New Technology Consolidates Personal Information to Wristband

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Each passing year brings with it more data and information for a person to remember. This poses difficulties for individuals who are connected to devices or rely on the constant entering of passwords and personal information just to ensure personal security. Over the past few years, software companies and tech start-ups have been clamoring to solve this problem, but a new company, Bionym, may have unveiled a prototype that effectively answers the personal data conundrum. Bionym has released plans to unveil a product called Nymi which will attempt to revolutionize the process of authentication and is hoping that it finds itself on the ground floor of a burgeoning new tech industry. The company is offering a security wristband that stores your security and personal information and recognizes you based on your heart's unique cardiac rhythm, or electrocardiogram (ECG), and has tech gurus and potential customers alike interested and willing to buy in.

Founder and CEO of Bionym, Karl Martin, has always wanted to push the boundaries of what can be done and explore technology's unexplored frontiers saying, "my ultimate goal is to build things that people never thought possible." The goal of the Nymi is really to gain a foothold in the future of data recognition. Paypal Chief Technical Officer, James Barrese, said in an interview at the South By Southwest (SXSW) festival held in Austin, Texas (the premier technology gathering/conference/summit in the United States) that "I think the password's going to die [in the next five years]. It's going to be replaced with biometrics. Wearable computing will take off and the payment experience will be integrated with that." Furthermore, Martin added that when initially developing this technology that "[the company] looked at all the trends in smart, adaptive technology, and we thought: identity is the missing key! Identity is at the core of our existence. How can technology progress if it doesn't know who we are? The Nymi becomes an enabler of dreams." It is this belief that has led Bionym to pursue the answer to how people will access their personal information in the future, and they believe the wristband they plan to release later this year is something the consumer market will gravitate towards.

The wristband works by using a user's body's own unique signature to recognize him or her. It is possible for example to pick up a smartphone or tablet and immediately have your own personal settings and possibly apps loaded on the device as you hold it. The wristband uses Bluetooth 4.0 and proximity sensing technology to know where one's connected devices are in relation to you. There are plenty of additional potential applications, including the ability to open passcode-protected car doors or even replacing the need to enter a PIN for a debit card. The key element of all of this, according to Nymi, is that it will only work for that one specific user. Set to debut later this year, the device will be sold in the United States at a retail price of $79 USD.

As for how the wristband is able to decipher all of this information just by being attached to an individual, the Nymi works by using a user's unique electrocardiogram (ECG) signals to

act as a biometric authentication layer for other devices, applications and services. In other words, Nymi uses a user's heartbeat as a password to confirm that you are, in fact, you and is able to send a signal to all of your personal devices. According to Bionym CEO Karl Martin, ECG is significantly more reliable than face recognition and only slightly less secure than a fingerprint.

When it arrives later this year, Nymi will offer three-factor authentication: the wristband itself, a user's unique cardiac rhythm and a mobile device, like a smartphone or tablet. The Nymi hardware acts as a secure token that ties into the biometric, and the wristband will need to check-in with a smartphone or tablet at the beginning of the day. To activate the wristband, a user will need to place the fingers from your other hand on top of the wristband to provide two points of contact. The resulting ECG is not medical-grade recognition, but it should be enough to identify you accurately.

As mentioned earlier, there have been a slew of wearable gadgets that attempt to automate daily life the way the Nymi is trying to, however, the company is attempting to separate itself by seriously exploring why investing in something like this is worthwhile for the user. At SXSW this year, Bionym ran an experiment to let users try out the technology at a series of pop-up events. For instance, when a person registered for a demo wristband, they listed their favorite drink. When they then tapped the wristband on a reader at the bar, the bartender made the drink and called the person by name. At another event, users could use the Nymi to request their favorite songs from a DJ. This is another possible function that Nymi is exploring, and the main obstacle for the company seems to be whether or not they will be able to convince the consumer public to accept this type of technology and begin to actively incorporate it into their lives.

Whether consumers will be willing to fully trust the storing of sensitive personal data on a wristband remains to be seen. Potential customers will most likely need time to accept the use of the wristband, but as reviews come in from users, and if they are positive, there could be a serious turn towards the desire for this kind of wearable technology. Bionym is hoping that introducing this now will pit them at an advantage and in a few years time they will be firmly perched at the top of the wearable technology hierarchy.

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