

small / far away

Hello, I'd like to talk about the difference between what's here at hand, and what's not here right now. Or as Father Ted describes it, it's a question of perspective.

(imagine the Father Ted scene where Ted is describing to Dougal the difference between the small toy cows and the real cows far away in the field)

# proximity

Something that I'm interested in exploring is the issue of proximity, and in particular how NFC relates to the larger picture of the Internet of Things.

# nfc design

When re-reading my paper, I was reminded of some of the original design decisions that we made early on in the conception of NFC.

This is not just me – I certainly can't claim credit for the design and structure of NFC – people such as Janne and Matt Jones had been working on the design of this before I joined Nokia, plus the tens of engineers who have done the hard work.

a touch is a touch

# descriptions and actions

It's not just about transferring information, it's about causing action. And tags contain both – which is pretty different from the use of short range RFID today (normally context defines the action in these cases).

# verbs and nouns

And for this, we developed an idea of a language; verbs and nouns. Do this, send that, store this.

however

# everything is a URI

NFC was designed with pretty much everything just being a URI. It's based on standard networking, in particular Internet and telephony protocols – SMS, voice calls, web pages... and these things are things that can be sent by anyone from anywhere. NFC acts as a physical shortcut.

# logs

We debated whether NFC applications should log usage, and in particular if people could re-use old actions. After all, a touch is a touch, a touch is the action.

But, if we're using standard protocols, there's no way to stop people copying and reusing URIs. If we'd wanted a system where every touch is guaranteed to be a touch, happening right here, right now, the architecture would have been very different.

So, people should be able to re-use logged touches. But then you have to design the other side of the system to recognise this.

time

So I'd like to consider time, in the context of NFC. We generally think about the present, the moment of touch. But maybe we need to think about the past, and what that enables in the future.

things

# my things

Some of these I'll own. Another design decision that was made was that physical access is the security, not electronic access. So you don't have to type a PIN or decrypt a tag before use. If you don't want people to access it, don't put it somewhere where they can get to it. Yes, this is security through obscurity ;) – so, weirdly, we're explicitly not putting these objects onto the Internet proper.

my things far away

But, when my things are far away, it's likely that I'll still want to carry out the actions imbued into the objects.

actions on my things far away

So we should think about how to store these actions, and initiate these actions.

not myspace.com

but mythings.com

What about a website that stored my things, and let me access and action them straight away?

sadly



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They have the right gist, but they're selling security, not action.

thank you

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