Newsbytes

The First Watch

"Let us be alert to the season in which we are living. It is the season of the Blessed Hope, calling for us to cut our ties with the world and build ourselves on this One who will soon appear. He is our hope—a Blessed Hope enabling us to rise above our times and fix our gaze upon Him."   Tozer

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I realize this first article contains a bit of technobabble, but I really encourage you to make your way through it to understand Blockchain better. Everything you read on this subject adds to your understanding of the cryptocurrency/digital ledger knowledge you have and you might be surprised how much of it makes sense after a short while. In fact, both of the first 2 stories are pretty interesting for the same reason and very well written.

This stuff is prophetic. It's Here. To. Stay.

Carry on then...

How blockchain makes self-sovereign identities possible

Who are you? And who decides you're really you and can be trusted? The answer, and the systems involved, differ in the real world and online. But blockchain technology could make establishing identity and trust much easier for everyone. Here's how.

By Phillip Windley   *Computerworld* | JAN 10, 2018

One of the curious constructions of the Internet is the term identity provider. You don't need anyone to provide you with an identity, of course. You have an innate one by virtue of being human. Rather, so-called identity providers, or IDPs, provide you with an identifier, a means of recording attributes important to that provider, and some method of proving it's you – usually a password.

This is not surprising since online identity has traditionally been viewed through the lens of an organization and its needs, not the individual and his or her needs. Identity systems are created to administer identifiers and attributes within a specific domain. The result: people end up with hundreds of online personas at hundreds of organizations. Each of these administrative identity systems is proprietary and owned by the organization that provides it; you really don't have an online identity that's independent of these many systems. Got a new address, or an updated credit card number? You'll have to deal with each of these systems one at a time in whatever manner they require.

But what if you could do that in one place at one time? Sure, Computerworld, Amazon, or whomever would still want to keep an account, and still need your updated address. But that account would be linked to an identity you provide. More importantly, it would be one you control.

Self-sovereign identiy explained

This concept is called self-sovereign identity. Self-sovereign identity starts with the notion that we all are the makers of our own identity, online and off. Because they do not rely on any centralized authority, self-sovereign identity systems are decentralized, mirroring the way identity works in real life.

Offline, our interactions flexibly support the use of attributes and credentials from numerous third parties, all presented by the very person they're about, typically by taking those credentials out of a wallet or purse and presenting them to someone else to verify. For example, take a driver's license. States issue it as a credential that you're authorized to drive. But, it's useful for a lot more. When you show up at a bar and the bartender wants proof you're over 21, you show them your driver's license.

Think about this for a minute and you'll realized that this is a minor miracle, at least compared to how online identity works. The bar has no legal contract, business relationship, or technical integration with the Department of Motor Vehicles (DMV). They didn't get anyone's permission. They just started asking people for their license. The person they're trying to verify gives them the credential. This works because the bar trusts the DMV to know your birthday. And the important information is packaged in a way that makes it easy to authenticate and difficult to forge.

The offline world makes use of decentralized credentials that are granted to and conveyed by the person they're about. Identirati call these kind of third-party credentials claims – claims that can be verified as authentic even when they're conveyed by the subject of the claim. These "verifiable claims" are the heart of self-sovereign identity.

Self-sovereignty doesn't mean that you're in complete control. But, it does define the borders within which you make decisions and outside of which you negotiate with others as peers. To continue the bar example, you get to decide what credential to present. The bar gets to decide what credentials it'll accept. It doesn't have to accept your driver's license. If the bartender thinks it's fake, he'll reject it along with you.

The problem with online identities

Self-sovereign identity works great in real life, where we carry paper or plastic credentials with us; it's been much harder to duplicate online. Online identity has suffered from five very real problems:

The proximity problem: when you're dealing with people at a distance, opportunities for fraud abound. The scale problem: online identity systems are based on business relationships and technical integrations to root trust authorities. All this is expensive and only done for high-value use cases. *The flexibility problem*: current identity systems are rigid, with fixed schema and use cases. *The privacy problem*: shared identifiers, like browser cookies, allow personal information to be accumulated and correlated behind our backs. Ongoing hacks convincingly show that big centralized stores of personal information are not safe.

The consent problem: identity systems rely on universal identifiers like email addresses, phone numbers and even Social Security Numbers that make it easy for third parties to correlate behavior and keep tabs on people without their permission.

Self-sovereign identity systems solve these problems using decentralization and cryptography. Decentralized identity has been difficult because one of the core requirements of functional identity is discovery: if you give me an identifier, I need to look it up. In the past, this has always led to centralized directories, which led to centralized identity systems.

But blockchain has changed all that.

How blockchain can solve the identity dilemma
Self-sovereign identity systems use blockchains – distributed ledgers – so that decentralized identifiers can be looked up without involving a central directory. Blockchains don't solve the identity problem by themselves, but they do provide a missing link that allows things we've known about cryptography for decades to suddenly be used. That allows people to prove things about themselves using decentralized, verifiable credentials just as they do offline.

To see how this works, consider our example of presenting your driver's license to the bar. The DMV is the claim issuer and gives you, the claim holder, a digital representation of your driver's license. The DMV uses keys linked to their decentralized identifier on the blockchain to sign the claim so that it is tamper-evident and anyone who gets it can validate that it was issued by the DMV. You have a wallet to hold your claims and can use keys linked to a decentralized identifier that you control on the blockchain to countersign the digital driver's license. When the bar needs to see that you're of legal age, you can present the digital driver's license and the bar can verify that it hasn't been changed, that the DMV issued it to you, and you're the one presenting it. Everyone can use the blockchain to lookup decentralized identifiers and retrieve any associated public keys.

Of course, any organization or person can issue whatever claims they want; you're free to store whatever claims you like in your wallet; and claim verifiers are able to choose what claims they trust. Decentralizing these choices ensures the flexibility necessary so that self-sovereign identity systems can be used for almost any purpose.

To be self-sovereign, an identity system must have certain key features:

Persistent: An identity that can be taken away isn't self-sovereign. Identifiers in a self-sovereign identity system are long-lived, non-reusable and owned by the person who creates them. People aren't the only ones who need self-sovereign identities. Organizations and connected things also need them, and can use the same infrastructure as individuals.

Peer-based: Sovereignty defines a border within which people have control and outside of which they interact with others as peers. People are in control of the relationships they form and the information they share, but others get to make the same choices. Self-sovereign identity systems aren't client-server, but rather peer-to-peer.

Privacy protecting: Self-sovereignty puts the person in control of how information is shared. Consequently, any identity system that doesn't prevent correlation, minimize attribute disclosure, and provide for explicit consent puts people's information at risk and removes it from their control.
Portable: Self-sovereignty implies choice and control. Vendor lock-in destroys both. Identifiers and associated credentials must be portable and self-sovereign identity systems must be interoperable to protect choice and control.

Several self-sovereign identity systems exist now in various stages of development, including Sovrin, uPort and Veres One. Each of these supports decentralized, self-sovereign identity but differ in how claims are issued and presented.

Self-sovereign identity is a relatively new concept and is undergoing rapid changes. Standards for decentralized identifiers and verifiable claims are being developed to provide interoperability. Ultimately, these systems should promote human dignity and protect the basic human desire for self-determination. As Joe Andrieu writes: "When we build interconnected systems without a core understanding of identity, we risk inadvertently compromising human dignity. We risk accidentally building systems that deny self-expression, place individuals in harm's way, and unintentionally oppress those most in need of self-determination."

Implemented correctly, self-sovereign identity systems provide scalable, flexible, private interactions with consent despite the issues that distance introduces. More importantly, they support natural human activities without threatening the privacy or liberty of people who use them. This is a development we can all support.

Why People Will Happily Line Up to be Microchipped Like Dogs
By Daisy Luther   January 11, 2018

I'm not even going to venture into the religious aspect of having a microchip inserted into a human being. Let's just talk about the secular ramifications.

Certain folks won't be happy until everyone has a computer chip implanted in them. Here's how this could go.

Initially, it would be the sheep who blindly desire to be chipped for their own "convenience" leading the way. Then, it would become remarkably inconvenient not to be chipped – sort of like it's nearly impossible to not have a bank account these days.

Then, the last holdouts could be forcibly chipped by law.

Read on, because I could not make this stuff up.

Last summer, the internet was abuzz about a company in Wisconsin that wanted to microchip their employees. Workers at the technology company, Three Market Square, were given the option of having a chip implanted in their hands and 50 out of 80 eagerly lined up for the privilege.

Why? So they could buy food or swipe their way through building security with a wave of their hand. Software engineer Sam Bengtson explained why he was on board.

"It was pretty much 100 percent yes right from the get-go for me. In the next five to 10 years, this is going to be something that isn't scoffed at so much, or is more normal. So I like to jump on the bandwagon with these kind of things early, just to say that I have it."

He wasn't alone. In fact, they had a microchipping party and some people got chipped live on TV so the rest of us reluctant humans could all see how cool it was to get microchipped. Watch what fun they had!

It isn't just this American company chipping workers. Here's an example in Sweden.

What could pass for a dystopian vision of the workplace is almost routine at the Swedish start-up hub Epicenter. The company offers to implant its workers and start-up members with microchips the size of grains of rice that function as swipe cards: to open doors, operate printers or buy smoothies with a wave of the hand.

"The biggest benefit, I think, is convenience," said Patrick Mesterton, co-founder and chief executive of Epicenter. As a demonstration, he unlocks a door merely by waving near it. "It basically replaces a lot of things you have, other communication devices, whether it be credit cards or keys."

Alessandro Acquisti, a professor of information technology and public policy at Carnegie Mellon University's Heinz College, warns that this might not be a good idea. (Although it doesn't take a Ph.D.

to realize this.)

"Companies often claim that these chips are secure and encrypted…But "encrypted" is "a pretty vague term," he said, "which could include anything from a truly secure product to something that is easily hackable."

Another potential problem, Dr. Acquisti said, is that technology designed for one purpose may later be used for another. A microchip implanted today to allow for easy building access and payments could, in theory, be used later in more invasive ways: to track the length of employees' bathroom or lunch breaks, for instance, without their consent or even their knowledge.

"Once they are implanted, it's very hard to predict or stop a future widening of their usage," Dr. Acquisti said.

Pretty soon, experts say everyone will want to be microchipped.
Many sources say that it's inevitable that we're all going to get chipped. Noelle Chesley, an associate professor of sociology at the University of Wisconsin-Milwaukee, says it's inevitable.

"It will happen to everybody. But not this year, and not in 2018. Maybe not my generation, but certainly that of my kids."

Another pro-chipping advocate, Gene Munster, an investor and analyst at Loup Ventures, says that we just have to get past that silly social stigma and then everyone will be doing it within 50 years. Why? Oh, the benefits.

The company, which sells corporate cafeteria kiosks designed to replace vending machines, would like the kiosks to handle cashless transactions.

This would go beyond paying with your smartphone. Instead, chipped customers would simply wave their hands in lieu of Apple Pay and other mobile-payment systems.

The benefits don't stop there. In the future, consumers could zip through airport scanners sans passport or drivers license; open doors; start cars; and operate home automation systems. All of it, if the technology pans out, with the simple wave of a hand.

There are other companies who are on board with chipping everyone.

At a recent tech conference, Hannes Sjöblad explained how a microchip implanted in his hand makes his life easier. It replaces all the keys and cards that used to clutter his pockets.

"I use this many times a day, for example, I use it to unlock my smart phone, to open the door to my office," Sjöblad said.

Sjöblad calls himself a biohacker. He explained, "We biohackers, we think the human body is a good start but there is certainly room for improvement."

The first step in that improvement is getting a microchip about size of a grain of rice slipped under the skin. Suddenly, the touch of a hand is enough to tell the office printer this is an authorized user.

The microchips are radio frequency identification tags. The same technology widely used in things like key cards. The chips have been implanted in animals for years to help identify lost pets and now the technology is moving to humans.

Tech start-up *Dangerous Things* has sold tens of thousands of implant kits for humans and some to tech companies in Europe.

Sjöblad said he even organizes implant parties where people bond over getting chipped together.

Will microchipping parties be the next generation of those outrageously expensive candle parties? Will folks be pimping microchips like they do those scented wax melts? Will it become some kind of MLM thing to make it even more socially acceptable?

A UK newspaper, the Sun, explains how awesome it is to be microchipped.

The woman sat next to you could be hiding an implant under the skin which slowly releases hormones to stop her from getting pregnant.

Nans and granddads across the nation come installed with cutting-edge technology installed just to boost their hearing and vision seeing or help them walk with comfort.

We're preparing ourselves for the next form of evolution in which humans will merge with artificial intelligence, becoming one with computers.

At least that's the belief of Dr. Patrick Kramer, chief cyborg officer at Digiwell, a company that claims to be dedicated to "upgrading humans".

Seriously, who wouldn't want all that awesomeness in their lives?

There are some serious pitfalls

While the current chips being "installed" in humans are said not to have GPS tracking, don't you figure it's just a matter of time? And also, how do you KNOW that there is no GPS tracking technology in that teeny little chip? Just because they tell you so?

Then there is the issue of the chip in your body being hacked.

"This is serious stuff. We're talking about a nonstop potential connection to my body and I can't turn it off, I can't put it away, it's in me. That's a big problem," said Ian Sherr, an executive editor at CNET.

"It's very easy to hack a chip implant, so my advice is don't put your life secrets on an implant, Sjöblad said…

"It's about educating the people and giving every person the tools…not only how to use the technology but, more importantly, when it's being used against you," Sjöblad warned.

And microchipping won't stop with a payment chip in your hand.
The endgame is microchipping people's brains. And folks are chomping at the bit to get them. Scientists are saying that they can fix mental health issues with brain chips, they can make people smarter, and help them "merge" with AI. A chipped person could, theoretically, think his thoughts right onto his computer.

So, with these chips in our brains, we'll actually be merging with computers to some degree. The robot overlords will have a pretty easy takeover if our brains can be accessed like this.

Microchips may not be optional one day.

This horror movie gets even scarier. There is already a law on the books that potentially allows human beings to be forcibly chipped.

Oh, it's couched in warm, fuzzy language and they say it's just to help keep track of folks with Alzheimer's or other developmental disabilities, but remember that the most unpatriotic law ever passed was also called the Patriot Act.

H.R.4919 was passed in 2016.

It directs the Department of Justice's (DOJ's) Bureau of Justice Assistance (BJA) to award competitive grants to health care, law enforcement, or public safety agencies, and nonprofit organizations, to develop or operate locally based proactive programs to prevent wandering and locate missing individuals with dementia or children with developmental disabilities. The BJA must give preference to law enforcement or public safety agencies partnering with nonprofit organizations that use person-centered plans and are directly linked to individuals, and families of individuals, with dementia or developmental disabilities.

Despite the fact that the bill requires everyone to use privacy "best practices," it's not that much of a stretch to see what a slippery slope this is. Who gets to decide whether a person "needs" to be chipped for their own good? Law enforcement. Scary.

Could this lead to a cashless society?
If "everyone" is getting microchipped like these experts predict, that could be the next step in the push toward a cashless society. Think about the lack of privacy then. If everything is purchased via a chip unique to you, then no purchases could be under the radar. Whether a person was stocking up on food, watching X-rated movies, reading books on revolution, or buying ammo, it would all be recorded in a database. Our purchases could be used in some kind of pre-crime technology, ala Minority Report, or they could be used to profile us in other ways.

If there is no way to make purchases but with a chip, many people will have to reluctantly comply. The same chips could be a requirement for medical care, driver's licenses, jobs – you name it. No matter where you tried to hide, your GPS locator would mean that you would be found. It would be like everyone being forced to have one of those ankle bracelets that criminals wear, except it would be inside your body.

If you think the atmosphere of control is unnerving now, just wait. When everyone is microchipped, the net will be even tighter. Between the pending robot apocalypse that I wrote about earlier this week and forcible microchipping, it seems like we won't have to wait for "climate change" or a war of Mutually Assured Destruction to get us. Technology just might be the end of humanity.

Netanyahu Refloats Plan to Build Artificial Islands Off Israel's Shores

by Adrian Filut   calcalistech.com

The Israeli prime minister proposes to move coastal power stations and desalination plants to man-made islands

Israeli Prime Minister Benjamin Netanyahu refloated an initiative to construct artificial islands in Israel's territorial waters as a solution for Israel's limited territory, during a cabinet meeting Sunday. Mr. Netanyahu explained that Israel has many shoreline facilities such as desalination plants and power

plants, which are taking up space in the country's already limited coastal zone.

"Israel is one of the most overcrowded countries in the world," the Israeli leader said, adding that the country is projected to become, potentially, the "most overcrowded" by the middle of the century.

Israel's population grew to 8.8 million in 2017, a 1.9% increase from 2016, according to the Israeli government's Central Bureau of Statistics

"Today, I'm bringing to the cabinet's approval a plan to establish a team that will jumpstart the construction of artificial islands," Mr. Netanyahu said, adding that use of man-made islands could free up the Israeli coast from infrastructure.

In 2002, the Israeli government approved a plan to construct two artificial islands off the country's shores, designating one for an international airport and one for housing. Similar plans are brought up every few years, most recently in 2012, when the cabinet greenlit a similar initiative intended to house an airport, a port, a military base, one desalination plant and one power plant.

In 2011, Israel's Minister of Transportation Yisrael Katz proposed building an artificial island off Gaza, as a long term solution for bringing supplies and aid into the blockaded Palestinian territory. The minister has been promoting the idea for several years, and presented his plan to the cabinet as late as June 2017.

Mr. Netanyahu said he has brought up the idea of artificial islands as early as 1996, during his first term as prime minister, but the plan fell through following opposition from environmental groups.

"In the 20 years that have passed since then, the technology for artificial islands has changed and evolved greatly," Mr. Netanyahu explained the decision to refloat the initiative. The technology is more environmental friendly, and more viable financially. "This is definitely within our reach."