Masks between the Visible and the Invisible

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> "The world men are born into contains many things, natural and artificial, living and dead, transient and sempiternal, all of which have in common that they appear and hence are meant to be seen, heard, touched, tasted and smelled, to be perceived by sentient creatures endowed with the appropriate sense organs. Nothing could appear, the word 'appearance' would make no sense, if recipients of appearances did not exist – living creatures able to acknowledge and react to – in flight or desire, approval or disapproval, blame or praise – what is not merely there but appears to them and is meant for their perception."
> (Arendt, 1978: 19)

The words 'mask', 'masking' and 'masquerade' are metaphors for discussing, describing, and analyzing the visible and invisible acting of human and non-human actors. The mask has for a long time been a symbol for the interpretation and representation of the visible and invisible and is a powerful device for human experience and transformation in many cultures. It still lives strongly within our societies where the mixing of reality and virtuality will continue to increase.

Masks are devices for hiding, conserving, transformation, and mediation, giving humans the protection they need. Masks have become a dualistic means of concealment and hiding but also of liberation, disclosure, and revealment. They always offer the opportunity of unmasking, disrupting the mental invis-

ibility of our self, the others and the daily life we act in. In the masking, gender aspects play a crucial role.

Looking to the differences and resemblances with masking in theatre, in rites and in daily life I formulated questions like, "Who has the right to present masks and to turn others into an audience?" The conflict between aspects of authenticity and privacy will intensify because the masks in our mixed reality create fragmented, partial identities referring to human and non-human actors. As the masquerade becomes a stage for discussing femininity, the masquerade will give us the opportunity to negotiate humanity in confrontation with the super robots humankind wants to create.

INTERACTION

Interaction is an exchange of representations between actors. Speaking, gesturing, writing, making, designing are actions in which actors present themselves to other actors: both human and non-human. All acting of actors is a representation of themselves in a world of other actors and at the same time an interpretation of that world. Every interpretation and representation will influence future (inter-)actions. Not only the actual behavior but also the actions, which are not executed (actions in deficient mode), are presentable and interpretable because these absent actions also influence the process, since they comprise the possibility of being expected or missed (Crutzen, 2000: 40–107, 2003: 89–91).

Interaction is an ongoing process of mutual actions from several actors in a specific situation or a series of situations. It is a process of consciously and unconsciously constructing meaning through repeated interpretation and representation of the actors, which is always situated in the interaction itself, and it depends on the horizons and the backgrounds of the actors and their representations involved and the specific interaction. All actors, human and non-human, "are part of the world in its ongoing intra-activity [...] human practices have a role to play as part of the material configuration of the world in its intra-active becoming. 'Humans' are part of the world-body space in its dynamic structuration" (Barad, 2003: 828–829). The construction of meaning occurs in the dynamics of the actors' acting in their actions. Visibility and invisibility for each other will influence the borders and the materiality of the actors involved.

Visibility and Invisibility

> "Literature, music, the passions, but also the experience of the visible world are [...] the exploration of an invisible and the disclosure of a universe of ideas. The difference is simply that this invisible, these ideas [...] cannot be detached from the sensible appearances and be erected into a second positivity. [...] With the first vision, the first contact, the first pleasure, there is initiation, that is, not the positing of a content, but the opening of a dimension that can never again be closed, the establishment of a level in terms of which every other experience will henceforth be situated. The idea is this level, this dimension. It is therefore not a de facto invisible, like an object hidden behind another, and not an absolute invisible, which would have nothing to do with the visible. Rather it is the invisible of this world, that which inhabits this world, sustains it, and renders it visible, its own and interior possibility, the Being of this being."
> (Merleau-Ponty, 1968: 149, 151)

Visibility for humans represents everything that humans can, directly or indirectly, perceive with their senses: hearing, seeing, feeling, smelling, and tasting. Artificial actors have sensors and other input possibilities to simulate the senses of humans.

Humans have developed and used a wide range of visual, haptic, and acoustic instruments for attending a certain degree of visibility, such as microscopes, binoculars, and fire alarms. In the Greek theatre the mask was a tool to make the actors more visible to all of the audience and to make the actors' voices audible. The masks had a small megaphone-like contraption concealed in the mouth of the mask. The mask not only enhanced the sense of seeing a face, but also enhanced the voice (Vervain and Wiles, 2001: 255, 270).

Visibility of a human or artificial actor for its environment can be defined as the possibility of unveiling its interactions (Crutzen and Hein, 2009: 468). This unveiling does not necessarily need to be done by one person; it can also be achieved by social interactions in the interaction itself within human environments such as 'house', 'neighbourhood', 'work', 'homeland', and of course the theatre. Invisible acting in interaction with artificial devices occurs when users during the interaction do not perceive triggers for critically reflect-

ing and developing emotions about the ready-made artificial acting presented: "[...] Most of reality is hidden from direct sensory experience and must be adumbrated and conceptualized or imagined in our encounter with reality." (Laughlin, 1993: 5)

An artificial actor's invisibility for humans is unlimited. Marc Weiser (1994: 7) argues for an "invisibility of the tool", that it should "not intrude" into our "consciousness", that it should disappear from our awareness, the focus should be "the task and not the tool". A tool might be visible in itself, but it will be invisible "as a part of a context of use". This means that the activity performed with the tool should be obvious, the tool itself should not be the centre of our attention. He asks what kind of interface this tool should have and suggests "moving to full-body sensing and interaction" and "by maximally utilising all of our body's input and output channels" (Weiser, 1994: 8). So, according to him and those that share his view, the visibility of human actors to artificial actors should increase more and more. However, the interaction of humans with artificial actors should be mentally invisible for humans.

Mental, Physical, and Methodical Invisibility

Invisibility can be classified in mental, physical, and methodical invisibility (Crutzen and Hein, 2009). Physical invisibility of artificial actors for humans occurs because many distributed devices are hidden in our environment. A continuous process of miniaturization makes it impossible to recognize them. Not feeling their presence, not seeing their full (inter-)actional options, but only some designer-intended fractional output, makes it impossible to understand the complete arsenal of their possible representations. They can only be physically visible in the effects of their action, which can take place in our absence.

In our daily life a lot of things, tools, and even human actors are mentally invisible. Mental invisibility occurs when domesticated artificial products are taken for granted, when they are thought of as a natural part of our daily life and become a part of our routines. The evident and continuous availability of artificial products causes their disappearance in the complexity of our environment. The humans in such environments can also become mentally invisible if they act according to the expectations of designers and users inspired by the traditions and rules of our society. People observed by intelligent cameras are mentally visible for the artificial actor in the form of software only if they act outside the range of normal behavior.

Human actors can experience other actors as 'actable' if these actors present themselves in a way which is interpretable from their own experiences. That does not mean that this is the intended interpretation because each actor has a personal horizon of experiences and expectations. Physical visibility is a necessary condition of actability. So humans can perceive the performance of the non-human actor and humans can give meaning to them by drawing them into their interactions. A sound can be physically visible but until giving meaning to it, for instance as music, it will not be actable. Actability requires the mental visibility of an invisible meaning.

Usually humans cannot always say what they really do because it is unconscious – they do not reflect on it and cannot describe it. The details of everyday work become second nature and invisible (Beyer and Holtzblatt, 1993: 93). Mental invisibility is not only negative. Humans require a lot of obviousness in their living world in order to deal with daily life. That is precisely the way we love our environment, because our adaptation to our interactional worlds involves a lot of effort to make it work. Humans have to accomplish that adaptation. The evident and continuous availability of technology causes its disappearance in the complexity of our environment. Humans integrate the ready-made technological acting in their routine acting, accepting it without reflection and emotions. Mental invisibility can be seen as a precondition for the stabilization of use and the domestication of technology and harmonious living, but it should not be a frozen final state of the human actors in a community.

The physical and mental visibility of artificial actors to human actors is limited within the technical constraints of their construction, it can be determined purposefully by designers through the implemented data-models, processing functionality, and the chosen sensors and actors. In the future, our physical body representations and movements will be unconsciously the cause of actions and interactions in our technological environment. Technology resides in the periphery of our attention; artificial actors continuously whispering in our background, observing our daily behavior. People become the objects of the ongoing conversations of artificial agents that are providing us with services, without demanding a conscious effort on our behalf or without involving us in their interactivities. The artificial agents that humans are allowed to perceive will fake emotions and obviousness in their acting to seduce us into interacting.

Methodical invisibility and visibility appear through the assumptions of the makers embedded beforehand in the ready-made acting of the artificial

product. The interpretation and representation work has been accomplished partly before the product is ready made and the actions of the artificial actor take place. The way an artificial actor can interpret and represent depends not only on the activity from the human but also on the ready-made acting, which is constructed.

If people act according to a ready-made script within a prepared setting and frame, then their acting is methodically visible and becomes mostly mentally invisible for themselves; other acting possibilities are made invisible. This methodical invisibility shapes and limits the interactional spaces in which users can act and it will irrevocably make solutions unimaginable despite their makeability. This is even more true as this methodical invisibility is a mental invisibility on behalf of the makers of artificial products. Their scripts and assumptions are frozen in the structures of modelling methods that are embedded in their software development tools (Crutzen and Hein, 2009).

Based on my definition, visibility and invisibility of (artificial) actors are not oppositional, because every acting produces traces in our environment. The actors are not simply 'visible' or 'invisible'. Maurice Merleau-Ponty (1968) said there always stays something invisible in the heart of the visible. People need their senses and their body before arriving at a vision. Actable actors are always partly visible and invisible. However, the acting of human and non-human actors is mostly only visible in its effects; they act behind the scenes. We cannot see the artificial actor in a service call, however, by following the instructions we can get the information we need.

The space between the visible and the invisible is a dialogue space where human actors can design their own interpretations. It is a space of conflicts but also a space of adventures where humans can play with the contradictions of living in a world with artificial actors. According to Heidegger, the essence of technology is that it "unconceals" what became obvious, making it mentally visible and perceptible again (Heidegger, 1962: 12–13). In the interactions between human and non-human actors there is always a play in progress between visible and invisible.

Identity and Visibility

The *identity* of an actor presented to other actors is the meaning other actors give to the actor's performance. "Social interaction is a negotiation of identities between people in a given environment." (Boyd, 2002: 11) The meanings other actors give to the actor's performances constructs the social identities of

an actor. According to Danah Boyd, humans do a lot of self-monitoring and self-management to control "the impressions that others might perceive, to convey the appropriate information at the appropriate time". The identities of humans are always facets of the personal internal identities and public social identities they comprise; identity is a dynamic process anticipating and changing in their several interactional worlds. "As people engage socially, they project aspects of their internal identity into a social identity for others to perceive. Based on the situation, people only present a particular facet of their internal identity for consideration." (Boyd, 2002: 11)

Personal internal identity is not a closed decisive whole. Human identities are not fixed, they are "inherently unstable, differentiated, dispersed, and yet strangely coherent" (quote of Vicky Kirby in Barad, 2003: 828). In their interaction, actors can develop new identities, change their identities and alternate between them. Internal identities can be partly masked by the social identities humans present. However, the used masks will always in some way refer to and connect the internal identities and the social contexts. Humans cannot totally separate their internal identities from their social identities. Artificial actors can only present those facets of the inner self which are preplanned by the designers and only when they receive adequate inputs from their environment to do so.

Identity will always remain a very vague concept, but according to Anselm Strauss

> "identity is connected with the fateful appraisals made of oneself – by oneself – and by others. Everyone presents himself to the others and to himself, and sees himself in the mirrors of their judgments. The masks he then and thereafter presents to the world and its citizens are fashioned upon his anticipations of their judgments. The others present themselves too; they wear their own brands of mask and they get appraised in turn" (Strauss, 1997: 11).

In this sense, interactions between human actors and artificial actors can give the human actor a specific identity. We speak of users because of their specific interactions with Information and Communication Technology (ICT). Identity is not restricted to only human actors. We also speak of the identity of artefacts, companies, and communities. The social identity of artificial actors can be interpreted as their actable functionality. Their internal identity can be hidden by the surface of their appearance; the 'social and huggable' love-return-

ing pet robots have a face, they move their eyes, they make gestures, however, their internal identity is a machine executing a software depending on the input and the feedback the machine can receive with its sensors.

Identity as a Mask in the Theatre of Daily Life

The original use of the word *person* derives from persona – the masks worn by characters in Greek tragedies: "As a tool of impersonation, the mask is considered to be a convention which enables the actor to separate himself from a particularized communal identity in order to become a symbolic image of a more universal condition." (Mitchell, 1985: 7)

Goffman has used terms from the theatre context to analyze the identity concept: the visible human identity is a performance of everyday social activities, in which situationally appropriate behaviors are set up on the front stage, "[...] that part of the individual's performance which regularly functions in a general and fixed fashion to define the situation for those who observe the performance" (Goffman, 1959: 22), and situationally inappropriate acting will take place 'backstage', out of sight. At the front, human actors establish their social identity. At the front, the standardization of roles will make the person 'actable'. Other human and non-human actors can understand the individual's acting because of its normalized meaning. The self as a social identity is the mask the individual wears in social situations, but it is also the human being behind the mask who decides which mask to wear:

> "A correctly staged and performed character leads the audience to impute a self to a performed character, but this imputation – this self – is a product of a scene that comes off; and is not a cause of it. The self, then, as a performed character, is not an organic thing that has a specific location, [...] it is a dramatic effect arising diffusely from a scene that is presented, and the characteristic issue, the crucial concern, is whether it will be credited or discredited." (Goffman, 1959: 252–253)

Between a mask and its wearer there is a continuous interaction; the wearer animates the mask and the mask animates the wearer. Role playing is not masking the 'true person', but performances will transform humans into persons (Lawler, 2008: 105–106). According to Ian Hacking "the roles are not gliding surfaces that conceal the true person. The roles become aspects of the person, some more owned, some more resented, but always an evolving side of what

the person is. [...] Some roles become not only habitual, but almost an integral part of the body" (Hacking, 2004: 290, 299).

The Theatre as a Metaphor for Virtual Worlds

As Maggie Cooper and Ivor Benjamin mentioned already in 1995, the design of virtual worlds and the virtual world itself is analogous to a theatre and its creation:

> "A place where something will happen, and which must be designed and staged and peopled to suit that which will take place there. The design and construction of the inanimate elements of virtual worlds is then analogous to the design and construction of sets, scenery, properties; to the location and contents of an envisionment." (Cooper and Benjamin, 1995)

Brenda Laurel and Anna Swartling also compared the interaction between designers, users, and technology with a theatre play. Brenda Laurel focused on human interaction by comparing software with theatre:

> "In theatrical terms a program (or a cluster of interacting programs) is analogous to a script, including its stage directions. [...] Its interesting potential lay not in its ability to perform calculations, but in its capacity to represent action in which humans could participate. [...] functionality consists of the actions that are performed by people and computers working in concert, and programs are the means for creating the potential for those actions." (Laurel, 1993: 44–45)

In Laurel's concept of software there is the restriction of human actors to only play "in the interface" (Laurel, 1993: 4) in the same way as the non-human actors, determined by the formal software script:

> "In a theatrical view of human-computer activity, the stage is a virtual world. It is populated by agents, both human and computer-generated, and other elements of the representational context. [...] The technical magic that supports the representation, as in the theatre, is behind the scenes." (Laurel, 1993: 17)

Anna Swartling (2008) has used the theatre metaphor to make visible the ideological elements not only within information system acquisition but also within human computer interaction research. She presents theories, analyses and arguments in the form of a theatrical script. Her focus was on power structures and the ways common sense is constructed within the discourses of information systems development.

The stage theory of Goffman is often used to analyze and describe the interactions in social networks. Nikki Sannicolas sees the "... dramaturgy demonstrated every day within the on-line chat networks. Several scripts for the stage itself, being internet chat, have been written by the media, attracting different audiences and performers" (Sannicolas, 1997).

In my rewriting of the ontology of the Object Oriented (OO) approach in software design (Crutzen, 2000, 2003; Crutzen and Gerrissen, 2000) I used the theatre metaphor to give the software users a position of author and director in an artificial OBJECTs play. The OBJECT is the basic unit in a description of an OBJECT world, which functions as a SCRIPT for an 'interaction play' of cooperating OBJECTs. The OBJECTs are descriptions of ROLEs. A performance of an OBJECT world – the execution of a software program – is like the performance of a theatre play. The imagination of the authors of such Object Oriented theatre scripts comes to reality by creating ROLE- and ACTOR-types and by instantiating ACTORs which act according to their SCRIPT. The user, as a director or author, could create new ACTORTYPEs from the available present-at-hand ROLEs and by aggregation change the performance in new plays.

However, in the Object Oriented software the OBJECTs are mostly masked. The behavior of the OBJECT is contained in the methods of the OBJECTs. The covering up of data types and methods is called encapsulation. It refers to an object concept that is placed as an abstraction mask on reality. Through that mask we can see reality as closed units with hierarchical relations and planned interaction, where the user acquired the role of a chorus member with a standardized mask like the tragic chorus in Greek theatre (Mitchell, 1985: 6) and where the software designer has the power to look behind the mask of encapsulation. Susan Leigh Star has unmasked the making and modelling process of our technological environments by saying that these masks will temper "the clutter of the visible" and that the masks are abstractions "that will stand quietly, cleanly and docilely for the noisome, messy actions and materials" (Star, 1991: 82).

The Mask

Masks are and will be worn and used in our everyday lives, at the theatre, and in virtual life. The mask is a powerful symbol and device for human experience and transformation in many cultures. It still lives strongly within our current culture, and it will live in our future cultures and societies, where the mixing of reality and virtuality will intensify. In their functionality and appearances masks participate in a "chain of reference, which turns out not to terminate in some fixed referent". Every used mask "bears a series of imprints from previous maskings" and "seems to invoke an endless series of references that leaves a trace" (Wiszniewski and Coyne, 2002: 203). These traces are the opportunities to make the invisible visible again.

The masked performer goes back far earlier than anything recognizable as theatre. In rites the mask was venerated; it was and still is used for the embodiment of the spirit to be consulted and for the representation of desired events. Masks have the potential for the exaltation of the individual and the revealment of the power of the god captured in its very essence. The mask effects change

> "[...] not only within the wearer, but also outside – in the world he contacted. The primitive mask allowed one reality to be supplanted by another as it granted its wearer the power and freedom to perform unconventional acts. [...] As a device of transformation, it enabled its wearer to transcend one reality and experience another reality of his own creation" (Mitchell, 1985: 2–3).

The change of appearance by masking can have purposes of protection, make-believe, social acceptance, disguise, amusement, or religious devotion.

The Mask as a Hiding Device

A mask will always conceal; masking means cloaking or disguising. The meaning of masquerade in Computer Science in terms of communications security issues is a disguise. It is seen as an attack where the attacker pretends to be an authorized user of a system in order to gain access to it or to gain greater privileges than he is authorized for. A masquerade may be attempted through the use of stolen login IDs and passwords, through finding security gaps in programs, or through bypassing the authentication mechanism. Once

the attacker has been authorized for entry, he may have full access to the organization's critical data, and (depending on the privilege level he pretends to have) may be able to modify and delete software and data, and make changes to network configuration and routing information.[1]

A 'Trojan horse' is an example of software masked as a desirable gadget for the user such as a game, often a path for viruses or other malicious codes to be smuggled into a computer system. However, it actually hides a program to steal passwords and acquire remote access to the computer system and perform various operations.

Hiding has not always a negative meaning. We use several masks for protection such as the gas masks, virus and sun protection masks, sport masks, and so on. For users of commercial platforms masking has become a useful act to hide their identity: eBay account users are hidden behind the masks of their pseudonyms. "Most of these users buy and sell on eBay for fun. For them, it is just a new part of their life: a new partial identity. [...] the pseudonym is used to conceal the true identity of the person, i.e., it acts as a privacy enhancing tool." (Jaquet-Chiffelle et al., 2009: 78, 85)

The "bubbles" concept of Laurent Beslay and Hannu Hakala, a model for "informational immune spaces" with two-sided conditional borders facilitates the management of an appropriate informational distance from other humans and from non-human actors.

> "A bubble is a temporary, but well-defined space that can be used to limit the information coming into and leaving the bubble in the digital domain. [...] A bubble can be created whenever it is necessary for personal, community or global use. The bubbles can be shared between individuals or groups." (Beslay and Hakala, 2007: 71–72)

The bubble is a protection mask to realize the integrity of information inside the bubble.

The Mask as a Conservator

Masks acquire their meaning from their appearance and through the wearers' actions and through the actions they provoke. Masks are always fundamen-

1 | See http://searchsecurity.techtarget.com/sDefinition/0,,sid14_gci498695,00.html (accessed 12 September 2012).

tally double in function, signification, and experience, serving simultaneously as tools for disguise connected with positive and negative meanings but also as markers of identity. In the Roman theatre the mask was standardized to stereotypes: "It was a mirror for human foibles and peculiarities." In the Commedia dell'Arte the characters performed by the actors were called masks. In a mask-type, actors portrayed essential characteristic behavioral patterns as an abstraction from the behavior in real life (Mitchell, 1985: 17–18, 49).

Humans present themselves with formal masks, uniforms, robes and wigs to provoke a "preferred reading" (Hall, 1980)[2] of their social identity and acting. They act as mentally invisible persons. The barrister's and magistrate's robes transform a lawyer into an advocate, and the person behind that robe should become mentally invisible when doing the job. Such masks create methodical visibility and invisibility, too, because they inhabit an acting script.

The avatars and humanoid robots we are confronted with try to conserve human values. Even institutional actors mask behind screen-based humanoids, equipped with expression of 'simulated' emotions and empathy.

Some machines are masked as 'social and huggable' love returning pet robots. They have a face, they move their eyes, they make gestures. We hear a lot of artificial voices simulating that we are talking to real persons. In our reality we interact with animal-like robots for entertainment and therapy. We see standardized avatars in the web trying to over-trust us with a simulated care:

> "Humanoid social robots serve as 'prosthetic extensions' of human individuals by acting as their surrogates in social interaction. Standing in proxy for bank tellers, shop assistants, telephone operators, tour guides, housemaids and playmates, to name but a few, humanoid social robots interact with humans, as humans and on behalf of humans." (Zhao, 2006: 403)

2 | Stuart Hall (1980: 172) argued that the dominant ideology is inscribed as the 'preferred reading' in a media text, but that this is not automatically adopted by readers. In social situations where the reading takes place, people can "[...] adopt different stances. 'Dominant' readings are produced by those whose social situation favours the preferred reading; 'negotiated' readings are produced by those who inflect the preferred reading to take account of their social position; and 'oppositional' readings are produced by those whose social position puts them into direct conflict with the preferred reading" (Chandler, 2000).

In these interaction plays between humans and machines the visible cover of the robots and avatars mask not only the machine character of these things but they represent also the values of the habits of humans we like to interact with. They mimic the world we have lost. Eva Gustavsson and Barbara Czarniawska concluded that in "business on the net" a majority of the used avatars are females. Their job is "to assist customers by giving advice and delivering information". They are the mask of the business behind them, representing the business as caring and helpful. They fulfil not only the designers' dream but also that of the consumers:

> "Virtual women, much more than living models and machines, can be created according to their designers' wishes. And, even if designers are not always men, they tend to re-create the male dream of a woman. [...] a self-replicating circle seems to be in place: subsequent versions of Web Women perpetuate the same projection, and we perpetuate the same reciprocation, perceiving the companies that produce them as being insensitive and chauvinistic." (Gustavsson and Czarniawska, 2004: 666)

Fortunately there is also a counter-movement of transformation to this conversation masking.

The Mask as a Transformation Device

For hiding our identity and representing another identity the mask has become the symbol of transformation (Keats, 2000: 102). Masks give humans the opportunity to free themselves from their social identities. The mask confers the freedom of anonymity and of transformation. In carnival we use the mask to interact with other members of the society outside the bounds of identity and everyday convention:

> "The masks served an important social purpose of keeping every citizen on an equal playing field. Masked, a servant could be mistaken for a nobleman – or vice versa. State inquisitors and spies could question citizens without fear of their true identity being discovered (and citizens could answer without fear of retribution). The morale of the people was

> maintained through the use of masks – for with no faces, everyone had voices."[3]

Androgyne clowns like Pierrot represented a rebellion against society. "They blurred the reality of the division of gender and called into question all the attributes that were apportioned to what was male and what female." (Kreuiter, 2008: 2) The coloured balaclava masks, used by the female punk band Pussy Riot, have become the symbols for rebellion and a cry for transformation of society into a coloured society in which diversity is possible: "When I'm in a mask I feel a little bit like a superhero and maybe feel more power. I feel really brave, I believe that I can do everything and I believe that I can change the situation."[4] The Guy Fawkes mask, the icon of the Anonymous movement, associated with collaborative, international hacktivism is the symbol for the struggle between the visibility and invisibility aspects of the Internet and by hiding their personal visibility masks they start negotiation processes; making the invisible visible. According to Gabriella Coleman, Anonymous has succeeded in spreading its messages:

> "Although cloaked and veiled, many of their actions seek transparency from the state and corporations and also often strike at legislation – copyright statutes, surveillance bills – seen to threaten Internet freedoms. It depends on a spectacular visibility and invisibility; it is everywhere, yet difficult to pin down. It thrives off a dynamic tension between cool and hot, openness and secrecy, pranks and seriousness, and predictability and unpredictability." (Coleman, 2012)

Using the mask of a pseudonym was already practised in the 17th century. Readers of the periodical *Athenian Mercury*, which consisted only of anonymous letters of readers and the answers to those letters, could participate in debates through pseudonymous letters to the editor. Especially female writers of letters or poems could "bypass notions of middle-class propriety" behind this

3 | See http://www.maskitalia.com/maskhistory.htm (accessed 12 September 2012) and http://en.wikipedia.org/wiki/Venetian_mask#Venetian_carnival_masks (accessed 12 September 2012).

4 | A statement of Sparrow, a member of Pussy Riot, quoted in an article of Carole Cadwalladr, *The Observer*, 29 July 2012. Available at: http://www.guardian.co.uk/world/2012/jul/29/pussy-riot-protest-vladimir-putin-russia? (accessed 12 September 2012).

virtual mask: “The protection offered by a pseudonym [...] made them feel free to join in an uninhibited public discussion while they themselves remained safely hidden in their own private spheres.” It was also possible to advertise under a pseudonym for private or commercial transactions (Heyl, 2004: 561).

Behind the mask, humans are free to express joy, pain or anger without social restraints. With video games, humans can transform themselves into excellent sports persons, forgetting the physical constraints of their body. Masks are the attributes of the temporal reality in virtual worlds: “The performer is defined anew by the mask and is transformed into a deity, a demon, or some universal superhuman type, or, conversely, into an exaggerated representation of a sub-human impulse.” (Sheppard, 2001: 25)

In these virtual worlds masks create new forms of being with each other:

> “At the end of the course we had an informal social meeting in a virtual world called ‘The Virtual MIT House’. The two of us stayed and talked long after the others had left. We talked about very serious and personal issues, and felt comfortable in doing so despite the fact that we knew very little about each other. We attribute this to the way the avatar works as a mask that shields the person behind it and in this way tends to make the person more open.” (Jakobsson and Popdan, 2002: 5)

The virtual world Second Life has evolved from intimate explicit often pornographic expressions to “content that is merely intimate, romantic, affectionate, but not overtly sexual” (Bardzell and Bardzell, 2008: 15).

Gender swapping was one of the first phenomenons in the Internet. Amy Bruckman (1992, 1993) saw gender swapping as an identity workshop, in which the virtual role-playing was an opportunity to discover several aspects of one’s own identity. Already in text-based chat environments humans used nicknames to be released from their usual social identities and to pretend and perform to be another. It was the “paradoxical combination of both anonymity and intimacy [...] Some individuals are already living part of their daily life in these chat modes, adopting either a gender-free identity, or playing a role as a member of the opposite gender” (Danet, 1996).

According to Sherry Turkle, “the Internet has become a significant social laboratory for experimenting with the constructions and reconstructions of self that characterize postmodern life. In its virtual reality, we self-fashion and self-create” (Turkle, 1995: 180). She was in those early days also very doubtful about the significance of the Internet. In her opinion, the WWW was the

materialization of the postmodern wish for differences. She feared also the loss of the bodily experiences:

> "[...] Virtual experience may be so compelling that we believe that within it we've achieved more than we have. Many of the people [...] claim that virtual genderswapping [...] enables them to understand what it's like to be a person of the other gender, [...] But as I have listened to this boast, my mind has often travelled to my own experiences of living in a woman's body. These include worry about physical vulnerability, fears of unwanted pregnancy and infertility, fine-tuned decisions about how much make-up to wear to a job interview, and the difficulty of giving a professional seminar while doubled over with monthly cramps. Some knowledge is inherently experiential, dependent on physical sensations." (Turkle, 1996: 53)

Playing with identity using the Internet seems to be bodiless. However this forgetting of the physical body's existence occurred already in ancient Greek theatre. Masks were used for the portrayal of various stock characters, be it the Mischievous Slave, the Idle Son, or the Angry Father. They were not a disguise but a transformation tool. The actor on the stage expresses a character embodying the life and the related emotions of his mask (Maduram, 2002: 3). The bodies of the mask-wearing humans were only seen as instruments, acting like an internal clockwork: "To this extent, the mask and costume are the character, and the actor merely the mechanism that gives them temporary motion." (Mitchell, 1985: 11) Several characters were performed by a single actor; especially male actors could transform themselves into female characters. The wearers of the mask separated themselves from their known identity presented by their own body by the masks representing symbolic images with a universal character (Mitchell, 1985: 7). Hiding behind a mask gives humans the opportunity for "setting aside social taboos and freely participating" in interaction plays, questioning the rules and routines of society. So the "mask invites curiosity, providing occasion for the workings of seduction" (Coyne et al., 2000: 67–68).

So even in the function of hiding, the mask reveals as well as conceals: making the body physically invisible and making our daily acting mentally visible again. With masked interactions, humans transform themselves and the worlds they interact in. But in the mask itself a reference to a human body is mostly present; alternated or swapped.

The Mask as a Mediator

The mask is a mediator between the inner self of its wearers, the world they live in and the worlds they cannot reach. As the twentieth-century Scandinavian painter Egil Jacobson, famous for his mask paintings, wrote to his biographer Per Hovdenakk:

> "The mask has existed for millennia as an expression in many widely differing cultures. It can be primitive or sophisticated. All moods can be expressed through it [...] Whenever I think of the mask, it is not to conceal or to frighten but to express inner and outer experiences, and to free these experiences and pass them on. The eyes look inwards, trying to recognize something, and look outward to unite it with its surroundings. It is inward turned self-recognition and outward turned liberation for the Drama, seeking the whole, a poetic synthesis." (Mussari, 2004: 491–492)

In ritual performances the mask functions as a medium through which the gods can be invoked. It gives the invisible god an appropriate and available form for communication with humans (Sheppard, 2001: 26). In many computer games humans play god, heroes, and murderers, disguised as avatars, living a life very different from their daily life. On social networking sites like Second Life you can be rich and famous and have a marvellous body. The Rolling Stones fans on their fan sites can create the illusions that they are living in the community of the band or even be a band member (Baker, 2009). In their impacts, the virtual masks create consciousness for transitions and give us the Friends and Followers we need.

THE THEATRE AND THE MASKS IN OUR VIRTUAL WORLDS

The Masquerade World

If we define a masquerade world as a social gathering of actors wearing masks, then the integration and mixing of the virtual and real worlds are masquerades. We are living more and more in an artificial theatre play with planned scripts and human and non-human actors disguised behind masks. Actors are wearing

several masks, as already mentioned, for protection, for hiding and for representation. We are dealing with artificial actors wearing the masks of humans and humans wearing virtual and real masks. Reality is infiltrated with sensing, computing, transmitting, and acting hardware. The acting of people will be preceded, accompanied, and followed by the invisible and visible acting of artificial intelligent tools and environments – and their providers.

Mixed reality is a world of fragmented, partial identities referring to human and non-human actors. Persons can create many identities and identities can be shared by many persons or present a community of actors. Annamaria S. de Rosa calls this self-baptism (De Rosa, 2002). This ritual is the start of an adventure in which humans can discover that their body is 'one' but their selfs are fragmented as Vitangelo Moscarda, the protagonist in Luigi Pirandello's novel *One, None and a Hundred Thousand (Uno, Nessuno e Centomila)* discovered during an illness. After he was cured he was free from his past. He was no longer living in himself but in everything around and outside him. In this sense the usage of several identities in the Internet could be a disease that disrupts the image of our self – or are we already experiencing the healing?

In the mixed realities, interaction has become an interaction between masks:

> "On the Internet, it can be hard to know if the entity we are interacting with is of flesh and blood, or only digital. We are now facing a complex reality both in the 'real' world and in the information society. We have to deal with subjects acting behind masks." The masks are the actors in our mixed reality: "In front of the mask, we have the identity." (Jaquet-Chiffelle et al., 2009: 78, 82)

The play with identity in mixed reality has blurred the concept of an official, unique, and legal identity in the system of states and countries. In that system we are registered by our birth, marriages, sex, and death. Human actors can act only having these identity documents: Enter and leave a country, buy and sell, have a legal job. The official identity documents are transparent masks which refer to our official status and will link us with the activity of the past and the rights and duties of the present. However, the uniqueness of identity is dissolved by the use of electronic media: "People have many identities nowadays; and some identities may also be shared by different persons or even by things." (Jaquet-Chiffelle et al., 2009: 76) The state has already lost the exclusive power of registration and production of identity documents. It

only produces 'flesh and blood' identities linking them to a material body by enhancing the amount of biometrical data in the identity documents. So it can only tie rights and duties to that material body. State and countries are aware of this loss and are producing laws for unmasking the real and the virtual persons: forbidding the burka and the covering of head and face and encrypting Internet communication.[5] Humans will be confronted with questions like:

> "Are the masks in our mixed reality really representations of the devil as was thought in the Middle Ages? Should we listen to the authority like the clerical authorities in the Middle Ages, who want to forbid our mixed reality masks? Or are these authorities themselves the evil forces who want to posses identity and unmask our interactivities?" (Mitchell, 1985: 26)

Masking the flesh and blood will become one of the main strategies for hiding and protection. Altering fingerprints and wearing a cap and sunglasses in an environment with cameras is a protection against face recognition. Another strategy is masking the link between the body and our virtual interactions; reducing the amount of information that will be disclosed in our online interaction: e.g. sender anonymity (remaining unidentifiable to the communicating party) and unlinkability (the inability to determine that you are communicating with a particular receiver) (Romanosky et al., 2006: 7–8). However, can we avoid that in the future masks are interactive artificial intelligent devices linking themselves with the physical body of their wearers?

In these mixed mask worlds there will be a conflict between aspects of authenticity and privacy. At the end of the Middle Ages, according to Christoph Heyl (2004), the mask became in London a device for creating a private sphere in public. It was common for women to wear a mask in public as a protection of their privacy and reputation from uninvited eyes. The mask initially belonged to the winter accessories for protection of the face and became available at any time of the year to confer varying degrees of anonymity. Its size increased from the half-mask to a mask covering the entire face. Masks were worn in special places such as London parks and theatres. With the mask, women could escape from the role they played in everyday life. The semiotic

5 | See for instance the comment of Charlie Savage in the article "U.S. Tries to Make It Easier to Wiretap the Internet", *New York Times*, 27 September 2010. Available at: http://www.nytimes.com/2010/09/27/us/27wiretap.html (accessed 12 September 2012).

function of these masks was to denote that people might approach each other more freely than elsewhere:

> "The mask assumed a dialectic function of repellent and invitation, its message was both 'I can't be seen, I am – at least notionally – not here at all', and 'look at me, I am wearing a mask, maybe I am about to abandon the role I normally play'. One of the mask's paradoxical attractions was that it could both endanger and protect one's respectability. On the one hand, wearing a mask, one might allow oneself to do things which would otherwise be unthinkable." (Heyl, 2005: 134)

Encrypting textual actions in the Internet is a protection against unauthorized reading and infiltration. Humans in these mixed realities are overloaded with information and invitations to act. Creating mask filters such as 'People You May Know', and the 'News Feed' in Facebook are necessary survival tools for not drowning in this overload and not being seduced into undesirable involvements. The avatar masks humans use in social nets are mostly invitations to interact with each other in a specific way. Avatars can only present a selective part of the persons who have chosen these masks, but "they are rich as performed expressions of how users perceive themselves and/or desire to be perceived" (Bardzell and Bardzell, 2008: 12). Avatars connect the 'real actors' with the other masked actors playing on the stage of mixed reality, The avatars are active representations and should be understood as 'subjectivities', a "living force, an agent that both acts in the world and is constituted in the world through action. Because it is constituted through action or performance, it cannot lie; it is as it does" (Bardzell and Bardzell, 2008: 12).

The Audience of the Mask

In the theatre, the mask is not only used for an aesthetic transformation of the actors but also for the transformation of the audience when it decides to believe in that transformation. "By engaging with the mask performer, the audience shares in the transformation, and in this way is able to be transformed themselves." (Koerner, 2008: 25) A mask is actable because the wearer and the audience give meaning to the mask; it connects the wearer with its audience. Masking is in the theatre and in our mixed reality "[...] a socially constructed act. Masking will not work as discussed if there is no shared understanding [...] between the wearer and audience about what masking socially means" (Kim,

2004: 50). In that understanding, the audience can undertake a dominant, negotiated or an oppositional reading of the masked performance (Hall, 1980). The followers in Facebook are perhaps the passive auditorium for which the performance is actable in such a way that they undertake the preferred reading. A lot of commercial companies just for that reason 'mask and play' the role of a friend.

Do we have the freedom to choose our reading position? In the mixed masked worlds power relations will undeniably exist between the masked performers and the audience. A performance with masks can articulate an unequal relation between masked performers and audience. Hiding behind an avatar mask transforms an actor into an anonymous observer, a position which normally is reserved for the audience: "Freedom to gaze anonymously in a darkened auditorium. The masked performer is allowed to observe from behind a sheltering cover." (Sheppard, 2001: 25)

Ferdinand de Jong (1999) has analyzed the Kumpo mask performance in Southern Senegal. He mentioned that masking enables certain groups to exert coercive power on condition that the audience subjects itself to the capricious behavior of the mask. The Kumpo mask cannot exist without an audience and without playing its part in the performance. The mask comes to life by running around speaking or shouting and often threatening the audience. Mask performers are nearly always male and their identity is kept secret from women. The secrecy aspects imposed on the audience serves the purpose of exerting coercive power. Women, as part of the audience and excluded as wearers of the mask, are an integral part of the performance since the power of illusion and secrecy depends upon women playing the role of the non-initiated. Ferdinand de Jong concluded that by examining the social dynamics of mask performance the following question has to be asked: "Who has the right to present masks and to turn others into an audience?" (Tokin quoted in De Jong, 1999: 54) The player-audience relationships in the mask performance reflect or legitimize social relationships but also produce them. Anonymous and Pussy Riot produce visible audiences and engage them in their unmasking activities. "The right to present masks and to turn others into an audience is itself subject to negotiation." (De Jong, 1999: 54) However, as de Jong holds, the audience is mostly in the disadvantaged position of being unable to contest or question the player-audience relationship.

Masking as a Sign of Humanity

Joan Riviere described in her essay of 1929, *Womanliness as Masquerade*, a professional woman having success in her job. "This woman experienced anxiety after each public appointment, and sought reassurance from father figures among her colleagues, primarily through inappropriate flirting and seductive behaviour." (Riviere quoted in Robinson, 2006: 32) Riviere deduced: "Womanliness therefore could be assumed and worn as a mask, both to hide the possession of masculinity and to avert the reprisals expected if she was found to possess it." (Riviere quoted in Robinson, 2006: 32) This mask was used far more as a device for avoiding anxiety than as a primary mode of sexual enjoyment (Chowaniec et al., 2008).

Luce Irigaray saw the mask of feminity as a necessary key to enter in a world "of values that is not hers":

> "The belief, for example, that it is necessary to become a woman, a 'normal' one at that, whereas a man is a man from the outset. He has only to effect his being-a-man, whereas a woman has to become a normal woman, that is, has to enter into the masquerade of femininity. [...] and in which she can 'appear' and circulate only when enveloped in the needs / desires / fantasies of others, namely, men." (Irigaray, 1985: 134; Robinson, 2006: 33–34).

According to Luce Irigaray it is an alienated, false version of feminity, developed out of the awareness of women to comfort man's desire for her to be his other. The mask is the frame made by man's desire (Irigaray 1985: 220).

According to Rafael Capurro, robots can be seen also as a mask of human desire: "Our love affair with them opens a double bind relationship that includes the whole range of human passions, from indifference through idealization until rivalry and violence." Robots are the masks in which we can discuss "the humanness of humanity [...] robots are the bad and the good conscience of ourselves". In the robot mask, humans redefine our identity but also the identity of the human we want to possess and we want to be (Capurro, 2007). In that desire we go as far as possible, going into the creation of artificial humans. It is this same longing that the mask represents in the theatre in the tribal rites, trying to reach a god and even being a god.

There are already a lot of masked priests like futurist Ray Kurzweil, an advocate of the transhumanist movements, who have put on the masks of the god and given their vision of the future of humans:

> "A future period during which the pace of technological change will be so fast and far-reaching that human existence on this planet will be irreversibly altered. We will combine our brain power – the knowledge, skills, and personality quirks that make us human – with our computer power in order to think, reason, communicate, and create in ways we can scarcely even contemplate today. This merger of man and machine, coupled with the sudden explosion in machine intelligence and rapid innovation in gene research and nanotechnology, will result in a world where there is no distinction between the biological and the mechanical, or between physical and virtual reality." (Kurzweil, 2006: 39)

Of course, these predictions are overloaded by statements that technology "of course" will be for the benefit of human kind: "These developments will help over-come pollution and poverty, provide vastly extended longevity and enhance human intelligence." (Kurzweil, 2007: 76) However, he is preparing humans for living in a world that will not longer be theirs. The world could become occupied by super cyborgs in which human intelligence will be considered as subordinate to artificial intelligence.

Are the appearances of masks in our mixed reality signs of a masquerade of humanity? Are we comforting the wishes and desires of the technology shamans? Or are we healing ourselves from the traumas in real life? Emotionality and sociability are inappropriate qualities to attach to artificial devices. However, why are so many designers busy making models of human emotions to mimic them in robots and avatars? Is it the exclusion of human emotions in ourselves and other humans? Can we better deal with prepared controllable emotions?

CONCLUSION

The masking in mixed reality has already belonged to our culture for a long time. Humans need the masquerade for disrupting their mental invisibility because it

> "unsettles and disrupts the fantasy of coherent, unitary, stable, mutually exclusive divisions. It replaces clarity with ambiguity, certainty with reflexivity, and phantasmic construction of containment and closure with constructions that in reality are more messy, diverse, impure, and imperfect" (Tseëlon, 2001: 3).

Looking to the differences and resemblances with masking in theatre, in rites and in daily life, I formulated questions on the masking in our mixed reality by walking back on the traces of masks and looking at their imprints (Wiszniewski and Coyne, 2002: 203). I learned that humans have always lived in a masked society and that masking is an act in the space between the infinite and fictitious poles of total invisibility and visibility. "In this oscillation between a concealing and revealing, one can comprehend practical differences, which brings us closer to the nature of identity and community." (Wiszniewski and Coyne, 2002: 210) How and what the mask reveals, depends on the producer, the wearer, the audience, the interaction and the context situation the mask is used in (Gjertson, 1992: 1, 6–7). The gender masquerades of past and present can lead us to the disclosure of the masquerade of humans in robots and avatars in the future of mixed reality.

The phenomenon of the mask establishes an active field of play between notions of presence and absence, of invisibility and visibility. A mask has always two sides: the visible in the mask and the invisible behind the mask. The issues of visibility and invisibility are not only to ask who and what is visible but who sees what and who creates invisibilities in our daily lives, realizing that human and artificial actors wear masks to hide from unwanted interpretations and representations and to enhance specific affordances. Masks are the identities, ready-made for interpretation. We have to deal with human and artificial subjects acting behind masks. All these masks are interacting and demand for interpretation. Only in the complexity of their negotiations, conflicts, and agreements can we try to understand the interactions of masks, or in the words of Claude Lévi-Strauss, a mask exits not in isolation, there are always other masks by its side: "A mask is not primarily what it represents but what it transforms, that is to say, what it chooses not to represent. [...] a mask denies as much as it affirms. It is not made solely of what it says or thinks it is saying, but of what it excludes." (Lévi-Strauss, 1988: 144) Masks always give us the opportunity of unmasking, disrupting the mental invisibility of our self, the others, and the daily life we are acting in. And having a mask ourselves, it will give us the protection we need. Still we have to ask: Who are the providers of the masks and who will do the unmasking?

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