

Does the body disappear?
A comment on computer generated spaces

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1. Dematerialisation?

The notion that the use of new media effects a dematerialisation constitutes a kind of lowest common denominator for the various designs of knowledge societies' perspectives: Norbert Wiener's distinction of information from matter and energy turned information into a quantifiable 'universal coin' that permitted all phenomena to be commensurable and transferable under the aspect of their telecommunicational coding, regardless of their spatio-temporal and their respective meaning. Marshall McLuhan's 'global village' proceeds from the assumption of an electronic shrinkage of spatial distance which enables the realisation of a form of telepresence that supersedes the principle of locality as a sine qua non of interactive communication.¹ Hans Moravec's utopia of 'mind children' projects a transplantation of our mental capability into machines, so that intelligence and information become independent of biological embodiment, and that the body, just as the brain, may degenerate into the dross of an immortalised mind.² Then Jean-Francois Lyotard's Parisian exhibition 'Les Immatériaux' (1985) staged this tendency towards immaterialisation as a topos in the borderland of science and art, significant for our time.³ The assumption that the informatisation of the lived-in world leads to a dematerialisation is accompanied by a rhetoric of disappearance: the unity-endowing narrations drop away, the senses dwindle, the signs lose their referents, reality evaporates into hyperreality. Our culture's unconcealed interest in *soma*—be it in terms of athletical stylisation of the body or as an endorphin-raising, extreme bodily experience—can then be interpreted as a compensation and counter movement to this apparent disembodiment which is supposedly brought about by new media: a fascination both confirmed and approved of simultaneously

¹ McLuhan 1968, p. 43ff.

² Moravec 1990.

³ Lyotard 1985.

insofar as these bodily practices are only possible in spaces that are three-dimensional and hazardous, thus real and not virtual.

The following considerations should be taken as a critical comment of the presumption that new media brings about a dematerialisation and disembodiment of our civilisation. The idea of the disappearance of the body under conditions of virtualisation falls short. It is not the dissolution of the body taking place under these conditions, but rather its splitting into both a human body and a data body, its doubling into a physical and a semiotic body. Occurrences in virtual reality—we hereafter make use of the expression ‘virtual reality’ as a technical term⁴—are not simply due to a disembodiment, but to the sublime transformation of the body into flesh body and sign body. How can we trace this transformation? Spatiality and the principle of locality play a role. Descartes defined matter by spatial extension – a *res extensa* – and therewith specified as the concept of body as that which occupies a well-defined place in space. If now the conception of the body is subject to change, then this change must—in some way—have to do with a transformation of space. The metamorphosis of ‘corporeality’ under the condition of virtualisation relates to a metamorphosis of ‘spatiality’ itself.

2. Vertigo in virtual space?

There is a remarkable phenomenon, which Jay David Bolter calls attention to:⁵ there is barely one sensation which more sustainably and radically asserts our having a body and its actual determination by its position in space than the phenomenon of vertigo. People who suffer from acrophobia are hardly capable of stepping on high balconies, climbing towers, or taking transparent lifts. Being exposed to such circumstances causes somatic afflictions which can assume the characteristics of pathological anxiety reactions: heart complaint, sweating hands, feeling of oppression, paralysis.⁶ Yet fear of heights is only perceived when one’s body is actually placed in an elevated position. If virtual realities depend upon disembodiment, acrophobics who step on a virtual suspension bridge or enter virtual lifts via immersion techniques should not suffer from any physical discomfort. However, that is not the case. At Georgia Institute of Technology, three computer-generated virtual spaces were designed: a balcony situated high-up and providing a downward view, an open lift, and building-to-building suspension bridges. Acrophobia patients who entered these virtual installations did not only exhibit

⁴ By the term “virtual reality“ we refer to technologies which allow for the integration of a user into computer generated environments, therewith enabling him to interact with the data universe. On this term: Bühl 1996, p. 53ff.

⁵ Bolter 1996.

⁶ Hodges et al. 1995.

each somatic symptom but were even cured with the aid of these virtual spaces. Thus, the mere simulated presence of the body in the data world is perceived as a real presence and triggers physical, anxious reactions in one's own body.

How can that be? Bolter, with good reason, suspects this is not due to realistic depiction, for the phobia producing virtual realities are strongly simplified and at best coarsely operating with photo realistic, illusionary techniques. Rather, what counts is the fact that the setting 'stepped into' reacts to the user's respective body movements. Obviously, an interaction takes place between the user's physical body, fitted with a data suit and a head-mounted display (HMD), and his virtual body, situated on the suspension bridge. But this virtual body is only present in terms of the respective viewpoint from which the virtual environment presents itself to the user's eyes via HMD. Hence, in this case, the interaction is only present and embodied in terms of the perspectives which are constantly changed in respect to the movements of the user's physical body. Nevertheless, whilst the actual body only seems to be high up, the semi-otic body—taken to be a point of view from a certain altitude—is actually present on the suspension bridge.

Let's have a closer look at this relation between virtuality, illusory placing and interaction.

3. What does 'virtuality' mean?

Elena Esposito originated the idea of associating 'virtuality' with illusory placing thereby introducing the well acquainted phenomenon of mirror images to explain 'virtual'.⁷ 'Virtual' is a term in optics which refers to images not based on light rays spreading linearly. Reflections, for instance, are virtual, insofar as they convey the impression of the mirrored objects as if they were actually located behind the mirror surface. Thus virtuality not only produces illusory objects, but provides real objects with *illusory placings*. In this way, seeing things from front and behind simultaneously, or seeing oneself with the eyes of the others, becomes possible. Even so we have no chance of stepping into the mirror image. We have to change the world in front of the mirror for the world in the mirror to be changed. Indeed, reflections are images, but not signs of the reflected objects.⁸ By extrapolating the mirror metaphor we can make a first attempt to grasp what 'computer generated virtualisation' means. Imagine that there is a technology (a) allowing us to step into the mirror world and to interact with the mirrored objects, whilst (b) what is mirrored is not simply things, but signs resp. symbol worlds.

⁷ Esposito 1995.

⁸ cf. Eco 1988.

Computer generated virtual realities are immersive reflections of symbolic universes, in which a user can interact with symbol structures.

However, there is a bottleneck that must be passed through from the real to the virtual and vice versa, and this is only achievable by semiotisation. For the user this means that an immersion in the virtual world can only succeed provided a mapping of his corporeal body to a data body, which acts as an arbitrary symbolic (re-)construction of the viewpoint and movement of the physical body, is carried out. This can be accomplished by information technologically upgrading the body with a data suit, helmet and gloves, or more subtly, via scanning or detecting the body by means of video cameras. What it comes down to is that positions and movements of body parts are recorded, digitised and made present by a “sign body” in virtual space as a representation of the physical body. This presence of the “sign body” can be implicit in terms of the viewpoint which determines the respective perspective under which a scenery appears as a function of the user’s ocular movements. Or this presence can be explicit in terms of an arrow, a stylised hand, or any fictional figure which becomes part of the virtual scene. In any case the user’s body exists as twofold, the physical body and the semiotic body. This duplication only succeeds since “flesh body” and “sign body” are connected by a bilaterally permeable, electronic umbilical cord.

But what gets interchanged by means of this “umbilical cord”? All virtual reality input technologies come down to the transmission of ocular, manual, facial and bodily *movements*. Usually, by “body” we mean something which has a specific position in space and time. Regarding bodies which change position we speak of movement. Movement, like the body itself, is determined by the principle of locality, insofar as movement invariably relates to a change in position of a body. Therefore, the user’s presence in three-dimensional space and his performing actual movements – however limited the latter may be – is the condition for his semiotic body to become active in cyberspace at all. Thanks to the computer’s computational power, the bodily movements are transferred to the data body so fast as to be unnoticeable to human perception, any sense of a *transmission* vanishes. Thus the user’s semiotic body experientially does not figure as a counterpart to his physical body. The intimate spatiality, in which bodies relate to one another positionally by “here” and “there”, does not hold anymore for the relation between physical and semiotic body.

It is exactly this exemption of the principle of locality concerning the data body which is the artistic message of the interactive computer installation *The Trace, Remote Insinuated Pres-*

ence, presented in 1995 at the Contemporary Art Fair in Madrid.⁹ Within this work, which is described by the artists as “tele-embodiment”¹⁰, participants who are located at separate places can, at their respective place, encounter the other’s semiotic double. The physical body of one participant and the semiotic body of a second can approximate or evade one another, and eventually occupy the same place by the coincidental positions of the real person in three-dimensional space and the virtual person in telematic space. That way, real body and data body can “merge” resp. incorporate: they coincide. The principle (valid for physical reality) that two bodies cannot be in the same place at the same time does not apply anymore: The “flesh body” of one person, and the “sign body” of another are in the same “position”. The imperative of distance does not hold. ‘Illusory placing’, which we introduced as a defining criterion of the virtual, consists of just this trick of zero distance.

But is that which is placeable in an illusory manner still a body at all? And is where it is placed, still a space at all? Put differently, if we continue calling the data body “body” and calling virtual spaces “spaces”, how does the concept of body and the concept of space have to change for such designations not to become meaningless? Answering these questions remains a research task, but at least some directions emerge. For one thing, the conceptual transformations have to do with the altered relation between space and time—space here taken as three-dimensional, physical space—and for another thing, they have to do with the relation between space and person—space here taken as social space.

4. Space and time: the implementation of time into sign configurations

What does the proficiency of computer generated virtuality consist of? The buzzword “interactivity” can show us a way. What “interaction” means is familiar from verbal conversation: ‘Ego’ and ‘Alter’ reciprocally refer to one another in what they say and how they say it. And we are just as acquainted with the intervention of writing to split up communication and interaction: wherever is written, the readers are absent, wherever is read, the author is. Indeed the symbolic register of literality (we can also say, cultural techniques) rests upon our ability to produce, look at, convert, interpret and erase signs. And yet they still elude interaction. We know about interacting with persons, with animals, too, and even with things on a limited

⁹ This installation was presented by media artists Rafael Lozano-Hemmer and Will Bauer at Contemporary Art Fair in Madrid: Lozano-Hemmer 1996.

¹⁰ “Tele-embodiment is the technically supported act of being in spatial and temporal coincidence with other humans.” Lozano-Hemmer 1996, p. 142.

scale, but an interactivity involving symbols is unknown to us. And that does not only bear on our dealing with texts, but likewise includes our relation to images.¹¹

Is it by chance that spatiality is the fundamental medium of this symbolic register of literacy? A complex link between the culture of literacy and the medial order of spatiality is touched upon here. There are several phenomena which testify to such a connection:

- (1) For one thing, there is the privileging of eyesight, dating back to Greek Antiquity.¹² This, however, is a sense by which the manifold can be surveyed side by side, i.e. simultaneously, and whose capability furthermore increases, not diminishes, with the distance to the viewed object.
- (2) For another thing, there is the – mostly remaining implicit – identification of language with script (*Schrift*) nearly all theories of language draw their idea of language from the model of script, which, however, is a language modality which makes use of the potential for representation of spatio-visual configurations by which language advances to an image, namely to a script figure (*Schriftbild*).
- (3) And lastly, there is the fact that we even represent time itself only by means of visual schemes, be it a point of time, an arrow of time, or a space of time: whenever we indicate temporality, time is spatialised.

The use of computers presents a kind of cultural technique inasmuch as the cultural techniques of literacy such as reading, writing and arithmetic rest upon the exclusion of interaction with symbols, whereas that of computer utilisation, however, rests upon the inclusion of interacting with symbols. This ability to interact with symbol structures – and that is the supposition that it comes down to – becomes possible only by the implementation of time into symbolic configurations. Well, how is that to be understood?

Virtually all metaphors used to describe the forms and practices that have arisen in dealing with information called on conceptions of space (be it the “data universe”, the “net”, or the “desktop”) as an organisational principle of a computer’s user interface. Yet the assumption of this preference for the semantic field of spatiality does not account for the future impulses by which computers will shape our access to and handling of information – impulses which consist in the implementation of temporality into forms of symbols we traditionally organised as spatial relations. Writing, text and the book: of these media it is a characteristic – unlike the

¹¹ However, there is a misunderstanding to pre-empt: the dispensation of interaction is not just lack and loss, but a culture conveying achievement which opens up new scopes to our cognitive and aesthetic world-relatedness. In conversational interaction among physically present persons, characterised and also blurred by asymmetries of charisma and power, it is just its interruption which in the form of solitary writing and reading profoundly promoted an individuality in the sense of the formation of an idiosyncratic perspective, critical faculties towards the truth claims of texts, as well as an insight into the difference and plurality of interpretational possibilities.

¹² Riedel 1984.

fluid word, barely uttered, already fading away – to display a time-resistant stability. Although each reading process creates a unique text for the reader and, during repeated reading a varied one as well, the texture conceived as a legible structure of significant remains stable. Therefore, if the transition¹³ from orality to literacy in medial respects can be described as a spatialisation, then the transition from literacy to telematics lies in a temporalisation.

David Gelernter assumes that we are standing at the verge of a period in which computers mainly „deal with palpable time—with visualised, concrete time.“¹⁴ There is something static and immanent to space, yet time flows (by). The fluent current, i.e. no longer the cabinet and the document kept therein, becomes the essential organisational principle of information. If temporality becomes inherent in data structures – this being Gelernter’s speculation – information which is accessible and processable via computers does not remain in the shape of “documents” but takes on that of “cyber bodies”. It is then organised like a “life stream”. Approaches to a non-Cartesian conception of the body become visible here: a body is taken as an entity in flow which is not defined anymore by its position in space, but by its changing in time.

The basic idea of this speculation, that the implementation of time into data structures would make a significant difference between the “register of textuality” and the “register of digitality”, already becomes unspeculatively evident with, for example, image-generating techniques in computer generated numerical simulations, which fulfill visualisational functions in the sciences. Gabriele Gramelsberger showed¹⁵ the basis of this kind of simulation to be a novel form and function of script, which she designated “digitised script.” By means of digitised script it becomes possible to not just describe, as with phonetic script, nor to just calculate, as with formal, operational script, but to dynamise system flows in order to render temporal processes functionally representable, and computer animated images analogously presentable as well. This dynamisation of data structures in numerical simulation rests upon the fact that „points in time become real numbers which are defined by infinitesimal processes of approximation“:¹⁶ thus, time becomes integrated in mathematical—and with this also symbolical—structures.

This simulation technique also allows for user movements – whether that involves eye movement, facial expression, gesticulation, or whole body movement – to be captured in a

¹³ The word “transition” here does not mean a substitutional relation of orality by literacy, of which there is none in this naive form, but is meant in the sense of a systematic distinguishability.

¹⁴ Gelernter 2000, p. 59 (translated quoting)

¹⁵ Gabriele Gramelsberger, *Semiotik und Simulation. Fortführung der Schrift ins Dynamische*, Dissertation FU Berlin 2002 75ff.

¹⁶ *ibid.* p. 71 (translated quoting)

way that movement of the physical body becomes simulateable in virtual space by the data body. This data body is “corporeal” not only because it bears a relation of mapping to the user’s body, but also because time is implemented into the symbolic structures of this representation as well as into the symbolic environment itself. The symbols have become dynamical, they are incarnations of time, and it is just that which enables novel interactivity with them.

5. Space and body: the constitution of corporeity by central perspective and virtual reality

Through his distinction of “res extensa” and “res cogitans”, Descartes did not only determine the “body” by its difference to mind, but at the same time he grasped the notion of matter as spatial extension, i.e. identifying the physical body with a geometric body.

Now if the data body in the web owes its corporeity to the implementation of temporality and motion, does that make virtual reality a phenomenon which undermines the Cartesian body conception? One might think so. Yet the situation is more complicated with regard to current techniques of virtual reality, since the virtual body is dynamisable only insofar as the real body, placed in three-dimensional space, gets reduced to a “Cartesian body par excellence”. How is that to be understood?

At this point, a revealing analogy between virtual reality and the technique of central perspective lends a helping hand. With his conception of matter, Descartes philosophically realises that which central perspective effectuated, with regard to the early modern body image. Usually, depiction employing central perspective appears as a “natural” representation resting upon an imitation of the laws of the visual process by the rules of artistic creation. But space in central perspective is an infinite, continuous, homogenous, and thus mathematical space which to no degree coincides with the psycho-physical space of human corporeity, to which top and bottom, left and right, front and back are precisely not homogenous. Linear perspective creates a visual syntax, in the medium of which the body becomes determined and visualised in a new way: bodies – as well as their spacings, by the way – rank as incarnations of geometric proportions by which they are homogenised and rendered comparable. The body is embodied mathematics. Accordingly, the representation of the body in a picture exercising central perspective is not founded anymore on the significance and relevance of the depicted persons, but exclusively depends on their position in space put into an arithmetical relation to the immobile eye of an external observer.

Maybe the 'family likeness' between central perspective and virtual reality can now become clear. Regardless of the crucial difference that tableaux rest upon separation whereas virtual realities rely on the concurrence of representation and interaction, there is a similarity. It consists in the fact that what is considered a body does not only attain representation, but at the same time is constituted by techniques of representation. The doubling into the physical and the semiotic body as a condition for interacting with virtual realities means that the body of the user has to be transformed into a purely physical body. The coordinates of the moving physical body are transferred to its semiotic double in electronic space. The user "counts" as a mere body-in-motion. Like central perspective transforming the resting body into something fundamentally characterised by its spatial position, virtual reality transforms the mobile body into something ascribed by its digitisable motion grid. So, would it not be true to say that the clue to virtualisation also lies in disembodiment and depersonalisation, and not solely in the dissociation of physical body and data body?

6. On the transformation of social space in telematic communication

6.1. Script as a medium of synchronicity: the "pseudonym-isation" of communication

Now we have to focus our interest on another phenomenon concerning the use of computers. This time it is neither about virtual realities, in the sense of immersive data spaces, nor their relation to the user's three-dimensional, *physical* space. What it is about is the telematic, synchronous communication between spatially separated persons, taken as the genesis of a *social* space of virtual communities.

Social spaces come into existence through communication; what they are made of are all conditions whose 'being' rests upon 'being acknowledged'. From the perspective of acknowledgement relations, humans in social spaces do not just rate as a biological species, nor just as corporeal beings, but rather as *persons*. If computer mediated telecommunication leads into a virtualisation of social spaces, what does that mean, then, for the status of the communicators' personhood?

In order to find an answer to that, we have to look at which shape the semiotisation takes, i.e. the inevitable passing through the bottleneck when entering into online communication.

First, *script becomes the medium of synchronicity*.¹⁷ Usually, script disrupts communication: writing and reading disengage not only from the immediateness, spontaneity, irreversible fluidity of actual communication, but also from the communicators' entanglement. Between the

¹⁷ As to the altered role of writing, see Bolter 1997; Sandbothe 1997.

production and reception of texts a time interval intervenes. And that even holds for email or partaking in Usenet¹⁸, both of which are kinds of asynchronous communication where the participants are not simultaneously involved in communication. This changes with telematic communication in which script – or more precisely the use of keyboard and display – obtains a new purpose, insofar as it enables the simultaneous exchange between spatially absent persons. With this, script enters into functions, which, in face-to-face conversation, voice-bound speech does fulfil. Yet unlike the indexically meaningful voice, which in speaking always asserts the trace of the body, the script figure (*Schriftbild*) entered via the keyboard draws on the potential of anonymisation that is linked to script as an option. Due to the relatedness of online communication to script, those partaking in it appear pseudonymously.

We can distinguish two facets of this “pseudonym-isation”: (1) an *arbitrarisation of the name*, and (2) a *staging of personal identity*. As to (1): no name – no account! Having an addressable name is required for participating in web interaction. In ordinary life, our proper name is an attribute of our personality. It renders ourselves identifiable and gives us a singularity – before any biological, psychic or social development of individuality. The proper name assigns us a well-defined place in social space and social time. We do not create our proper name, but we receive it. And it endows personal identity just by virtue of that dimension in which it is not left to our power of disposition. This is quite different for the name under which we act in the web: it is chosen by ourselves, a product of a self-determined staging. This name provides an attributability, which can permit remaining anonymous to the person connected to it. This name is a depersonalising one. As to (2): the choice of a name is complemented by an artificial identity. By the *@describe me as* command we project and produce an identity staged according to outer and inner attributes. The arbitrary character of these “self”-descriptions comes glaringly to light with the *@gender* command. Admittedly the web identity calls for a specification of gender all along, but which “*gender-flag*” is set is left to the participants.

6.2. The division of *person* and *persona*

So we can see from the start, the mode of writing in online communication facilitates the operation of what are no longer persons but rather arbitrary descriptions of persons, i.e. staged identities behind which all the same programmes can be concealed. We shall label this personification of arbitrary descriptions, ‘*persona*’. ‘*Persona*’ is derivative of ‘*per-sonare*’, “to sound through” and originally means the mask through which the ancient actor speaks his role. So, does the splitting into a real person and a virtual *persona* imply a theatricalisation of

¹⁸ Usenet taken as an information exchange, where topic-specific articles are interchanged in newsgroups.

computer generated communication? Does telematic communication become a procedure related to proceedings on a stage?

Let us start from one popular case that has been frequently discussed in the debate on the usage of computers.¹⁹ Under the name of ‘legba’ a woman from Seattle acts in a MUD²⁰ on the internet. A participant going by the alias of ‘Mr. Bungle’ succeeds in cutting the real woman’s control over her alias existence by use of a programming trick to then involve her in a violent pornographic interaction. For the public, reading along interestedly, the impression is conveyed that ‘legba’ does not only consent to her simulated rape but actively partakes in it. After another persona acting under the alias of ‘starsinger’ is driven to simulated self-mutilation by ‘Mr. Bungle’ using the same hack, a ‘Wizard’ who has insight into the ‘lower’ code interrupts the affair and throws ‘Mr. Bungle’ out of the virtual scene. Then, via a mailing list the woman from Seattle makes the events known to the web public; further, the virtual community builds an ad-hoc government, which ostracises ‘Mr. Bungle’, whose personal identity of course remains unknown.

So what is the moral of the story? All acting in the web is acting by signs and thereby draws on the difference between ‘word’ and ‘thing’. So the obnoxiousness of this episode does not lie in the *description* of rape – for the description of rape *is* not rape, at best a piece of pornography originated with this. The obnoxiousness lies in the *violently interrupted influence of the real person over her virtual persona*.

Yet if that is the case, a crucial difference shows up between a virtual communication environment and theatrical events on the stage. An actor is indeed responsible for good or bad acting, however, not for whether he plays the part of a good or bad character. But even so, a real participant in online communication stays in connection with his artificial identity in such a way that his responsibility for what he does in communicating, even in the web, is not suspended in principle. Nevertheless, the constitutional “pseudonymity” creates a particular state of affairs that results in the development of normative practices in virtual communities which exclusively refer to the web *personae* and by no means – see the treatment of ‘Mr. Bungle’ – to the real *persons* they are associated with.

6.3 On universal pragmatic theory of communication

Let us take a step towards contemporary speech act and communication theory. Universal pragmatic theory of communication as elaborated by Karl Otto Apel and Jürgen Habermas typically links John Langshaw Austin’s idea to grasp speaking as a kind of doing, with the

¹⁹ Dibbel 1994; Turkle 1995, pp. 250-254; Sandbothe 1998.

²⁰ It is the LamdaMOO created by Pavel Curtis (Xerox PARC).

idea that a speaker can count as a personification of claims to be argued formal-rationally, i.e. a speaking situation being of sublimely juridical resp. contractual structure. Basically, this subliminal juridification of communication in universal pragmatic communication theory is about explaining the detachment of the factual and the relational aspect in speech by the fact that in speaking we raise validity *claims* of truth, truthfulness and correctness, which the addressed can then – with good reason – accept or reject. The power of the better argument is the sole criterion for acceptance or rejection. And it is language itself which – by distinguishing ‘communication’ from ‘discourse’, by switching between these two levels, and by enabling an interruption of communication and entering into discourse – opens the possibility of rationally negotiating and deciding the validity claim at issue whenever disagreement arises in the spontaneous flow of communication. Discourse becomes the place where—after Habermas—abstaining from all corporeal, psychological or social differences, we are considered the mere personification of the uniformly distributed ability to defend or overthrow validity claims by arguing.²¹ *Speaking under the idealised conditions of discourse becomes the possibility to be right.* This is what is meant by the latently juridical structure of communication theory.

6.4 *Personae* as participants in virtual communities

Let us now come back to the question of the “de-personalisation” of web communication, by reinterpreting the separation of *person* and *persona* from the viewpoint of communication theory.

If the performative dimension of speech is grounded in an inter-subjective structure of approval by virtue of which participants in communication are personifications of rationally negotiable validity claims, then in anonymised web communication this performative dimension is effectively dispensed: in telematic communication, it is only spoken and not acted. This is not surprising, considering that the semiotisation constitutes the condition of the possibility of web presence resp. data existence. From this viewpoint, telematic interaction between *personae* indeed belongs to the type of communication, which the originators of speech act theory excluded from their reflection as a form of ‘parasitic communication’, since here – as in speaking on stage – the very propositional-performative double structure of communication is suspended.

But at the same time, speech act and communication theory make use of idealisation assumptions, which seem to be fulfilled exactly in virtual, not in actual life-world communication.

²¹ Habermas 1984, p. 353ff.

Included in this, for example, is that in speaking we have to act as beings that are bared of all corporeal, gender-, social and geographic differences and who merely have to behave as participants provided with equal chances in communication. Where, if not in a disembodied, “pseudonym-ised”, computer mediated interaction, is such a condition given?²²

Regarding the form of communication emerging under such conditions, two things attract attention: (a) whereas in the theory of universal pragmatism, “to communicate” and “to argue” concur – at least in discourse – this is not the case in web communication. Communicating here is *not* arguing, but is a kind of reference to other *personae*, by responding to others and therefore becoming a participant. . *The maxim of web communication lies not in argumentative rationality, rather in interactive connectability.* (b) Accepting ‘the other as participant in interactive events’ constitutes a kind of acknowledgment relation that entails the *personae* to actually form respective issue-oriented virtual communities, which then develop their own kinds of rules. If, for instance, in order to attract attention a novice within a certain MUD is overly hasty with a ‘whuggle’ i.e. a virtual hug, this violates the web-etiquette and will lead to the novice being overlooked rather than integrated into the chat.

When relatability and 'being present' become the point of reference for communication, it has consequences for the modality of community-fostering possibilities of regulation and sanctioning. If – as Mike Sandbothe rightly emphasises²³ – it is correct that the internet does not constitute an anarchic space, but rather that proper methods of sanctioning misconduct have evolved, then the specificity of these methods consists just in influencing this very relatability and 'being present' and, if need be, in prohibiting it. The scale goes from being ignored by the participants to actual expulsion by a ‘wizard’. At all times, however, it is a question of a *persona* being accepted as a playmate or not. *Communicative interaction in virtual communities has the status of game moves.*²⁴

The question arises whether this phenomenon of our communication (aiming as it does, less at the defence of validity claims than at the avoidance of discontinuation of interaction), does not apply to any communication. Moreover, does the divergence of *person* and *persona* indicate that in our ‘ordinary lives’ too, our personality emerges from the sublime interplay of the person individuated by its proper name and the *persona* staged by us?

7. Conclusion

²² Unquestionably, other criteria of differentiation in terms of technical expertise arise.

²³ Sandbothe 1998, p. 314.

²⁴ For an interpretation of virtuality in context of the conception of “game” see Adamowsky 2000.

The starting point of our reflections was the question whether virtualisation leads to dematerialisation, disembodiment, and de-personalisation. A point about which we were decidedly sceptical. Our argumentation comprised of two steps: (1) *virtualisation as a possibility of interactivity with symbol structures*. The practices of literacy familiar to us rest upon our ability to create, transform, store, erase, but above all, interpret signs. Yet direct interaction with symbolic worlds is excluded by these same practices. Facilitating interactivity with semiotic structures is nevertheless possible through computer-mediated virtualisation. And (2) *semiotisation of the user as a precondition of acting in cyberspace*. The user, however, can enter into a synchronous reciprocity with signs if and only if he himself is subject to a semiotic metamorphosis. What this semiotic transformation amounts to has to be answered differently for the case of virtual reality on the one hand, and that of telematic communication on the other.

(a) To plunge into virtual realities, the user has to split up into a physical body that ‘counts’ as an embodiment of a computable motion grid, and a data body, which, in virtual reality, acts as a symbol structure. The movement of the physical body becomes the condition of the possibility of activating the data body. ‘Flesh body’ and ‘sign body’ are distinguishable but correlate and, by that interplay, introduce the question for the modification of our conception of the body.

(b) To partake in telematic communication, the user has to assume a self-staged identity and split up into a real *person* and a virtual *persona*. Insofar as the *personae* depend on acknowledgment as participants in online communication, virtual communities develop their own standards and practices of sanctioning, which however assume the character of game moves, as the exclusion of a *persona* from the communicational events constitutes the most radical kind of sanctioning.