

# 2023-06-22 AIM TF Meeting Notes

## Meeting Date & Time

- 22 Jun 2023
  - 09:00-10:00 PT / 16:00-17:00 UTC

## Zoom Meeting Links / Recordings

**Meeting:** <https://zoom.us/j/98931559152?pwd=d0ZwM1JHQ3d5cXRqVTh4NIRHeVJvQT09>

**Recording:** [https://zoom.us/rec/share/m453b-3OzUns\\_7F5Av8YmQQzv1P7oCc\\_ZW8\\_tG68HNfpo0rC0EXhMuafbC9rgivl.wSYg2uhr3AX9cRdQ](https://zoom.us/rec/share/m453b-3OzUns_7F5Av8YmQQzv1P7oCc_ZW8_tG68HNfpo0rC0EXhMuafbC9rgivl.wSYg2uhr3AX9cRdQ)

## Attendees

- [Wenjing Chu](#)
- [Anita Rao](#)
- [Neil Thomson](#)
- [Eric Drury](#)
- [Daniel Bachenheimer](#)
- Vivek Nair - guest speaker
- [@alex Khachaturian](#)
- [Jacob Yunger](#)

## Main Goal of this Meeting

This is the AIM TF's #24 meeting.

One of our main goals is to have individual member presentations on what problems/challenges they see in AI & Metaverse related to trust.

Starting in the new year (2023), we plan to start drafting white papers or other types of deliverables of the task force.

## Agenda Items and Notes (including all relevant links)

Time	Agenda Item	Lead	Notes
2 min	<ul style="list-style-type: none"><li>• Start recording</li><li>• Welcome &amp; antitrust notice</li><li>• Introduction of new members</li><li>• Agenda review</li></ul>	Chairs	<ul style="list-style-type: none"><li>• <b>Antitrust Policy Notice:</b> <i>Attendees are reminded to adhere to the meeting agenda and not participate in activities prohibited under antitrust and competition laws.</i></li><li>• <b>ToIP Policy:</b> <i>Only members of ToIP who have signed the necessary agreements are permitted to participate in this activity beyond an observer role.</i></li><li>• <b>ToIP TSWG IPR Policy:</b> <i>see TF wiki page. <a href="#">AI &amp; Metaverse Technology Task Force</a></i></li></ul>
3 mins	<ul style="list-style-type: none"><li>• Introduction of new members</li><li>• Any general announcement, news, that could be of interest to the TF</li></ul>	All	<ul style="list-style-type: none"><li>• Presentation scheduled for the July 19 All Member meeting on "Digital Trust in the age of Generative AI". - <a href="#">Wenjing Chu</a></li></ul>

4 5 mins	<ul style="list-style-type: none"> <li>Unique Identification of 50,000+ Virtual Reality Users from Head &amp; Hand Motion Data</li> <li>Inferring Private Personal Attributes of VR Users from Head and Hand Motion Data</li> </ul>	<p>Guest Speaker: Vivek Nair, Hertz Fellow, UC Berkeley</p> <p><a href="#">Anita Rao</a> brief intro.</p>	<p>LinkedIn announcement: <a href="https://tinyurl.com/mrypn4c3">https://tinyurl.com/mrypn4c3</a></p> <p>Vivek Nair develops cutting-edge cryptographic techniques to defend digital infrastructure against sophisticated cyber threats. Nair believes that for every problem that exists in cybersecurity, there is a cryptographic solution waiting to be found. Vivek will present these two recent studies from Berkeley RDI:</p> <p><b>Unique Identification of 50,000+ Virtual Reality Users from Head &amp; Hand Motion Data</b> (<a href="https://arxiv.org/abs/2302.08927">https://arxiv.org/abs/2302.08927</a>)</p> <p><b>Inferring Private Personal Attributes of Virtual Reality Users from Head and Hand Motion Data</b> (<a href="https://arxiv.org/abs/2305.1919">https://arxiv.org/abs/2305.1919</a>)</p> <p>#AIM #ToIP #VR #AR #security #data #digitaltrust #privacy</p> <p>Notes from Vivek's presentation:</p> <ul style="list-style-type: none"> <li>First study: Historic study of motion based identification in the 70's</li> <li>Basic same idea fast forwarded - distinctions: large number of more diverse Beat Saber game participants 50K+ to make results statistically more significant and representative - game play recordings, and high identification rate 95+%.</li> <li>The motion results are highly effective, comparable to or stronger than Iris, finger prints etc, while facial recognition is more off the chart</li> <li>Context (scene of the play) info is useful but not a major contributor on its own in this study.</li> <li>You can't hide motion data from the Apps - the motion events are important to the game play, so they have to be shared to the apps.</li> <li>Second study:</li> <li>Take motion data as "language" - as in "body language".</li> <li>Use transformer based learning to answer what additional personal information it can infer with statistically significance, e.g. weight, height, but also income, country, disability... 40+ attributes of personal info.</li> <li>The "privacy layer" of a VR device also typically send all the significant motion data to all devices in the VR because latency requirements demand that rendering happens in the devices locally.</li> <li>It is as if "you walk on a public square and broadcasting all the personal information".</li> <li>We discussed Apple's VisionPro announcement - and its implications to privacy based on the results of these studies. Vivek: We have a very narrow window in devising a solution to this problem before VR devices, as currently designed, become the next iPhone of the world which we can't live without.</li> <li>THANKS to Vivek Nair for the wonderful presentation - this is hugely important for all of us!</li> <li>Encourage everyone to check out additional information: <ul style="list-style-type: none"> <li>Link to UCB:</li> </ul> </li> </ul>
4 0 mins	<p><del>White paper status updates &amp; call for additional blogs &amp; white papers.</del> (Skipping)</p>	<ul style="list-style-type: none"> <li><a href="#">Phil Wolff</a></li> <li><a href="#">Sandy Aggarwal</a></li> <li><a href="#">Wenjing Chu</a></li> <li><a href="#">Anita Rao</a></li> </ul>	<p>@phil indicated that he might not be able to work on it for a while.</p> <p>Regular updates from all lead authors: @sandy, <a href="#">Anita Rao</a> and @wenjing.</p> <p>Call for additional Blog/white papers.</p>
5 mins	<ul style="list-style-type: none"> <li>Review decisions/action items</li> <li>Planning for next meeting</li> <li>AOB</li> </ul>	<p>Chairs</p>	<ul style="list-style-type: none"> <li>Completed: Wiki refresh &amp; update. <a href="#">Wenjing Chu</a></li> <li>New deliverable suggestions : <ul style="list-style-type: none"> <li>ChatGPT use policy recommendations - Recommendation - by AIM TF - <a href="#">Eric Drury Wenjing Chu</a></li> <li>"Intersection of AI and Metaverse - automated characters. " blog post - <a href="#">Wenjing Chu</a></li> <li>EU AI Act - response from ToIP AIM Task Force - blog post. - <a href="#">Zaida Rivai Drummond Reed sankars han Chi Hwa Tang Wenjing Chu</a></li> </ul> </li> </ul>