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Identity Sandboxing

The research project SCION suggests a new Internet architecture of largely separate subnetworks, so-called Isolation Domains. This approach is taken as the scaffold for thought experiments on how to help artists by providing more privacy and security. Isolation Domains could separate the different domains of an artist's life—allowing for more vulnerability to be shared.

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The Internet has brought quite some changes to art making. Pictures of exhibitions can be seen online, reducing the need to visit a show in person. Artists have online presences, through web pages and/or social media accounts. Many opt for documenting loads and sharing lots. Getting to know an artist's work has become easy since it's often possible to simply look at their online portfolio. This interconnectivity has made art making much more public and transparent, opening up territory for vulnerabilities that have not existed previously. The vulnerabilities I will focus on primarily are of a social kind, meaning that before the interconnectivity of the Internet, exposing oneself in the realm of art did not mean exposing oneself beyond that specific realm. With the Web connecting us all, the different realms have become more permeable.

From a computer science point of view, vulnerabilities are always bad. They leave space for exploitation and attacks. And the Internet as we know it today leaves a lot of room for this. Luckily, many technological innovations address these vulnerabilities. One project that goes further than many is SCION, which is currently being developed at the university ETH Zurich.[1] SCION stands for Scalability, Control and Isolation On Next-Generation Networks. The team at SCION proposes a clean-slate Internet (basically rebuilding it with a completely new architecture), with new core ideas. I wonder: How can we think about vulnerabilities and how they are seen in a technical sense and apply these questions to art making, understanding the privacy and security issues that come with it? What are the issues of the current Internet architecture and how do they translate to networks and the transportation of information used within art making? By taking some of the architectural ideas proposed by SCION, I want to analyze these questions.

Currently, most security measures are implemented on what is known as the 'physical layer', meaning with firewalls and closed-off systems. SCION proposes to implement these through protocols, so that the algorithms of the network create

1. 'SCION: Scalability, Control, and Isolation on Next-Generation Networks,' SCION, https://scion-architecture.net

protection. One of SCION's core ideas is the so-called Isolation Domains, a newly proposed architecture which would create structures similar to bubbles, with specified nodes taking over the responsibility for information leaving and entering this bubble (perhaps a balloon would be a better analogy here, as there is a dedicated point of entry and exit for air). The proposal of SCION addresses limitations of the current Internet other to the decentralized communication systems such as the fediverse used by Mastodon, which is building on the existing network architecture. The fediverse abandons the centralized communication entity that controls and owns all the data produced by its users. SCION, on the other hand, is determined to restructure the way in which communication paths are searched and found by an autonomous network, by changing the network's architecture with, among others, so-called Isolation Domains, which can be imagined, like I described before, as balloons.
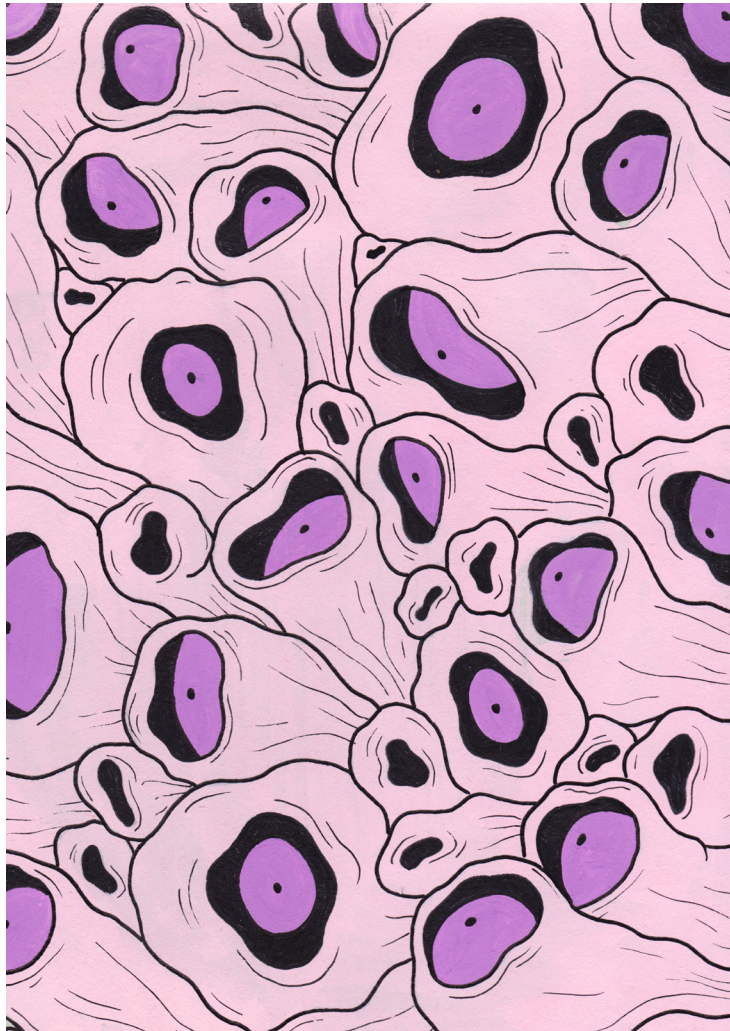
Communication within this balloon would be extremely secure, as only trusted parties are permitted within this isolated network. Communication between different balloons is still possible, but attacks could be fended off more easily, because unwanted traffic would not get into the balloon in the first place. Information traveling between two parties in the same

Isolation Domain would not leave the Isolation Domain, making it, for example, impossible for outside parties to eavesdrop. The current stage of development foresees that a party is able to join multiple of these Isolation Domains. It is not clear yet where the borders of these Isolation Domains are drawn, whether they follow the borders of countries which offer the same legal system throughout the domain or whether the Isolation Domains are, for example, communities of common interests.[2] My technological understanding and knowledge of the project is quite limited, so some of my statements might not be completely accurate, but I would nonetheless like to use them as scaffolding for thoughts and speculation. So let's assume the art world would be one such Isolation Domain.

The problem I want to address here is one that many non-established artists making critical or intimate work are faced with: relying on different things, for example a job outside of the art world, and at the same time needing an online presence to ensure their viability within the art world. These are two separate domains that are now interconnected because of the Internet. Furthermore, due to this interconnectedness, on the Internet, and especially within most social media applications, it is often the case that art loses its context, which for many works is crucial for understanding its content. Some work is not even able to exist in certain online contexts, most obviously works featuring nudity.

This is where the idea of isolation comes in handy. I do not want to say that art should be isolated from the outside completely —the interplay between "inside" and "outside" is an undeniable necessity—but I want to argue that isolation in at least some forms is crucial for a free artistic practice. By sandboxing the artist-identity, it can do anything without hurting the identities outside of its specific realm. In pre-Internet times this was an inherent aspect of the social fabric; nowadays, via the comfort of your screen, most isolating mechanisms are dissolved by search engines. Filters are applied to content regardless of its context. Personally isolating the artistic practice at least in some ways (the degree of permeability, here, can be chosen on an individual basis), by introducing some measure of privacy, can have beneficial effects.

Imagining a world with stronger isolation, like the SCION architecture suggests, is fairly difficult. By going rather far with this notion of isolation (and quite probably further than the suggested technology intends), we could end up at a point where certain information is only accessible to people within a single Isolation Domain. Filters could be applied with a renewed affinity for context. If, for example, only people with a certain status within the art world were allowed within the art Isolation Domain, the whole structure would again reinforce gatekeeping, something the net.art community of the 1990s was very eager to deconstruct with the open-to-all-at-any-time possibilities

2. 'Frequently Asked Questions (FAQ)', SCION, https://scion-architecture.net/pages/faq/

of the Internet. Frankly, this is a conundrum, but one that can be divided into two aspects. On the one hand, isolation generates gatekeeping, excluding people from non-art backgrounds as well as audiences and artists who are not commercially or institutionally recognized. On the other hand, isolation aids the security and privacy of artists (as well as curators, critics, etc.). So how can we achieve the latter while excluding the former?

I believe that re-isolating the different domains in our lives would result in (especially non-established) artists gaining more freedom. Of course, every life is complex, but being in an industry that oftentimes demands vulnerability and intimacy makes me wish for some layers of protection. I do not have the perfect solution for how to create this layer of isolation now. I am hoping that a new Internet architecture might bring some new possibilities and inspiration. So far, the only solution I have come up with (and worked with) is using a pseudonym. This tactic does not leave space for gatekeeping and exclusion, but does add a layer of encryption and thus privacy to art making.

Using pseudonyms presents the possibility of being more open and honest, enabling an artist, curator or critic to expose thoughts they might not want to publish using their orthonym. With a pseudonym there is more space to experiment, to reinvent yourself, to not have to think about new work in the context of old, to not have to worry about what non-art people might think when they discover this by searching your name —all thoughts deeply rooted in Cyberfeminism and queer theory. In my personal experience, working with a pseudonym has allowed me to reveal who I am to people I mostly trust, while making it impossible to look up my orthonym and end up with my artwork. Work that I do not want people who know me outside of the context of art to see.

In this context, reflecting on control (what the C stands for in SCION) is interesting: The artist can control (not completely, but somewhat more) who knows about the person behind the pseudonym. The pseudonym does not need to (but of course can) cover all tracks. The artist can control who to include in a personal discussion, and what spheres of their life do not need to know about their practice.

Scalability (the third goal of the SCION project) is also an interesting concept when thinking about pseudonyms. Talking about scalability in computer science always means that a software can easily be applied to different sized systems. Applying this to pseudonyms, for me, means that there is the possibility of making it unclear whether the pseudonym is just used by one or by many, opening up the perceived individual as a space of possible collaboration. The idea of the multiple-use name has been around for centuries, with resistance movements, authors and artists using it. Also in Internet culture, multiple-use names have been used, best known, probably, through the user

name 'anonymous,' utilized by all members of the infamous imageboard website 4chan. In the art scene, multiple-use names have been used widely as well, for example Karen Eliot, and more recently, Chus Martínez. In the latter case, the name is drawn from a person actually existing in the art world, her personal narrative hijacked and misused, injected with sexualized content.[3] Such hijackings do also often occur within networks (in this case of IP-addresses instead of names), and is one of the larger issues that is handled well by the SCION architecture in contrast to the current Internet architecture. So if scalability is used in combination with isolation and control, a name could be used only by a collective of trusted entities, such as the mathematicians behind Nicolas Bourbaki.

Pseudonyms used to be a very common form of identification during the early years of the Web. Unfortunately, with many social media platforms asking for a legal name in order to identify users, this practice has faced resistance, especially in the last twenty years. With the new iteration of the Web, however, named Web3 (the Web built with the help of blockchains), pseudonyms have seen a resurgence. One of the core ideas of the blockchain is trustlessness, meaning that smart contracts (simply pieces of code) created on the blockchain are executed automatically, shifting the need for trust in the other party to the trust in the "contract" (I am using quote marks here as smart contracts aren't contracts in a legal sense). The artist as an entity does not have to be a party that can be trusted anymore, opening up room to be less transparent. As I have outlined, implementing a pseudonym can have a drastic effect on art-making and vulnerability.

3. Stewart Home, 'Artists Pick Artists: Stewart Home,' *Hyperallergic*, https://hyperallergic.com/350470/artists-pick-artists-stewart-home/

BIO

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