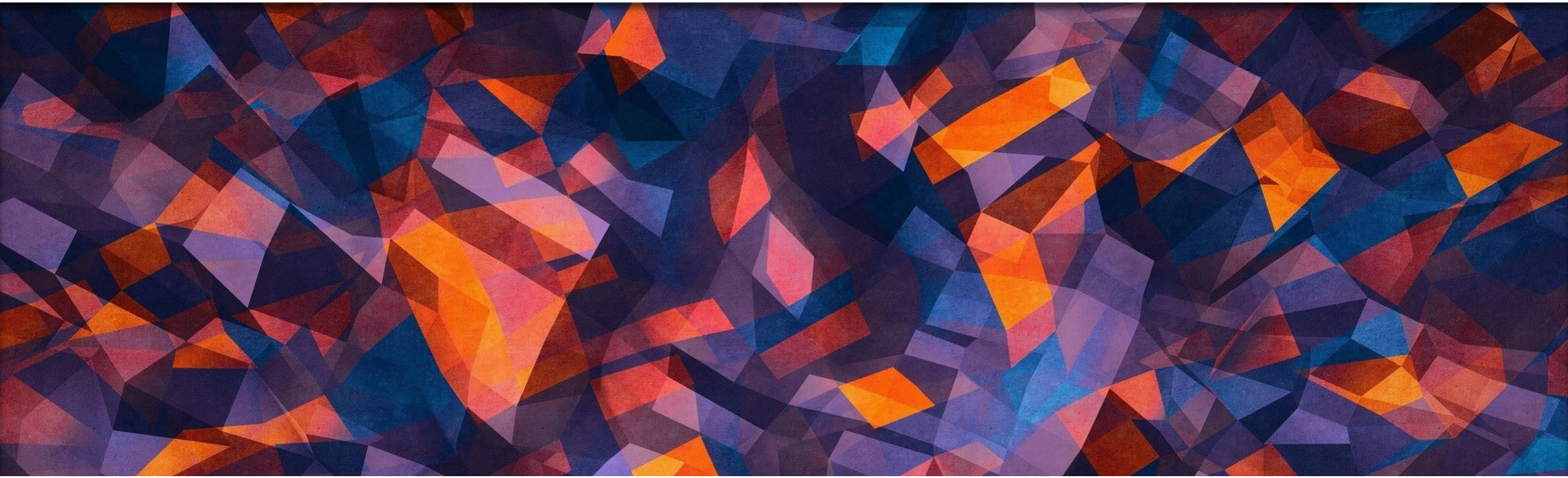


Welcome to the

Autonomous Agents on the Web (WebAgents) CG

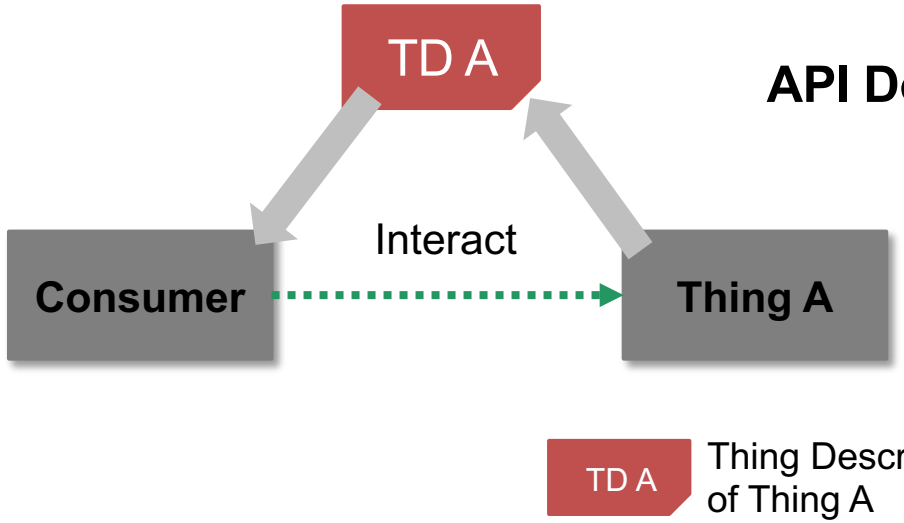
Andrei Ciortea, Alessandro Ricci, and Antoine Zimmermann

A Web for Machines

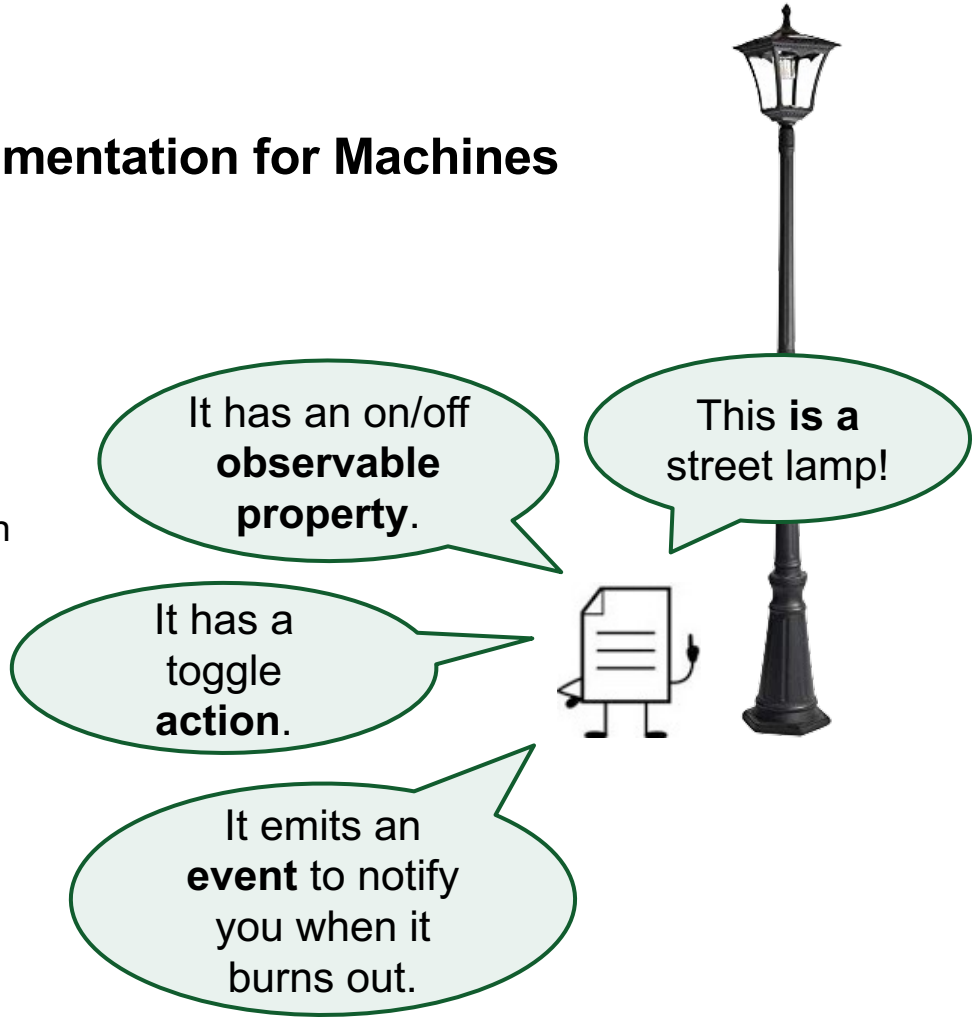
Sir Tim Berners-Lee (WWW'94):

https://videos.cern.ch/record/2671957

The W3C Web of Things

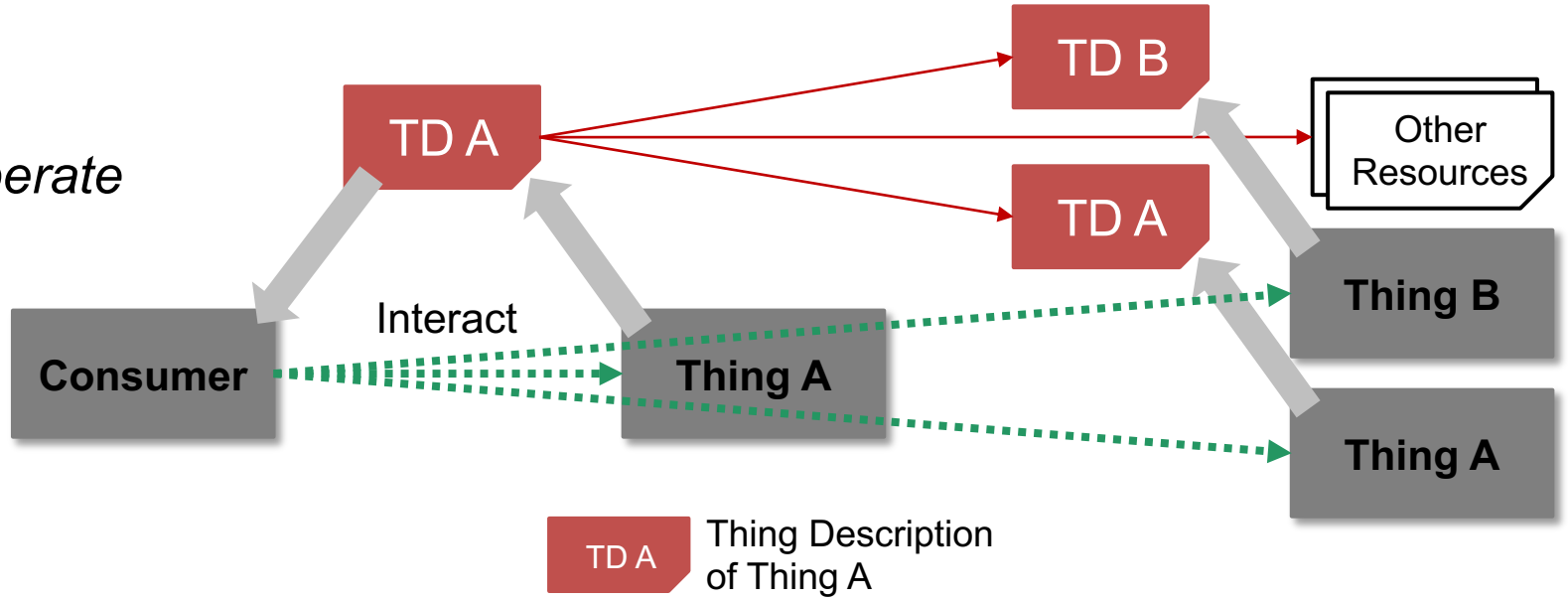


API Documentation for Machines



The W3C Web of Things

Ideally:
arrive-and-operate



Matthias Kovatsch et al. (eds.), Web of Things (WoT) Architecture, W3C Recommendation, 2020.

The W3C Web of Things

Ideally:
arrive-an

How to ***design*** hypermedia-based environments that ***support autonomous behavior***?

How to ***design*** software agents able to ***learn***, ***plan***, and ***adapt*** in order to achieve their tasks through ***flexible autonomous use of hypermedia***?

How to ***design***, ***represent***, and ***reason about interactions*** among autonomous agents, people, and any other resources on the Web?

How to ***design*** and ***govern communities*** of autonomous agents and people on the Web?

Web Architecture and the Web of Things

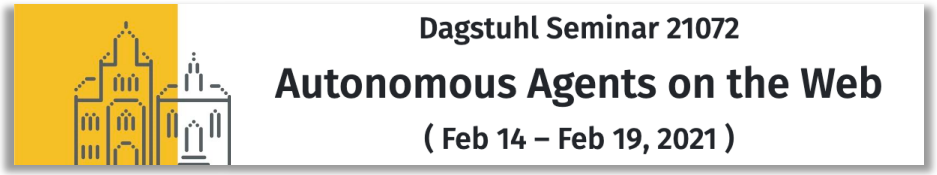
Semantic Web and Linked Data

Autonomous Agents and Multi-Agent Systems

Agents on the Web: Community

May 2019 — HyperAgents 2019 @ TheWebConf 2019

Feb. 2021 — Dagstuhl Seminar 21072: "Autonomous Agents on the Web"



https://www.dagstuhl.de/21072

Feb. 2023 — Dagstuhl Seminar 23081: "Agents on the Web"

https://www.dagstuhl.de/23081

March 2023 — W3C WebAgents Community Group

https://www.w3.org/community/webagents/

WebAgents CG: Draft Charter

[DRAFT] Autonomous Agents on the Web (WebAgents) Community Group Charter

This is a draft charter for the W3C Autonomous Agents on the Web (WebAgents) Community Group (CG). To submit feedback, please comment on the open pull request on GitHub.

Goals

This CG aims to investigate the design of a new class of Web-based Multi-Agent Systems (MAS) that:

- inherit the beneficial architectural properties of the Web (Internet-scalability, evolvability, simplicity, etc.),
- preserve the beneficial properties of MAS (adaptability, openness, robustness, etc.), and
- are human-centric (support transparency, usability, accountability, etc.).

We are especially interested in the use of Linked Data and Semantic Web standards for weaving a hypermedia fabric that mediates uniform interaction among heterogeneous entities: people, artificial agents, (low-power) devices, digital services, knowledge repositories, etc. — for this reason, we refer to this new class of Web-based MAS as Hypermedia MAS. This community group brings together experts actively contributing to advances in autonomous agents and MAS, the Web Architecture and the Web of Things, Semantic Web and Linked Data, and Web standards in general — as well as any other areas that could contribute to this approach for distributed intelligence on the Web.

WebAgents CG: Draft Charter

Scope of Work

To achieve its goals, the WebAgents CG pursues the following activities:

- Organizing events such as hackathons, plugfests, workshops, etc.
- Writing Community Group Reports on the findings of the CG.
- Curating online materials to help promote the work of the CG and to support experimenting with Hypermedia MAS.
- Creating liaisons with other groups at the W3C (Community, Interest, and/or Working Groups) that are relevant to the topics explored in this CG.
- Creating liaisons with the research community and the industry.

Out of Scope

Under this initial charter, the work of the WebAgents CG is in an exploratory phase — and the scope of the relevant topics also needs to reflect the interests of CG members.

The WebAgents CG aims to maintain its complementarity with other CGs. For instance, while many of the topics related to the overall objective of this CG draw from (Decentralized) AI research, its main focus is primarily on architectures for and the engineering of Hypermedia MAS. Other W3C groups might be better suited for other AI-related topics (e.g., see the Cognitive AI CG, the AI Knowledge Representation CG, or the Human-Centric AI CG). The WebAgents CG provides a unique forum for everyone interested to integrate these aspects for exploring and designing large-scale, open, long-lived, and decentralized Web-based systems of people and intelligent (artificial) agents.

The WebAgents CG @ TPAC 2023

CET	Agenda
09:30-11:00	**F2F Kick-off Meeting**
09:30-09:45	Welcome, Motivation, and Objectives
09:45-10:45	Presentation of Position Statements
10:45-11:00	Wrap-up & Next Steps
11:00-11:30	Coffee Break
11:30-13:00	**Joint Meeting with the WoT CG/WG**
11:30-11:45	Introduction of the WoT CG/WG
11:45-12:00	Introduction of the WebAgents CG
12:00-13:00	Open Discussion

Your position statement could include, among others:

- fundamental ideas and insights that could serve as an underpinning for building the discussions inside the WebAgents CG;
- a demonstrator of technologies that relate to topics explored in the WebAgents CG;
- missing elements, opportunities, use cases, and overlooked problems related to the topics explored in the WebAgents CG;
- your expectations from the WebAgents CG, especially in terms of objectives or expected outcomes.

Submission deadline: July 31

https://bit.ly/webagents-tpac2023-cfp

Any Questions / Comments / Doubts / Concerns?

Images

https://freepik.com