

# The Digital Avatar as Embodiment Machine

With the growing connectivity of computer-mediated systems, the scope of activity occurring within digital environments is increasing dramatically. From e-commerce to online dating, we are integrating digital systems into the fabric of everyday life. As a result, it is becoming more necessary to project elements of ourselves into these digital environments. Whether this is the financial identity necessary to make a purchase, or the social identity required to engage romantically, we are obliged to generate some form of proxy subjectivity within the digital realm to act and react on our behalf.

One means of doing this is the avatar – an image representing the individual within a digital space (Figueroa-Sarriera, 1999:133). An avatar embodies our point of view within this space, and allows us to interact with other avatars (Davis, 1998:219). Such representations can be as simple as an online name, or as complex as a digitally rendered human form.

This paper examines the relationship between individuals and avatars as an exemplar of the connections we are forming with various digital representations of ourselves. A brief review of technologies prefiguring digital avatars is conducted, examining dolls, theatrical roles and numerous other instances. A tentative model is then described to explain variation in the nature of these diverse avatars, drawing on Deleuzian notions of machinic assemblage. Finally, this model is used to provide guidelines for the future development of digital avatars.

In studying the use of avatars, researchers have observed that individuals make considerable emotional investment in their 'virtual selves', many coming to identify strongly with their avatars. In certain instances, this may lead to dissolution of established boundary between digital experience and 'real life' (Davis, 1998:221; Turkle, 1995:Ch.10; Wallace, 1999:Ch.3). Despite these studies, many questions remain with regard to the fluidity and permeability of self that is experienced during avatar use. What is it that gives us 'the ability to live through virtual personae' (Turkle, 1995:231), and to be so profoundly affected by the 'death' of an online identity? (Morningstar and Farmer, 1991)

Exploring these effects, theorists have highlighted the importance of embodiment and spatiality, asserting that a qualitative change in online interaction occurs when avatars 'meet face to face' (Stone, 1991:112). This embodiment in digital space facilitates forms of social exchange that cannot avoid in some way affecting our notion of who and what we are. Even in purely textual environments, the (textually invoked) avatar becomes corporeal, and is still an important aspect of the most powerful online experiences – such as the infamous 'LambdaMOO rape' (Turkle, 1995:251).

Egginton describes the relationship we have with our corporeal avatars as 'extraordinarily tight', suggesting that

'an avatar experiences for a master; it is a prosthesis through which the master feels his or her way through a world he or she cannot physically enter, and feels emotionally the presence of others, a presence entirely mediated through, and therefore dependent upon, the identity of his or her avatar.' (2003:11, emphasis in original)

Before attempting to unpack the complexities of this relationship, it is useful to explore similar connections that have existed in the past, without the mediation of digital technology. In doing so, it



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is necessary to broaden Figueroa-Sarriera's definition of 'avatar'. Moving beyond the digital, such a term can reasonably encompass any proxy representation of agency within a defined environment.

To locate technologies that may prefigure the digital avatar, it is necessary to identify the key elements that allow avatars to function as they do. From the research described above, three factors are prominent: embodiment, spatiality and sociality. That is, an avatar must be an embodied representation that is situated in a space and facilitates interaction with others. One of the most obvious instances of such a relationship is that observed between children and dolls.

When children play with dolls, it is apparent that an alternative space is being created. Within the domestic utopia of a dollhouse, or across an expanse of military terrain in the backyard, a delimited imaginary realm is invoked, either by a single child, or through the consensus of a group. This space is then populated with dolls, from 'Barbie's to army men. Children will then act 'through' the dolls – often entering into dialogue with one another. An important distinction between doll-play and digital avatars is that dolls are rarely used explicitly to represent the child; more often they are a means of practicing and exploring specific social roles. While this may not appear to be related to identity in the same way as the subjective embodiment of digital avatars, this activity assists in the formation and internalisation of a range of role-based behaviours. The child is able to model his or her own future performances on scenarios played out within 'doll-space'. This type of preparation, learning, and rehearsal of social roles remains important throughout life in managing our own identities (Goffman, 1969). In this way, doll-avatars can be an important part of self-articulation, regardless of whether the child believes that they are representations of a 'true' self.

This connection between doll-avatars and the socially constructed roles they enact also applies to digital avatars. Davis describes a process of bricolage by which 'users stitched together their avatars from comic books, fashion magazines, or rock lyrics,' (1998:221) drawing on established cultural identities to assist in contextualising their performances. In analysing any specific avatar, it is important to ascertain what roles it is associated with, and the impact those roles have on the way an individual is embodied by that avatar.

Another instance of a space populated by what appear to be embodied representations of the individual is the board game. From Monopoly to Cluedo, there are many examples where each player is represented by a physical object (differentiated from others by its appearance) moving through a physical 'game-space'. While this appears to provide a situation where a degree of investment of identity could occur, this does not seem to be the case. Players may be emotionally engrossed in the outcome of the game, yet there is little if any sense of identification between players and their respective pieces. (Eggerton, 2003:11)

Comparing this scenario with either digital avatars or dolls, one clear difference is the scope of action facilitated by the object. The 'movement' of a game piece is restricted to effectively instantaneous transitions between specific squares on the board, often randomly determined. A Monopoly player on Park Place who rolls a two is limited to the singular action of moving to Boardwalk. He or she cannot decide to head the other way, or to stop for gelato at Euston Station. Further, he or she cannot even decide to walk, run, skip or jump.

Such rigidity firmly separates awareness of the game-space from action within it. In this way, any sense of immersive involvement is broken. Mihaly Csikszentmihalyi uses the term 'flow' to describe such immersion, and suggests that a primary requirement for the creation of flow is the "merging of action and awareness" (1975, p.38). With any limitation of that cyclic merging, "awareness becomes split, so that one perceives the activity from 'outside'" (p.38). As a consequence, engagement and identification become severely constrained.



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An exception to this limitation and rigidity of movement is the use of ‘miniatures’ in role-playing games (such as Dungeons and Dragons). In these games, players take on the roles of fictitious characters within a defined setting. To facilitate game-play, a scale version of the environment may be populated with scale models of the characters (Gygax, 1979:10). Within such games, a higher degree of identification and immersion in the fantasy typically occurs (Davis, 1998:209).

While there are similarities between role-playing games and the board games discussed previously, two differences are readily apparent. Firstly, players adopt defined and differentiated roles (or ‘characters’), which are established at the commencement of play, and develop over the course of the game. Writers as early as Hume (1978) have suggested that identity is synthesised from a succession of experiences. Following from this, the narrative development of character in role-playing games facilitates identification through an ongoing sequence of in-game experiences. Secondly, the scope for action by the players is much broader (Gygax, 1979:110), and not all of these actions may be represented by the scale model. While the Monopoly board and pieces exhaustively represent the state of play, the majority of the activity within a role-playing game occurs within a collaboratively constructed social space. In this way, the ‘physical miniature’ avatars are only one representation of the characters being portrayed; more important are the imagined avatars existing within the social game-space developed by the players

In such a non-material ‘social’ space, it is still useful to speak in terms of avatars. The avatar remains concrete within the game-space, in the sense that the character’s attributes (strength, equipment, age and so forth) are defined, and the actions of the avatar occur within a systemic framework established by the rules of the game. Certain activities are deemed possible or not possible, depending on the avatar in question and the nature of the game-space in which the avatar is located at a given point in time (Gygax, 1979). From this, it is apparent that this socially conceived avatar is the primary representation of the character, and it is this representation that the player becomes invested in and identifies more strongly with.

Continuing this line of thought, we may also consider live-action role-playing games, in which players physically perform much of the characters’ behaviour. This includes dressing and equipping themselves to appear as their character would, as well as engaging with other players ‘in character’. In this way, the player’s own (costumed) body acts as an avatar for the performance of their character, drawing on social roles both from the rules of the game, and often from an existing cultural repertoire such as mediaeval fantasy.

The mechanics of such a performance are very close to that of more traditional theatre – another arena that can be seen as an alternative space populated with ‘body’ avatars enacting predefined roles. When an actor portrays Hamlet, this can be seen as an embodiment, through the actor’s own physical body, of a very specific role – ‘the Prince of Denmark following the death of his father’. Any confusion of identity between actor and character is limited by the rigidity of a scripted, rehearsed role through which the actor is stepping. These boundaries are significantly undermined by techniques such as improvisation and ‘method acting’. Method acting attempts to immerse an actor in the moment so deeply that they experience the choices and actions of the character as their own agency. Method actors often speak of the permeability or ‘bleed’ this can create between themselves and a role. In explaining the process of crossing the ‘threshold of subconscious’ Stanislavski describes a mock surgical operation which is felt to be so real that the subject experiences ‘true-seeming feelings’ that linger long after the moment (Stanislavski, 1980:284). Massumi echoes this with his analysis of Ronald Reagan’s bloodless mock amputation (in Kings Row), where again an actor finds himself sufficiently immersed that it is the event itself that bleeds from one space into another (Massumi, 2002:49-57).



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In both live-action role-playing and theatre, the body is experienced as a technology for enacting a role. If we acknowledge that any activity in the presence of others constitutes a 'performance' (Goffman, 1969:26), it is clear that the body is always a technology in this way; that the 'self' is 'an actor playing an ordinary role in the ordinary way' (Massumi, 2002:48). This 'ordinary' body is an avatar.

In summary, while the most apparent analogies to digital avatars are physical representations such as dolls and game pieces, it is also useful to look at non-material avatars such as extemporaneously performed characters. In examining our interaction with avatars – digital and otherwise – we must also appreciate the importance of the socially constructed roles that are associated them. Finally, it must be acknowledged that the body itself can also be seen as an avatar, representing agency within the physical world.

This brief review has examined a number of situations where forms of embodiment have created a sense of identity and immersion in an alternative space, as well as other situations where they have failed to do so. The remainder of this paper outlines a theoretical structure within which to contextualise such effects. By unpacking the way in which we relate to avatars, a number of suggestions can be put forward as to the types of roles and embodiment most likely to create or prevent the exploration of subjectivity.

A useful tool in this process is the terminology of Deleuze and Guattari, who conceive of the world as a collection of interconnected 'machines' – "machines driving machines, machines being driven by other machines, with all the necessary couplings and connections." (1983, p.1) Each object or system we encounter can be seen as a machine – an organic machine, a mechanical machine, even a social machine. These many and varied machines do not exist in isolation. Each interacts with others, entering into interlocking relationships of flow and interruption (p.36). Through such connections, machines form functional ensembles or 'assemblages' (Guattari 1995, p.35). These twin concepts of machine and assemblage are a powerful framework for the analysis of avatars and the way in which we engage with them.

Within this conceptual framework, avatars are machines – some 'concrete' (such as digital avatars), others 'abstract' (such as the imagined character within a role-playing game). Social roles can also be considered machinic, where each role is an abstract machine that makes up part of the larger machine that is society (Massumi, 1992:75). Finally, the subject itself is an abstract machine, though perhaps not existing psychologically at an intrapersonal level (Massumi, 1992:26).

Before examining the articulation of these various components, it is useful to first examine the notion of an individual avatar. For every avatar-machine, a space can be defined that encompasses the potential states of that avatar. The avatar's ongoing process of performance becomes an arc through this performative space. This space of possibility, shaped by the behavioural tendencies of the avatar, is can be termed the machine's 'manifold' (Delanda, 2002:13). Within this manifold, the state of the avatar at a given point in time is a uniquely defined point. Such a space would have dimensions related to the flexibility of the performance of the avatar. In this way, the human body would produce a manifold far more complex than a sock puppet.

This manifold is not the description of one specific path, but the tendencies of the machine in a more general sense – it takes the form of contoured attractor, formed by a number of 'singularities' (Delanda, 2002:15) inherent in the avatar. The set of singularities impose a topology on the manifold that is unique to that avatar. A similar manifold can be generated for social roles, and for the abstract machine that one may consider to be the subject.



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Having considered the individual components, it is necessary to acknowledge that any performance emerges from an assemblage of the subject, one or more avatars, and one or more roles. This collection temporarily becomes a performative machinic assemblage. Such an assemblage 'acts on semiotic flows, material flows, and social flows simultaneously' (Deleuze and Guattari, 1987:22).

When multiple components, such as a digital avatar and a human body, are brought into relation to one another, the assemblage that they become forms a single 'compound' manifold. This has the consequence of combining the degrees of freedom of each component machine, and hence increasing the dimensionality of the resulting manifold. This increase in dimensionality is fundamental to the idea of assemblage, as the system 'necessarily changes in nature as it expands its connections.' (Deleuze and Guattari, 1987:8)

To appreciate the behaviour of the assemblage as a whole, we must consider the nature of the compound 'assemblage-manifold' that is created through the articulation of the manifolds of each of the machines.

The assemblage enables moments of performances that constitute points on this assemblage-manifold. The contours of the assemblage-manifold depend on the way in which the singularities forming each of the component manifolds interact, and their respective structural stability (Delanda, 2002:32). In some instances, the subject-machine may be facilitated by the assemblage, forming a more complex and intricate manifold. In other cases, the singularities of an avatar or role may constrain the subject-machine, collapsing its manifold into a more limited form. Such a dichotomy echoes Eric Davis' question '[d]o we identify with our online selves because they are as liberated as we want to be, or because they are as constrained as we really are?' (1998:221)

Certain assemblages – certain groups of roles and avatars – create the opportunity for a more complex performativity. This has significant implications for notions of identity, following the work of Judith Butler. Butler suggests that identity is emergent from performative signification on the surface of the body (Butler 1990, p.173). Resulting from such a process of emergence, the scope of identity is necessarily prescribed by the nature of the body, and the performance and signification it facilitates. It follows that an expansion in the complexity of this performative process may be experienced as an expansion in the complexity and scope of identity. Within the context of the avatar relationship, this suggests the ability to create and extend subjectivity through suitable avatar-assemblages.

Both Stelarc (2002:204) and Egginton (2003:11) describe the avatar as a prosthesis for feeling. Massumi cautions against the interpretation of 'prosthesis' as an object attached to an organism, suggesting that 'the body/organism and its objects ... are mutual prostheses' (Massumi, 2002:116). This challenge to the primacy of the body in relation to the avatar is acknowledged by Stelarc, who describes the creation of moments in his work when such a priveleging may in fact be inverted (2002:204).

Conceptualising the relationship between individual and avatar in terms of a complex assemblage with an associated compound manifold space of performance further questions whether agency solely resides in the subject. While Massumi has suggested that the subject-machine is not psychological, but 'transpersonal ... contained in the interactions between people' (Massumi, 1992:26, emphasis in original), Deleuze and Guattari often appear to negate any role for subjectivity at all, believing that '[t]here is no subject, only collective assemblages of enunciation.' (Deleuze and Guattari, 1987:130). Similarly, Stelarc suggests that 'authenticity' emerges from a 'multiplicity of



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collaborating agents', of bodies and selves (Stelarc, 2002:204). These views privilege the connectivity of the assemblage, rather than the identity of its constituent machines.

In summary, the assemblage model of avatar relations appears to explain a number of the observations made earlier in this paper. A Monopoly game-piece and the limited roles associated with it do not expand the realms of possible performance in the same way as a Barbie doll and a set of gender stereotypes. Further, while portraying a character in a stage play and in a live-action role-playing game both employ the body as avatar, the former constrains the assemblage through the script and stage directions, while the latter facilitates possible expression of the character – though still constraining performance enough through cultural roles for this expression to be socially meaningful.

If we accept that avatars represent us to varying degrees depending on the nature of the assemblages we form with them; that they reflect our individuality and our uniqueness; that they carry a piece of us into another space (Egginton, 2003:11), this can assist in the ongoing development of digital avatars.

In situations where limited identification and emotional attachment is desired, avatars can be constraining, minimising their range of performativity, and inculcating roles that are further limiting. Alternately, where immersion, attachment and identification are the goals, engineers should strive for representations that facilitate agency – complex, engaging, flexible digital bodies that draw on broad and diverse roles to make new types of performance available to the subject who enters into relation with them.





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