

Proving my age with Solid, a child's play?

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Discussion: are Solid Pods a trustworthy solution for transmitting proof of age online?





Age assurance is a hot topic for regulators

Beyond (ineffective) age declaration...



... towards mandatory age assurance

Age estimation + Age Verification

For accessing pornography	France, Ireland, Spain, UK, USA, Canada
For accessing social media	France and UK
For preventing solicitation of children (i.e., grooming)	EU Proposal for a Child Sexual Abuse Regulation (CSAR proposal)



Mapping of Age Assurance Methods

Age Estimation

- Al Profiling
- Biometric Analysis (e.g., voice or facial age estimation)
- Capacity Testing

Age Verification

- Official ID document check (e.g., ID card, passport, driving license, etc.)
 - potentially paired with real-time selfie check
- elD and Digital Identities
- o Proxy for Official ID document (e.g., credit/debit card, student card, telecom providers contract)
- + Double-blind age proof transmission



OTHER ALGORITHMIC ESTIMATION METHODS



FACIAL CHARACTERIZATION







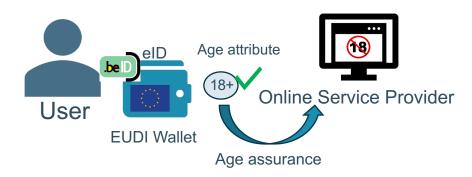




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eIDs and digital identity wallets





EU elDAS 2 proposal

Article 6a(4)(d): "European digital identity wallets shall provide a mechanism to ensure that the relying party is able to **authenticate the user** before receiving electronic attestations of attributes".

Article 11a: "When [eIDs] and [EUDI Wallets] are used for authentication, Member States shall ensure **unique identification**."

Art. 3(5) of eIDAS Regulation (not replaced by the eIDAS 2 proposal): « authentication » = « electronic identification of natural person»

User Identification?

Question n°1

Can Solid Pods be EUDI wallets, meaning they would allow for user authentication (e.g. via WebID)? How would this authentication impact user's anonymity and privacy?



Self-management of eID's attributes

Need for sufficient level of (digital) literacy
which may be lacking in a substantial part of the population, i.e.:
young people,
elders,
people with lower education, incl. illiterate people
people who only speak a foreign language
people with certain disabilities or mental health conditions

Risks

- Identity Theft
- Over-sharing
- Password Management
- Lost, stolen, shared device

ICO - "any digital identity system needs to give special consideration to how it safely accommodates and protects children."

Question n°2

How can Solid Pods protect (vulnerable) people and be accessible to everyone?



Double-blind age proof transmission 2) Only Age Info! 2) Do not know Do not know neither User's 1) Knowledge user's activities or Third-Party's Identity of user's activities and Zero-Knowledge 2) Age Token on Digital Wallet Proof Identity Third-Party Online Service Provider **Trusted Verifier** Age Token **Anonymous** 1) Direct Collection **Group Signature** 2) Third-Party Age Assurance 2) Age Token on Digital Wallet (18+)

Question n°3 Can Solid Pods host age token, following a double-blind approach?



User

Feasibility Challenges

Economic models?

In the absence of **public funding**, as well as **behaviroal tracking**

... how can pods make money?

Should users pay to control their data? Should relying parties pay to access data? Other business models?

Question n° 4

How can Solid Pods be economically viable and widely adopted?

Adoption by Industry

Both EUDI wallets and anonymous age tokens need time to be developped and deployed.

Meanwhile, service providers and users may get habituated to the currently available methods (e.g., facial age estimation which is already popular),

Hence, the shift towards eID and anonomous age token may be limited.

Nevertheless, the acceptance of EUDI wallets will be imposed to very large online platforms by eIDAS 2.



Let's discuss...

Question n°1

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Question n°2

How can Solid Pods protect (vulnerable) people and be accessible to everyone?

Question n°3

Can Solid Pods host age token, following a double-blind approach?

Question n° 4

How can Solid Pods be economically viable and widely adopted?

