



## Yoti Guardians Council Meeting 2 Nov 2018

**Attendance:** See Table at end  
**Date:** 2 Nov 2018, 1500-1730 GMT

**Location:** Yoti Office & VC  
**Recorder:** Eric Levine

<b>Agenda</b>	<ol style="list-style-type: none"> <li>1. Snowplow – tracking product analytics</li> <li>2. Age Estimation Product – Yoti Age Scan – AI Ethics</li> <li>3. Follow-up discussion on e-voting</li> <li>4. Opportunity to promote Guardian Council as progressive governance model</li> </ol>	<ol style="list-style-type: none"> <li>5. Yoti risk register (including Night Clubs / Black Lists)</li> <li>6. Key contacts for Guardians within the Yoti team</li> <li>7. 2019 Guardian Council Dates</li> </ol>
<b>Actions from Previous Meeting &amp; this Meeting:</b>		<b>Status Update</b>
o GDPR implementation progress to be reviewed with Guardians		April 2019
o In-person Guardian away-day and public event to be scheduled.		April 2019

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

<i>Welcome</i>	<p>Meeting began at 1700.</p> <p>Prior to the formal agenda items, Renata and Gavin updated on a conference they both recently attended organized by <a href="#">Decode</a>, a European initiative focused on giving people ownership of their personal data. Topics that were discussed by thought leaders in the space which were flagged as potentially being worth consideration for Yoti in the future included:</p> <ul style="list-style-type: none"> <li>• Indications of data nationalisation and potential implications for businesses processing personal data.</li> <li>• Difference of Chinese and Russian perspectives about personal data, and the increasing influence these perspectives are having in the world.</li> <li>• Evolving trade agreements (e.g., NAFTA 2.0, Brexit, etc.) and how that could change cross-border treatment of data.</li> </ul>
<i>1. Snowplow – tracking product analytics</i>	<p><b>Topic:</b> Discussion of changes that Yoti is making in how we use analytics data to promote and improve our products, and better serve our user community. This was a continuation of a series of conversations with Guardians regarding how we balance the need to: a) stay true to Yoti’s core principles around individual privacy and data minimisation; b) get accurate feedback on how users are interacting with our product, and marketing campaigns, to be able to increase the number of Yoti users and improve the quality of our products.</p> <p><b>Discussion:</b> Yoti is making some changes to improve the analytics pipeline to improve the quality of decisions made by the business with regards to marketing, product and partnership choices. Those changes were discussed in detail with Guardians, summarized as:</p> <p><i>Changing Analytics Tools.</i></p> <ul style="list-style-type: none"> <li>• Yoti is going to use a Snowplow-to-Redshift pipeline that will allow us to reduce the dependency on Google’s infrastructure and the use of Google analytics, retaining greater control over access to what data is gathered.</li> </ul>



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- Snowplow and Redshift are to be deployed into a Yoti owned business intelligence account independent to Yoti's other production and development accounts to provide a digital moat between the data relating to user behaviour, the systems used to support user actions and user's personal data. These steps, and others, are being taken to prevent any ability to identify users and their activity.

### *Unique ID Per User Per Product (UID)*

- Yoti is introducing the use of user IDs ("uIDs"), sent with each tracking event into the Yoti analytics system. This is to allow Yoti to make better use of data in improving the experience for users of Yoti products. Yoti intends to strip down data as soon as it is collected in order to preserve anonymity. IP addresses shall be removed from data during the enrichment process, reducing the granularity of user location data so that Yoti can only see a country or city. Further to this, some device data is removed, particularly build details contained in user agent information, reducing the ability to re-identify any individuals using a corporate device to access multiple Yoti products. Due to technical restraints Yoti cannot modify the timestamp of an event as any modification would inherently damage the integrity of the data and so it's efficacy in aiding product decision-making.

### *Metadata*

Metadata is to be gathered at key points in user journeys when it may be relevant, such as:

- Age range of a user when a document is added.
- Gender when document is added.
- Device model on account creation and restoration.
- City where a feature is used.

Yoti intends to strip down data as soon as it is collected, such as reducing an IP address, so we only have a country or city.

After discussing the topic in detail, Guardians agreed that:

- The changes Yoti is making in its analytics pipeline are in line with Yoti's core principles, and the 'privacy by design' intention is to create more efficient processes while further protecting user privacy.
- Yoti is taking appropriate steps to mitigate the risks of: a) Yoti itself invading the privacy of its users; and b) passing Yoti user data over to other parties.
- Given the products and services that Yoti provides, this will continue to be a priority topic, and Guardians expect Yoti to continue efforts to protect user privacy as the company grows.
- At least as important as the steps that Yoti is taking internally to address these complex issues, is the level of transparency that Yoti shows in publicly communicating the choices it is making and the learning process it is going through in these areas. Guardians encouraged Yoti to continue to publish transparently on this, and to use this as a distinguishing feature of the business and brand.
- Yoti should publish a blog post or public article about the choices it is making with its analytics pipeline, and the move away from industry standard analytics services because they do not protect user privacy.
- Guardians support Yoti's plans for a dedicated transparency section on the Yoti website to focus on how Yoti treats user data, and how that is different from industry norms.

Other suggestions from the discussion included:



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	<ul style="list-style-type: none"> <li>● Encouragement for Yoti to build on Kim Cameron’s 2005 work on the Laws of Identity, showing how they are brought to life through Yoti.</li> <li>● In addition to transparently communicating the steps Yoti is taking to protect user privacy, Yoti can help educate the public by communicating the questions that individuals should be asking of their other technology services to ensure that their data is being treated as they expect.</li> <li>● Follow-up meeting with Yoti’s new CMO when in post to discuss what data Yoti tracks for non-Yoti users as part of advertising campaigns.</li> </ul> <p>Yoti is considering future changes that are designed to reduce the ability to link behaviours of the same user across multiple products (e.g., reducing the granularity of timestamps when some events and meta-data is recorded), and other changes in line with Yoti’s core principles. Guardians will be engaged when any such changes are being formalized.</p>
<p>2. Age Estimation Product – Yoti Age Scan – AI Ethics</p>	<p><b>Topic:</b> Feedback requested from from Guardians on the new Yoti Age Scan product in development. Guardians are aware that Yoti has been developing an Age Estimation product (Yoti Age Scan) that provides a secure age-checking service that can estimate a person’s age by looking at their face. It is anticipated that this will have wide application in the provision of any age-restricted goods and services, both online and in person.</p> <p><b>Discussion:</b> The Council discussed the design of Yoti Age Scan and some of its intended uses, summarized as:</p> <ul style="list-style-type: none"> <li>● Yoti Age Scan is designed with user privacy and data minimisation in mind.</li> <li>● The user does not have to register to use the service and does not have to provide any information about themselves. It neither retains any information about users, nor any images of them. It simply estimates their age. They simply present their face in front of the camera. Their image is not stored locally on the point of sale terminal. It is securely transmitted to the Yoti backend server (currently hosted in the United Kingdom), secured by TLS 1.2 encryption. After the age estimate is performed, the captured facial image is deleted from Yoti’s backend servers.</li> <li>● Where the age estimate is sufficiently close to the threshold of interest (for example, within 5 years of 18), the system can be configured to require a secondary step where the user must prove their age by another method (for example, using their Yoti app, where their account is anchored with a verified ID document, or a manual check by a member of staff). Yoti Age Scan has potential application in a wide range of scenarios: <ul style="list-style-type: none"> <li>○ Retail: Yoti Age Scan can be used at a point-of-sale terminal with a dedicated camera, letting a consumer use a self-checkout without the need for staff assistance.</li> <li>○ General Online Use: Yoti Age Scan can be embedded into web pages and receive an image of the user’s face from a webcam connected to their computer or the camera in their mobile device, ideal for controlling access to age-restricted gaming, gambling and other adult content.</li> <li>○ Physical Venues: Yoti Age Scan can be used at the entrances to age-restricted premises such as bars, nightclubs and casinos.</li> </ul> </li> </ul> <p>Feedback from Guardians on Yoti Age Scan included:</p> <ul style="list-style-type: none"> <li>● Given the relatively uninformed position of the public around AI and machine learning, it will be important for Yoti to take responsibility for communicating to the user of Yoti Age Scan key facts and details such as:</li> </ul>



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	<ul style="list-style-type: none"> <li>o State on the machine in physical locations/website page for online use what is being offered to get informed consent (voluntary and quick age estimation).</li> <li>o State that the image only gets used for 3 seconds before then being destroyed (suggested that some visual/sound on screen showing the image being destroyed would be helpful).</li> <li>o Showing the flow with easy to understand visuals for anyone that is interested in how Yoti Age Scan works.</li> <li>o Yoti should test different options for what customers like, what they understand best around these key facts and messages.</li> <li>• Yoti should give this a category name to distinguish it from other uses of AI in the market, such as: 'self-forgetting AI.'</li> <li>• Yoti should use this as a thought leadership opportunity, publishing a blog post on the thinking to date, considering a more formal research/white paper on Yoti Age Scan, and regular updates about what Yoti is learning as the development and implementation progresses.</li> </ul> <p>Yoti is also developing a more formal Approach to Artificial Intelligence Ethics and will be coming to Guardians to review thinking in that area at the next Council Meeting.</p>
<p>3. <i>Serving as an identity provider for E-voting</i></p>	<p><b>Topic:</b> This topic is a continuation of the discussion from the last Guardian Council meeting, where Guardians gave strong advice that:</p> <ol style="list-style-type: none"> <li>1. While supporting the intention for Yoti to be used as a means to increase democratic participation, Guardians urged strong caution about Yoti being too heavily involved in the highly politicised area of e-voting (referencing many failed attempts in the past).</li> <li>2. Guardians offered caution about the reputation of any e-voting partner that Yoti works with (especially any who have worked in regions where democratic processes have been tainted), as many have complicated reputations and could affect the Yoti brand, trust level.</li> </ol> <p>This discussion started with input from Renata and other Guardians having reflected on the discussion from the July meeting, followed by a discussion of the distinction between e-voting and i-voting:</p> <ul style="list-style-type: none"> <li>• E-voting (Electronic Voting) is the use of electronic means for voting, usually including voter terminals and other hardware devices at polling stations.</li> <li>• 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 are at present 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 the case of i-voting, Yoti could be used as a means of ID verification, not the vote casting itself.</li> </ul> <p>Summary of the discussion and advice from Guardians includes:</p> <ul style="list-style-type: none"> <li>• Caution that Yoti is still too young to participate in elections, due to the high levels of scrutiny and risk to reputation.</li> <li>• Currently very sceptical public sentiment around voting processes and not a good time for Yoti to be at risk of affiliation with any voting scandals (real or perceived).</li> <li>• Strong recommendation to Yoti to invest time and resources in other areas.</li> <li>• If Yoti is asked/required as part of a partnership with a specific Government to provide ID verification that allows access to the voting process, Yoti should run trials in parallel to test beforehand to ensure it understands the risks and likely points of failure.</li> </ul>



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<p><i>4. Opportunity to promote Guardian Council as progressive governance model</i></p>	<p><b>Topic:</b> Yoti has been approached with an opportunity to publicly showcase the Guardian Council as a progressive model of company governance in partnership with another company that has adopted an innovative advisory board structure. The opportunity was discussed with Guardians who were in favour of pursuing it, and see this as a way for Yoti to show thought leadership in the tech sector.</p> <p>Guardians also indicated willingness to provide time and input to any article or conference events that stem from this.</p>
<p><i>5. Yoti risk register (including Night Clubs / Black Lists)</i></p>	<p><b>Topic:</b> Input from the Guardians on how to mitigate risk of nightclubs abusing the functionality that is provided to them via our MyVenue product – our access management software that lets people enter age restricted premises by showing their ID on their smartphones. The technology allows owners to keep track of who has entered a venue increasing the safety for customers as well as keeping a clear audit trail of ID checking.</p> <p>Summary of the specific risks that Yoti asked for input around involves the following:</p> <ul style="list-style-type: none"> <li>● Clubs maintain Watchlists to control decisions about whether to permit entry to individuals they have concerns about having on their premises.</li> <li>● Using the MyVenue Watchlist functionality, a club chain may issue a nationwide ban on an individual.</li> <li>● Yoti wants to make sure that it is exercising appropriate responsibility for the aspects of MyVenue use that it can control and influence, while also recognising the rights of property owners to determine who can enter their premises.</li> </ul> <p>Guardians reviewed in detail the process for checking age via MyVenue at a club, the functionality of the MyVenue product, the MyVenue Privacy Policy, the rights of nightclub operators, and agreed:</p> <ul style="list-style-type: none"> <li>● Pubs and clubs are private businesses and publicans, like all property owners, have the right to determine who can come onto their premises or not.</li> <li>● Property owners use the MyVenue Watchlist to protect other patrons in their venues. It provides an alert when a user tries to scan in if they have caused an incident in the past.</li> <li>● MyVenue’s functionality is customisable for venues and gives the property owner the choice to:             <ul style="list-style-type: none"> <li>○ Different categories of incidents that a user can be involved in (e.g. verbal without abuse, property damage, carrying a weapon, using someone else’s Yoti, dealing drugs, etc.)</li> <li>○ The length of time on the list from 24 hours to a maximum of one year that a notification should last for.</li> <li>○ Coverage of that list from a single club to all clubs within a chain.</li> </ul> </li> <li>● While MyVenue provides notifications and information to the property owner, the choice of whether or not to let them enter is still up to the property owner. Yoti can not take responsibility for this choice.</li> </ul> <p>Specific risks that were discussed and considered, along with summary comments of the mitigating steps being taken:</p>



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	<ul style="list-style-type: none"> <li>● <b>Individual being banned from access to other club chains because of bad judgement of one club:</b> Venues must take responsibility for their own premises in terms of who is let in. Yoti have removed the ability to share information with other clubs that aren't in the same chain.</li> <li>● <b>Individual recourse against a ban:</b> Someone barred from a pub or club might have a legal claim where the decision to bar them was discriminatory on grounds of sex, race, disability, religion or sexual orientation. It is important that there is a clearly publicised route for complaints. Clubs agree in the contract to "provide appropriate notice to individuals placed on the Notification List, in line with the requirements of the Privacy Laws and the ICO Privacy Notices Code of Practice. Venues have a legal obligation to inform individuals if they will be banned.</li> <li>● <b>MyVenue enables banning to be done (or misused) more systematically:</b> Yoti is a software provider. As a BCORPs, Yoti's supply chain transparency requires consideration of how its technology is used and to think through the unintended consequences of that process. Having taken a responsible, privacy-by-design approach to software design and development, Yoti has taken steps to reduce the risk that venues will misuse the MyVenue system, and that is what Yoti can take responsibility for. Yoti can never mitigate entirely the risk that MyVenue will be misused. Yoti is keen to consider each stage of the customer journey - before, during and after their interaction with MyVenue and how to safeguard the individual. Yoti will continue to address concerns raised as they are brought to our attention.</li> </ul> <p>Guardians agreed that Yoti is taking appropriate and thoughtful steps to consider and mitigate risks in this area. Given the complexity of the issues involved and the difficulty for Yoti in understanding how MyVenue is being used in every interaction, Guardians suggestions included:</p> <ul style="list-style-type: none"> <li>○ Public communication on the steps which Yoti is taking in this area, the intention behind those choices, and the expected benefits that Yoti is aiming for. By setting this out clearly, Yoti is also welcoming any reports or feedback of its products being used in ways that do not align with the intended use, and will need to consider and respond to them as they emerge.</li> <li>○ Gavin offered to facilitate a public forum/panel discussion on the topics if Yoti deemed it valuable to do so/get feedback from others interested in these issues.</li> </ul>
<p>6. Key contacts for Guardians within the Yoti team</p>	<p><b>Summary:</b> Based on requests from Guardians, Yoti has identified a key contact for each Guardian within the Yoti team - an individual working in an area that leverages the skills and networks of each Guardian. The intention of this is to increase the points of engagement in between Guardian Council meetings in ways that take advantage of the skills and networks of each Guardian. The initial Yoti team contacts for Guardians are:</p> <ul style="list-style-type: none"> <li>● Renata Avila – Ken Banks (covering civil society, developing and emerging markets)</li> <li>● Doc and Joyce Searls – Emma Butler (covering privacy), and also possibly considering a link to our Comms team (new CMO when she starts)</li> <li>● Gavin Starks – Julie Dawson (covering policy, government, public-private partnerships)</li> </ul>
<p>7. 2019 Guardian Council dates</p>	<p>Dates for Guardian Council meetings for 2019 will be: Monday, 11<sup>th</sup> February 2019; Tuesday, 7<sup>th</sup> May 2019; Tuesday, 16<sup>th</sup> July 2019; Tuesday, 22 October 2019.</p> <p>It was also agreed by all Guardians that we should plan for one meeting this year with everyone in person, ideally to be combined with an 'away day' session where Guardians and Yoti leadership can engage in discussion of the future of the digital identity space and the trends shaping that. It could also</p>



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	be an appropriate time for a public event connecting Guardians with the Yoti user community, business partners, journalists and the public.
<i>Adjournment</i>	The meeting was called to a close at 1935.

2018 Meeting Attendance													
Meeting Dates	22/1	16/4	23/7	2/11		Yoti Staff	22/1	16/4	23/7	2/11			
Renata Avila	●	●	●	●		Robin Tombs	●	●	●	●			
Doc Searls	●	●	●	●		Duncan Francis	●	●	●	●			
Joyce Searls	●	●	●	●		Julie Dawson	●	○	●	●			
Gavin Starks	☒	☒	●	●		Eric Levine	●	●	●	●			
						Emma Butler	☒	●	☒	☒			
						John Abbott	●	☒	☒	☒			
						Madhu Nori	●	☒	☒	☒			
						Thom White	☒	☒	●	☒			
						Omari Rodney	☒	☒	☒	●			

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