



OMG Artificial Intelligence Platform Task Force Virtual Meeting, 24 Mar 2020

Attendees

See list below. Quorum is 3.

Badge	Name	Company	Email
493	Claude Baudoin	cébé IT & Knowledge Mgt	cbaudoin@cebe-itkm.com
	Philip Newcomb	TSRI	pnewcomb@tsri.com
	Alan Johnston	MIMOSA / Assetricity	atjohn@mimosa.org
	Markus Schacher	KnowGravity	
	Robert (Nick) Stavros	Jackrabbit Consulting	
	Jim Johnson	Standish Group	
	Walt Melo		
	Ian Stavros	Jackrabbit Consulting	
	Charlie Fudge	NSWCDD	
	James Odell	Thematix	
663989	Maureen Robusto	OMG	maureen@omg.org
	Peter Adejokun	Lockheed Martin	
	Amy Stowers	Maximus Federal	
	Raynier van Egmond		
	Rachel Bauer	prostep ivip	
	Koji Kamei	JARA	
598030	Simon Mettrick	BAE Systems	
	Uwe Kaufmann		
	Zack Hashemi	MACE Fusion	
	Matt Wilson	SimVentions	
	Lloyd Dugan	BA Guild	lloyd@bpm.com

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	Ian Stavros	Jackrabbit Consulting	
	Charlie Fudge	NSWCDD	
	Prof. Bernd Blobel	U. of Regensburg	
	Karl Gosejacob	ondeso GmbH	karl@gosejacob.name
	Bill Beavin	Boeing	
	Roy M. Bell	Raytheon	
	Daniel Brookshier		
	Maria C Romero	Aerospace Corporation	
	Roger Burkhart	John Deere Co.	
	Nelson	IOTA Foundation	nelson@iota.org
	Mercia Arnold, Esq.		mercia@abnuit.net

Request to have people add a short bio, esp. what their interest is.

Document Numbers

Document No	Title	Author
ai/20-03-01	Presentation on AI Security, Privacy and Ethics	Dr. Bernd Blobel
ai/20-03-02	Z-Inspection [ask for permission]	Prof. Roberto Zicari
ai/20-03-03	Minutes of Virtual AI PTF Meeting, 24 Mar 2020	Claude Baudoin

Recap of Previous Episodes

See notes about work to date and previous meeting minutes on the AI PTF's wiki page at <https://www.omgwiki.org/ai>.

Z-inspection -- Slides from Prof. Roberto Zicari

Claude presented Prof. Zicari's slides from a talk he gave in September 2019 (but was not able to take questions in the absence of the author). He will ask for authorization to share the slides.

AI Privacy, Security, and Ethics -- Prof. Bernd Blobel

Prof. Blobel introduced himself. His work has been focused on healthcare systems.

The slides include an extensive list of IEEE P70xx standards, many of which are directly relevant to the standardization of certain aspects of AI.

Discussion about the "human in the loop" principle -- the pros and cons of considering that autonomous systems can fail, but also that humans can fail where systems might make safer decisions. In the end, it is an accountability issue.

Philip Newcomb asks how Bernd knows that an AI cannot at some point pass the Turing test, or be able to defend itself against human attempts to shut it down. Bernd will send him some papers to justify his position. There was discussion between them and Nick Stavros.

ISO 23903 Interoperability & Integration Reference Architecture is in final ballot stage.

Discussion needs to continue, e.g. on mailing list and at the next meeting.

Exploiting NIST's RFI Responses

x.

Roadmap Discussion

Bobbin (via chat): taxonomy of AI topics, in response to the analysis of NIST RFI replies.

Nick: Do companies have guidelines or practices for AI? Similar to the "practical guides" of the Cloud WG. Discussion papers by subgroups (authoring team). Do we need "AI Assurance Cases"?

Philip: eventually, AI will have freedom of action, decision capabilities, and intelligence equal or superior to humans, which creates challenges including in war situations (handing over lethal decisions to AI). We will not always have humans in the loop, and this is not only in weapons systems but also in navigation systems for automobiles and planes.

Nick: have the kind of levels of autonomy and decision capability that Philip is discussing been captured in an ontology or a formal classification. Is this something we should develop? There are also different levels of rigor demanded of systems (e.g., the false positive of throwing a recyclable can in the garbage, vs. the false positive of shooting down a civilian airplane).

Nick: start by collecting references of papers dealing with these various ethical aspects.

Phil: We're going to have "dumb AI" for another 20-30 years until we get close to the neural density we have in specific areas of our brain devoted to speech recognition, vision, structure recognition, etc.

Nick: large corporations would like to understand issues of liability. Claude has notes from a conference in Paris in February in which a lawyer spoke.

Philip: Goes back to the distinction (Les Beladi et al.) between P-type systems (process), S-type systems (specification), E-type systems (evolutionary). There's a progressive conversion from procedural to rule-based to intelligent systems.

Karl: sector- or domain-specific decision models piqued my interest. Working on industrial automation, risk of infringing on intellectual property, operational systems. Drill down these sector-specific information models, because it would be profitable for member companies. E.g., there is no generic predictive maintenance system across all manufacturing domains.

Claude: shows the list of potential work items we brainstormed in Long Beach.

Philip: describes the background to ASTM (Abstract Syntax Tree Metamodel), created by the Architecture Driven Modernization Task Force. Covers the language elements contained in imperative and object-oriented languages, but not AI languages (Prolog, LISP, etc.) and does not extend to the semantics of those elements. Then, could we ask how AI systems might be inspected to decide if they have bias? Could we use something similar to TOIF to combine and compare the results of multiple AI tools, compensating the bias of one tool using the output of others (meta-analytics)?

Claude: very concretely, what is the benefit to companies, e.g. toolsmiths, to have an ASTM extension covering a language such as Prolog? Why would they want to engage and contribute expert resources to this effort?

Bobbin: are people even using Prolog or LISP today? I see a lot of work done in Python. It would be useful to find out more about which languages are used, and which ones may have LISP underneath.

Lloyd (via chat): “Robotic Process Automation (RPA) is, at best, at the low-end of AI, and I didn't see it mentioned. I believe it has a place at the table as a topic, if for no other reason than the first-generation RPA [consists of] turning over routine work to RPA bots and virtual users that are replacing human activity, though this work remain for the moment of low complexity and [uses] deterministic logic as opposed to cognitive thinking. It is only a matter of time, though, for RPA to combine with AI and ML to take over more of the user-mediated work done on automation platforms.”

Next Meeting(s)

The next OMG meeting week is June 22-26. We must be prepared for the possibility that it will be held virtually again.

Also, generate bi-weekly teleconferences -- sometimes for a speaker, other meetings for discussion.

September meeting in Burlingame, Calif. Extend agenda to hold an “AI Forum.” Speaker suggestions:

- Someone from JAIC
- Labelbox
- MACE Fusion
- Stanford
- Tulsee Joshi from Google