which this research methodology emerges often organically to meet the challenge of new analytical questions, it is important to think about two often unconscious but interlinked elements as forming a key theme: critical voices as manifesting within a specific research space.

The premises and practices of ethnography and ethnomethodology remind that the researcher must be (and shall remain) mindful of the temporal and spatial location of the research subject/object, the manner in which this is impacted upon by the research endeavour, and how the researcher and the research subject/object inter-relate in the production of research knowledge and insights.

Phenomenologists would also remind us to reflect on and factor in how meanings are co-created by the research subject/object and the researcher, and how shared understanding emerges from these mutual influences. This often proves harder than what it sounds. One significant challenge in actioning 'voices' as a research medium is how one unlocks the silent, confused, muzzled or vulnerable voice. In addition, in attempting to 'hear' the voice of the research subject/object, how can the researcher stay true to the meaning that any voice conveys, especially when the research exercise is often removed through secondary account from the original message?

To understand these problems, the author/interrogator seeks out the voices of researchers through direct interviews. However, because the researchers' critical voices could often

² Bernhard Grossfeld & Edward J. Eberle, Patterns of Order in Comparative Law: Discovering and Decoding Invisible Powers, Texas International Law Journal Volume 38. Pp. 291 (2003).

³ Mark Van Hoecke, Methodology of Comparative Legal Research, Law and Method (2015), pp. 1-35. Doi: 10.5553/REM/.000010

touch on sensitive topics of research bias and personal predisposition, the challenges associated with distilling critical ‘truths’ from the voices so addressed become apparent through the interview process. These challenges clearly resemble those that will be confronted by any researcher interested to explore and apply critical voices as a primary research source in a self-reflexive way.

Comparative (legal) studies

Generally speaking, the research team describes their own research approaches as comparative in nature (even if there is no one specific way to define and understand what can be referred to as the essence of “comparative” research). This could involve comparing the similarities and differences of certain trends or topics across different geographical and spatial contexts. For example, by drawing a comparison between the emergency powers used and the types of surveillance approaches in different countries during the Covid-19 pandemic, researchers can better understand how the decision-making process can manifest differently depending on governance styles. This comparative approach is discussed in detail in the author’s interview with Alicia Wee (Research Associate at CAIDG):

“I have to understand how surveillance is contextualized within this economy and compare it with another one. If I only focus on one (country), it takes away from a lot of the concerns because you may not necessarily understand why another country is doing something differently. The only way you can properly analyse the way Country A is doing through drawing a comparison.

For example, Singapore and Malaysia are geographically linked but are using quite different control strategies. Even though we are so closely linked together - whatever that happens in Malaysia will also directly affect us - why is it that their strategy is so different from ours? Why is it that in the EU, Germany is doing well in terms of privacy protection with a decentralized model, and yet in France, it's centralized and more top-down in their approach?”

In terms of comparative contextual analyses, the researchers will often break away from a binary (similarities/differences) analysis mode – engaging in deep, layered evaluations of any particular referent, in order to uncover the most revealing themes that can be the subject of cross-subject comparison. This approach is more dynamic than some static evaluation, and in this way, the ‘apples and oranges’ quandary in comparative research is modified through the revelation of common or even binding themes.

Beyond using the comparative research methodology to produce insights, there is a richer understanding among the research team that adopting a comparative lens can help push the research scope beyond the local perspective. The resultant analysis would then encompass a wider and more expansive set of research considerations, drawing arguments and ideas that move beyond borders and external divides; this position echoes earlier points made about the CAIDG’s overall research as being interdisciplinary in nature and is echoed by Remolina’s explanation on the importance of maintaining a multi-jurisdictional focus in her research approach:

“These different perspectives make us think about things that we haven't even realized that exist. We see the lack of diversity in, for example, policymaking debate around financial regulation when rich countries are the ones discussing the international settings of policymaking and making international recommendations for financial regulation; they think about these sophisticated banks and sophisticated transactions conducted by banks in those jurisdictions, and that's the mindset behind some of the policy recommendations in financial regulation internationally. But when you apply that to emerging economies, where banks have a very conservative market and they don't have the same behaviour as the banks located in economically developed jurisdictions, you end up applying things that are trying to solve problems that don't even exist that may, for example, affect the volume of loans that are provided to the population in that jurisdiction. So the implications that rich countries don't even have in mind - that's how diversity comes as something important when you are trying to do policy work.”

Naturally, this expansion of research vision has the consequence of questioning the actuality and separation of conventional research terrain such as a nation state, and enable consideration of human interaction that is not premised on artificial or strained boundaries.

More specifically in terms of comparative *legal* research, this approach comprises the act of likening different national legal systems, even different forms of globalization, and non-state law (such as customary law, religious law or unofficial law-making by international companies). Speaking on the need to apply critical and legal theories across diverse jurisdictions, Jane Loo (Research Associate) explains how she draws comparison in a way that recognizes the nuances in value systems commonly observed in different societies:

“There are definitely differences. I wouldn't say theories, but certain frameworks are difficult to transplant wholesale in different contexts, like the language of rights or even the rule of law - some countries might adopt a narrow interpretation, some countries might adopt a broad interpretation.

Context is definitely important in that way. When looking at different countries, we definitely see that the regions of the West and Asia have different value systems. It should be approached with sensitivity. Although it's not fair to say that Singapore has no freedom or human rights at all since those are Western concepts. When we conduct research, we can rely on language and concepts like human dignity and autonomy which has more reach than the right to freedom of movement ... For example, we changed the term 'right to liberty' to the 'right to self-determination' which is more universal and has less human right tones. So we do change the tone and description based on the country that we examine.”

The key act in comparison, then, involves looking at one mass of legal data in relationship to another to assess how the two lumps of legal data exhibit common and divergent themes. The essence of comparison, then, is aligning unifying or diversifying institutions, processes and normative foundations between data points. This exercise becomes a measure to

obtain understanding of the content and range of the data points.⁴ Here we need to focus quite carefully on the similarities and differences among the data points derived from the different legal systems, and ask why so, and so what.

At CAIDG, we use comparative research methodology when conducting research on particular legal issues in relation to artificial intelligence and data protection, the implications of the use of AI in specific industries (e.g. autonomous vehicles, AI in finance, dispute resolution), and the impact of AI in business, specifically the issues relevant to the corporate sector as a whole (e.g. intellectual property and transnational and commerce trading). At the core of the comparative legal research methodology is the commitment that, since law sits within a society⁵, it is not enough simply to compare the law in abstract terms. As an extension of this view, the comparative method applied in CAIDG's research agendas recognizes the diminished regulatory relevance of law over these domains, implicitly appreciating systems theory approaches in full acceptance that law may be a normatively closed but cognitively open system. Thus, the comparative method positions law against economy, society, politics and all other major regulatory systems to make some evaluative sense of law's place in regulatory and governance agendas.

Conversation

Conversation involves the expression of feeling and attitudes about the subject of the conversation, and therefore it may be more personal than a dialogue.⁶ Conversation differs from a dialogue in that it is unstructured and free flowing, whereas a dialogue implies select parties engaged in nominated exchanges of views. In any case, the differences are of degree relating to the formality and spontaneity of the interaction. Beyond its informal nature, conversation aims at equilibrium (whereas it can be said that dialogue encourages disequilibrium in order to advance given arguments). Conversations are likely to be less focused, compared to the purpose of a dialogue as more explicitly defined and less elusive.⁷

At CAIDG, since the research team comes from diverse academic backgrounds, having informal conversations among different team members (whose expertise may or may not lay outside of law) is a helpful way to get acquainted with new research topic or project – for the senior researchers with more experience, this research area may already be registered on their periphery as something worth investigating, so they could suggest and make recommendations on where to get started.

When applied to specific projects as a discreet research methodology (like in the Ethics Hub research) conversations can be constructed within a focus group frame and still be free-flowing and elliptical. For example, the Ethics Hub focus groups operated with a minimum

⁴ Edward J. Eberle, *The Method and Role of Comparative Law*, Washington University Global Studies Law Review Volume 8, Issue 3. Pp. 451-486 (2009)

⁵ Bernhard Grossfeld & Edward J. Eberle, *Patterns of Order in Comparative Law: Discovering and Decoding Invisible Powers*, Texas International Law Journal Volume 38. Pp. 291 (2003).

⁶ Ruth L. Saw, *Conversation and Communication, Thinking*, The Journal of Philosophy for Children, 2(1) (1980), pp. 55-64.

⁷ Carole MacInnis and John P. Portelli, *Dialogue as Research*, Journal of Thought Vol. 37, No. 2 (Summer 2002), pp. 33-44. Pp. 34.

number of facilitated questions, but the flow of conversation was owned and evolved by the participants. As Josephine Seah (Research Associate) explains to the author in the interview:

“As a researcher, you have a specific research question that you're trying to answer for your project. Because I've done interviews before, I am very aware that things can go off tangent. So it helps to have the awareness that I will have to do something if it *does* go off on a tangent, since the contribution doesn't answer my question ... But what they're saying could be something that you haven't considered in the first place. For example, we spoke to this company in the ethics hub project. We were trying to ask if they used documentation methods, and who has access to it, in order to figure out the lines of communication in their organization. But they clammed up immediately and said they couldn't talk about it because of the non-disclosure agreements they'd signed. It wasn't what I was asking at all, so in that situation, there are a couple of things you could tell yourself: maybe I could've phrased the questions better, or maybe there was a miscommunication along the way, which was why I didn't get a response to the question I'm asking. Or you could figure out why they're clamming up and refusing to talk about it.

While the entire conversation had completely gone off on a tangent that was ultimately not useful, at the same time, it made me realize we could and should be asking people about contracts. So it really depends on the scope of your research question. If you can't make use of the data you've gathered, you still can use it for something else. Depending on your research priorities, there are never completely wasted conversations.”

As with any conversations unfolding in a social setting, they may not always come to any conclusions and may not canvass all relevant topics. CAIDG's conversation method focuses more on revealing meanings that are negotiated, multi-layered, hidden in the sense that it could be interpreted/interesting in many ways, as well as interpreting expressions designed to represent meanings anticipated as correct (rather than personally held).

Depending on the levels of trust and cooperation established between and among the conversants, shared understandings may arise through interaction that has not been enunciated, expressed, or revealed by participants present in the room. In this respect, conversations are organic and as such provide an exciting and yet unpredictable methodological experience.

Dialogue

A prominent project at CAIDG which employs the dialogue methodology is the Asian Dialogue on AI Governance.⁸ Through this initiative, a multi-disciplinary group of leading researchers on AI governance from academic institutions across the region foster the exchange of views on the governance of AI in Asia and deepen research collaboration in areas relevant to industry, governments, cultures and communities. The Asian Dialogue contributes to the AI governance discourse by identifying areas of common understanding

⁸ See more information about the project here: <https://caidg.smu.edu.sg/smu-microsoft-asian-dialogue-ai-governance>.

wherever possible, while maintaining full recognition of differing contexts that can lead to a greater divergence of views, experiences, and capacities.

The dialogue typically evolves in set frames, such as research roundtables, webinars, focus groups, master classes and research exchanges. Different from conversation methodology, the participants in dialogues are deliberately selected around their research experience to be representative of different research and policy backgrounds relevant to AI governance. As a formal exchange of ideas, the dialogue is often structured and guided by pre-prepared questions, moderation, facilitated presentations and commentary, as well as responses to hypothetical situations and case problems. The topics for any research dialogue are often set through earlier consultation with participants.

Dialogue can be used as a noun and a verb. For the purposes of the Asian Dialogue methodology, both applications are equally relevant. As the word implies, the dialogue is bilateral rather than open to multiple interventions and contributions. The moderator or facilitator in a dialogue exercise will be interventionist and directive, in order to achieve assigned outcomes for the session. The evolution that the Asian Dialogue has undergone to align this knowledge exchange exercise is summarised by Remolina:

“In the beginning, we were thinking more like the typical academic to get together with different professors and build/publish a collection of papers and organize a conference. That idea of the Asian Dialogues had changed entirely over time. Thanks to Covid-19, we couldn't organize any more roundtables because of the travel restrictions, so we had to come up with different ideas. That's how we changed the methodology entirely ... It's not this collection of papers that we initially planned, that are totally disconnected one from another and will not produce something as meaningful as we want. So that's in very general terms what we changed. What we have now is a more dynamic network. I like to see the Asian Dialogue as a network of people that are interested in discussing and presenting findings on AI governance, not necessarily to come up with a standard decision of an "Asian" thinking around AI governance but precisely to highlight the convergences and differences in ongoing debates of AI governance in the continent, and how this contributes to the AI governance conversation worldwide, beyond Asia.”

More generally, the contexts for dialogue are often formulaic and highly structured, akin to written or spoken interchanges in a novel or a play. In this sense, dialogue usually entails recorded exchanges between two parties often with very specific purposes for the engagement (i.e. advancing a plot, character development, creating humour). From this can be drawn the methodological distinction – that in conversations, linguistic forms are used between multiple participants to convey shared meaning assisted by spontaneous non-verbal cues, but the form of dialogue is curated with intention and care.

Focus groups

A focus group is a research technique used to collect data through group interaction. Comprising a small number of purpose-selected people, focus groups are used to identify and explore how people think and behave, and they throw light on why, what and how questions as facilitated by a moderator. Functionally, this method may overlap with

conversations and dialogues as formal/informal ways of channelling the participants' viewpoints. Although focus group as a research technique has been separately identified from other methodologies, its actual applications as a communication platform is flexible and receptive towards the employment of other research tools in this context.

For example, in some research settings, a more informal method like conversations is more suitable to encourage a group of participants to share their opinions and understanding on a topic – the transcript of which is then used to capture and summarize the overall impression of participants'. In other scenarios, a more formal communication style emulating the mode of the 'dialogue' may yield deeper sets of insights from the participants. The flexibility of the focus group to provide an avenue for the researcher to employ a variety of different research tools highlights the purpose and value of this research method.

Whatever the communication and analysis styles, the insights produced by the focus group method will always depend on a blend of the following elements:

- The nature of facilitation
- The style of questioning relied on
- The extent to which participants can own and direct the exercise,
- And the intentions for the analysis (qualitative or quantitative).

In some instances, the data emanating from a focus group session is recorded in detail, coded, cross tabulated and thematically analysed; but considerations will have to be given to whether the act of documenting an in-person communication (with the intention to take this outside of the room) can alter or affect the participants' willingness to disclose their honest and true feelings. In this case, the option to anonymize participants' contributions may bring a level of reassurance, which may benefit the researchers' ability to access the participants to gather useful insights.

The value, importance, and challenges of cultivating convergent and diverging opinions within a focus group setting as a discussion topic is explored in detail with the research team at CAIDG, as summarized below:

Josephine Seah: "If it's a focus group discussion, the worst thing is for everyone to agree with each other because you don't actually go anywhere. You want people who are diverse in their expertise and experiences, so they can explain their agreement or disagreement clearly. It's hard to say if I value similar or differing opinions the same way, but I definitely don't want people from the same background doing or saying the same things in focus groups."

Nydia Remolina: "It's important for *what*, that's a question that I would like to address first ... Sometimes it's easier, or less costly to have conversations and debates with people who have the same mindset as you have, instead of people with different views on the same problems. Sometimes the diversity can be a burden to debates and discussions ... It depends on why you want diversity and for what purpose. If you want diversity because you would like to find, as I mentioned for the Asian Dialogues, the convergence in a topic, as well as the differences to find different solutions to the same problem with different perspectives, that is when I

think diversity is useful. Why? Because policymakers are drafting policies for a diverse population, so it's important to see those different points of view, types of solutions, or ways to see the world; we should at least be aware of those differences ... If you have a mind that is very similar to yours, you'll probably come up with the same solution and you are less creative in that way ... [e]specially in an emerging field, diversity is going to enrich our academic outputs.”

Use case & Case Studies

The Centre’s “use-case methodology” is a research method adopted in projects where there is a need to organize a considerable volume of material into distinct categories to answer a research question, as well as to address an interest in comparative examples and a preference for the grouping together of common themes to situate its examination.

Each project will have its own unique “use-case” formula – that is, a framework designed specifically to answer the priority aims and questions of the research in question. This formula will then be applied across all the use cases. The comparative nature of the work can be one that is spatially or geographically located, or simply one that is interested in exploring two (or more) values against each other. As such, the presentation of common themes in this format proffers the opportunity for critical and consistent analysis across interested research questions.

The CAIDG’s projects utilizing the use-case methodology

We have employed the use-case methodology for two of our ongoing projects in the Centre. For context, this section will briefly summarize both projects, led by Jane Loo (Research Associate at CAIDG).

Rule of Law, Legitimacy and Effective COVID-19 Control (“RoL project”): This project is interested in the extent to which adopted COVID control measures comply with or deviate from principles of the rule of law. The research aims to draw out how adherence to the rule of law paves the way for the reduction of arbitrary exercise of power → the enhancement of citizens’ trust → the furtherance of state legitimacy → leading to an overall improvement in control efficacy outcomes. We posit that the connections drawn out here apply universally and seek to test our theory and hypotheses in several countries across Asia, Middle East, and Europe. This comparative examination affords us an opportunity to explore the universality of the rule of law. Since the implementation of COVID control measures are (necessarily) rolled out by an enabling authority, it is necessary to first *locate* the form and design of authority styles and the powers exercised. This location of authority and power can be accomplished through the use case methodology. The framework designed with the use-case methodology in mind endeavours to ascertain the following:

- What is the structure of the public health crisis system in the respective states?
- What is the legislative and regulatory framework governing the roll-out of the various COVID strategies?
- What powers are granted to the authorities under the law including the finding of arbitrary powers?
- What are the control measures/responses employed in the pandemic?

The use-case method employed in this context invites a deeper and clearer analysis of the relation between the “authority-power-legitimacy” dynamic and the rule of law in our interested jurisdictions. It offers a continuum of sorts where different political styles and pandemic handling strategies (and its success) can be traced back to association or deviation with principles of the rule of law.

The vulnerability project: is interested in scrutinizing the discriminatory consequences of COVID control measures on vulnerable groups across Singapore, India and the UK. The project theorizes that discrimination in the pandemic is the result of state action/inaction that negatively impact on the concept of human *vulnerability* and resilience-building. The intended research outputs aim to serve as an aid towards the modelling of therapeutic risk prediction. The framework designed with the use-case methodology in mind endeavours to ascertain the following:

- Describing the socio-political structure where the vulnerable group is located
- Examining existing legislative protection and its inadequacies
- What are the some of the properties/features of the group’s vulnerability?
- What are the adopted COVID measures that discriminate and entrench their vulnerable status?

The use-case method employed in this context invites the drawing out of common vulnerability features (within a vulnerable category discussed), alongside cautions of discriminatory responses that could exacerbate pre-existing group vulnerabilities. As demonstrated, this model enables more universalized risk prediction promoting the design of appropriate control strategies with equitable outcomes.

Case Study vs. Use-case Methodology – what’s in a name?

Across the literature, case study is referred to as a methodology and a method, an approach, research and research design, research strategy, and/or a form of inquiry.⁹ There is no unique definition of what is considered a case study. However, most scholars emphasize the nature of inquiry as being empirical, and the importance of context to the case, and the importance on focusing on a particular issue, feature or unit of analysis.¹⁰

Meanwhile, use case modelling has its roots in organizational and business studies. For that reason, its language of systems architecture, test cases, domain experts, users and actors, and flows may seem foreign to the social science discipline. The situational context of the research is organizational, with clear goal orientations, and boundaries that can be manipulated to vary the influence of crucial participants. Although this exercise in modelling has emerged from business and organizational research, it is not totally incompatible with social science methodology. It simply requires translation and relocation to connect with

⁹ Helena Harrison, Melanie Birks, Richard Franklin & Jane Mills, Case Study Research: Foundations and Methodological Orientations, Forum: Qualitative Social Research Volume 18, No. 1, Art. 19 – January 2017

¹⁰ Khairul Baharein Mohd Noor, Case Study: A Strategic Research Methodology, American Journal of Applied Sciences 5(11): 1602-106, 2008.

systems theory, which lies at the heart of conventional use case thinking and, as such, should provide a platform of common understanding.

On the remediation of language:

- Actors (users) become research subjects (individual/community)
- Roles become behavioural contexts
- Systems and relationships are common
- Structure becomes institutions/frameworks
- Goals and motivations become social imperatives and social outcomes

Common between the use case and social science is:

- Potential for abstraction and generalization
- Concept of research boundaries
- Utility of modelling
- Transactional pathways
- Agility
- An interest in systems
- The relevance of location/context
- The identification of crucial stakeholders
- The interrogation of relations (importance of symbolic interaction)
- The significance of representation and meaning
- Power

The primary difference is that conventional use-case methodology is confined to the market, whereas case studies can engage beyond the market and into all aspects of the social. If one starts from the understanding that case studies usually refer to performing an in-depth and detailed examination of a specific case (or cases) as unfolding within a real-world context (akin to a 'snapshot in time'), it is then possible to distinguish case studies from the use-case methodology on the following basis:

First, use cases involve theorized sets of conditions (as probative of a theory or normative statement), as opposed to purely descriptive of the actual sets of conditions – often beyond the researcher's deliberate design or control – which underpin and help explain a specific case or real-world situation. However, both use cases and case study operate with a theory of research and share some common theoretical perspectives such as history, ethnography, organizational and systems analysis. While case study may have an evolving normative base, depending on the revelation of data, it is unlikely that this method will engage with normative underpinnings.

Second, use cases can demonstrate the causal relations and dynamics between a set of factors or players within a given system to illuminate their roles in influencing certain outcomes. Depending on how these individual components are adjusted, it is possible to produce different results, whereas the set-up and outcomes of a case study are often already determined (and cannot be reformulated or re-presented differently to better suit the purpose of the research). Since case study analysis is primarily descriptive and explanatory, it rarely evolves without an interactive consciousness, often resembling the

cognitive connections expressed in systems theory. In this sense, both methods are dynamic because they are not tied to the “is”, nevertheless, they will have differing focus and level of interests in the “ought”.

As such, there are different benefits to using case studies and use-case in research. One is not inherently more useful than the other, as the specific needs of a research project will determine whether they are fit-for-purpose (and this purpose can differ quite drastically depending on what the researcher is aiming to achieve).

For case studies, their capture of the chronological sequence of real-world events as they unfold can help to illuminate why and how certain factors lead to another outcome within certain social, geographical, and political environments. However, the resultant analysis derived from examining case studies may comment on these externalities and climates as much or as little as the researcher prefers, as the motivation for using case studies can sometimes lean away from the *why* and towards the *how* of explaining the present situation and event outcomes. Contrasting a selection of relevant case studies can also reveal the similarities and divergences between the same type of situation evolving and unfolding across different environments, which can help to verify the researcher’s intuition on whether their hypothesis is valid (or otherwise).

On the other hand, because use cases can involve theorized sets of conditions (perhaps to accurately reflect the sets of normative presuppositions embedded into the core argument), it is by design that the individual components belonging to a system will reveal the *why* and *how* one thing leads to another as equally valuable to the research. Without the detailed and meticulous mapping of these causal relations, it will be a challenge for the researcher to show a way of translating certain theories or principles into practice. It is possible for the deliberate design of use cases to draw inspiration from real-world events (case studies), but the purpose of crafting a system of interoperative agents and factors is to demonstrate a wide range of ‘conditionals’ that both inform and underpin successful/desirable (or otherwise unsuccessful/undesirable) outcomes. Accordingly, by substituting new ‘conditionals’ into the picture, the general set-up of this system may also serve as a consistent frame that yields fresh analysis.

Research Synergy, Teamwork and Collaborations at CAIDG

Generally speaking, the research lead on a project will develop their familiarity and expertise in a specific topic of research over a period of time. Although a researcher may already have a degree of expertise about a research area or a research method – and they are naturally motivated by their overall competency, curiosities and/or passion to undertake certain research projects – they become even more so the subject matter expert in that research area by the end of the research process. Subsequently, the researchers at CAIDG have each developed varying levels of familiarity and expertise in different ways of “doing” research by virtue of the types of research projects they’ve lead and contributed towards. In spite of these differences, the research team are generally curious and interested to learn more about how the other teammates carry out their research tasks.

As there exists a good degree of teamwork and research collaboration at CAIDG, each researcher can then contribute their unique skillsets and perspectives (whether from a legal or social science background) to produce different styles of analysis. For researchers who have direct experiences in using literature reviews, case studies or quantitative research in their projects, they may also gravitate towards opportunities to discover, learn and apply other research methods in future projects (e.g. integrating the use-case methods in Remolina's digital self-determination project).

Although the priority and value that CAIDG places on embracing different research approaches and perspectives is evidenced most clearly in the Asian Dialogues, there are plenty of other examples demonstrating the research synergy present within CAIDG. The progress and development of the following overlapping research streams is a testament to the value in fostering a diversity of research approaches and perspectives:

1. The transposition of the Ethics Hub's focus group/conversational methodology to the Centre's latest project on Singapore's Intellectual Property regime and its influence on the country's AI innovation landscape. Although this method was previously developed to bring in insights from an under-represented group into existing literatures, it is now being used to gather perspectives from multiple groups of stakeholders. This development has revealed the possibilities for using and combining different tools for conducting sociolegal research.
2. CAIDG's research focus on the dual themes of disquiet and vulnerability creates interesting parallels in connecting AI discourses with empirical observations of discriminatory practices and acts already inflicted on the marginalised community.
3. Disquiet also sits closely with the Rule of Law research projects, as the distrust surrounding exceptional surveillance regimes or authority styles will impact on the effectiveness of such technologies or regulatory regimes to achieve their anticipated prevention and control purposes. Disquiet will also undermine a wider attitude of amenability and obedience to pandemic responses. The rule of law highlights the importance of citizen inclusion/engagement in pandemic control policy, for the creation and maintenance of trust.
4. Additionally, the Centre's recent work on digital self-determination helps to shed light on potential ways of implementing citizen inclusion, which is a proposal made at the end of the disquiet paper.
5. Although the digitized justice work currently sits on its own, it shares parallels with the vulnerability project because often (not always), it is the most marginalised who end up caught in the criminal justice net, including its digitized process.

In terms of other projects, the research team along with some of the SGUT trainees have been involved in producing a compendium, comprising of a few of CAIDG's already published papers, to summarize and connect the above mentioned themes that is core to the Centre's research mission: rule of law and COVID responses, citizen surveillance, ethics as a regulatory framework, the evolution of data-driven finance, etc.

3. Conclusion

Speaking with the research team on their views of the CAIDG's research, the overall sentiment has been one of **excitement** (at contributing valuable analysis to an emerging field of research), **challenge** (in connecting academic research with policy considerations) and **hope** (for greater opportunities for research collaboration within and beyond CAIDG, including learning and applying new combinations of research methods).

Although in-person interactions have been limited by the Covid-19 containment measures, the research team at CAIDG continues to value organizing regular meetings to catch up with how everyone has been doing and relying on team members as the first line of feedback on new research projects. In future, the research team can also explore the possibility of presenting our research, methods and findings to other team members from time to time to take full advantage of the diversity and areas of expertise at CAIDG.

4. Reflection on using interview methodology to gather how CAIDG “does” research

In addition to the meta-analysis of the “interview” research methodology used to produce this summary paper on CAIDG's research methodologies (see ‘Critical Voices’ under Section 2), the general approach can be described as follows: the author conducts a series of hour-long interviews with the research team by drawing heavily from a list of potential research-based questions formulated and prepared by the Centre's Director. Stylistically speaking, these interviews are more structured than a conversation, but less prescriptive than a formal dialogue; the general idea is to keep these interview questions as open-ended as possible, so that the author can follow up on specific comments made by the interviewees during the interview process.

It is also a deliberate choice – agreed in consultation with the Centre's Director – for the author to engage with the interviewees on a 1-2-1 basis. While a focus group may have enabled the research team to comment directly on areas of similarities and divergences in their research goals and styles, it is important to place equal value in capturing insights on the various ways CAIDG “does” research - which may go beyond the “same/different” or “agree/disagree” comparison frame that is likely to occur within the focus group discussion format. Post-interview, the research team are invited to review their own transcripts and make additional comments and observations on whether/how their individual approaches readily contribute to the current research synergy seen at CAIDG.

Ahead of the interviews, the research team has only some ideas of the interview topic (i.e., to discuss their own research methodologies). But their response to the series of questions comes from a very generous and open mindset, even when some of the questions are made up on the spot by the interviewer. In the end, the elements of spontaneity, comfort and willingness to follow wherever our thought processes flow – even when they may not make immediate sense – translate into these interviews having a unique feeling of a casual and in-depth conversation over a cup of coffee between familiar colleagues.

The interviews were conducted over Zoom conference between December 2020 and January 2021, the audio recordings of which were used to produce the interview transcripts. It is hoped that these transcripts were able to capture the research team's thoughts on their

own work projects simply as a snapshot in time. CAIDG's research methodologies have, and without a doubt, will continue to evolve in the future.

Interview Transcript: Nydia Remolina (Produced on 21 December 2020)

Nydia Remolina is Research Associate at SMU Centre for AI and Data Governance. Her academic background is in law and her research focuses on fintech. In the transcript below, 'W' refers to the interviewer and 'N' refers to the interviewee.

----- Start of Interview Transcript (Nydia Remolina) -----

W: The first question I have for you is how do you establish your research purpose and the questions you want to answer? With any given topic or any field, there's so much going on.

N: I think it's always a process. I tend to read about the topic I'm interested in and I have a list of questions that I would like to explore. After reading up about some of the topics in the news about what's happening right now, or things that go wrong in the use of AI, I become interested in something more particular. I start to look at the list of particular questions and constantly update it to pick the ones that are related to each other, and I formulate one research question. That's how I start a paper. Usually - it's not the same always - I like to start my research, particularly a paper or a research piece, by trying to confirm my hypothesis, which would be the hypothetical answer to that question. If I don't have a preliminary or intuitive idea of what could be the answer of that question, I still have that question to try and come up with an answer out of the research that I'm going to do. That's how the process works in my mind. What I have on my computer is the list of questions, so I already have a list of things that I would like to research at some point in my life. It doesn't necessarily relate to the Centre, or my current work, or something with a deadline. It's more like I'm seeing all these interesting things that at some point I would like to research about, and I try to keep the list updated according to what is happening in the world.

W: When you're working on a specific project, do you find the question you're asking also changes during the process? Is it pretty early on, or can it change pretty late into the game?

N: That's a good question. I would say when I'm doing theoretical work, which is the majority of what I've done for the Centre, I think no questions have changed in the very advanced stage of the research process, probably because - and I don't know if I'm wrong about this - but when you're doing something from a theoretical point of view, you try to find accommodation for those pre-existing theories in your mindset, in the hypothesis or the hypothetical answer of your research question. So it's not that common, at least in my experience, to change the research questions out of the research process because the theories are helping you to enhance your position on a certain topic. That's why I haven't encountered that problem or challenge. But in empirical work, it's different. I haven't done anything statistical yet with the Centre, but previously I have done something on econometrics or statistics, and in those cases sometimes you don't find the outcome that you would like to present in a research piece. You will need to find another research question. It's not that it's not meaningful, but it's more about the journal's perspective on that type of research pieces. They often like to publish only the empirical papers that show something new or something meaningful statistically, and if you don't find that out of your data - it's interesting to say "Ah, I didn't find a correlation between these two variables", but

it's not a material that is good to publish for journals. I don't know why it works like that, but it's the reality. In that case, you'll probably have to change your research questions at the last minute because you've already gathered all the data and everything to prove if your hypothesis was true or false. It could be frustrating sometimes. But when you're doing theoretical work or other research methods, such as comparative research, I would say it's not that common to change your main research question at the very advanced stage.

W: You mentioned about using theories to enhance the arguments or make accommodations. Could you talk a little bit about what kind of theories or methods are most helpful in your research, and how you go about selecting them?

N: That's a very good question because while I'm at the Centre, I've been challenged by the theoretical perspectives. I'm not that used to having strong theoretical base - I wouldn't say that I don't have a theoretical base for my research, but at the Centre, we are more diverse in the theories that we use. And by diverse, I mean the Centre does research on ethical challenges around the use of AI. That's why usually you have to go to the theories that are more related to those type of topics that I'm not very familiar with (e.g. on human rights, philosophy, sociology, even qualitative research). So it's been new for me. It's out of my comfort zone. For example, for the self-determination paper, the pre-existing theories on self-determination are coming from philosophy. All those readings and research have been totally new for me. But apart from those challenges that come along with what the Centre does, I'm more used to in my research using law and economics, like liberal theorists from an economic point of view. But I also wrote a working paper for the Centre on consent and if the consent frameworks on data privacy are protecting consumers in the financial sector, or not, and my opinion on that. I used behavioural economics, so it's not always the neo-liberal theories I'm using. I try to go for a mixture between those two main theories. Another thing that I always try to look at from a methodology perspective is comparative research. It's something that I like, and something I would like to be recognized for in my research.

W: We can definitely talk more about the methods you use to compare and contrast different topics, or sources, or context because it's a meaty topic. But I'm really curious - as you mentioned, you are pulling together so many fields and disciplines in your topic around self-determination - how do you go about clarifying or defining key concepts that are quite technical? They can mean such different things for different people.

N: That is a challenge, definitely. It's a very interesting question because, unfortunately, we've not always been able to do that before. When bringing up research pieces or a working paper to light, we should, for example, hold a seminar or discussion with the School of Information Systems, the philosophy department, or other people who are interested in the same type of topic from their perspective, to see what they think our reading of the theories. What I've done so far is to discuss internally in the Centre, but I'm aware that most of us come from the same discipline. But even coming from the same discipline, it's been useful to have these internal discussions. For example, with Mark, we have very different views on how to understand markets. So those discussions with him about the law and economics perspective, and the rationality of individuals when making decisions, the role of law in general - we have different perspectives because we are thinking about different criticisms and theories. It's helpful to have those discussions, but I think we need more

involvement with people out of our fields. In the self-determination paper, for example, in the first chapter, I am talking about the pre-existing theories and how my understanding of those theories frames our concept of digital self-determination. But I don't know if my reading is correct, or drifting away from what philosophers think about those theories. I think I'm aligned with them, but in the end, it's just a matter of interpretation of what I'm reading by those who have written about these things. So it will be useful to have those conversations with people coming from another background.

W: Yeah, I often find as a philosophy student myself, the way you define a core concept can really matter further down the line with the implications coming from your argument. So I'm really curious, less so about how do you bridge the differences, and more in terms of how do you make the concepts work for your own research and purposes.

N: Yeah. At least being aware of those differences in an emerging field that is out of my comfort zone, where I don't know the state of the scholarship around those discussions in other disciplines, it would be very nice to have those conversations with people from other fields. For example, you would be highly engaged in our discussion for the digital self-determination project after we have something to present, we will love to hear your perspective on the pre-existent theories about the self because I might be misunderstanding people who have written about it in the philosophy field.

W: That's cool. When you previously talked about a comparative approach, the word "comparative" has so many meanings than just methods, or disciplines. It's about understanding certain trends, or seeing certain similarities or differences, right? Could you talk a little bit about that?

N: Very good question. Everyone says they do comparative research, but everyone has a different understanding about it. For example in law, many will say they are doing comparative research; if you see their papers, you often see chapters where they describe "in Australia, this is how privacy works," or "in Singapore, this is how privacy works," or "in the European Union, this is how privacy works." But it's totally disconnected, so they are actually not comparing anything. Actually, they are doing the hardest work, which is figuring out how those countries regulate a specific topic, but they are not comparing anything. My approach to comparative research is to have a problem, it could be the same research question, and find the solutions not in terms of countries, but in terms of regulatory models. I like to come up with classifications or organize information that I find from different jurisdictions in models in X topic (e.g. self-regulatory model, the mandatory model) which I found having read 20 countries. I try to put in general terms those two solutions and discuss which solution is better for a specific context, so it's useful for any policymaker who is interested in solving that problem. I don't usually say that one model is better than another because everything in law is contextual, and it depends on the specific features of the place you are going to apply those policies. You have to see the features of each model to see which one adapts better in your specific jurisdiction. That's my approach to comparative research which is probably, as you said, different to another person that does comparative research.

W: Yeah, which is why I think it'll be really interesting to speak to the other research associates about their own methods. I actually read your working paper about open banking

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N: - which is not finished yet!

W: But I noticed just how detailed the analyses are, and you choose to go into specific details in so many different ways. You could put it in the main body, or as a footnote, or organize that information into a table. What is your thought process behind that?

N: Well, that paper is kind of a mess. It's too long for a journal, and it also depends on what you are aiming because if you see, for example, law journals in the United States which are not peer-reviewed (e.g. Harvard Law School Journal), it's very detailed. You will find 500 footnotes with 80 pages, but it's very different to other journals we are interested in. Specifically, the peer-reviewed journals ask for shorter pieces, so it depends on the journal you are aiming to publish. What I am doing right now with that paper is to write different pieces out of it, so they are publishable in those journals that we want to target. I'm in the process of doing that, it's a goal for December. My thought process behind the organization, as you mentioned, is that while your research will not be interesting for an expert in the field, it should not be so complicated that it'll not be useful for a policymaker or a regulator who is not very into the details of those topics. I think this applies to artificial intelligence and anything in relation to law and technology - it's a field where you will find many technical things which are not easy to comprehend, but you don't want to oversimplify the discussion in terms that are not attractive for someone in the computer science field. You're writing a paper about technology, but you don't want to oversimplify things. I think that organization like coming up with classifications, or tables, or explaining things in the footnotes shows that you have enough knowledge of the topic because you are able to talk about it in simple terms, but at the same time, you are not oversimplifying the discussion. Oversimplification happens in AI. I've read papers that define AI so simply that it's not helpful - while we all want transparency, if you leave the discussion in those terms, you're not saying anything new. What company or developer are going to say that they will not act ethically?

W: Exactly, and it goes back to our earlier points around defining and clarifying a key concept to make it work for the purpose of your research. I'm really glad you brought up, first of all, that the style in which you organize your information reflects the purpose of your research topic, like wanting to engage policymakers and people within the industry, not just academics who are looking at your research. So I was curious, how do you - within your research - engage academic and policy-based work? How do you see your input translating into policy impact?

N: That's a good question. Well, I would say the academic side of the topics I'm most interested in are also interested in influencing policymaking, i.e. those related to financial relations and the use of AI, or even law and technology broadly understood. I can't come up with the names of people I'm interested in reading about, who also do research that is totally isolated from the real world with zero impact in policies, or how the regulators understand challenges related to law and technology. That would be my answer to how do I bring together the academics as an audience of my research, alongside policymakers and

regulators. I think the Centre is a very powerful tool to bring policymakers and regulators into the discussions. So, for example, my paper on open banking, I presented that in December last year in a seminar. It was a great discussion with people from within the School, but also outside the School. Another useful thing is just to apply - that would be more academic - for a call of papers. For example, I am worked on a working paper about fair-lending and I will present that in January to the Chinese Hong Kong University. So it's another way of engaging in conversation with people outside of SMU or the Centre, and a way of bringing together people from policymaking and/or academia. Particularly in AI, I would say we are fortunate that these topics are important for policymakers and academics - these topics are interesting for everyone from different fields and profiles, so it's not really a challenge to bring together these different types of audiences. It would depend more on how you present your work, but usually, as I was mentioning before, I can't think about someone whose research output will not be interesting for anyone in the real world, or in policymaking. That happens more with other fields in law.

W: In philosophy, definitely. People get very fixated on thought experiments which are quite removed from the normal day to day life.

N: Exactly. But in the AI field, I would say we will have a hard time coming up with a topic that is not interested in the real world, or in practice for policymakers, or academics at the same time. So we're lucky in that sense.

W: You mentioned briefly about - for example with seminars, that's how you get feedback and have those conversations about a research topic with people who can offer a different perspective. Could you talk a little bit about whether that's been useful, or how it might've helped you to develop which direction your work takes over time?

N: It has been useful, but you also have to be careful of the opinions you receive and how you filter that, because - especially if you are talking to the members of the industry, they are always representing a corporation behind them - it's important to take into account of those biases that people have, naturally, and to filter the commentaries that you receive. But it is a helpful thing to do, and it's a way to translate into practice the issues or the solutions that you are proposing for a specific case. You shouldn't look at that process as something that you do for arranging your paper or changing your ideas, in order to adapt to everyone's point of view, because that is impossible. So you will have to bear that in mind in order to filter those comments - I don't know how to exactly, but I think it's always useful to have in mind the goal and the purpose and mission of the Centre, also your original idea and what you want to do with your research.

W: Right, as a researcher, you need to have that conviction to decide on the research direction because there can be so many different people trying to pull you one way or another. Are those conversations that take place within a seminar setting very different from when, say, you're using the conversation or focus group method to actively find out what a group of people think, before furthering your own research? Even though it's just talking, but the context is very different.

N: I haven't done a proper focus group yet, but something very similar that we did was, for example, a roundtable with AI in finance in November last year, just to gather ideas on what the industry or other academics (even in other fields) were thinking about the core issues of AI in finance that we should address for a future publication. It's not exactly a focus group, but it's gathering different opinions from different people about what they think are the core issues or challenges that need addressing in your research in the future. It's very different because in that exercise they are more interested in highlighting the problems that they are seeing in their practice - I don't know if that only happens with my type of research, where I come up with policy-making solutions or recommendations - so some industry members sometimes feel compelled to comment on your paper as a consultation paper from a regulator to defend what they are doing; or in the field of AI, they defend the self-regulatory approach of ethical challenges in AI with a mindset that regulation is against innovation. I wouldn't say they are defensive, because some industry members advocate for regulation, just not have regulation in their field of AI. When you are providing policy recommendations in a certain way, it's different. It's more controversial, I would say, the type of interaction in comparison to focus groups, or when you are reunited with people and get together to discuss which challenges you should address in your research.

W: Yeah, and I suppose that's the thing that is unique about AI as a topic of research, it's so rich. It can elicit different responses from different people, whereas I can tell you that - well, actually, that's not true, I was going to say that philosophy isn't that controversial but philosophers do get worked up over very, very small details. The next question I want to ask comes from me as a philosophy student who seldom has to use current sources in my research since many philosophy readings are quite old: how do you approach integrating non-academic sources in your research versus a peer-reviewed paper, because the standards are so different?

N: Yeah, that's a good question. I think you have to be really careful on the sources that you use, specifically in the emerging fields, because you have a bunch of information from companies or consultancy companies (such as Ernst & Young or Deloitte), and that's useful, but you have to bear in mind that information could be biased. It's not that academics are not, because we all have our own biases, but at least we come from a more independent background in terms of research. We don't have any conflicts of interests or most academics have restrictions of being hired by a company for consultancy work, so academics have this protective bubble where they are supposed to be guarded against this potential conflict of interest. And that's something you should bear in mind when you are basing your research on sources that are non-academic. About peer-review, I usually go for more in terms of relevance. I tend to prioritize the name of the person, the author of the paper, even if the paper is not peer-reviewed yet, and the content of the paper rather than whether the paper is already peer-reviewed or not. But I don't know if that's okay?

W: When you gave advice to all the trainees about how do we choose our sources, you made a point around familiarizing yourself, as a researcher, with what are some of the first-rate researchers out there. It makes sense that if they're going through the research process and have a working paper, that's going to count for something, compared to a young researcher who's just published in a peer-reviewed journal. The relevance (is something) you can kind of weigh up.

N: I agree. Actually, yesterday I read a paper on fair-lending. The paper was already included in a peer-reviewed journal, but this person wasn't saying anything new about being ethical when you use AI. I mean, we all want that! No one is going to say they intentionally want to cause harm to someone with the use of AI. So you are not bringing something new to the table necessarily, and this person is not very known in the field of AI, nor on the list of people I would follow or suggest to you to follow (e.g. someone who is already engaged with Oxford's Internet Institute or similar types of profiles). It doesn't have to be a specific name, but if you see the person is involved in the conversations with these forums, or organizations, or thinktank, or centres and whatever you want to call them, they are probably familiar with the debates and how the conversations evolve around AI. But I wouldn't read another paper about the ethical principles of AI and how they affect fair-lending decision-making when it is automated, I mean it didn't bring anything new to the table. And it was in a peer-reviewed journal. It doesn't necessarily mean that a peer-reviewed journal means the quality of research.

W: You mentioned previously that since you joined the Centre, you've had to work with a lot of theories but your passion and strength is around looking at different regulatory models and comparing them. Have you found that particular examples have been useful to ground your research, for example, using case studies? If so, how do you go about choosing that since there are so many examples out there?

N: Yeah, that's a good question. I would say given that you have a lot of information and potential use cases that use as a case study for your research, you should choose something that interests you. But beyond interesting you, it's something that you will be passionate about - it won't be easy for you to get bored. I haven't done a formal case study research yet, but I'm proposing to Mark to develop a case study around central bank digital currencies associated with the project of digital self-determination, for his new project with the monography with Elgars on surveillance and smart cities. And that is a topic that I'm very passionate about, very interested in, that's what I would suggest when picking a case study. You will be reading and managing the case studies, and specifically with research, it's easy to get bored of your own research because you have to read again and again about the same thing. If you are polishing a paper for a peer-reviewed journal, for example, you will re-read the paper and you will have to adapt it to the comments of each one of their reviewers. In the end, you almost memorize your paper and it's easy to get bored with it.

W: In a way, it's like - similar ways as we make a concept work for the specific purpose of the research, I suppose it's also choosing a case study or use case that will really bolster your argument. It would be really counterproductive - I can't imagine a scenario where we would choose something that would discredit what we are trying to show. Just because I'm aware of time, we've actually done amazing and I only have two more questions for you.

N: Oh?

W: The second to last question is about the Asian Dialogue because it's an ongoing piece of work that is really important. When you're putting these experts in dialogue with each other, is it tricky to manage the similar and different opinions that they have? And how do

we balance their individual interests, so that it's ultimately constructive and meaningful - it's not just, "I'm tired of talking with you!"

N: Yeah, actually before this meeting, I was at the end-of-year meeting for the Asian Dialogues. It's challenging to get together these different profiles, people, backgrounds, universities and contexts. But at the same time, as you said, that's a very meaningful and important contribution from the Asian Dialogue: the diversity. It's not diverse enough, we are advocating for even more diversity. We would like to include people from Thailand, the Philippines, or other emerging economies, not only "rich Asia" jurisdictions that are participating in the dialogue, because their voices are also relevant as an Asian voice in the AI discussions. I would say that for this initiative, diversity is something good, something positive that we need to leverage on, and that's what we are trying to do. We had a learning curve with the Asian Dialogue. In the beginning, we were thinking more like the typical academic to get together with different professors and build/publish a collection of papers and organize a conference. That idea of the Asian Dialogues had changed entirely over time. Thanks to Covid-19, we couldn't organize any more roundtables because of the travel restrictions, so we had to come up with different ideas. That's how we changed the methodology entirely. We thought, "Wait, we're talking about a *dialogue*, so we should have a conversation as an ongoing thing." It's not this collection of papers that we initially planned, that are totally disconnected one from another and will not produce something as meaningful as we want. So that's in very general terms what we changed. What we have now is a more dynamic network. I like to see the Asian Dialogue as a network of people that are interested in discussing and presenting findings on AI governance, not necessarily to come up with a standard decision of an "Asian" thinking around AI governance but precisely to highlight the convergences and differences in ongoing debates of AI governance in the continent, and how this contributes to the AI governance conversation worldwide, beyond Asia.

W: That was a perfect answer.

N: It's good that we recorded this, so I can repeat with the participants!

W: Yes, exactly. I thought I would ask a really simple question, but it might not be so obvious. Why is diversity important?

N: That's a good question and a hard question to answer. It's important for *what*, that's a question that I would like to address first because diversity is not always a good thing. Sometimes it's easier, or less costly to have conversations and debates with people who have the same mindset as you have, instead of people with different views on the same problems. Sometimes the diversity can be a burden to debates and discussions. Imagine if I'm doing a research piece with someone who thinks completely different about the same thing, it would be very challenging to come up with a cohesive solution from both of us. It depends on why you want diversity and for what purpose. If you want diversity because you would like to find, as I mentioned for the Asian Dialogues, the convergence in a topic, as well as the differences to find different solutions to the same problem with different perspectives, that is when I think diversity is useful. Why? Because policymakers are drafting policies for a diverse population, so it's important to see those different points of view,

types of solutions, or ways to see the world; we should at least be aware of those differences and the common things that we all have regarding the same topic. If you have a mind that is very similar to yours, you'll probably come up with the same solution and you are less creative in that way. If I conceive our work as academics not only as something descriptive but, as you've probably seen in my responses, I envision my work as something that it could be influential for good and in policymaking, creativity is essential. Coming up with solutions for AI governance, law and technology issues, is not easy. Especially in an emerging field, diversity is going to enrich our academic outputs. It also makes us realize sometimes that we come from a privileged point of view, where we are not even aware of the real problems that are out there. These different perspectives make us think about things that we haven't even realized that exist. We see the lack of diversity in, for example, policymaking debate around financial regulation when rich countries are the ones discussing the international settings of policymaking and making international recommendations for financial regulation; they think about these sophisticated banks and sophisticated transactions conducted by banks in those jurisdictions, and that's the mindset behind some of the policy recommendations in financial regulation internationally. But when you apply that to emerging economies, where banks have a very conservative market and they don't have the same behaviour as the banks located in economically developed jurisdictions, you end up applying things that are trying to solve problems that don't even exist that may, for example, affect the volume of loans that are provided to the population in that jurisdiction. So the implications that rich countries don't even have in mind - that's how diversity comes as something important when you are trying to do policy work. And in my view, what I would like to do as an academic is to do policy work but from our perspectives. We don't do policies, but we try to come up with solutions for policymakers.

W: It's really interesting to hear your perspective around diversity as obstacles in practical terms, you mentioned about costs, but there can also be benefits in terms of the outcome. It's like you said, you have to define really clearly for what purpose are you welcoming these similar and differing opinions - what are you trying to achieve? My final question, just to wrap up your interesting thoughts, is how would you summarize the research methods you have cultivated during your time at the Centre? What is original and unique about how you do research?

N: I pass. I don't know what makes it unique, but I would say my - well, I don't want to sound cocky or anything –

W: I think you absolutely should!

N: My worldwide perspective on issues is something that you can see in my research. And I see that as an advantage because I don't think in terms of exclusively Singapore, or even exclusively Asia, but I do see the region in the context of worldwide challenges. Perhaps the issues I have seen here in Southeast Asia are also issues that you see in emerging parts of the world, for example, Latin America, those are very similar jurisdictions to Southeast Asia. I don't know much about Africa, that's the region I know the least about, I still need to do more research on that, but I like to see my research in a worldwide context.

W: And also something you mentioned time and time again during our conversation that you're very passionate about coming up with solutions. So your worldwide perspective really does work well with your approach in that way.

N: Yeah, perfect! I couldn't have said it better. And I would add that with my research methodology, which was part of your question, I don't even see myself as a typical lawyer. It's been many years since I considered myself as a typical lawyer; I don't even know if that exists, the "typical lawyer". But I always try to come up with an interdisciplinary view of the problem that I research. I lean a lot on economics, and sometimes behavioural theories and economics - that's what I try to combine with my law background. So the interdisciplinary research is another thing that I can bring to the table and to the Centre.

W: Amazing! That was all the questions I've prepared, well done! Do you have lingering thoughts that you would like to add on before we say goodbye?

N: No, I'm looking forward to reading the paper on research methodologies because actually, I don't know much about what the others do. And I think what you guys are doing are very useful for the Centre, and for all of us as researchers in the future. Yeah, I'm not very aware of the methodologies of the others, not even Mark. So it would be very interesting to see what others think about the same things.

----- End of Interview Transcript (Nydia Remolina) -----

Interview Transcript: Alicia Wee (Produced on 6 January 2021)

Alicia Wee is a Research Associate at SMU Centre for AI and Data Governance. Their current research focuses on implications of pandemic surveillance technology, the relationship between artificial intelligence and intellectual property rights regimes, and the power dynamics in platform governance. With an academic background in law, Alicia's research areas include . In the transcript below, 'W' refers to the interviewer and 'A' refers to the interviewee.

----- Start of Interview Transcript (Alicia Wee) -----

W: I read through your paper on surveillance and disquiet. I was wondering how did you discover your research purpose and what is the main analytical question you are trying to answer since it can be a pretty intimidating and messy field to trawl through?

A: I was very lucky in the sense that Mark was the one who told me where to research. He basically told me, given all that's happening, that I should sift through the comments of TraceTogether, SafeEntry and how the government is managing them. From there, we narrowed down into looking at the sorts of disquiet themes that we generated. But before that, I was given the option to arrange them by country or by themes. I chose to categorise them thematically because it makes more sense, and I didn't need to do a case study. The organisations of the themes was a mess to begin with. It wasn't as clear-cut as it was here [in the paper] because we essentially ended up having 36 themes (e.g. miscommunication, authority styles, infringement of rights). It was only after I talked it through with Jane and Jo - with everybody coming together to help me figure out where the broad themes would meet. As I got too close to the project, the themes were super messy to me and I couldn't formulate them properly. In terms of the research question, there was not much of a question other than trying to figure out what the sentiment on the ground (about TraceTogether and SafeEntry) was, and putting them in a solid enough category that is broad but not generic, narrow but not too restrictive.

W: With your topic around surveillance, there are so many different approaches to it. How did you go about selecting the theories and methods that you found most useful and most relevant?

A: The thing about Covid-19 is that the surveillance techniques used are similar throughout. It's either the tracing technologies or perhaps facial recognition. But also, because my paper didn't delve much into theory, we weren't planning to do the theoretical analysis. This was more a descriptive analysis before we condense it into a journal. Because the surveillance methodology was pretty much done for us, in the sense that we knew to pinpoint where to look at, everything that flowed from there was a natural process.

W: Was it difficult for you to try and clarify or define the key concepts that you're working with? For example, with the term "AI-assisted surveillance technology", from a technologist's point of view that could mean a number of things, and from another discipline's perspective that could also have certain meanings. How did you make it work for you?

A: The very easy answer is that we just defined it in our own paper - we put a footnote to say here is what "AI-assisted" means. Because that was exactly the struggle that I had going into this topic. I shared my concerns with Mark that some may not think of Bluetooth technology as AI-assisted technologies, and he said for the purpose of our paper, I want to make it broader because of how Bluetooth is such an essential component in Covid tech, and so to disregard it, or exclude it from our analysis would take out a whole chunk of our paper which we didn't want to do. So that's why we had to broadly define it in our paper. We defined it in a sense that doesn't contradict other people, but it was not the same as other people's definition of AI-assisted surveillance. In my title, I didn't put the words AI-assisted surveillance. I put surveillance technology and community disquiet.

W: Could you expand on your thought process behind what lies outside of your research scope and what you wanted to focus on in great detail? The main reason I ask this is that I know, as a philosophy student looking at certain topics, there are rabbit holes that I can easily fall down into and I'm sure that applies to different disciplines as well. With Covid-19 as an ongoing situation as you were researching, how did you go about deciding what to focus on?

A: Mark helped. This was the biggest project I came in doing, and this was basically where I ended up. Mark was right to push me in this direction because I looked at surveillance, but I didn't know the vocabulary for it or what exactly were the themes related to this. All I knew was that TraceTogether was causing some problems, Covid-19 and facial recognition issues were causing problems, but I didn't want to put it into general IT stuff. Surveillance was the topic that became more and more relevant and it helped me scope my future research.

W: You mentioned that this is a big piece of work since you came into the Centre. To what extent would you say you've been required to step out of your original field or scholarship and explore other social science methods?

A: I would say to a very large extent, considering that in law we don't need to look at secondary sources to such an extent. Journals maybe, but never with articles or newspaper sources. Usually what I'm comfortable dealing with is legislation, case materials, case law and definitions. This project was a very different field, which I'm still trying to reconcile back to law. What we've been doing is legally-oriented but from a social science perspective.

W: This leads in to another question on my mind, which is how do you approach these non-academic sources and put them in dialogue with academic sources. Your paper pulled together user reviews, blog posts and opinion pieces. You've also had to integrate them in a way that makes sense with other peer-reviewed journals articles.

A: It wasn't that hard, since some peer-reviewed journal articles have their primary sources from news articles, reviews, statements and interviews. This paper was more like an analysis of secondary materials, which contribute to/directly cohere with/or contrast with the journal articles. The journal articles were good to help us theorize certain issues, but the user reviews gave us the clearest indication of what kind of disquiet was surfacing.

W: Was it ever a concern to you, or how did you deal with the fact that online sources which are outside the traditional academic format, that it's hard to verify the identity or authenticity of the material? Was it something that was on your mind?

A: For the news articles, it was a lot simpler. I made sure I didn't go to sources that were unreliable. I went for something that's reputable that I've either encountered or journals have cited, so that it's something people agree with. It's not like a tabloid website situation. For user reviews and peer reviews, I will take the word of whatever's that being said on the app review site - I will sift through about 500 to 1,000 reviews and figure out from there. If it's clearly spam, it's quite obvious. But some of the concerns match existing concerns and corroborate with what others are saying. If we're suspicious of reviews that say "this is the best tracking surveillance technology that I've ever seen," then we ask how much we can trust this. You can click on the users, or go to Google the users to corroborate and check it's an actual person. But I don't really see the need to do it, especially in user reviews, because there would have been some form of identification for the user reviews.

W: A while ago you mentioned how you're still trying to establish a link between your current research direction and how that links back to law. In broader terms, could you share some of your thoughts around how you see your work translating into specific policy-based outputs? Or do you see that link quite clearly?

A: Definitely not. Because from law's perspective, our point was never to contribute to policy. It was always to analyse legislation and analyse policies to look at their legal implications. So it's a very different direction than I'm coming from, and I'm still trying to reconcile that. But from what we've seen in the various white paper that we've published through the Centre, or the different discussions that we've had with ministries or regulatory bodies, those have definitely helped to see (the policy outputs). Because when we voice those concerns and we provide whatever solutions that we can think of, sometimes it's incorporated - but I haven't been here too long to be able to properly advise.

W: Right at the start, you said you were deciding whether you wanted to work mainly with themes, nations, or certain categories. Is it fair to say that your work with the Centre so far has been comparative in nature?

A: They're definitely comparative. I have to understand how surveillance is contextualized within this economy and compare it with another one. If I only focus on one (country), it takes away from a lot of the concerns because you may not necessarily understand why another country is doing something differently. The only way you can properly analyse the way Country A is doing through drawing a comparison.

W: And what is usually involved in the process of comparison? What are the factors that you are weighing up?

A: There are two ways to go about it. You either look at countries using similar technologies, similar governance styles, or you look at countries that are supposed to be linked to each other and why their governance styles are different. For example, Singapore and Malaysia are geographically linked but are using quite different control strategies. Even though we

are so closely linked together - whatever that happens in Malaysia will also directly affect us - so why is it that their strategy is so different from ours? Why is it that in the EU, Germany is doing well in terms of privacy protection with a decentralized model, and yet in France, it's centralized and more top-down in their approach? Things like that.

W: Have you had direct experiences with conversation-based and focus group-based method? If so, has that been helpful to develop the direction of your work over time?

A: Not for this paper. Since we only collected secondary sources, that was not the methodology that I was looking at. In the Centre, I have attended a few focus groups which Jo has organized for her paper which was industry-specific so it was good to get the viewpoints as well. There wasn't anything specific about this disquiet paper that would need the conversation methodology, otherwise, it would have been too subjective. Who I engage in a conversation with may skew the paper too much, since it will be linked to the people I know. Instead, I sifted through social media or the news articles to figure out what are the greater sources of disquiet out there.

W: In your experiences of participating in focus groups, did you find that hearing similar and different opinions were helpful in the same way?

A: No. Everybody has their own opinions, where they come from, etc. But I can't comment too much on this, because for Jo's focus groups I was mainly there to evaluate, pay attention and transcribe.

W: One of the things that stood out to me in your paper - just because my own research experience has been very limited to the theoretical and philosophical areas - was how you linked together different examples and practical situations evolving in different countries. It must not have been an easy thing to do, how did you decide what tone and to what extent you want to explain the details in each case studies? There are certain situations where you are consciously trying to be very neutral, and other times you are pointing out things that haven't gone well. What is your thought process behind that?

A: I'm not sure, I just write it and see how it goes. I think it's more of whether or not there are contentious topics that I'd like to press further. For example, the UK fiasco made it very clear for people to write in a more emotive tone because everybody is confused (about the situation). If you try to neutralize the tone, you are delegitimizing a lot of the concerns. If you're looking at disquiet, you need to know where they're angry and where they're frustrated. But if you're looking at governance styles, you don't need all this anger. You need to know what is being done, how it's being done. When we're looking at the UK, the biggest thing is confusion about the contradictory messages. Since we don't know what's going on, we translate that confusion in (to the writing). If we're looking at technological software, if it's open-source, we don't have much expertise in terms of the language or the coding software skills to understand it, nor is there a need to do so. When you take from those examples, there is no need to emote. For this paper, our point was not to make it too emotional because we wanted to share the concerns. But in sharing broad concerns, we share some emotions but not all of it. Does that make sense?

W: Yeah, I suppose you have to read the context that you're writing in - but even as I'm saying this, I'm aware that "context" means different things for different people. I was wondering if you can explain very briefly what that means when we say "reading the context" within which you are doing and writing your research.

A: I'm not sure I understand. Context is situationally different for all, right? So if you're writing about China, you have to understand the people, the feelings, the governance style and the technology that's being used.

W: So with all these contextual elements at play, how does that inform or ground your research? You could be writing about the same topic on surveillance within a different situation, and I would imagine that perhaps what you end up writing may change since the context is different. I'm not sure if that makes sense.

A: Because the government is doing something different, or because I'm situating my analysis in a different place?

W: Yeah, because you're doing your research at a specific point in time and a specific space. I was wondering if these sensitivities get embedded into your research, or do you not really perceive it that way?

A: Writing about Covid-19 is very time-sensitive. Up until the time we published the paper, we are still adding things to it. I mean the analysis would not be entirely thrown out. Since at the time of writing for this paper, which was August or September 2020, there was no mandatory TraceTogether yet. But I still incorporated that into my paper as a footnote, in October, when TraceTogether has been made mandatory which further proves our existing concerns. So that's how I shift the context in, because technically that would have rendered my entire paper useless if I was only operating on the voluntary by-consent model. But because we already predicted that there are a lot of issues within the current by-consent model that seemed to veering away from the whole idea of citizen determination, it's a roundabout way of looking at things in a more authoritarian or coercive method. The change in context was useful in solidifying our analysis.

W: With this piece of work around disquiet, alongside other streams of work you've been involved in or will get involved in, what are the main research areas that you've interacted with? Are they quite different from what you were expecting before you joined the Centre?

A: I think I expected more technology because nobody expected Covid-19. It was more a spur of the moment to focus our attention there, so there were less tech, more governance and data-related stuff. That was the first half of the year. But in the second half of the year, I'll be looking more at AI and tech, which was what I expected coming into the Centre - it's definitely looking more at the social implications, rather than the technical implications. And that was something I had to adjust to a little when I came into the Centre.

W: How did you find the experience of interacting, pulling together, and making sense all these different disciplines, considering that your background is kind of mixed as well? Were some fields more difficult for you to wrap your head around?

A: It was difficult in the sense that coming into the Centre, I've not been a theory-oriented person. Everything I've done is very legal and analytical (e.g. case law, courts, what's been said), so I really struggled with to grapple with the legal theories, social science theories, and branching into science and technology studies as well.

W: We've talked about quite a lot of things. Just to summarize, what do you think is unique or original about the research methods that you've developed during the time at the Centre?

A: To be very honest, there's nothing unique about it. You do your readings, you understand as much as possible (through YouTube, podcasts, webinars, seminars, journals, Google Scholars, LawNet, Westlaw). It's what we were taught to do in schools kind of methodology, and that really stuck. That's basically it.

W: I suppose this is a slightly different question: given that you're required to do lots of interdisciplinary research, is your research method different now compared to a year or two years ago?

A: For sure. One year ago, I was at a law firm. I had done nothing similar to this. Actually, it's not that different in the sense that you're still looking at secondary sources as your main point of reference. And then you branch out to seeing what are the different nuances that need addressing. In law school, if it's an old enough topic, you look at the journal with the landmark cases and the current case law on this topic, and see how do you contrast it (e.g. what's missing, what's been added). Similarly in research now, you look at what the main/top researchers in the field have written on, and what's being written on the topic now to see what is the direction now.

W: Cool! Is there anything else you'd like to add on, beyond the questions I've prepared about research?

A: No, I hope it's been useful.

W: Not at all, it's been really refreshing. Thank you for your time!

----- End of Interview Transcript (Alicia Wee) -----

Interview Transcript: Josephine Seah (Produced on 6 January 2021)

Josephine Seah is Research Associate at SMU Centre for AI and Data Governance. Her academic background is in sociology and her research at CAIDG focuses on emerging practices of ethical and responsible AI. Her research interests also include smart cities, sociotechnical systems, and critical data/algorithm studies. In the transcript below, 'W' refers to the interviewer and 'J' refers to the interviewee.

----- Start of Interview Transcript (Josephine Seah) -----

W: The first question I'm curious about is the scope of what you've been working on. Although I've read your piece on data imperialism, are you working on other streams of work as well?

J: Sure. The data imperialism paper is being expanded into different areas - part of it is going to be a book chapter, another part of it is being reworked into a journal article. I was also working on a set of focus group discussions for Mark's Google-APRU AI for Social Good report. Then, I wrote about POFMA use during Covid-19 for a conference, which has been completed. The vulnerability paper with Jane and Mabel is still ongoing, but the ethics hub project has expanded into a couple of papers and conference presentations over the last year. There are also smaller projects, like the Data Justice Reading Group.

W: Amazing! Feel free to draw from your experiences with the ethics hub project and all the other activities as well when answering my questions. In very general terms, how do you establish your research purpose and come up with specific details of the analytical question you're trying to answer (e.g. in the ethics hub, vulnerability, or data imperialism project)?

J: It's quite different for all three projects. With the data imperialism paper, which was the first project that I started when I came on board, it came out of conversations that I had with Mark and we had a very long email chain that he re-organized into a paper. So I'd say that the analytical thrust for that paper was led by Mark, and I was contributing whatever I could. The ethics hub project came out of my observations that a lot of people are talking about ethics and responsible innovation, but the conversations are very eurocentric and focused on Western experiences. I wanted to know what were the experiences of people working in Singapore, as well as within the region, so the ethics hub project and its methodology came out of figuring out what's going on over here. And the last project, which was the vulnerability project, was also initiated by Mark because we knew we needed to look at how vulnerable populations are affected by Covid-19 control measures.

W: With the projects that you've been working on, whether it's initiated by Mark or coming out of your own observations, would you say that the research you've done is interdisciplinary in nature? And if so, how do you go about selecting theories and methods that work for your research topic?

J: For sure, the research has to be interdisciplinary since I'm a sociologist and I don't know legal theories. Selecting theories and methods is a different process for each project. The data imperialism paper was more of a literature review, so in that sense, it wasn't too

complicated. Although the field is big, the arguments are quite repetitive. Once you get a sense of a line of argument, and you see who people are citing, you can follow that train of thought to find others. From there, we figure out other regulatory options that are available and suggest a newer form of regulatory model that can be proposed for gig workers working on platforms. And for the ethics hub paper, the methodology was inspired by the fact that we wanted to find out what was happening in Singapore, so it's more of a social science method rather than legal methods. It was something that I was already familiar with, so I suggested we should talk to people either in interviews or focus group discussions. This was linked to Google-APRU, since the focus groups we had for that project helped us realize that focus groups were quite useful. When the ethics hub project came along, we thought we could use the same format and expand on the existing method. The vulnerability project is also the same as the data imperialism project, in the sense that it's an expansive literature review so it wasn't too hard to come up with a method.

W: Since you touched on engaging in focus groups and having conversations, could you expand a little bit on how the process actually goes from initial interactions with people of different backgrounds (who may think similarly or differently about the same project) to, later on, developing into actual concrete research work? Do these conversations help you develop your research direction over time?

J: Sure. Basically, the ethics hub has gotten to the point where we now have two stages of work, we've talked to the same group of people twice now. In the first stage, we asked "what's going on?" and introduced the project to get their feedback, and we prompted the participants using a specific methodology (which we wrote about for a conference). After the introductions, we showed them a table of top eleven AI ethics principles created by someone who did a literature review and asked what the participants thought (e.g. whether the terms made sense, giving different orders etc.). We then gave them a series of hypothetical questions and asked "if this happened in your company, who's responsible for it? Who would you talk to about this?" We realized people don't really think about ethics in same the way as the Model AI governance framework, which tries to systematically break down how an organization can be ethical and responsible when they are developing and deploying AI. So the gap that emerges is something you can only find out by talking to people in the first place. Otherwise, it's just speculations. Although you know generally that these gaps exist, having people who are actually working on it say out loud that these gaps really do exist helps legitimize the whole project. It also brings the project to a different direction because we realized in the first stage that there's a lot of ecosystem dynamics to be further fleshed out. It's not just that organizations need to be responsible and can do certain things to incentivize people to think about ethics or responsible innovation. When we think about the ecosystem as a whole, if people are thinking or worrying about where is their funding coming from, they might not be thinking about the most socially responsible thing to be doing; whereas if the company is already fully-funded, they can develop and think a little bit more with intent about what they're doing, so their product might be different from a company that's struggling. There's an organizational dynamic that we could only see after the first round, so the project has changed over time as a result of the focus group discussions.

W: As you go through the research process, how do you approach clearly deciding what's within the focus of your research and what's outside of your research scope (e.g. topics that open up new cans of worms that would completely take the project to a different direction)? I feel like the topics we deal with at the Centre are often quite substantial, and can be very messy to navigate.

J: Do you have an example?

W: Yeah, I'm currently doing research on ethics and moral values. There are a lot of research questions, certainly within philosophy, that I can get sidetracked by, such as theoretical contestations that may not actually mean anything to the main question I'm trying to answer. My focus could be, for example, getting everyone to agree on a set of AI ethical principles, instead of getting stuck in the infinite ways of defining ethics. Those are related but separate lines of enquiry. I'm curious how do you as a researcher carve out a boundary to say "this is what I would like to address" and "these cans of worms are outside of what I can attend to right now".

J: The easiest way to do that is to have a very clear research question, so you can figure out what is or isn't relevant, even though something might be related to the question. I think this is how a research project expands out of the initial research question into various different projects to explore different directions. If you have a research question that doesn't talk about the different ways of defining, for example, the value of fairness, but you are personally interested in the various definitions, that could become one branch of the research question that you research and submit for a conference. But as you're doing that, it also has to speak to your initial research question. So if your research question is really clear, you can decide that everything else is interesting but this is your focus right now.

W: Right! You mentioned right at the start that you see yourself primarily as a sociologist, and you won't suddenly become a lawyer. During your time at the Centre, have you had to explore different social science methods or ways of thinking beyond your original field? How do you manage the different ways of thinking about a topic?

J: Sure. There have been points in time where I don't see the relevance of a topic, especially when it starts involving extremely legal discussions about the scope of a law. For example, I co-wrote this paper about the POFMA used during Covid-19 times with the previous RA, who was very technical - which is necessary for a lawyer who has to be able to keep an eye on the detail and understand what the law can and cannot do. We kept getting into arguments, because he'd say, "This was never stated in the law." But from my perspective, it doesn't have to be stated in the law for whoever - in this case, the ministers - to use the law in a way that's advantageous to them. The law can't state everything, that's the thing. So that's the kind of clashes which I wouldn't necessarily have with people studying social sciences. Nevertheless, sociology and law are not two separate disciplines in the sense that there's a sociology of law which helps to embed changes in legislation within the wider societal context. I think having a social science background is quite useful because you can zoom out and look at things more from a macro perspective to figure out why changes in the law are important. So the two fields are actually very complimentary.

W: Something that I'm growing aware of is that each field or area of scholarship almost has their own language or reasoning style that can become quite pronounced, for example, in your case of collaborating with someone with a very technical, descriptive style so different from your own. Have you found a way to leverage these differences to make things still constructive and meaningful?

J: It's definitely a challenge. If he was unwilling to engage, then we wouldn't have gotten anywhere. Because we were both very upfront with each other, we could tell we have things in common that we agree on, even though our disciplines have taught us to see things different perspectives. We can still agree on the bigger questions, which is helpful for us to have each other's best intentions at heart. It kind of made things easier that we can agree on the bigger picture, but it was extremely frustrating at times when it comes to the nitty gritty details involved in writing the paper. In the end, I do think that mashing these two perspectives together is meaningful because you get someone who understands the law really really well, alongside someone - hopefully me - who understands the wider political economy of how information is spreading, its impacts on Singapore, and how POFMA fits into this, as opposed to just knowing about the POFMA. When you're working with multiple disciplines, everyone involved has to be extremely honest and not too prideful to avoid getting offended if you do vehemently disagree with each other.

W: I want to loop back to an earlier point you made about engaging with people from different backgrounds and hearing different perspectives (e.g. people in the industry). How do you see your research linking with or translating into policy outputs? Is that link really obvious and clear to you, or not really?

J: For now, I think most of it is quite clear across all three projects I've worked on. The data imperialism paper was specifically trying to recommend a different regulatory model with very specific policy outcomes that we hope would happen. For the ethics hub paper, we are speaking directly to industry members to figure out where the gaps are, which has immediate policy implications because these gaps need to be made explicit and we also need to discuss how we can address these gaps. That has implications on the AI governance framework and the government's future decisions (e.g. issuing certifications for professionals, which the Singapore Computing Society is moving towards). And for the vulnerability projects, there are recommendations that we make towards the end of the paper as well. In that sense, I haven't done a purely theoretical paper which I can't find a policy angle to it.

W: Is it fair to say that the research you've done so far is a hybrid that sits between scholarly work and policy-based enquiries?

J: I guess so. I think the research, very broadly, does speak to both academia and policy. That's an outcome of the Centre itself and what Mark is trying to push for the research outcomes to be.

W: What stood out to me when I read through the papers that you, Alicia, or Nydia have worked on was the way you interact with hot off the press type "non-academic sources" (e.g. blog posts, opinion pieces, or even social media posts). It's slightly foreign to me as a

philosophy student since I mainly work with theoretical works which can be pretty old. To the extent that you interact with these sources, how do you go about putting them in dialogue with traditionally academic sources in your research?

J: I can't speak for everyone else's research, but the research I've done so far hasn't touched on social media sources. I don't use social media sources as a site of engagement, I think that's an outcome of the research question rather than anything else.

W: But you've used up-to-date news coverage of gig workers or recent tech developments, right?

J: Yes, but those are still news sources though! I guess you could say there are different types of content that we need to be aware of because the legislation keeps changing. One of the most reliable ways to figure out changes in legislation is to check out what the news is reporting. It's inevitable when it comes to writing about these topics, so it's about figuring out what's happening first and then relocating that news source within the context of other policy papers, what other researchers are saying, as well as official government documents.

W: You mentioned that you haven't done purely theoretical research. Does that mean that your research so far has focused on analysing concrete, practical examples?

J: I would say it's a mixture of both. I think we disagree with reality because we think there's a better alternative available to us. To that extent, there's a normative theory which comes with a background history of different theories that we get exposed to and agree with. We can recognize that this is reality as it is, but also consider how do these theories speak to the situation and make suggestions on how things could be different. So there's a mix of theory and application.

W: One of the questions I'm interested in, then, is how do you approach certain practical examples, situations, challenges - as in, how do you decide what tone, and to what extent or detail you should dive into each example?

J: I think it comes back to what is your research question. If your research question is aimed at discovering the field you're interested in, it'll likely be a literature review which is naturally more descriptive. Whereas if you're writing a position paper, your tone in the paper is going to be more argumentative in identifying a gap in the existing literature and creating the arch of the paper and also of the tone that you take in the argument. As long as you know right from the start what kind of paper you want to write, you vary your tone accordingly.

W: In that sense, the purpose of your paper informs its style and content?

J: Yeap!

W: I'm curious about the way you're doing your research at the moment. Would you say it has changed from a year or two years ago? For example, have your research techniques changed drastically, or not really, in the way you approach a topic, the things that you take

into considerations, the way you conduct the initial trawl of the literature, and how you synthesize your thoughts?

J: It's changed as an outcome of knowing more about the field. When I first came into the Centre, I didn't know much at all. Two years in, I know which researchers I would start with if I am looking for literature about ethical or responsible AI, whereas I wouldn't have known that right at the start. In that sense, my research has changed because I'm more familiar with the ground. I do things a lot faster and synthesize my thoughts quicker since I know the lay of the land. Is this what your question means, or do you mean something else?

W: Yes, partially. I'm also curious whether knowing your way about the terrain makes it easier to come up with concrete research questions, since from what you've described so far, so much hinges on coming up with the right question.

J: To be fair, I think coming up with the right question is really hard. You can try your best, but after a while, you may realize this is a no-go. You have to be okay with that because it's the nature of research. You don't always have to be extremely good at the question you're answering, or know that this question has already been asked a thousand times and answered in ten thousand different ways. I wouldn't say that I can come up with concrete research questions, but knowing the lay of the land helps you figure out what is a good question worth pursuing, as opposed to entertaining a question that is too broad which leads you on a thousand different tangents without something analytical to push through as an argument.

W: When you are working on a project, have you ever experienced having to change your research question either in the middle or pretty late into the game?

J: Yes, sometimes. If you're doing anything empirical research, you're going out into the field to figure out what other people are thinking, but sometimes the answers you receive are not actually related to the question you thought you were asking in the first place. So you have to look at the data you have collected and figure out what it is answering, and adjust your question accordingly.

W: Do you have a specific example in mind?

J: For the ethics hub, we started out with a question and we got some answers from the first stage of the discussions. Afterwards, we wrote a working paper as an output, but we tweaked the question with what we already know, which became an extension to the original question. It became stage two of the project. Now that we have the results from stage two, we will tweak the question again for stage three of the project. The research questions will keep changing, which is a helpful thing since you can use the initial outcome you gathered to narrow down future research questions even more.

W: When you're interacting with participants in focus groups or even less-structured conversations, do you value having similar and differing opinions equally?

J: If it's a focus group discussion, the worst thing is for everyone to agree with each other because you don't actually go anywhere. You want people who are diverse in their expertise and experiences, so they can explain their agreement or disagreement clearly. It's hard to say if I value similar or differing opinions the same way, but I definitely don't want people from the same background doing or saying the same things in focus groups.

W: Right! So far, what are the main areas of the people you've had a chance to interact with your projects? Are they from the IT industry, or from the government?

J: Definitely IT developers and software engineers.

W: The reason I'm curious about the value of converging and diverging thoughts is that Nydia mentioned something that I hadn't considered before. She said sometimes when you're in dialogue with industry members, you have to know how to respond to the differences in their opinion, considering that they may be representing certain corporate interests which can conflict with your research purpose. I wonder if this speaks to your experience, or not really?

J: As a researcher, you have a specific research question that you're trying to answer for your project. Because I've done interviews before, I am very aware that things can go off tangent. So it helps to have the awareness that I will have to do something if it *does* go off on a tangent, since the contribution doesn't answer my question. In that sense, if you're talking to someone or a group of people only once, sometimes you just have to admit the experience wasn't useful for the research question. But what they're saying could be something that you haven't considered in the first place. For example, we spoke to this company in the ethics hub project. We were trying to ask if they used documentation methods, and who has access to it, in order to figure out the lines of communication in their organization. But they clammed up immediately and said they couldn't talk about it because of the non-disclosure agreements they'd signed. It wasn't what I was asking at all, so in that situation, there are a couple of things you could tell yourself: maybe I could've phrased the questions better, or maybe there was a miscommunication along the way, which was why I didn't get a response to the question I'm asking. Or you could figure out why they're clamming up and refusing to talk about it. For example, are they concerned this will make them liable for something? In this scenario, we realized that when companies believe a contract protects them, it stops them from thinking further about "is this ethical?" While the entire conversation had completely gone off on a tangent that was ultimately not useful, at the same time, it made me realize we could and should be asking people about contracts. So it really depends on the scope of your research question. If you can't make use of the data you've gathered, you still can use it for something else. Depending on your research priorities, there are never completely wasted conversations.

W: Amazing! Just to wrap up everything you've shared with me, how would you summarize or describe the research methods that you developed during your time at the Centre? Is there something unexpected or original about the way you do research?

J: I don't think anything I'm doing is particularly original or very unique. I am a social scientist, so when I have a research question, my first thought is "I want to talk to people!"

That's how I figure things out, which is a little bit different from what I've seen other people do. If you're a lawyer with a research question, a lot of the times you go into the archive and read lots of papers to see the main arguments, whereas my first impression is to talk to people and figure out the sentiments on the ground about any given specific situation. I think it's useful to have more social scientist on board because we can help out the law school. I don't know, it feels like everything that I'm doing is what social scientists have always been doing. Being a social scientist within a law school creates this unique point of view, but my research as a social scientist is not actually that unique.

W: I should've asked this earlier - when you mentioned about surveying people's common sense reactions and sentiments towards certain scenarios and using different theories which speak to the issues at hand. Do you adopt major theories or critical frameworks in your toolkit, which you revisit often for your research? I find that, as a philosophy student, I often fall back on certain logical reasoning to make sense of a problem.

J: The short is no. In sociology, the classic theories that we tend to go to include Marx for capitalism and industrial relations, Durkheim for social facts on the ground, or Weber if you're talking about organizational theory or theories of the state. That's where people first started theorizing and everyone else is branching out from there, so you can link the seminal work back to those origins. The good thing about doing more research is that you can trace these lineages. After a while, you don't really think about it as much. My unfortunate answer is that I don't have one specific theorist that I keep going back to, but since I am familiar with these trains of thought, I can figure out my current research sits within this theoretical framework. That's the messy answer.

W: It's not unfortunate at all, it signifies that you have enough familiarity and expertise to navigate which branch (or sub-sub-branch) of critical theories to locate your research!

J: I wouldn't say that I have the expertise at all, it's just lots and lots and lots of reading. And the good thing about working the Centre is that you have lots of time to read.

W: Amazing. Is there anything else you'd like to add on about your experiences with research that I haven't asked about?

J: No, but I'd like to know more about the methodology project.

W: Yeah, to be honest, I'm still trying to figure it out. I feel that all the RAs at the Centre all have different ways to conduct research, even though our research areas do intersect at specific points. It's an exercise in verbalizing and articulating these observations in a way that's coherent and helpful for others to learn more about. At the moment, I'm already seeing initial differences in how everyone approaches their research but I'm also keen to explore potential strands of similarities.

J: I see! It's always nice to speak with you.

W: Thanks for your time, I hope you found our conversation useful.

----- End of Interview Transcript (Josephine Seah) -----

Interview Transcript: Jane Loo (Produced on 7 January 2021)

Jane Loo is Research Associate at SMU Centre for AI and Data Governance. Jane's academic background is in public law and her research areas include constitutional and public law, public policy and governance, ethics, and international human rights. In the transcript below, 'W' refers to the interviewer and 'J' refers to the interviewee.

----- Start of Interview Transcript (Jane Loo) -----

W: You joined the Centre slightly before I did, right? What were the main projects you've interacted with, either your own research or collaborations with other people?

J: One of my main projects are the vulnerability and discrimination project, and the other is the rule of law project.

W: I've seen bits and pieces about the rule of law project and also heard a little bit about the vulnerability one. With these two projects, how did you come up with the research purpose and the analytical question that you're trying to answer? I feel that within any given topic, you can ask so many different and interesting question. How did you approach this?

J: I can give you an example of how I come up with research questions. At the moment, we're working on the rule of law project but we haven't yet define authority, legitimacy and power. Although we have relied on very basic definitions of those concepts, we realized halfway through the process that we needed to define them better so we looked into related papers in philosophy, political science, and other areas. So the research question sort of comes along with that process.

W: I get a sense that often the research process involves clarifying the meaning of certain key concepts in the research topic.

J: Yes, it's definitely the case. With other projects, Mark will have a topic in mind and he gives an initial research direction. For example, I have an upcoming research project on feminist surveillance which Mark gave a brief introduction to indicate what he was interested in finding out. At the moment, I still don't know which direction I will take with the research project, so I will probably read around the topic and look out for interesting topics.

W: When you're in the process of learning about a research area and carving out a research scope, are there certain factors which help to ground or contextualize your research, such as concrete challenges in society and policy concerns?

J: For me, I'm particularly interested in human rights issues so I'll often look for those factors. For example, with the rule of law project and the vulnerability project, I will often research further on situations where there are clear human rights breaches or infringements. Is that what you're asking?

W: Yes, sort of! I get a sense of the work that goes on in the Centre is so interrelated yet distinct, I'm curious how does our research across different disciplines connect with what goes on in society. I think what goes on in academia - especially in the field of governance, AI and technology - are quite interlinked with real-world problems. Let's start with the next question - would you describe your research as interdisciplinary?

J: For sure. I come from a legal background, but right now I'm reading up more on political science, sociology and philosophy. I'm also learning about lots of new areas.

W: So when you're working on a research project that pulls together so many different fields of scholarship, what is your process in selecting critical theories or research methods that are most useful to the research question you're trying to answer? For example, on the topic of privacy and autonomy, you can come at the topic from a very descriptive and empirical approach by surveying people's current sentiments about these concepts. Or you could take a theoretical approach from a number of different disciplines, such as philosophical reflections on the concept of "self" vs. "others", and you can definitely adopt a political theory lens concerning the role of governments and ask if there are certain liberties we have to sacrifice for a society to function. What is your process for engaging with all these academic literature, and in choosing critical theories or methods for your research?

J: With my recent research on authority, legitimacy and power, I looked into the works of a few philosophers and political scientists. It's my first time engaging with these sorts of literature, whereas with the vulnerability project, it's quite descriptive since I was gathering information on the emergency laws and the Covid-19 control measures being put in place. My analysis of this situation came from the angles of human rights, public law, and constitutional law, alongside international law treaties.

W: When you're coming up with research analysis, does that usually involve drawing comparisons? In other words, do you consider your work to be comparative in nature?

J: Yes, it definitely applies to the rule of law project which looks at different countries with different laws, legislation and regulations, including Singapore, India, China, and Qatar. I'll be comparing how each country has rolled out their Covid-19 control measures and emergency powers that they've used. The vulnerability project is supposed to be comparative in nature too. At the moment we're focusing on Singapore, but will soon look at India and the UK to compare their styles of authority, alongside the impact of their control measures on the vulnerable populations.

W: With that in mind, how closely do you see the research projects you've interacted with and participated in linking with policy outputs? Do you see the link clearly, or is it otherwise?

J: I hope my research has policy implications. The purpose of the vulnerability project is to identify the groups of people that have been neglected, and by identifying the factors, we hope to help regulators work on addressing these issues.

W: Is it fair to say that the element of policy implications is already embedded in the research purpose and that your research question is build around these policy concerns? It's not just by chance that policymakers can benefit from the insights of our research outputs.

J: Yes, I would say so - hopefully, yes. We started the vulnerability project and rule of law project hoping that the research outputs have a positive influence on policy outcomes as well.

W: In your time working at the Centre, to what extent have you been required to explore other social science methods beyond your original field of scholarship?

J: I think more recently I have been exploring philosophy and political science, as mentioned earlier, because of the rule of law project. I would say it's a 60/40 split between my original field of study and other fields. Since human rights have a very social element, I feel more familiar with the literature on sociology and definitely it more readable.

W: Since you mentioned about the relative ease or difficulty in reading different sources, I was wondering if you've interacted with different types of sources in your own research (e.g. non-academic sources vs. academic and peer-reviewed sources)? If so, how do you integrate these different types of sources to place them in dialogue with each other?

J: That's a good question. It's definitely something I've experienced more in the past few months, especially with the pandemic, a lot of the research that we are doing is about the latest control measures and regulations (e.g. the vulnerability project and the rule of law project). Many of these situations have not been written in journals, so we have to rely heavily on various news sources and, when available, locate the original legislation. If the original legislation is not available, we'll have to rely on the content of the news sources. It can also be tricky because of translation issues, as sometimes we cannot find the original source which is not in English.

W: Is there a criteria that comes to mind when you are deciding which news sources are most reliable and useful for your research?

J: Sure, I will usually avoid tabloids and go to reputable sources (e.g. the BBC, The Guardian). For countries that I'm less familiar with in terms of reliable news channels, I will look around the website to see if they're credible or otherwise.

W: This question is slightly different from what we've talked about, but I'm curious whether you've used the conversation or focus group method to help develop your research direction?

J: Oh, are you referring to the work that Jo is doing? No, not in these two papers that I'm working on. I know that the Microsoft project that Nydia has been working on does involve a bunch of researchers coming together to discuss AI principles though.

W: I see. In that case, have you been a participant of focus group discussions? It's always interesting to see how everyone responds to an environment where there are similar yet

diverging opinions on the same topic. For you, as a researcher, do you find that it's equally helpful to hear similar and differing opinions from people?

J: No, I haven't been a participant but I have observed focus groups outside of my work with the Centre. But yes, I do think it's important to have a balance in perspective and we should consider these differences in our research.

W: One thing that I remember Nydia mentioning, which surprised me at the time because I've never considered it before, involves her experiences interacting with industry members and getting their thoughts on some of the policy recommendations or solutions she was proposing. It can be very valuable to have a diversity of thought in those environments, but in order to navigate that, you have to be aware of that industry members may be representing certain corporate interests. So their feedback and thoughts may be limitedly helpful to your research considerations, given their existing biases. I wonder if this applies to your research experiences so far, or otherwise?

J: No, I don't think so - at least for the vulnerability and rule of law projects. I haven't communicated with anyone from those backgrounds yet, I would be keen to do so for the vulnerability project in the future though!

W: Sure, that's fair enough! I suppose going back to something that your research is heavily based upon, i.e. pulling together and contrasting all these evolving situations across different regions of the world, could you explain a little why it's important or useful to include these practical examples in your research? The second aspect of my question is how do you decide which ones are most relevant, given the fact that Covid-19 is still an ongoing situation.

J: Yes, I think if given the option, we would like to cover as many examples as possible, but we are often working with time constraints. For the vulnerability project, we chose Singapore because it's the closest to home. Singapore is unique in the sense that it's a technology-heavy smart city, which has a different context from the other countries we chose, e.g. India as a developing country with different laws, which also utilizes different Covid-19 control measures which are less technology-dependent. As for the UK, we consider its focus and adherence to human rights, which also provides different contexts. The ongoing chaos in the UK also provides a reason and opportunity for us to scrutinize what's going on there.

W: When you're working with all these different examples, thinking about similar themes or significant areas of differences, are there specific theories that have been useful in helping you analyse any given situation?

J: I think it's helpful to go back to human rights principles, specifically focusing on anti-discrimination laws, freedom of movements and other liberties. I think I do tend to categorize social issues using these contexts.

W: Sure, we all use different lenses to make sense of any particular problems or even research projects. So much of this seem to be informed by our educational background, but

I can see how complex issues which the Centre deals with also require different approaches from the research team.

J: I definitely think so. I've only been here for a few months, but I've been exploring new fields and I plan to look more into feminist literature in upcoming projects this year. I think my approach will probably change too, since each research project is different.

W: Does this also describe your overall research method or style too? You described how you conduct research has had to evolve in different and unexpected ways.

J: I'm not sure. I didn't expect myself to be looking into feminist literature, although it's very refreshing.

W: With the two projects that you've worked on, i.e. the vulnerability and rule of law project, they focus on evolving situations in different regions. You mentioned about using theories and concepts such as human rights, which are seen as quite universal. Do you ever see the tension between the global and local when you try to connect the two? What is that process like?

J: I'm not sure, do you mean whether there's a cultural relativist element at play?

W: Not quite. To give an example, when I was researching on the metaethics and trustworthy AI, I realized how we choose to frame the question and which theories or concepts we choose to apply to the research topic really affects our conclusions. In particular, there can be tension between theories which emerge from a specific part of the world (e.g. the Western-European intellectual traditions) versus pressing concerns which emerge from a localized context (e.g. the concerns of Singaporeans, or Indians, or Chinese on the issue of trustworthiness). I wonder if you've ever encountered such tensions when applying theories to specific contexts, and observed how well do they describe some of the local challenges? Do the theories you use generally work well or are there areas of divergences?

J: There are definitely differences. I wouldn't say theories, but certain frameworks are difficult to transplant wholesale in different contexts like the language of rights or even the rule of law - some countries might adopt a narrow interpretation, some countries might adopt a broad interpretation. Are you also saying that, for example, regarding the same issues, Singapore could focus more on the economy whereas the UK tend to rely more on liberties?

W: Sort of. Again, because our research areas are quite different, I feel like we're getting into some of the granular details that I'm relatively unfamiliar with - but my question is kind of related to what you said. When you're applying any given theory of a certain origin to describe or understand real-world situations of different environments, I wonder if there is a risk in transplanting this framework, theory or concept which results in flattening out areas that might not fit, or things that simply do not conform. What is your research process like in making such observations and bridging these differences between theory and actual situations?

J: Sure. For this specific case of Singapore, it's almost impossible and we also shouldn't apply the human rights framework wholesale here. It's not constructive to say that there isn't the right to privacy, freedom of expressions etc. Instead, we rely on other frameworks e.g. rule of law, constitutional or public law. Is this what you're asking?

W: Yes, it's the sort of wholesale transplanting an entire framework or theory and applying to contexts where the priorities and concerns are slightly different. I was mainly curious because you mentioned so many countries and contexts that you're trying to pull together.

J: Context is definitely important in that way. When looking at different countries, we definitely see that the regions of the West and Asia have different value systems. It should be approached with sensitivity. Although it's not fair to say that Singapore has no freedom or human rights at all since those are Western concepts. When we conduct research, we can rely on language and concepts like human dignity and autonomy which has more reach than the right to freedom of movement.

W: That goes back to our earlier points around how these contextual elements get factored into what grounds the research topic. With the considerations you mentioned earlier, do they apply to the two projects you're working on or one more than the other?

J: Right now, we've minimized human rights language in our analysis of Singapore. For example, we changed the term "right to liberty" to the "right to self-determination" which is more universal and has less human right tones. So we do change the tone and description based on the country that we examine. Does that make sense?

W: Sure! The other question that I have in mind is about how you interact with researchers from a different background, who bring with them quite different sets of vernacular to describe certain concepts or express their observations. How do you adapt and respond to these perceived differences, since we mentioned earlier that diversity of thought can be so valuable for the research that goes on at the Centre?

J: Differences are always welcome. If it's a matter of understanding (or not being able to understand them), I'll ask for clarifications.

W: Have you ever encountered a situation where you and your research collaborator(s) have had complete opposite intuitions about the topic?

J: I don't think so. But if it does happen, then I'm sure we will talk it out. We can try to understand why they think in that way to come to an agreement. This has happened to an extent with the vulnerability project, as Mark had some thoughts on how the research direction should go, while Jo and I had our own thoughts too. We had a meeting to discuss this and convey our viewpoints on what was feasible, and ultimately came to a consensus. So far, I haven't encountered complete disagreements during my time at the Centre.

W: I see! I think since the trainees have joined the Centre, chances are that we will have more unique perspectives on any given topic. And I imagine that with research centres

elsewhere in the world which are interested in artificial intelligence as a new and emerging field, it would make sense to invite people from different backgrounds on board. But this process will require carefully managing these differences constructively.

J: Yeah, I can see where you're coming from. I would say that in my previous workplace, I had different working styles with a person whom I had to collaborate with for writing papers. I think we came to a compromise when it comes to what to include in the paper, and in the end, the draft will get reviewed by our boss who makes the final decisions on the content. So it all worked out okay.

W: Nice! Are there any other thoughts you had about your research experiences that I haven't asked you about?

J: This is all very new to me. Before I joined the Centre, I was working at a law firm. So I would definitely say that research is very new to me and I'm still learning.

W: I think we are all still learning!

J: That's great.

----- End of Interview Transcript (Jane Loo) -----