

Abstract: Digital identity seems like a prerequisite for digital democracy: how can we ensure “one person, one vote” online without identifying voters? But digital identity solutions - ID checking, biometrics, self-sovereign identity, and trust networks - all present flaws, leaving users vulnerable to exclusion, identity loss or theft, and coercion. These flaws may be insurmountable because digital identity is a cart pulling the horse. We cannot achieve digital identity secure enough for the weight of digital democracy, until we build it on a solid foundation of “digital personhood.” While identity is about distinguishing one person from another through attributes or affiliations, personhood is about giving all real people inalienable digital participation rights independent of identity, including protection against erosion of their democratic rights through identity loss, theft, coercion, or fakery.

We explore and analyze alternative approaches to “proof of personhood” that may provide this missing foundation. Pseudonym parties marry the transparency of periodic physical-world events with the power of digital tokens between events. These tokens represent limited-term but renewable claims usable for purposes such as online voting or liquid democracy, sampled juries or deliberative polls, abuse-resistant social communication, or minting universal basic income in a permissionless cryptocurrency. Enhancing pseudonym parties to provide participants a moment of enforced physical security and privacy can address coercion and vote-buying risks that plague today’s E-voting systems. We also examine other proposed approaches to proof of personhood, some of which offer conveniences such as all-online participation. These alternatives currently fall short of satisfying all the key digital personhood goals, unfortunately, but offer valuable insights into the challenges we face.

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Identity and Personhood in Digital Democracy: Evaluating Inclusion, Equality,...

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[Hypothesis annotations.](#)