

THE PREMEDIATION OF IDENTITY MANAGEMENT IN ART & DESIGN

New Model Cyborgs – Organic & Digital

by

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INTRODUCTION

We are now entering a phase of “persistent identity”⁴ where our identity is always ‘on.’ When we withdraw money from a machine outside the bank, as CCTV monitors our movements on the street as we move about our daily business, or as we log on to a computer to conduct our banking or buy goods and services, our identity is now central to giving us access to a range of benefits. Hence, increasingly we need to ‘manage’ our identity.

Identity management (IM) is an expression that has only been found in the academic literature since approximately 2004 and yet it is a concept that has slowly been infiltrating our lives and our daily lived-experience since 2001; post 9/11, governments and large corporations place a stronger emphasis on security. This, together with the fact that the majority of our interactions are now conducted remotely online via a computer or smart device means that various forms of identity management have developed, from passwords and pin codes, to tokens such as driving licenses and wearable tokens, to more recent innovations in biometrics, such as finger printing, retina scans and face recognition.

ABSTRACT

Post 9/11, governments and large corporations are placing a stronger emphasis on security. This, together with the fact that the majority of our interactions are now conducted remotely online via a computer or smart device, means that various forms of identity management have developed; passwords, wearable tokens and more recent innovations in biometrics such as face recognition. These forms of identity management are also shaping our concept of self.

Through Richard Grusin's lens of “premediation,”¹ in which multiple futures are alive in the present, we are able to identify the taboos of identity management and discuss how art and design practices are part of this wider media phenomenon. Within scenarios of identity management the line dividing taboos from desires is often blurred, and a taboo can quickly flip into a desire, if the conditions under which that interaction take place change.

We discuss the tensions between technology and the body and how many art projects are raising awareness of the loss of anonymity and privacy through the use of masks and other organic materials. We conclude that we are all becoming “new model cyborgs”² – a mixture of the organic and the digital in a continual process of engagement, separation and re-engagement between our bodies and technology. Finally, supporting this paper we created an interactive presentation where people can give their opinion, answering and posing questions, about current technologies and how they work with identity management.³

As part of the *Imprints* research project⁵ (funded by the UK Engineering & Physical Sciences Research Council) that aims to identify the public's responses to future IM practices and technologies, we have conducted a review of IM scenarios in art & design to identify the taboos and desires associated with them. For example a taboo is the extension of some of these IM databases into other areas of life, such as face recognition technology being used to determine sexuality.⁶

In the aftermath of 9/11, Grusin observed a new media logic emerging in the US. He called it “premediation” and explained that it:

works to prevent citizens of the global media sphere from experiencing again the kind of systematic or traumatic shock produced by the events of 9/11 by perpetuating an almost constant, low level of fear or anxiety about another terrorist attack.⁷

Premediation will be used as a valuable lens to explore different scenarios and taboos in IM. According to Grusin, premediation can refer to:

1. Future media forms and technologies (we will explore a range of possible future scenarios that may or may not emerge in order to be prepared and take action before the future becomes the present).
2. Future events and affective states (we will analyse how these scenarios become either a taboo or desire experience).⁸

Our key question is: in what ways are future IM practices and technologies premediated within art and design? By using the concept of premediation, we will also be able to analyze and discuss the taboos associated with IM.

Exploring and expressing concepts of identity has always been central to the work of artists and designers through, for example, portrait painting, photography, film and personal items such as jewellery and fashion. However, this is the first systematic study of the ways in which art and design is in fact premediating future identity management technologies and practices. It is important to establish that premediating is not the same as predicting, as premediating explores and represents many future possibilities that may or may not happen and predicting is used to foretell usually specifying only one future direction.

IDENTITY MANAGEMENT

It is useful first, however, to consider some definitions in the field of IM. Authentication is the process of positively verifying the identity of a user, device, or other entity in a computer system, often as a prerequisite to allowing access to resources in the system.⁹ Authen-

tication used to be a straightforward process based on direct contact and recognizing someone by visual appearance. As interactions have become increasingly remote, so identifying a person has become more complicated; it now involves the use of systems, devices and technologies to communicate who a person is, and to validate their identity (for example, through bank verification card readers).



Figure 1. A system to verify identity involving the use of cards and fingerprints. Photo by: Rachmaninoff. Used with permission via the Creative Commons Attribution-Share Alike 3.0 Unported license.

Identity Management (IM) is defined as the enrolment and subsequent verification (i.e. the decision made as a result of authentication) that gives individuals a trusted means to prove who they are to others.¹⁰

Forms of IM

There are three main forms of IM, based on knowledge/memory, tokens, and body-related systems. Knowledge/memory forms include passwords and pin codes – single words, phrases or numbers that people have to remember and keep as a secret.¹¹ In 2011, the Daily Telegraph reported that the average person in the UK “needs to remember 10 individual

PINs or passwords a day.”¹² This is rapidly becoming a problem for most people, who are starting to use the same ID and password for all their services, making themselves easy targets for identity theft. Some IT professionals now refer to “password overload”¹³ to label the anxiety and distress caused by this modern phenomena. In the future this knowledge/memory based form of IM may fade away, being replaced by others means.

A token is a physical, portable artifact that performs or aids authentication,¹⁴ such as a passport, driving license, etc. This is an area that seems to be blending with other existing craft and technology and is expected to expand within the next few years as clothing and jewellery become augmented with embedded electronic and digital technology.

Body-based forms, or Biometrics, depend upon features measured from the human body that are distinguishing enough to be used for user authentication. Biometrics includes: fingerprints, eye, face, hand, voice, and signature, as well as other more obscure or futuristic metrics such as gait and smell.¹⁵ It is also likely that in the future some of these forms will be used in conjunction with each other.

METHOD

In order to look at how the field might be responding to this new area of IM, our first step was to search for art and design exhibitions and projects on or relevant to the topic since 2004. However, the temporary nature of exhibitions in museums and galleries led the team to look for records left on the Internet. This data gathering is gaining validity with traditional institutions such as the British Library, which is ‘harvesting’ billions of web pages, blogs and e-books in a bid to preserve the nation’s ‘digital memory.’ This suggests that Inter-

net searching is becoming a valid, recognized research tool.¹⁶

A major issue when searching the Internet for art and design projects related to identity is the strong association that identity has with branding and logotypes. IM is not a very common term and more often than not, the results coming back from different browsers were related to Corporate Identity Design. To overcome this problem, the search was conducted using less rigid, and apparently unrelated terms, such as technology and the body, biometrics, face recognition and wearable technologies.

Browsers such as pinterest.com and stumbleupon.com were used to explore art, design and technology categories. The fact that these browsers are visually-led, rather than based on a textual search platform, proved to be extremely useful, along with the categories and subcategories of their site maps. Websites dedicated to films and videos like vimeo.com and youtube.com were also used, to find art exhibitions that were filmed and to locate examples of designed products projected for the future. Social media was also used, and the team started to ‘follow,’ using Facebook and Twitter, those artists and designers whose work proved to be relevant for the research (for example, digital media artist Cornelia Sollfrank).

News channels with an online presence – such as BBC, ABC, FOX and NBC – proved to be very useful when reporting the latest developments in art, design and technology, and were full of visual and detailed information. And we discovered that there was a ‘snowball effect’ while looking for information on the Internet; once a project, an artist or a design studio was discovered, links or images within the original websites were used as ‘bridges’ to discover other artists/designers/organizations who were doing similar work exploring IM practices. The same happened in visual browsers,

social media and video search engines. Most of them are fed by people who organize and categorize their own data into folders and themes that made it easier for the team to follow in a 'connect the dots' way.

Films such as *Minority Report*,¹⁷ *Surrogates*,¹⁸ *Monsters Inc.*,¹⁹ *Despicable Me*,²⁰ *The Incredibles*,²¹ and TV shows such as *Identity*,²² *Continuum*,²³ and *Catfish*,²⁴ to mention only a few of them, were analyzed from the perspective of how art and design objects are used to premeditate the future, familiarizing audiences with artifacts and technological devices that will possibly be used for IM in the next few years. For example, the main character from the TV show *Continuum* is a law enforcer wearing a suit that allows her to be identified by her colleagues, but also to authenticate those around her, displaying personal information on the fabric of her suit and giving her the option to project it for more detailed viewing.

Figure 2. The use of an ID suit by the main character in the TV Show *Continuum* (2012-) allows her to ID herself and people around her. Photo by TVDB.com. Used with permission via the Creative Commons Attribution-Share Alike 3.0 Unported license.



Remediation and Premediation

Richard Grusin and Jay Bolter defined "remediation" as "the double logic according to which media (particularly but not exclusively digital media) refashion prior media forms."²⁵ It is a way to recognize and even pay homage to a previous technology; Video Games, for example, 'borrowed' and refashioned cinematic formats to create personalized interactive movies, just as films previously 'borrowed' photography frame sets, which were themselves taken from the language of painting.

IM has also evolved the same way; forms of identification have been examples of remediation using the latest technologies available, from hand written and stamped documents, to photo ID to biometric authentication such as finger printing.

Grusin presents premediation as a consequence of what is happening in mass media after 9/11. Books,



Figure 3. One of the most popular forms of biometric identification is finger printing technology. Photo by: CPOA. Used with permission via the Creative Commons Attribution- Attribution-NoDerivs 2.0 Generic license.

films, Virtual Reality, Video Games, etc. are constantly premediating the future for the public; they present hypothetical scenarios of what may or may not happen, from different perspectives, to prepare people and tell them what to expect. They show them:

*a world in which the immediacy of the catastrophe, the immediacy of disaster, could not happen again-because it would always already have been premediated.. to see the future not as it emerges immediately into the present but before it ever happens.*²⁶

FUTURE MEDIA FORMS AND TECHNOLOGIES

Being 'Smart'

Among many possible futures being premediated, a dominant theme is that of being 'smart.' The smartphone has been with us now for a few years. It not only keeps the user connected at all times, but it also keeps track of his/her movements, location, activities and social and economic interactions. It is also a valuable token for identity management; smart phones can use different forms of identification from pin codes and passwords to face recognition software to give access to the user. This has become necessary due to the high demand for mobile services such as electronic banking, which require users to disclose sensitive and personal information. A survey of US adult smartphone owners found that 63% of female

respondents and 73% of male respondents don't go an hour without checking their mobiles.²⁷

The mobile connectivity that mainly smartphones (but also tablets) offer brings to the table some concerns and taboos – for example, sharing too much information through 'life-logging,' which is largely done by posting a collection of tagged photos and videos to document and share a person's life. Mobile devices offer an excellent medium for life-logging, giving the opportunity to upload the posts into blogs and social media in real time. *TakeThisLollipop*²⁸ is an Internet application developed by Jason Zada that presents a taboo scenario of what may happen with all the personal information posted in a social network like Facebook. As a result of this concern, new apps are being developed to minimise the risks of sharing too much. Recently, *Snapchat*,²⁹ by Snapchat Inc. was launched, offering users the possibility to share messages and pictures for a pre-set time before it self-destructs, even notifying the user if the receiver took a screen shot of the message before its destruction.

A number of new smart materials that are emerging are also being applied to IM. We have already become familiar with smart cars fitted with satellite navigation and GPS tracking systems, but there are now cars that will authenticate the driver through the use of a smart seat that recognizes the driver's unique buttock print!³⁰ Other examples come from the home. In their video, *A Day Made of Glass*,³¹ 'Gorilla Glass' by Corning presents a very sterile home inhabited by a happy nuclear professional family who are hyperconnected. In the Corning house lighting, temperature and entertainment will be all programmed to obey the owner's lifestyle and habits, and smart mirrors in the bathroom give a daily update on the user's health. All of this is happening as the smart objects automatically recognize and identify each of the members of a household or office.

Another example of this is the British TV show *Black Mirror*; ³² the episode '15 Million Merits' shows a future where the places we live, work and spend leisure time is surrounded by glass displays.

Other new smart materials being considered for use within IM include: *Graphene*, ³³ a flexible material that enables your alarm clock to transform into your watch, transform into a tablet and transform into a touch screen; Nokia has patented tattoos made with electromagnetic ink ³⁴ that will be linked to mobile phones; and electronic tattoos for medical purposes are already being tested in the University of Illinois. ³⁵

A very recent development in being 'smart' is the extension of this concept to clothing and jewellery. In late 2012 we witnessed the launch of the first ever *twitter dress* ³⁶ modelled by Nicole Scherzinger at the launch of 4G in the UK. The gown was created by leading interactive fashion design agency Cute Circuit, whose clients include celebrities such as U2 and Katy Perry. Cute Circuit describe themselves as "future fashion now" ³⁷ and pioneers in the field of wearable technologies through the use of smart textiles and microelectronics.

A further example is *Ping: A Social Networking Garment*, developed by Electric Foxy. The garment connects wirelessly to your Facebook profile and is operated by natural gestures associated with the garment, such as lifting the hood up, tying a bow or simply moving. The project informs us that:

rather than simply attaching technology to clothing, the project investigates garments that have electronics built directly into them resulting in a new aesthetic of form and behavior that becomes a core part of our expression, our identity, and our individuality. ³⁸

In the last few years, many websites have begun to incorporate a plug-in that allows users to register using their Facebook account; essentially the intent is to make their Facebook identity work as a passport to the web. One username, one password, web-wide access, this matches Facebook's co-founder Mark Zuckerberg's vision to build "toward a Web where the default is social, every application and product will be designed from the ground up to use one real identity." ³⁹ This vision seems to become a reality that is expanding beyond the virtual world into the physical world through wearable technologies incorporating social networks. *The Printing Dress* developed and defined by Microsoft Research is:

an artistic piece that explores the notion of wearable text and its potential impact on the future of fashion, as well as our social identity. Built almost entirely of paper, the dress enables the wearer to enter 'thoughts' on to its fabric and wear them as public art. ⁴⁰

Another wearable technology is the *SixthSense* device ⁴¹ developed at the MIT Media Lab's new Fluid Interfaces Group, led by Pattie Maes and spearheaded by Pranav Mistry. The wearable device, made up of a camera, a mirror and a projector, is worn around the neck. The device is an example of the ways in which the digital is becoming physical as it enables walls, tables, and so on to display and interact with digital data. For example, photographs that can be projected onto a wall can then be manipulated on the wall by the use of colored finger caps that recognize the gestures of the operator (hence the reference to "Imagine Minority Report and then some" ⁴²). Details of how to create your own sixth sense device have been made available through open source online. The MIT team is currently exploring a variety of ways that the device can be used, including the potential to project online data held on someone's identity onto that individuals'

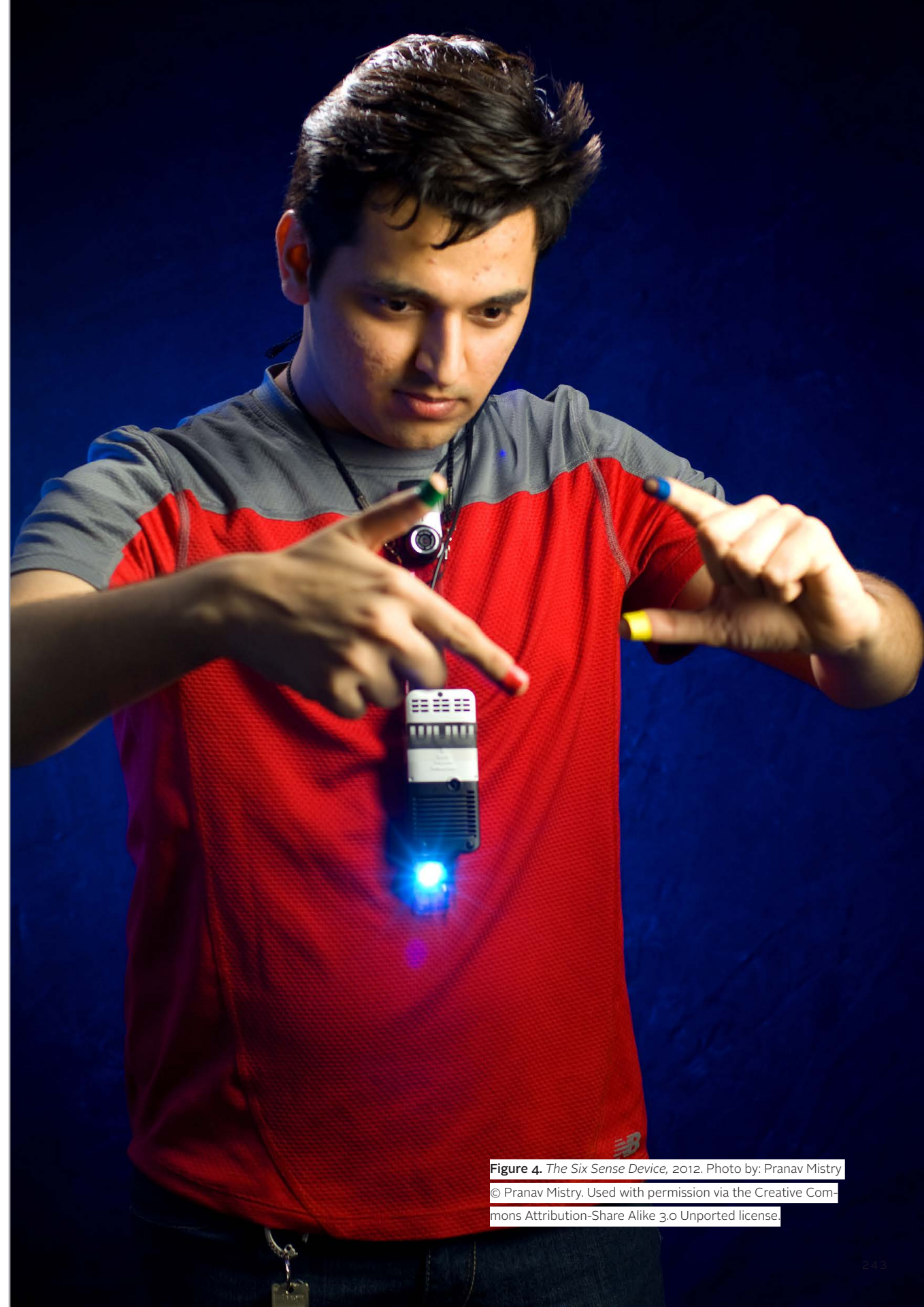


Figure 4. *The Six Sense Device*, 2012. Photo by: Pranav Mistry
© Pranav Mistry. Used with permission via the Creative Commons Attribution-Share Alike 3.0 Unported license.

body. Pattie Maes herself has suggested that this is perhaps a more controversial use of the technology, due to the intimate level of interaction the device allows to users displaying personal information found in blogs, social networks or databases such as those from banks, institutions or universities.

Wearable technologies are closely related to wearable computers and to ubiquitous computing. The aim is to seamlessly interweave technology into people's everyday lifestyle and into their bodies and personal space. So far wearable technologies for IM have gone the full spectrum between taboo and desirable user experience. Most of it depends on the context, the demographics of users and the social implications associated with objects. A good example of a fun, desirable, apparently seamless experience is *Rumbatime* watches,⁴³ a fashionable collection of watches designed using an RFID (Radio Frequency Identification) tag specifically designed for people with a very active lifestyle such as surfers, runners, clubbers, etc. The integrated tag can be loaded with credit/debit card information to be used with contactless payment technology. The user will create an online ID and will validate it using credit/debit card details, in turn not having to worry about carrying a bag, purse or wallet, and then enjoying the freedom of pursuing their favorite sporting activity.

In this example, personal hobbies and interests are prioritized over simply being a consumer. Elsewhere the Google ring is borne of convenience: one piece of jewellery to hold all your passwords.⁴⁴ The UK designer Dougie Kinnear has created jewellery with health in mind: his *Emergency Medical Alert*⁴⁵ rings and necklaces hold RFID chips with emergency health information that can be scanned by paramedics.

Against the backdrop of such developments, examples of critical design have become increasingly common.

According to the design studio Dunne & Raby:

*As biotech moves out of the laboratory into the marketplace, there is a need now, more than ever, for a form of design, let's call it critical design, that questions the cultural, social and ethical implications of emerging technologies. A form of design that can help us to define the most desirable futures, and avoid the least desirable.*⁴⁶

Dunne & Raby explore ideas of self, identity, genetic identity and consumer eugenics and they suggest their design scenarios are like “props for non-existent films.” They provide an example of a critical design project titled *Bioprescience*,⁴⁷ by Shiho Fukuhara and Georg Tremmel that explores what would happen if genetic culture fully integrated our imaginations and we began to think of our bodies less as stuff, matter, flesh and more as information, data, DNA. In particular this considers the impact this would have on burial rituals and ideas for a business that would embed human DNA in a living tree without affecting the existing organism. Public debate has centered on “if one of their living memorials bore fruit would eating it be a form of cannibalism?”⁴⁸

Similarly, in a dedicated ‘far-future’ research initiative, Philips design probes track trends and developments that may ultimately evolve into mainstream issues. Their probe *SKIN:tattoo* enables the human body to be explored as a platform for electronics and interactive skin technology. Stimulated by touch, an Electronic Tattoo traverses across the landscape of body, navigated by two lovers and their desire for each other. Interestingly, Philips uses the language of Pre-mediation in its description of the prototype;

SKIN:tattoo is a Probe, a far-future design concept. It is not intended as a production prototype nor will it be sold as a Philips product. Like past Probe

*design concepts that have stimulated discussion around a range of issues, this concept is testing a possible future – not prescribing one.*⁴⁹

These critical design projects enable a wider public to engage with a range of possible futures and provide opportunities for the public and media alike to premeditate the future.

FUTURE EVENTS AND AFFECTIVE STATES

The closer devices and technologies get to the human body, the stronger and more polemical are the reactions they appear to generate. An example of this is the use of RFID microchips implanted within the body, storing all the personal information of the wearer for IM. It applies the same logic as animal microchipping: the chips, the size of a rice grain, are injected in a fleshy part of the body and can be read by RFID readers to disclose the saved information.⁵⁰ Mainstream TV shows such as *Black Mirror* are starting to portray a future where the use of this technology is not just vastly used and accepted, but where it is more sophisticated and its rejection is problematic, even divisive. In the episode ‘The Entire History of You,’⁵¹ a chip known as “the grain” is able to record – and play back – everything a person sees and hears. It explores the difficulties presented by the possibility of perfect memory and the clashing points for pro- and anti- attitudes.

Grusin suggests that the premediation of the future “imagines the future as immanent in the present”⁵² and we can see evidence for this in the way that the dual logics of both remediation and remediation impact or affect the present, whether or not these visions ever come about. This is perhaps clearest when what used to be considered an intrusive behavior or a taboo becomes a desirable one. Location apps as-

sociated with smart phones were initially perceived as undesirable; the *Augmented ID* concept developed by the Swedish company TAT (The Astonishing Tribe) that uses smart phone and face recognition technology was initially presented by the press as the “stalker app.”⁵³ Their initial design suggested that using the phone's camera, a person could be scanned and the app would display all the available information of that person available through the Internet. It has subsequently been redeveloped to give users control over what social networking information they want to share, and when. New apps such as *Placeme*, which are used to record and share where someone is at every moment using the ID and GPS attached to their smartphone, suggest that what was once undesirable is now becoming acceptable.

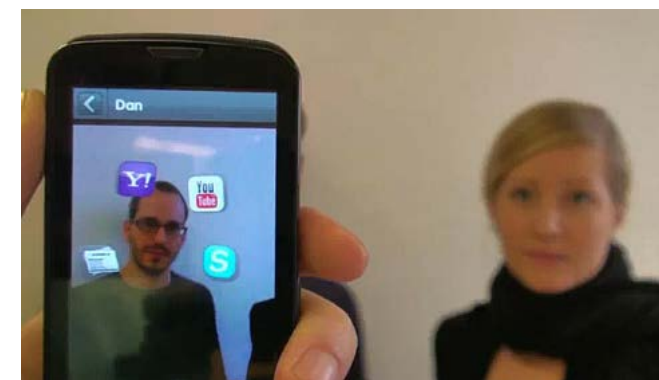


Figure 5. *TAT augmented ID*, 2009, digital video by TATMobileUI. TAT is a Mobile phone app that allows the user, through facial recognition software, to ID a person in a room and find out all the information posted about that person in social networks. Photo by: Abul Hussain. Used with permission via the Creative Commons Attribution 2.0 Generic license.

Identity ‘Myning’

Mining (or ‘Myning’) for data within the Internet means collecting as much personal information as possible. All the personal information disclosed though differ-

ent websites creates very valuable customer profiles full of lifestyle clues, including shopping and spending habits. With all these personal details being made available, privacy and ownership is a big concern. William Odom points to how impossible it is to really ‘know where things live’ in the cloud:

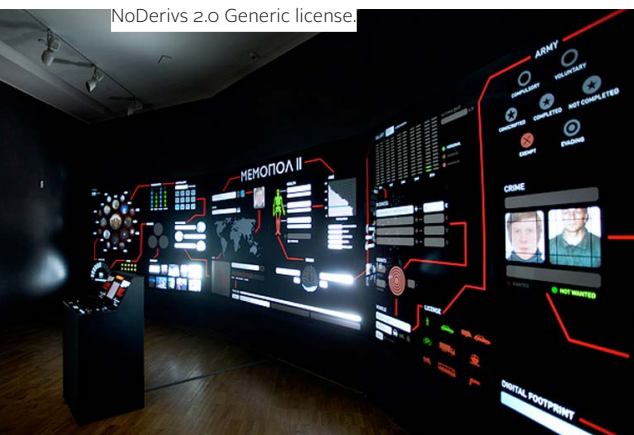
two emergent themes run throughout: that posting something online, in today's world, can mean relinquishing control over the things that you care about, but also losing awareness of what exists, where it is, who has access to it, who is accountable for it, and what is being done with it. ⁵⁴

The use of the ‘cloud’ metaphor is interesting as it seeks to obscure the simultaneously physical yet immaterial reality of these spaces.

Estonian Artist, photographer and programmer Timo Toot's installation *Memopol I* and *Memopol II* created:

a social machine that maps the visitor's information field. By inserting an identification document such as a national ID-card or passport into the machine, it starts collecting information about the visitor from [inter]national databases and the Internet. The data is then visualized on a large-scale custom display. People using the machine will be remembered by their names and portraits. ⁵⁵

Figure 6. *Memopol-2* in KUMU Art Museum / Tallinn, Estonia / 2011. Photo posted by: Ars Electronica. Used with permission via the Creative Commons Attribution-NonCommercial-NoDerivs 2.0 Generic license.



Memopol then enables us to make a thorough background check of ourselves, mirroring back to us all the data about us that is recorded online.

So much of peoples' identity is posted, shared and distributed everyday in so many different blogs, websites, social networks, etc. that is easy to lose control of it without even realizing what is happening.

This has been powerfully illustrated by *Lovely-Faces.com*, a fake dating website created by artists Paolo Circo and Alessandro Ludovico through the process of ‘scraping’ over 1,000,000 faces from Facebook. With these they created 250,000 profiles using a genetic algorithm to categorize people into different personality types. The artists' aim was to “unveil how fragile a virtual identity given to a proprietary platform can be.” ⁵⁶ Many of those who discovered that their profile had been used reacted with anger and dismay, prompting them to rethink their association with social networking websites.

The rules of offline ownership differ vastly from those of digital possession, raising the issue of curating identity online. Who protects personal data? Can it be transferred? Who can legitimately take and use the personal data posted online? What happens with all the personal information posted once the online accounts are closed? Some interesting art projects have been created in addressing some of these questions. The Rotterdam-based sociopolitical project *Web 2.0 Suicide Machine* enables users of Facebook, Twitter and Linked-In disillusioned with spending so much time online to delete their profiles. “Delete all your energy sucking social-networking profiles, kill your fake virtual friends, and completely do away with your Web2.0 alter ego.” ⁵⁷ Meanwhile global art project *Mission Eternity* ⁵⁸ describe themselves as an information technology-driven cult of the dead. They have 1450 users who have build a community of the living

and the dead that reconfigures the way the information society deals with memory (conservation/loss), time (future/present/past) and death.

Multi-Identities

The UK ‘Government Office for Science’ proposes that as a result of hyper-connectivity by 2011;

there were more than seven billion devices connected to the Internet, and numbers are predicted to reach 15 billion by 2015. Sixty per cent of Internet users in the UK are now members of a social network site, increasing from only 17% in 2007. ⁵⁹

The increase in devices and services connected to the Internet creates a growth in the daily activities that nowadays require a process of identification using technology. In many cases people are managing multiple identities. For example, our Facebook profile may be very different from our Linked-In or Twitter feed, depending on what kind of public face we wish to present in different places.

The UK-based artist Heath Bunting's *Identity Bureau* project suggests that the higher up in the class system we are, the better access to status variety we have. His project surveys these “class systems of human being management and produces maps of influence and personal portraits for both comprehension and mobility.” ⁶⁰ Participants in his identity bureau are offered for sale “off the shelf natural persons” that he has created, as well as the opportunity to create their own new identity.

Public & Private Identities

It used to be easy to keep a personal identity separate from a professional one. However, hyper-connectivity combined with willingness to post personal information in public domains such as the Internet means that attitudes and perceptions towards privacy are

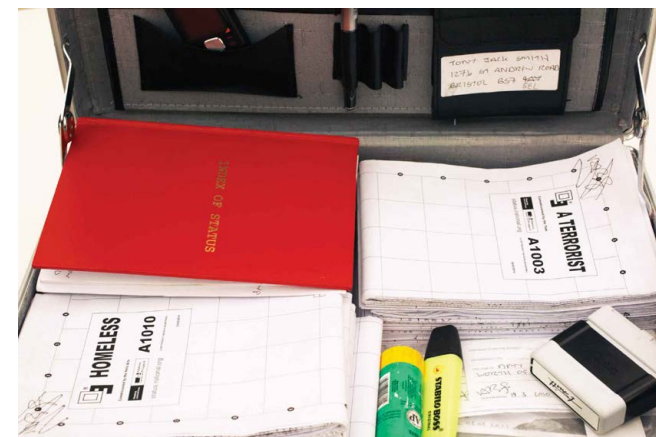


Figure 7. Artist Heath Bunting who runs identity workshops that explore multiple identities. Photo by: Manuel Schmalstieg, 2011. Used with permission via the Creative Commons Attribution-Share Alike 3.0 Unported license.

changing, mainly among younger generations. The line between social and work identities is blurring to the point of almost disappearing. It is no news anymore to hear or read about people who have been fired from their jobs for posting inappropriate photos or comments on what they thought was a private social network or blog. Applications such as TAT's *Augmented ID* allow people to look at personal information about a stranger in a public place, changing the nature of what it means to be anonymous in public spaces.

Several art projects are highlighting these issues: *CV Dazzle* by New York based artist Adam Harvey, for example, is a camouflage created from computer vision algorithms, through a clever use of makeup and hair styling, avoiding the legal issues associated with the wearing of masks. The name originates from a type of camouflage used during World War I. This approach has not yet featured in an act of public resistance however; culture and fashion magazines (e.g. *DIS*, a fashion art & commerce publication) have used it in their styling. In an interview for theartblog.com, Adam Harvey describes *CV Dazzle* as “...the ticket into the invisible class – men, women and children deleting themselves from the digital eye.” ⁶¹

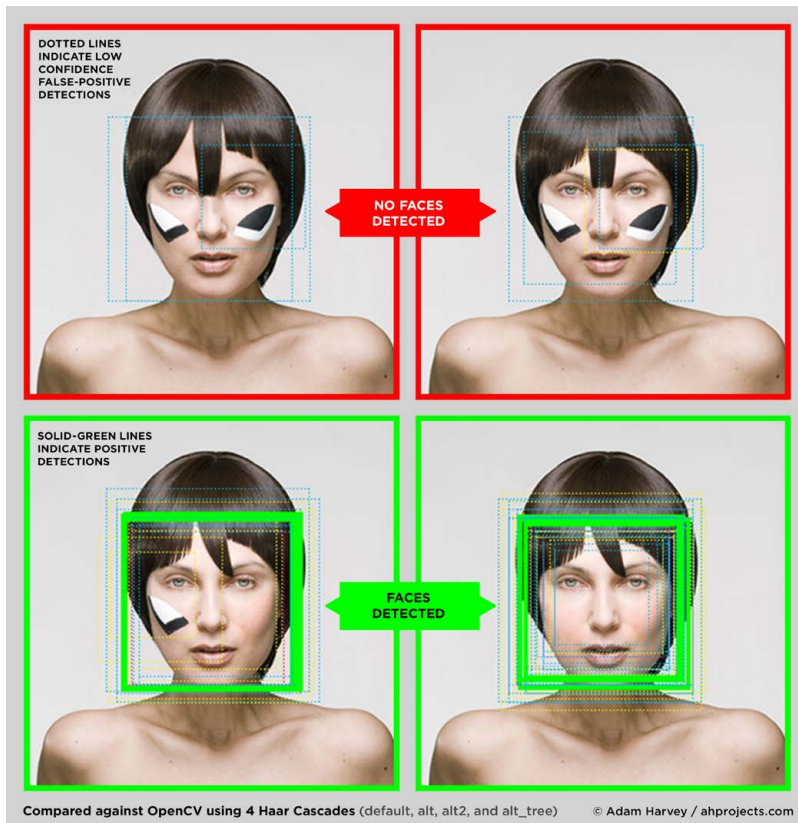


Figure 8. New York based artist Adam Harvey has developed forms of makeup and hair styling to avoid and 'fool' facial recognition software. Photo by: Adam Harvey, 2012. © Adam Harvey. Used with permission.

Similarly the *FAGFACE* mask by American Artist Zach Blas, part of his *Facial Weaponization Suite*, develops:

*forms of collective and artistic protest against biometric facial recognition—and the inequalities these technologies propagate—by making masks in community-based workshops that are used for public intervention. The mask is a response to scientific studies that link determining sexual orientation through rapid facial recognition. This mask is generated from the biometric facial data of many queer men's faces, resulting in a mutated, alien facial mask that cannot be read or parsed by biometric facial recognition technologies.*⁶²

In a video-interview with the authors last year Blas highlights how some of these forms of IM are being used unauthorized and without an individual's knowledge – for example, in 2001, the Tampa Bay Police used face recognition technologies to search for criminals and terrorists during the Superbowl, resulting in several arrests (but no charges). Blas also highlights

the dangers of these technologies and databases being used for other purposes, such as to identify homosexual men purely from their faces. Through smearing ones face with 'cum,' Blas suggests that "your fagface" can configure "into that which is not identifiable." "We accelerate like this – fuck like this – to become faceless. Because a face is never ours."⁶³

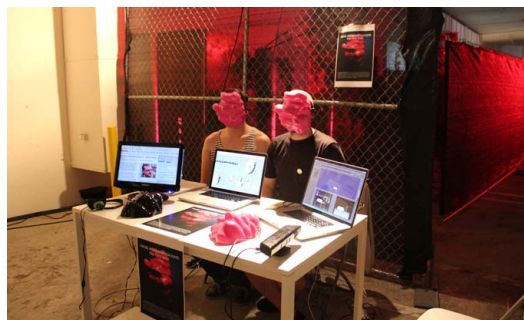


Figure 9. Zach Blas's *Facial Weaponization Suite: Fag Face Scanning Station* reclaim:pride with the ONE Archives and RECAPS Magazine, Christopher Street West Pride Festival West Hollywood, CA, June 8, 2013. Photograph by David Evans Frantz. Used with Permission.

Face recognition has an inevitable connection not just to historical forms of facial taxonomies and identification systems, but also to futuristic ones. The movie *Gattaca*⁶⁴ presents a future scenario where through a eugenic policy, the world classifies its citizens as 'valid' or 'in-valid' depending on whether they have the appropriate genetic makeup; premediating a future where people are willing to sacrifice their own individuality and personal identity for perfection.

The Canada-based artist Howie Woo has created a crocheted mask "for the playful at heart" to fool face recognition and "reclaim our privacy." Woo hopes that his demonstration enables us to protect our privacy and "apply the brakes to the use of face recognition technology in our lives."⁶⁵

It should be noted, however, that the wearing of masks in some situations could be illegal; the wearing of the *V for Vendetta* Guy Fawkes masks adopted by the hacktivist group Anonymous has recently been declared illegal in Dubai.⁶⁶

DISCUSSION

Within modernity, art & design was largely characterized by utopian visions of the future in which there was a sense of faith and hope. This has been replaced by postmodernism, in which a variety of possible futures are premediated. From the scenarios reviewed here, there is a strong emphasis on the future, or "futurity," as Grusin calls it.⁶⁷ More than this, a new form of design, namely 'critical design,' is strongly associated with premediation.

Many of the examples are concerned with creating and stimulating debate around taboos and premediating our responses to these – so that the future may emerge from within the present. In many respects,

however, and despite a wide range of possible futures, it would appear that only certain options are supported. Grusin describes premediation as in some ways transforming the world into a video or computer game where only "some possibilities are encouraged by the protocols and reward systems built into the game."⁶⁸ Here only one of the responses involved rejecting technology (*Suicide Machine*); as Brian Arthur states, "to have no technology is to be not human."⁶⁹ An increasing part of the game, then, is that we are now all becoming curators, managing our online identities. The increasing incidence of 'life-logging' and 'life-monitoring,' particularly for health purposes, highlights how our lives and identities have now extended into the digital realm, creating volumes of data and information that needs to be controlled, managed and presented in ways that please us not just whilst we are alive, but also after death (*Mission Eternity*).

A great number of the taboos that are emerging relate to the "new model of cyborg"⁷⁰ postulated by Andy Clark, and the relationship between our bodies and technology. This is not just through the inclusion of implants within our bodies, but also the extent to which our affective relationships with technological media and wearable objects "ties the body into a cybernetic loop."⁷¹ Within the smart garments and jewellery being developed, this signals a trend towards making the digital physical, and a move away from screen-based to more 'natural' (for example gestural) interactions (*Sixthsense*). Increasingly our sense of self is closely tied to our sense of embodiment, the ways in which we directly encounter the world. However, the nature of our hypermediated world is changing that. "The seeming omnipresence of mobile networked media devices changes the nature of physical embodiment and identity – changes the relationship of proximity, closeness, or intimacy to embodiment."⁷² Our sense of intimacy and embodiment is being mediated by technology, giving us a feeling of

liveness and attachment to a future that may or may not happen; rather than enabling us to experience this sense of embodied liveness in the present.⁷³ Therefore instead of living in the present we are busy living this virtual embodiment of the future. This connects directly to the extent that we as human beings (even at a biological level) are adapting to systems of digital media and devices, through our affective responses to them. W. Brian Arthur suggests that technology is a thing shapes both us, and our lives, whilst simultaneously serving our lives, and that this creates an ongoing tension.⁷⁴

Donald A. Norman highlights another tension, distinguishing between what he calls intrusive and enhancing technologies. Intrusive technologies are those that get in the way of the act – for example, taking photographs – and enhancing technologies are those that require focus, concentration and reflection, such as drawing.⁷⁵ Within the scenarios in art and design we can find examples of both intrusive technologies (TAT's *Augmented ID*, *Printing Dress*, *Twitter Dress*) and enhancing technologies (*Bioprescence*, Philips's *Skin Tattoo*, the *SixthSense* Device, *Memopol*, *Identity Bureau*). There would appear to be more enhancing technologies that provide opportunities for reflection and focus employed within art projects that design could learn from.

We have found that as a way of both raising awareness about 'persistent identity' and the loss of anonymity and privacy, masks feature strongly – specifically: *Fagface*, *Woowork*, and Anonymous. Interestingly, many of these examples resort to using organic materials, such as make up, face paints, sperm and crochet, suggesting analogue resistance to the progressive digitalization of the body and the self. These fears may connect with what both Harvey and Blas talk about: how our sense of self and sense of identity becomes so entwined in digital media that we don't see the me-

dia anymore – it becomes invisible, ergo we become invisible. This was a theme picked up in the Phillip K. Dick' novel that became the film *A Scanner Darkly*,⁷⁶ where in the not-too-distant future in Orange County, California, an undercover narcotics agent is known internally in the force only by his code name, Fred. His identity can be kept secret as the scanning suit he dons enables him to avoid recognition; in this scenario, technology threatens to deaden us by taking away our own identity while disguising it with the identities of thousands.

Our identities then are embedded in a variety of social, political and technological networks. We have to accept now that we are becoming 'new model cyborgs' that cannot live without our digital side. Navigating the tensions between the organic and the digital; the extent to which our networked identities shape us or we shape them; whether the digital becomes increasingly physical and expressive will be played out through premediation. ■

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