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Landscaping Al Standards





- NEC Labs Europe GmbH Chief Standards Engineer (Heidelberg, Germany)
- Member StandICT.eu 2023 Expert Advisory Group



Lindsay Frost @ETSI is

- Board member of ETSI
- Chairman of ETSI ISG CIM Context Info. Management
- ETSI OCG AI Chairman
- CEN/CLC/ETSI delegate to CG SmartManufacturing

#### Previous roles included

- Board member of Home Gateway Initiative
  Chair V
- Co-chairman of HGI Smart Home group
- Chair of ETSI TISPAN WG5 Home Networks
  © ETSI
- Chair WFA Mobile Convergence
- NLE R&D Mgr. in 3GPP, 802.11e
- Ph.D in experimental physics



So much is already written; how to find "the good stuff" ?

Engineers and standards experts want to avoid double work

SMEs and enterprises need to find and compare solutions

Governments need to find analyses, judge options, create balanced laws

SmartCities need to find "explainable AI" methods for expanding services

Citizens need to understand the options, choose what to accept

Security experts just want their essential guidelines followed, damn it!









# How to landscape the universe of Standardization?

Hmmm ....

Let me see, where are standards .....

ETSI has over 48k standards

IEC has another 100k or so

ITU ...

W3C ....

CEN & CENELEC .....

IEEE, IETF, 3GPP, oneM2m, etc !....









# Dig ! Sort by broad category, then by SDO, then by type ...



View, Financial impact



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## Collaboration is the key!

# Gradually acquire a list of organizations

	А	В	С	E	F	G	Н	1	Ν	0	Р
1	-	Org_Short 🔄	W-	Summary		Abstract 🔄	Comment		Туре 🔽	Org_Level1 🔽	Region 🔽
8		3IA	http	France estab	bl	France estab	lished in April 20	1	ALLIANCE		EU
25		AI Watch	http	Al watch is f	u	Al watch is fu	inded by the EC	tq	GOVERNMENT	EC	EU
26		AI4CITIES	http	AI4Cities is a	3	AI4Cities is a	three-year EU-fu	ır	ALLIANCE_RnD	EC	EU
27		AI4DI	http	The EU-fund	le	The EU-funde	ed AI4DI project	ai	ALLIANCE_RnD	EC	EU
28		AI4EU	http	AI4EU is the	E	AI4EU is the	European Union'	s	ALLIANCE_RnD	EC	EU
34		ALOHA	http	The main go	a	The main goa	al of ALOHA is to	f	ALLIANCE	EC	EU
43		ART-AI	http	ART-AI exist	s	ART-AI exists	to educate inter	ď	EDUCATION		UK
44		ARTICONF	http	ARTICONF a	d	ARTICONF ad	dresses issues o	f	ALLIANCE_RnD	EC	EU
60		BDVA	http	The mission	¢	The mission of	of the BDVA is to	¢	ALLIANCE		EU
77		CAHAI	http	The Commit	te	The Committ	ee will examine	tł	GOVERNMENT		EU
130		CEN/CLC FG on AI	http	CEN-CENELE	C	CEN-CENELEC	C Focus Group or	า	SDO	Joint	EU
306		EIT-Health	http	EIT Health is		EIT Health is	a Knowledge and	k	ALLIANCE	EC	EU
338		ETSI ISG SAI	http	The Securin	g	The Securing	Artificial Intellig	e	SDO	ETSI	EU
395		EU AI Alliance	http	European Al	4	European Al	Alliance is a foru	m	ALLIANCE	EC	EU
414		FBDAIA	http	The Fraunho	of	The Fraunhot	fer Big Data and A	Α	ALLIANCE		DE
438		GPAI	http	The foundin	g	The founding	g members will su	ц	GOVERNMENT	OECD	Global
450		HLEG-AI	http	The EC appo	oi	The EC appoi	nted 52 experts	ir	ALLIANCE	EC	EU
453		Humane-Al	http	HUMAN-CE	N.	HUMAN-CEN	TERED ARTIFICIA	۱L	ALLIANCE_RnD	EC	EU
478		IEEE A-IS	http	The IEEE Glo	ok	The IEEE Glo	bal Initiative's m	is	SDO	IEEE	Global
479		IFFF FCPAIS	httn	The goal of	Т	The goal of T	he Ethics Certific	a	SDO	IFFF	Global

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# Gradually acquire a list of "found" documents/specs

4		-		-	_	_	-					
	A	В	C	D	E	F	G	Н		J	К	L
1	REF_II -	Source 👻	Title_Short <	Title_Full 👻	Webpa -	Title_Full 🔹	Abstract/S -	Comments/Outcor -	DocType -	Published	✓ Planned/N ✓	Category_EAG 🛛 🗸
2	0001	HLEG	HLEG Guidelines for AI	"Ethics Guidelines for	https://eo	"Ethics Guidelines for			Guideline	08.04.2019		Ethics: Trustworthiness,
3	0002	DoD USA	Al Principles - USA	"AI Principles:	https://m	"Al Principles:			Guideline	01.10.2019		Ethics: Trustworthiness,
4	0003	ETSI ISG ENI	ETSI GR ENI 007	Experiential Networked	https://po	Experiential Networked			Standard			Fundamental: Landscapes, Use
5	0004	G20	G20 Digital Economy	"G20 Ministerial	https://w	"G20 Ministerial			Whitepaper	09.06.2019		Citizen: Societal impact, Goals,
6	0005	EC	EC Coordinated Plan	"Coordinated Plan on	https://ed	"Coordinated Plan on			Guideline	07.12.2018		Citizen: Societal impact, Goals,
7	0006	EC	EC plan Artificial	EC. "Artificial	https://ed	EC. "Artificial	Artificial		Guideline	25.04.2018		Citizen: Societal impact, Goals,
8	0007	IMI	IMI Data	Guides to improve data	https://in	Guides to improve data			Guideline	03.2020		Data: Quality, Usage,
9	8000	OECD	OECD Investments in	"OECD report on Private	htt <mark>p://w</mark> w	"OECD report on Private			Whitepaper	01.2019		Citizen: Societal impact, Goals,
10	0009	OECD	OECD Patents in Al	"OECD report on	https://re	"OECD report on			Whitepaper	11.2017		Citizen: Societal impact, Goals,
11	0010	EC Expert Group on liability	EU Liability in Al	"Liability for Artificial	https://ed	"Liability for Artificial			Guideline	18.11.2019		Ethics: Trustworthiness,
12	0011	EC	EC Rolling Plan	"EC Rolling Plan for ICT	https://ed	"EC Rolling Plan for ICT			Guideline	01.03.2019		Citizen: Societal impact, Goals,
13	0012	European Parliament	EU Regulation on Fair	"Regulation (EU)	https://eu	"Regulation (EU)			Guideline	20.06.2019		Governance: Management,
14	0013	European Parliament	EU Framework for	European Parliament. "A	https://w	European Parliament. "A	Algorithmic		Guideline	04.04.2019		Governance: Management,
15	0014	EC	EC Whitepaper on Al	"WHITE PAPER On	https://ed	"WHITE PAPER On			Whitepaper	19.02.2020		Citizen: Societal impact, Goals,
16	0015	ETSI ISG NFV	ETSI DGR/NFV-IFA041	Network Functions	https://po	Network Functions			Standard			Governance: Management,
17	0016	ETSI ISG ENI	ETSI ZSM 002 , (2019-	ETSI GS ZSM 002 , (2019-	https://w	ETSI GS ZSM 002 , (2019-			Standard			Fundamental: Landscapes, Use
18	0017	ETSI ISG ENI	ETSI GS ENI 005	ETSI GS ENI 005 v1.1.1	https://w	ETSI GS ENI 005 v1.1.1			Standard			Fundamental: Landscapes, Use
19	0018	ETSI TC NTECH	ETSI TS 103.195-2	ETSI TS 103.195-2 (2018-	https://w	ETSI TS 103.195-2 (2018-	-		Standard			Fundamental: Landscapes, Use
20	0019	ETSI TC SmartM2M	ETSI TR 103 674	SmartM2M; Artificial	https://po	SmartM2M; Artificial			Standard			Fundamental: Landscapes, Use
21	0020	ETSI TC SmartM2M	ETSI TR 103 675	SmartM2M AI for IoT: A	https://po	SmartM2M AI for IoT: A			Standard			Protocols: interoperability of
22	0021	ETSI TC SmartM2M	SAREF Reference	SAREF Smart	https://sa	SAREF Smart			Standard			Fundamental: Landscapes, Use
23	0022	ETSI ISG ARF	ETSI AR DGS/ARF-003	Augmented Reality	https://po	Augmented Reality			Standard			Fundamental: Landscapes, Use
24	0023	ETSI ISG ARF	ETSI GR ARF 001	ETSI GR ARF 001 V1.1.1	https://w	ETSI GR ARF 001 V1.1.1			Landscape			Fundamental: Landscapes, Use
25	0024	ETSI ISG SAI	ETSI ISG SAI	"ETSI ISG Securing	https://po	"ETSI ISG Securing			Standard	04.03.2020		Security: CyberSec, Privacy,
26	0025	ETSI ISG SAI	ETSI DGR/SAI-004	Securing Artificial	https://po	Securing Artificial			Standard			Security: CyberSec, Privacy,
27	0000	ETCLICC CAL	ETCL DCD/CAL 004	Commission - Australiant - I	Lange II.	C A+			C+			Construction College Construction



Provide structured "categories" to help find materials (basic work of a good library)



Allow organisations and users to <u>annotate</u> a copy of the database Put in own comments, own prioritization

Allow organizations and users to "publish" their annotations, to benefit of all

Identify gaps in the materials, allow experts to compare and find best solutions



# The Standards People