Useless encryption

Description

I described ascii stereograms in my previous post. Playing about with secret messages hidden in text images seems scarcely relevant in the high stakes game of serious data security. Whatâ??s the use of investigating cryptographic methods that have no apparent practical use?

Experts classify cryptographic techniques on the basis of how secure or insecure these methods are. Other dimensions include: the speed with which you can encrypt and decrypt a message, whether or not you need a computer to implement the method, whether the method demonstrates a principle (e.g. simple substitution cipher) and the extent to which it can be deployed in real-world practical contexts. Some methods apply only to short messages, others are scalable to high volume instantaneous data processing. Some methods make it clear they are hiding something; others obscure the fact that they conceal information. See posts on steganography.

There are cost dimensions in cryptographic classification. Developing and maintaining algorithms and systems, and releasing security updates carry costs. Maintaining cryptographic security also entails energy costs. Blockchain security provides an obvious reference point for the potentially high cost of encryption. At another end of the spectrum, some cryptographic methods are of historical interest, present mathematical challenges, or serve as leisure pursuits. Within this multidimensional spectrum of cryptographic methods lies the dimension of highly useful to useless.

Crypto-useless

In my explorations of the theme of cryptography Iâ??ve been keen to discover the extent to which cryptography already permeates the built environment. At the very least, the spatial arrangement of architectural spaces shares some of the principles on which cryptography is founded, such as concealment, access, combinatorics, path following, transactions, play, trust, etc. See post Secret architecture.

Certain cryptographic methods, such as cryptostereograms and steganography bring cryptography into the realm of the senses. Cryptography thereby raises awareness (for some of us) of the idea that the environment is permeated by overt and covert messaging. Places are semiotic. As a related

observation, some everyday environments operate via *affordances*. Places and objects communicate to us how they are to be used. See post Place is the code.

Some people (as actors) use the physical environment deliberately to communicate in secret. Cryptography raises questions of agency in the built environment.

Crypto-philosophy

Cryptography serves, along with phenomena of visual illusions, to encourage doubt about the evidence of our senses. Cryptography contributes to debates about reality and perception. It also helps perpetuate continued scepticism, suspicion and even â??paranoiaâ?• about the world.

As with art, cryptography encourages people to see things differently â?? the sideways glance that treats the familiar as strange and alien, e.g. cryptocurrency and NFTs, require us to think differently about money, value, and authenticity.

To further develop the philosophical thread, this quote from Henri Lefebvre about â??blind fieldsâ?• ought to be relevant to encryption in urban environments.

> â??Between fields, which are regions of force and conflict, there are blind fields. These are not merely dark and uncertain, poorly explored, but blind in the sense that there is a blind spot on the retina, the center â?? and negation â?? of vision. A paradox. The eye doesnâ??t see; it needs a mirror. The center of vision doesnâ??t see and doesnâ??t know it is blind. Do these paradoxes extend to thought, to awareness, to knowledge? In the past there was a field between the rural and the industrial â?? just as there is today between the industrial and the urban â?? that was invisible to usâ?• (29).

Reference

- Lefebvre, H. 2003. *The Urban Revolution*. Minneapolis, MN: University of Minnesota Press.

Note

- The banner image is a box of moveable type blocks found in a second hand shop at the Elsecar Heritage Centre, South Yorkshire.

Category

1. Architecture

Tags

1. cryptography

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