Yoti Guardians Council Meeting Minutes
3 February 2020

Attendance: See Table at end

Location: Yoti Office & VC

Date: 3 February 2020, 1700-1930 GMT

Recorder: Eric Levine

Agenda	1. Ethics Board event 2. Continuation of discussion on i-voting 3. Biological sex estimation	4. Guidelines for decisions on use cases for Yoti tech offerings 5. Yoti 2019 B-Corps Report

Actions from Previous Meeting:	
○ Submission of 2019 Yoti B-Corps Report	Completed
○ Follow-up with Guardians for contacts and information related to e-voting provider due diligence	Completed

Summary notes from the meeting are provided below, with points of agreement and actions clearly noted.

Welcome	Meeting began at 1700.
1. Ethics Board event	**Topic:** Following consistent encouragement from the Council for Yoti to share publicly its own learning, and show leadership in areas where Yoti is pioneering, Yoti hosted a recent event on 'Setting up and running an Ethics Board,' chaired by Gavin, with more than 40 people from academia, big and small business, consulting firms, and more in attendance. As stimulus for discussion the event included presentations by a range of actors involved in setting up ethical boards and advisory groups including: ● Eric Levine on the Yoti Guardian Council; ● Christine Henry on Datakind UK's Ethics Committee; ● Robert Leech, Consultant in IT to the policing sector on the Ethics Committee and Ethical Framework set up by the West Midlands Police & Crime Commissioner; and ● Amanda Powell-Smith, CEO Forster Communications on serving as an ethics advisor to an insurtech company; and ● Patricia Shaw, Beyond Reach Consulting, Institute of Electrical and Electronics Engineers (IEEE), on developing standards which are human centric and process driven encouraging those designing algorithms to anticipate issues from stakeholders in advance, looking at unlawful bias and discrimination. ● Sara Jordan, Future of Privacy Forum, on how to build on universally accepted research principles in the development of Ethics Boards. Quick share out from the event included: ● There is clearly pent up demand to explore how to run data ethics boards in practice. ● Agreement from all attending that in the data driven world we are living in, we need to set up structures to help consider the impacts of data on individuals and the collective needs of society. ● There has traditionally been a tension between innovation and compliance. Given the exponential increase in data volumes this has to change for companies to develop forward-thinking, ethical and viable business solutions. ● Ethics-by-design needs to be integrated from the start, and Ethics Boards can help organisations shift their mindset in this direction. The Council encouraged Yoti to continue to host such events bringing together thought leaders in

	the sector and sharing good practice, as well as inviting others to grapple with the complex issues that Yoti is seeking to navigate. Council also suggested a Yoti White Paper on the Guardian Council itself.

2.Continued discussion on i-voting	**Topic:** This topic has been discussed multiple times in previous Council meetings, where Guardians supported in principle for Yoti's desire to deploy its technology as a means to increase democratic participation, but expressed strong caution and urged Yoti to: ● Be very careful about getting involved in this highly politicised area; ● Do rigorous due diligence on any potential voting provider partners (especially any who have worked in regions where democratic processes have been tainted); ● Be aware of the sceptical public attitude towards voting processes and affiliation risk; Guardians also asked that if Yoti decides to explore offerings its tech in voting processes, it should do so in a very controlled trial to be able to properly understand the risks and benefits associated with the use case. Yoti has taken this guidance very seriously, has progressed with further consideration, and now has a more tightly defined interest in exploring a pilot in this area. Developments that have happened since we last discussed this subject with the Council include: ● Yoti App is more robust, with DeepFAS anti-spoofing being implemented in the selfie-auth mechanism, making it very unlikely that a fraudulent attribute share could occur. ● E-voting and i-voting trend is increasing with more trials and deployments, using inferior technology to Yoti, and looks like a trend that is likely to continue indicating an opportunity for Yoti to use its technology to improve the confidence in important civic processes At this stage, Yoti remains interested in exploring ways to deploy Yoti tech as a means of increasing voter participation. Using guidance from the Council, we have remained open to finding an opportunity to pilot such a deployment where: a) Yoti's tech would clearly be deployed to increase accessibility for voters. b) We can work with a voting provider partner that we are confident in. c) In a government jurisdiction where we have confidence in the integrity of the underlying voting process. d) In an initial deployment in a small pilot that we can use to properly assess the risks and benefits of this use case. Yoti has continued to assess each i-voting opportunity on a case-by-case basis, and we have identified a potential opportunity for such a pilot, working with a partner who will be providing i-voting for local elections in Scotland. I-voting (Internet Voting) is where the voter submits their vote electronically to the election authorities, from any location, allowing individuals to vote remotely at their own leisure using their phone or device. The benefits of i-voting are primarily for people who find it harder to participate in existing voting processes because they are unable to take time off work or find care for their children, people with disabilities, people living in remote locations, etc. In this use case, Yoti would provide a mechanism for individuals to prove their identity before being able to access the voting platform, not the vote casting itself. No specific plans this deployment are in place yet, and Guardians were asked to help consider the potential opportunity and identify the specific concerns and questions to inform Yoti's process of decision-making. **Discussion:** Summary of discussion included: ● The Council continues to urge caution about Yoti being deployed in voting processes, or ID verification as part of voting processes, given the politicised nature of these processes and

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	reputational risk in the event of any association with voting processes that are perceived to be compromised (even if Yoti's part in the process is flawless).

	● As many global e-voting and i-voting providers are involved in elections in countries around the world, Yoti would need to conduct thorough due diligence regarding any potential partner to ensure that there was no affiliation with governments that have/are alleged to have compromised their citizens' voting processes. Renata offered to help with democracy promoting civil society contacts in Latin American and other regions in the event that this was useful to Yoti. ● Guardians agree that the e-voting and i-voting trends are likely to continue, and appreciate that Yoti's technology and principles could provide trustworthy and citizen-centric solutions for ID verification in this space; however, given the early stage of e-voting and i-voting maturity, Guardians still recommend that Yoti wait to see how the sector develops (and to ensure Yoti is firmly established in other digital ID spaces) before entering into this area. ● The Council expressed strong support for open source solutions for e-voting and i-voting processes, and independent reviews/audits, to ensure maximum public scrutiny of these important civic processes. ● As Yoti considers potential pilot deployments in this area, the Council suggests that Yoti should be very tightly focused, and able to very clearly articulate, the specific problem that Yoti is solving and why the voting process is improved by Yoti's involvement (e.g., how many more people get access to voting who would not otherwise be able to vote). Further, Yoti should ensure with any involvement in this area that it is not in any way contributing to making it more difficult for any citizens to access their right to vote.
3. Biological sex estimation	**Topic:** Guardians reviewed and discussed a biological sex estimation tool that Yoti has developed which works in the same way as Yoti AgeScan and has been developed using the training data acquired through Yoti Age Scan. In the R&D team's tests on current training data, Yoti's biological sex estimation tool accurately estimates biological sex in approximately 98% of instances (although it has not been tested expressly on individuals who are considered 'androgynous', or individuals who actively present as a separate gender from their biological sex). Because of the sensitivities involved in biological sex estimation, the Yoti Ethics Committee had conducted a review and assessment of the possible use cases for this tool, which was also presented in full to the Council. **Definitions used to inform discussion:** ● *Gender:* the socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women.[1] In the context of ID documents, this is most often referred to as one of male, female, X or other. ● *Gender identity:* each person's deeply felt internal and individual experience of gender, which may or may not correspond with the sex assigned at birth, including a personal sense of one's body and other expressions of gender, including dress, speech and mannerisms.[2] ● *Biological sex:* the biological characteristics of men and women.[3] Also known as the classification of an infant at birth as male or female at birth, based on the appearance of their external anatomy. ● *Transgender*: umbrella term for people who identify with a different gender from the one they were assigned at birth – often diagnosed as 'gender dysphoria'. ● *Transsexual:* someone who has had medical intervention to change their sex. **Context:**

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[1] CoE, Protecting Human Rights of Transgender Persons: a short guide to legal gender recognition.
[2] CoE, Protecting Human Rights of Transgender Persons: a short guide to legal gender recognition.
[3] https://www.equalrightstrust.org/ertdocumentbank/ERR%2013%20-%20Korkiamaki.pdf

- **Legal issues:** There are domestic legal issues raised by biological sex estimation. The UK's Gender Recognition Act 2004 creates the framework for gender transitioning. It provides a procedure for a person to apply for a Gender Recognition Certificate (GRC). The consequence of receiving a GRC is that the applicant is treated under the law as being of their acquired gender. However, depending on the accuracy of the biological sex estimation tool, transitioned individuals might be misidentified. This could lead to situations in which an individual is denied a service on the basis of being misidentified. There are other countries in which it is possible to change gender in which similar problems could arise (e.g., Ireland, Malta, Norway, Argentina, Belgium, Portugal, UK, Denmark, Finland).
- **Societal issues:** In addition to legal issues, there are societal issues that biological sex estimation might cause. The Yoti Ethics Committee has previously looked at self-asserted gender as a way to address changing societal attitudes to gender. By providing a service that determines an individual's biological sex, Yoti might be seen to support the notion that gender is binary, unchangeable and indistinct from biological sex, and determined by physical characteristics. This would contradict the work that has begun on self-asserted gender attributes and our accessibility partnerships with organisations such as Sparkle. Biological sex estimation might lead to situations in which people are misgendered. It also has the potential to exclude individuals who identify as non-binary or intersex.
- **Safety enhancement:** Biological sex estimation could both provide additional protection for people and endanger them. For example, it has been requested by dating sites. It has also been suggested as useful by a body that reviews child abuse images and needs to filter by age and gender of victims and perpetrators. Those dating sites are concerned about misrepresentation of gender to cause harm to other users or commit romance fraud. However, identifying a person's biological sex that is different from their gender identity could endanger them by revealing the difference in a scenario or country where this has negative consequences or is unlawful. Therefore, when developing a responsible sale and use policy, Yoti would need to balance potentially enhanced user safety against harm that could be caused to individuals.
- **Anonymous analytics:** Other companies are developing and deploying biological sex estimation in order to provide an anonymised method of obtaining customer analytics. Companies have an interest in gathering customer data to enhance their ability to market products effectively. Currently, analytics are conducted using privacy-invading methods, such as tracking identifiable customers through loyalty programmes. Biological sex estimation could provide a way to gather demographic data on customers without gaining any further information about them.

Yoti Ethics Committee Initial Discussions: The Committee first looked at potential purposes biological sex estimation should be used, and came up with a single use case that would be currently acceptable - where the machine learning tool was used to estimate the gender of individuals in child sexual abuse imagery (CSAI). The use of biological sex estimation would help reviewers of CSAI determine the gender of individuals in the images, therefore reducing the burden placed on those reviewers. The Committee felt this demonstrated high benefits that could be associated with the tool.

The Committee also considered:

- The application of biological sex estimation to targeted advertising (with consent from individuals). The negative ramifications of misgendering and enhanced tracking capabilities meant that the use of biological sex estimation would not align with Yoti's principles.
- An application by a physical store using biological sex estimation to target gender-specific

	clothes at shoppers (with individual consent) as they move through the store. If a shopper was misgendered, it could cause distress and/or embarrassment to that individual, and the benefit to the individual was not considered to be significant enough to be permissible for Yoti.

	In the initial discussions, the Committee could not identify other use cases where the benefits outweighed the potential detriments. Because of the above complexities, the Committee concluded in its initial review that providing biological sex estimation to organisations is not, at the moment, something that should be actively pursued. The Committee recognised that subsequent use cases may be identified for biological sex estimation. On this basis, the Committee recommended that any potential use cases identified for using this tool be considered on a case-by-case basis. **Discussion:** Guardians recognize that biological sex estimation presents a complex dilemma for Yoti's position on gender: a) On the one hand it supports Yoti's efforts for online safety for scenarios where biological sex is a critical attribute (e.g, online communities that wish to provide safe space for people of a specific gender exclusively). b) On the other hand, in some parts of the world and for some use cases it could actually endanger people. c) Also, by providing a service that determines an individual's biological sex, Yoti might be seen to support the notion that gender is binary and indistinct from biological sex. There are legal and societal issues that flow from this. The Council endorsed the Yoti Ethics Committee's robust approach and commended the detailed consideration of the new tool. Guardians supported the decision to put the biological sex estimation tool on hold and not to offer it for use to Yoti partners. The Council agreed that there could be use cases identified in the future that would provide meaningful benefits to individuals which would merit consideration on a case-by-case basis.

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4. Guidelines for decisions on use cases for Yoti tech offerings	**Topic**: Building on the previous topic, Guardians were asked to consider several of Yoti's technology tools that could be used in a wide variety of scenarios – including positive use cases that Yoti should facilitate, and others that raise risks/concerns which need . ● Age estimation ● Biological sex estimation ● Facial recognition ● Watchlist functionality (currently a feature built into MyVenue for Clubs) ● Biometric access control As a business with strong values, Yoti wants to make consistent and defensible decisions on proposed use cases for its technology offerings, having considered all the relevant factors. To achieve the above aim, Yoti has developed a set of guidelines to help assess proposed use cases (based on the common themes found in various ethical frameworks relating to the development of new technologies, upholding human rights and preventing harm, and incorporating commitments Yoti has made such as the Safe Face Pledge). 1. Yoti will consider offering these technologies in cases such as the following where they will be used: ● to provide additional security or safety, especially online, especially for children/the vulnerable; ● for anti-fraud purposes; ● as part of a physical security system in environments that require higher levels of security; ● as a voluntary option to provide individuals with a simpler or quicker experience, especially in environments that require higher levels of security; ● to allow organisations to comply with ID and age check requirements; ● to facilitate voluntary self-help schemes, such as gambling self-exclusion; ● in a scenario where the technology provides or facilitates a public benefit (as defined by the Charity Commission).

Examples of this include:

- Age Scan used to estimate ages of chatroom participants to make sure no adults are present in under 18 chatrooms and / or vice versa.
- Age Scan used an option at a self-checkout to buy age-restricted goods.
- Age Scan used to automatically estimate age of individuals entering an age-restricted premises or area.
- One to many facial recognition in a gambling premises to identify self-excluded gamblers.
- Face match as a service used to compare a live video stream image against a verified profile photo to make sure the person in the video stream is who they say they are and not a substitute or impersonator.
- Face pay where it is voluntary and especially in areas where individuals are at risk by carrying cards / cash.
- Biological sex estimation used by police forces as a filtering tool when processing large volumes of child abuse images.

2 Yoti will not offer or provide these technologies where their use risks human life, actions which harm people and their environment, or where it is not in line with Yoti core business principles. In addition, Yoti will not provide these technologies where they will be used:

- to locate or identify targets in operations where lethal force may be used or is contemplated;
- as part of weapons or other technologies whose main purpose is to cause or injure people;
- to facilitate surveillance that is covert (no information is given to individuals) or discriminatory;
- by governments where there is no public scrutiny, inspection, and oversight of the use;
- in breach of accepted principles of international law and human rights;
- not in line with Yoti core business principles or presents significant reputational risks;
- for trivial use cases where the main or sole benefit is to the corporate customer and there is no obvious benefit to individuals the technology is used on, and the individual that the technology is used on cannot opt out of taking part in the use case.

Yoti will also not offer to support or facilitate use cases where our other products or services would be used to provide the data required to build a database of images and other identity data on which to run biometric technologies. Even if Yoti is not providing the biometric technology, we do not want data collected through the use of our app or other products to contribute to building a facial recognition or similar biometric technology system.

Examples of this include:

- Any use of our technology that would breach the UN Guiding Principles for Businesses and Human Rights.
- Adding facial recognition technology to an application of Age Scan.
- Facial recognition as part of a mandatory access control system.
- Facial recognition as part of a voluntary service or system where there are not requirements for higher levels of security, meaning facial recognition may be a disproportionate solution.
- Where the public benefit, anti-fraud or safety purpose of the technology use is outweighed by risks to individuals.
- Trivial use cases such as marketing, analytics or similar.

3. Yoti will assess all proposed use of a technology to make sure it is in line with our core business principles.

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	4. Yoti expects our customers to make sure that using our technology is a necessary and proportionate solution and to comply with all applicable laws and regulations, and our terms. 5. Yoti will include relevant and appropriate provisions in our terms to reflect our core business principles, and where relevant, set out acceptable and unacceptable uses. 6. We will be transparent and ensure explainability (recognizing that responsible use of technology includes individuals understanding the impact of the technology on their lives). 7. Yoti will engage with relevant stakeholders and experts with regard to ethics, AI, biometrics, the technology development, intended and unintended consequences and the impact on those affected. 8 Yoti will develop our technologies responsibly and take steps to build privacy and security into the design and implementation of the technologies. We will also take steps to make sure our training datasets are representative, to increase accuracy, to detect errors and to prevent bias (and be transparent about how representative the training dataset is). **Discussion:** Summary feedback and points from the group discussion included: ● Guardians support Yoti's efforts to take a structured and consistent approach to dealing with complex emerging issues and use cases; however, recognise that the pace of new potential use cases and the related issues with each makes it unlikely that a formulaic approach will produce 'answers' without careful consideration of each scenario. ● Guardians encouraged Yoti to use these guidelines and approach as principles and prompt questions to consider when assessing potential use cases (like a risk register). Trying to fix rules at this early stage in Yoti's development, and in such a dynamic sector, would unduly limit the space for entrepreneurial growth that is required for an early stage tech business.. ● Guardians also cautioned Yoti to be mindful of the available resource that the organisation can commit to exploring all possible use case scenarios, and encouraged Yoti to focus on those which are most likely to be actionable in the short-term. ● Recognising that Yoti will be unable to police every business customer and use of Yoti technology, Guardians strongly support Yoti communicating clearly what are inappropriate uses of Yoti technology (red lines) so that all Yoti partners are aware of them. ● In navigating these increasingly complex areas, Guardians encouraged Yoti to be as transparent as possible (e.g., where possible naming clients that use Yoti and what they use it for, revoke the use of Yoti if any Yoti clients that use Yoti for inappropriate means, publicly blog about every issue that comes up with any use of Yoti technology, etc.).
5. Yoti's 2019 B-Corps Report	**Summary:** Guardians reviews the 2019 Yoti B-Corps Report, setting out the social purpose that Yoti seeks to have as a business, and embed in all its work. The Report has since been submitted as part of Yoti's annual reporting processes. Guardians commented that the report was improved and does a better job of telling Yoti's story as a business than than previous years. Guardians also felt that Yoti did an honourable job of mentioning the areas where great progress has been made, and areas that Yoti is working on for the future.
Adjournment	The meeting was called to a close at 1930.

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2020 Meeting Attendance														
Meeting Dates	3/2						Yoti Staff	3/2						

Renata Avila	●						Robin Tombs	●						
Doc Searls	●						Julie Dawson	●						
Joyce Searls	●						Emma Butler	●						
Gavin Starks	●						Eric Levine	●						
Seyi Akiwowo	●						John Abbott	●						

● = in attendance ○ = absent/ apologies ☒ = Not scheduled to attend