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## FPA Roundtable: Speaking Notes

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**Introduction:**

Welcome to our session!

I'm very happy to introduce you to the amazing scholars sitting here with me:

- Anna Shah Hoque
- Nasreen Rajani
- Joanne Farrall,
- and I am Rena Bivens.

We are all from Carleton's School of Journalism and Communication.

We are all coming here today with a range of research interests and areas of study, from sexual violence to online harassment, decolonization, and alternative relationships. What brings us together is our collective desire to understand the social and technical aspects of our areas of study while using speculative design to interrogate their underlying logics.

But ... what is speculative design?

Speculative design lets us step outside of the limits of our present-day society. It is an approach that relies heavily on imagination to conjure up new designs for technologies or even social practices and infrastructures that are set in future worlds.

When we begin to imagine the future, technological change quickly enters the equation. Futures presented to us from the realm of science fiction have helped forecast this imagined world. From universal translators to teleporters and hoverboards, futuristic technologies are seen as spectacular developments. We watch sci fi films or read sci fi novels in awe of the future societies depicted for us, yet at the same time we find ourselves struggling to unravel what social impacts result and whether we are to fear these reconfigured societies or hotly anticipate them.

When we work through these issues, we are simultaneously working to understand how the technical and the social are intimately entangled. Obviously technologies are always designed by humans. And so, as scholars like Anne Balsamo, Shaowen Bardzell, and many others have articulated so well, design is a political act. Technologies always carry with them assumptions, goals, and values. They are not designed in a social vacuum. They are both shaped by society and play a role in shaping society – science and technology scholars call this mutual shaping.

Speculative designs can range from prototypes to mere descriptions, but the intention is not to develop tangible design solutions.

This is important since a quick glance at the title of our roundtable – ‘There’s an app for that’ – might imply that we are aiming to develop new mobile phone apps that will magically end sexual and racial violence for future Canadians. This is not our intent. We are critical of perspectives that view technological development as uniquely capable of providing innovative solutions to social problems.

Instead, we are interested in critically reflecting on the broader relationship between technological development and social change. We want to better understand how technology and society mutually shape one another. We wonder how these different sociotechnical elements can be reconfigured in fictional, futuristic designs and what these reconfigurations can tell us about the change that is needed in our present-day societies. The point is not to predict the future but to better understand the present and open up space to talk about the kind of future we would like to see – and the future worlds we would like to avoid. We use speculative design to provoke, unsettle, help us imagine new possibilities and gain new insights. Our aim is to alter the conditions under which we think, talk, and intervene.

I also want to mention that the ‘app’ in our title is merely a familiar stand-in for a more general figure of technology, broadly defined, that will come to life in our speculative designs. To help us broaden our ‘app’ placeholder and help familiarize you with the idea of speculative design, I’ll share a brief example here.

[Playing video from: <http://www.designindaba.com/videos/design-indaba-news/prototfarm-2050-guide-free-farming>]

In this example, a French design firm (called 5.5 Designers) produced a series of print booklets for cities that sought to offer a ‘Guide to Free Farming.’ In response to future problems, design ‘solutions’ are posed, but they are meant to provoke.

So, among typical edible flora and fauna, hunting and gathering strategies are presented including – hunting pigeon.

Carl DiSalvo, who along with Laura Forlano and many others who are engaging with speculative design, used this example to think through the utility of this approach. DiSalvo notes how this guide draws on and extends current trends – around urban farming, DIY sufficiency, and critiques of industrialized agriculture and contemporary food production. It is an extreme example but it offers us a spectacle by being so extreme. It makes us pause, it piques our interest. Instead of more technological automation or the production of pills or simulated food, which DiSalvo argues is much more typical, we get an imaginative future for food cultures that – hopefully – encourages us to reflect on our current practices.

So now we are each going to take you through speculative designs – all of which are very different – related to our own areas of interest.

I'll start us off.

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Ultimate Witness comes factory-installed on every mobile device and cannot be disabled or removed. This app records and permanently stores a complete repository of detectable data within a 10 foot radius of the device. Imaging and auditory technologies capture sound, still, and moving images based on XSC3 heat and light filament sensors. Biomedical technologies capture comprehensive data on heart rate, blood pressure, drug and alcohol levels, hormonal and adrenaline levels, as well as neural activity in the brain and physical movements (including 24/7 tracking and recording of eye movements).

All data is stored in an encrypted raw file format. Several copies of the data are sent through high-performance filtering and processing software programs. The most crucial filtration process is the Protect 2 End software program. This software uses a state of the art prevention algorithm that was initially based on 250,000 actual sexual violence cases brought to Canadian courts over the last few decades, focusing particularly on the evidence given to describe the events preceding the crime. Alongside this data, the algorithm is always adapting due to its machine learning capabilities, which permits the category of sexual violence to achieve maximum malleability. Protect 2 End analyzes audio and images for misogynistic language and incidences of rape culture, making links to an algorithmically curated rendering of expected attitudes, behaviours, and biomedical shifts that signal future perpetration of sexual violence. This data is continuously checked against historical data about the individual in question. Identity data sets, including but not limited to gender, race, socioeconomic status, and nationality, offer further alerting mechanisms tailored to the individual's social position.

Here's just one example of how it works: if someone hears a song like Blurred Lines, which normalizes sexual violence, a flag is raised on that individual's profile. Later on, he casually objectifies a woman in a private conversation to a friend: another flag is raised. Let's say he goes out to a drinking establishment a few days later in the evening (as captured by time/date/GPS recording) and stares at a woman for greater than 10 seconds, scanning her body and glancing repeatedly at her breasts and hips: more flags will be raised. If he then approaches the woman, a sedative will be delivered, rendering him unconscious within 2 minutes.

- Any vehicles or key-operated doors associated with the individual become instantly inoperable. Authorities will be alerted and the immobilized would-be perp will be taken in for questioning at a local police facility. The flagged actions that led to his sedation would be revealed and a facilitator would take him through the appropriate unlearning exercises and activities.

Ok. Ultimate Witness. This app is the result of speculative design thinking – it is not a prototype for a future technology that I want to see developed. Quite the opposite, actually.

In fact, I'm suspicious of the temptation to invent a society free of sexual violence by relying on technological solutions. Evgeny Morozov would call it 'technological solutionism' – quantify, track, gamify everything to solve the problems of the world. This orientation also tends to bolster colonial myths about progress and superiority, presuming that only certain technologies and only certain uses by certain peoples – namely white settlers – signal progress.

It is never simply technology that is being developed – social infrastructures, norms, and values motivate and steer technological development, and are themselves reconfigured in and through this process.

Yet, by imagining what kind of an app would actually 'end' sexual violence, speculative design exercises detach us from the present and encourage us to engage in future world-making practices. By comparing the fictional designs with the contemporary world, the aim is to consider what became possible in the future setting - what infrastructures, discourses, and social dynamics - and how that future connects to the present.

With Ultimate Witness, I am extending some of the elements of our contemporary cultures surrounding sexual violence prevention.

So first I'll tell you where my thinking here is coming from and then I'll come back to Ultimate Witness and identify these extended vectors.

I considered a wide range of prevention efforts and broader cultural contexts, including contemporary discourses that have taken shape in relation to Canadian university and college campuses relating to sexual violence and rape culture. I am also thinking through discussions over the past two years sparked by the Ontario government's 2015 report *It's Never Okay: An Action Plan to Stop Sexual Violence and Harassment*.

I'm also thinking through the long history of technological remedies to sexual violence.

Here we have rape whistles, female condoms with teeth, nail polish that detects date rape drugs. There is also anti-rape underwear, belts with labyrinth-like closures, and lingerie complete with pressure sensors covering the breast area that can deliver up to 82 electric shocks and automatically send text messages to the police and your parents with your GPS coordinates.

If you take a look at an app store you'll find hundreds of apps designed to prevent sexual violence. Federally funded programs in Canada and the US have actively supported some of these technological remedies.

After researching 215 apps with my colleague, Amy Hasinoff at UC Denver, we were disappointed that they overwhelmingly reproduced misconceptions that sexual violence experts have been debunking for decades. For instance, perpetrators are usually known to their victims; they are rarely strangers. Yet the vast majority of apps are designed to intervene during an incident where a stranger suddenly attacks someone, or they are designed to turn off when the user has entered a 'safe' space like home or work.

We were also concerned about the overwhelming responsibility placed on victims to prevent their own rape. Sexual violence experts have long argued that persuading perpetrators to stop assaulting could be a more effective prevention strategy. Yet only 0.02% of apps in our sample targeted potential perpetrators.

Collectively, this field of design imagines and promotes an understanding of sexual violence as an inevitable force of nature that cannot actually be prevented but only avoided by vigilant and responsible individuals.

OK, back to Ultimate Witness.

Let me take you through some of the issues I am trying to raise with this speculative design.

Clearly this app shifts the focus to perpetrators. Yet in this future-world, anyone can theoretically become a perpetrator. There are a few issues to explore here.

- First, you may have noticed that I gendered the victim-perpetrator relationship with my example of how the app works. The female victim – male perpetrator dyad dominates mainstream conversations about sexual violence, and was certainly highly visible among the set of 215 apps we studied.
  - Yet many scholars have pointed out that continuing to rely on this dyad invisibilizes sexual violence within lesbian and gay relationships and limit our capacity to talk about sexual violence experienced by men and boys.
  - Now we also know that data on sexual violence is flawed – most people do not report and for those who do, the police have been critiqued for how many cases are deemed to be unfounded, that is dismissed as baseless (1 in every 5 sexual assault allegations in Canada is unfounded, according to a recent study, which is twice as high as the unfounded rate for physical assault and much higher than other types of crimes). Yet it is this data that supports continued framing of sexual violence through a particular understanding of legible victims and legible abusers.
  - The impulse towards turning so much of the social world into data clearly informed Ultimate Witness – remember it even captures neural activity in the

brain! Capturing data is a common request – the mandate from the Ontario government for the development of the sexual assault policies also made such a request, and did so very generally and without guidance on related issues such as privacy and anonymity, etc.

Now a moment ago I said that anyone could conceivably become a perpetrator. But of course Ultimate Witness intends to step in before an incident happens – taking it one step beyond the existing apps that merely hope to intervene as soon as possible.

- Here I am interested in bringing another issue to the table – one that, depending on who you are talking to, is not always easy to bring up: due process for the accused. Ultimate Witness adds some much needed visibility here and because it is a future-oriented speculative design, perhaps it is easier to have these conversations – it is temporarily detached from the present. There is a sense of fear and anxiety that Ultimate Witness can provoke and perhaps it can help us more openly discuss related fears and anxieties.
- This is particularly interesting to me since I want to use speculative design to understand how discourses tied to the past are tangled up in attempts to prevent sexual violence in the present-day and into the future. For example, many in the anti-violence field champion the necessity of always believing survivors. This makes sense given the historical memory of anti-violence experts who can easily recall why the voices and experiences of survivors of sexual violence ought to be centered. Decades of anti-violence work was required to raise awareness and achieve legal reforms because survivors were not believed, or they were blamed for their own assault.
- Yet these are not the only histories and present-day realities. When we focus on issues like racialized criminalization practices and the relationship between anti-Black terrorism and the specter of Black rape – that is accusations against Black men, particularly by or in defense of white women – we find another necessity: the need to champion due process for the accused.
- At times, these perspectives – survivor-centered approaches and close attention to due process – appear to be in conflict. Instead of co-existing, they take up different amounts of space ~~in the material-discursive practices surrounding anti-violence work.~~
- With Ultimate Witness several issues stemming from our contemporary world are being extended that could perhaps help us grapple with this conflict more directly. We are already engaging in critical debate about predictive policing, racial profiling, and algorithmic biases and when we raise these issues in the sexual violence context, perhaps our understanding of victims and perpetrators can shift.
  - o A recent study shed light on the racial profiling occurring here in Ottawa with police officers stopping Middle Eastern and black drivers more often than any other drivers. We've also recently seen Facebook rolling out algorithms that predict whether someone is suicidal and heard Zuckerberg hinting towards using algorithms to identify terrorists in the future.

A related issue is that Ultimate Witness can clearly be used for much more than sexual violence. My description intended to surface this anxiety, only identifying sexual violence after the far-reaching data collection capacities had been unveiled. Here I am gesturing towards the concerns – currently voiced only by a few scholars – regarding expanding terms.

- As Ummni Khan argues, “‘Rape culture’ has become a surprisingly elastic term.’ She offers examples like songs – Blurred Lines – sexualized advertisements, speaking invitations to defence lawyers, calls for due process, all of which have been claimed as part of rape culture.
- Lara Karaian has also been critical of the term. Her work looks at sexting and revenge porn and raises critical questions about the usefulness of equating non-consensual distribution with sexual violence.
- Contemporary technologies are already being designed to raise flags and predict future behaviours. Ultimate Witness can encourage us to see how important it is to be wary of expanding terms.

Finally, experiences of sexual violence in Ultimate Witness only appear in the form of those that made it into the courts and the precursors that were deemed legitimate in the eyes of the law. This is intended to mimic the erasure of experiences of sexual violence that are not made public and thereby have less capacity to influence policy. This includes faculty members on university and college campuses who occupy marginalized identity categories – who are, for example, queer, racialized, and/or trans or gender variant – and who are particularly vulnerable to false accusations. Yet the mandate from the Ontario government emphasized the requirement for administrations to consult with student groups, not faculty and staff. Instead, Ultimate Witness more readily impacts everyone.