Use case #1: Web of Trust for Personal Freedom

Name: Security for Personal Freedom

Persona: Muhammed

Background: In October 2017, at least 34 people have been arrested in Egypt as part of an expanding crackdown on the gay and transgender community. The crackdown was enabled by Egyptian police who used social media, gay dating apps and other websites to identify and target gay and transgender activists. If people could use pseudonymous DIDs linked to decentralized reputation generated via a web of trust, it would (a) safeguard the identities of gay and transgender people enjoying their human right to personal freedom, (b) provide a system for preventing entrapment, and (c) offer a community generated system to report abuses yet honors the human condition.

Description: As gay man in a repressive regime, Muhammed wants to find love safely so that he doesn't get arrested and tortured and persecuted. In this case, his pseudonymous DID holds a number of verifiable claims generated by a web of trust, that provide a reasonable indicator of his sexual preference. Thus, a repressive regime would face greater difficulty in generating a presentable DID to use as a honeytrap. Using a VPN, he accesses a website for gay hookups in his city, but is able to rely on reputation statistics that can keep him safe. What's more, those statistics, tied to pseudonymous DIDs so no personally identifiable information is ever revealed, live on a blockchain that is beyond the reach of that regime to modify or hack. Also, there are a number of credentials that indicate hobbies, interests, the area of employment and other details to enable relationship matchmaking. One friend is a friend of his friend, as indicated by the decentralized social graph, so that information is used to provide a more accurate reputation analysis. If he detects a likely sting operation, his concern could be broadcast to others. However, he knows if he broadcasts alerts too often, he is the boy who cried wolf and his own reputation standing would be decreased.

Sticky Wicket: The government Muhammed lives in would consider this system to be illegal. However, the Internet is essentially extranational, so our underlying framework is based on the United Nations Universal Declaration of Human Rights, which were developed in recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world. In 2016, the UN passed a resolution that confirmed that the human right to be protected from violence and discrimination applies equally to LGBT people.

Distinction: This use case shows why self-sovereign identity can save lives.

Use case #2: Self-Sovereign Investor Compliance

Name: Personal Security for Investors

Persona: Kablan, programmer

Background: There are certain Third World countries where successfully investing in cryptocurrencies could lead to kidnapping or even government sanctioned extortion. In these cases, the identities of early cryptocurrency developers who chose to mine Bitcoin, but who live in Third World countries, must be safeguarded. Certain global security regulations demand revealing his identity to parties that have, frankly, been hacked in the past. Those failures to preserve privacy, which are only a nuisance in America, could potentially lead to deadly consequences in the Third World. In this case, revealing his identity could lead to the kidnapping of loved ones, or even extortion by tribal leaders or corrupt governmental officials. After all Bitcoin is pre-formatted as the perfect untraceable ransom currency.

Description: As an early Bitcoin enthusiast and miner, Kablan wants to diversify his holdings by supporting promising ICOs so that he can reduce his concentration risk in Bitcoin, however, he needs to preserve his anonymity as a safeguard. In this case, his pseudonymous DID holds a verifiable claim that provides an attestation by a licensed and bonded EU attorney, which should fulfill the KYC/AML requirements to invest in ICOs in Europe. Thus, the government is assured he is not a terrorist or money launderer, and he is able to invest more effectively with greater personal security. This will allow him to be an effective member of the crypto community. Kablan's initial investment, if he were free to optimize via a portfolio strategy and invest in better ICOs launched in the US and EU, could theoretically eventually make him one of the top venture capitalists in his own country, who could fund multiple startups to break the cycle of terrorism and despair. Stifling crypto innovation has an impact globally.

Sticky Wicket: The attorney is required to disclose the legal nexus for the subject. Since Kablan is a resident of a country that is on a watch list, so it will make it harder for the attorney to meet KYC/AML requirements.

Distinction: By constraining the rights of certain people to invest freely and lift themselves out of poverty, AML laws are actually strengthening terrorism in an indirect way.

Use case #3: Decentralized Smartphone

Use Case Title: Disposable phone numbers

Persona: Jasmine who loves to dance

Background: A decentralized ID phone could use DIDs for dialing. A collection of DIDs would be equivalent to an intelligent, open, secure contact database, that could be called a *DIDbook* or a *DIDdialer* app. This social interaction reflects the needs of millennial phone users.

Description: As a single girl having some fun at a dance club, Jasmine wants a disposable controllable "phone number" that she can easily give it to guys while dancing, and decide later if she wants to date them. So the guy dancing with her shouts, over the techno, "I really want to see you again, please give me your DID!" She shouts back, "I'm *Jasmine who loves to dance*." The phone number is actually a keyphrase that points to her DID, and is easily remembered. Once entered by the suitor, it associates his DID, that includes his photo so she can remember him, and just happens to include a verifiable rating for a VR game he developed, indicating that he actually has a job... unlike her ex who was a DJ and hopelessly unemployable. Also, there are a number of web of trust credentials from friends swearing he's a great guy. One friend is a friend of her friend, as indicated by the decentralized social graph, so she can check up on him before calling back in the morning. She does, and her friend reveals, "He looks sweet, but he's a total player." So she burns the DID connection so he cannot reach her, and the system offers a polite "decline to connect".

Sticky Wicket: The issue is that this only works if all phone manufacturers agree to support DIDs. This means that this functionality needs to be fully open, and human centric design must guide the evolution of DID technology toward similar use cases.

Distinction: This is the kind of use case that drives to the heart of what people really want from a mobile communications device. Human beings don't care about RAM or radio, they care about finding love, insuring success, creating value and meaning. A killer app for smartphones is to remove the friction from finding true love.