

Mediation of interaction

Empirical study of Barbie dolls

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Abstract—The research-based paper aims to examine the process of modifying everyday artifacts such as Barbie dolls and its implications for Postphenomenology. This qualitative ethnographic study uses participant observations to analyze the process of Iranian immigrant girls in Australia interacting or playing with Barbie dolls. This analysis has led to development of new concepts such as re-scripting and mediation of interaction which, the paper suggests, contribute to an expansion of the field of Postphenomenology.

Keywords—Post-phenomenology; mediation; Interaction; script; Barbie dolls Introduction

I. INTRODUCTION

This paper draws upon the philosophy of technology, postphenomenology, developed by Peter Paul Verbeek and cross-cultural identity narratives of young Iranian immigrant girls in their interactions with the global fashion doll range of Barbie™ dolls. Specifically, I make use of Verbeek's notion of scripting within the broader umbrella of technological mediation of human action which is the 'byproduct' of the functionality of artifacts in humans' life [1] All human made objects are artifacts and as such they mediate the relationship between human beings and the world. The process of co-construction of human beings everyday experience that emerges between human action and artifact [1] were the main points of consideration in this study. Application of this framing to a quintessentially contemporary artifact: the global fashion doll, Barbie™ was examined.

The paper begins with an overview of the concepts central to Verbeek's framework. Then, following a brief review of the history and design of the iconic Barbie™—the artifact at the centre of the study—the paper draws upon in-depth observational and interview data from immigrant Iranian families living in Australia and applies Verbeek's key concepts to an examination of the ways in which young girls with non-Western cultural and social backgrounds engage with these global consumer artifacts in their homes.

II. BARBIE™ AS EVERYDAY ARTIFACT

Few 'real' individuals have had their changing fashion and style choices and impact on culture as intensely scrutinized as has Mattel's Barbie™.[2] Since her introduction to the market in 1959 she has reigned supreme as a marketing and feminist icon and, reflecting her status, an entire academic and publishing industry, particularly around

cultural, feminist and gender studies, sits alongside the marketing and distribution juggernaut that is Barbie™.[3] While the range of dolls that sits collectively under the Barbie™ banner has grown over the years alongside the range of markets in which she is distributed (over 150 countries), as an enduring cultural icon the Caucasian blonde, tall, thin, blue-eyed, pink lipped, tanned Barbie™ is our shared point of reference. The millions of mass-produced Barbie™ dolls are ubiquitous contemporary artifacts in the lives of families and young girls. [4]

As an artifact, Barbie represents a triumph of plastic mass manufacturing and molding technologies. Her plasticity is historically and culturally significant. [5] According to Toffoletti, "Plastic is the definitive symbol of the mid-twentieth century, a period characterized by 'artificiality, disposability, and synthesis'" [6]. Its indeterminacy also situates it within the territory of the postmodern, marked by the destabilization of hierarchies such as authenticity versus reproduction, and high versus low culture [7]. Fenichel argues, in fact, that the definition of post-industrial, postmodern society as the 'information age' could equally be termed the 'plastic age' [5]. The dolls also demonstrate the workings of a global manufacture and distribution model. Spade and Valentine [8, p. 241] argue that as "A product of the global assembly line, Barbie dolls owe their existence to the internationalization of the labour market and global flows of capital and commodities that today characterize the toy industry ... designed in Los Angeles, manufactured in Taiwan or Malaysia, distributed worldwide, Barbie is American-made in name only". Originally marketed as a successful model [9] throughout her history and changing design, Barbie has been marketed as a role model for young girls. Spade & Valentine [8, p. 240] suggest that, "Barbie ... is an impossible ideal, but she is an ideal that has become curiously normalized". She reflects a cultural imperative to remain ageless and lean [8], to consume, and to be unfailingly feminine and happy. Her many plastic selves have included model, teacher, librarian, nurse, veterinarian, astronaut, NASCAR driver, baby sitter and presidential candidate Each role model persona was linked directly to accessorizing an acceptable career choice for a young woman in the American cultural and gendered landscape of the time.

Immensely popular across time and place, emblematic of contemporary manufacturing and global distribution, deeply embedded in the cultural landscape of modernity and in

everyday use in homes around the world: Barbie can, without doubt, be considered an important everyday artifact.

III. ARTIFACTS, INTENTIONALITY, MEDIATION AND SCRIPTING

Peter Paul Verbeek's work is emblematic of a contemporary Postphenomenological movement away from the 'historical and transcendental conditions that made modern technology possible' [10, p. 21] and that consumed the interest of classical phenomenology towards the empirical and material [10,11; see also 12]. Building from, and moving beyond, Heidegger's theory of technology and his view of its alienating characteristics [13, p.95], Verbeek works from a post-phenomenological stance to retheorize technologies as artifacts, reinforcing their materiality most particularly in terms of their mediating role in everyday life. Verbeek's work [14] is of particular interest to this paper in his consideration of how artifacts engage us with the world and each other and play a part in setting up the particular conditions of engagement. This post-phenomenological perspective asks how "subjects and artifacts constitute each other in praxis." [15, p. 96].

A. *Intentionality, scripting and mediation*

Verbeek [14] notes that artifacts are not neutral objects. Rather, they are active and complicit in the ways in which social practices are formed and play out. Artifacts "help to shape a situation which would have been otherwise without the artifact" [14, p. 95]. This does not mean that artifacts have the ability to directly instigate action or social change. Rather he argues that

Artifacts do not have intentions like human beings: they cannot deliberately do something. But they have intentions in the literal sense of the Latin work 'intendere', which does not only mean 'to intend' but also 'to direct', 'to direct one's course', 'to direct one's mind'. Artifacts direct. Their interventions in human practices thus help to shape new practices [14, p. 95].

Artifacts influence rather than direct. They have intentionality rather than functionality and work to mediate relations between humans and their worlds. However, these intentions are not fixed. Rather, they are fluid and contingent, shaped by the relationship with humans in use. According to Verbeek, "within different relationships, technologies can have a different identity" [16, p. 365]. This belief in the co-constitution of praxis and the world alongside the understanding that these relationships are contingent upon context underpins Verbeek's theoretical framing of artifacts. In understanding how intentionality plays out, Verbeek has made use of the notion of the "script". Again, for Verbeek the emphasis is on praxis and materiality; on the artifact in use. As a result, Verbeek [16, p. 362] is keen to differentiate a script from the basic functionality of an artifact and argues that "scripts transcend functionality: they form a surplus to it, which occurs once the technology is functioning. When technologies fulfill their functions, they also help to shape the actions of their users". Here Verbeek makes a connection between the intentions and values of the designer with the

experience and co-constructed worlds of the end-user, a connection that is inherent in the artifact in use. The scripts, beyond the basic function of the artifact, reduce the likelihood of some actions and advance the likelihood of others and therefore are integral in shaping or mediating the world each user experiences. Verbeek summarizes the intentionality of scripts and their role in mediating action and reality [16, p. 368]:

Artifacts mediate perception by means of technological intentionalities: the active and intentional influence of technologies. They mediate action by means of scripts, which prescribe how to act when using the artifact. This latter form of mediation is most important for the ethics of engineering design since it concerns human actions whereas ethics is about the moral question of how to act. Technological mediation appears to be context dependent and always entails a translation of action and a transformation of perception. The translation of action has a structure of invitation and inhibition, the transformation of perception of structure of amplification and reduction.

According to Verbeek, "the mediating role of technologies is not only the result of the activities of the designers, who inscribe scripts or delegate responsibilities, but also depends on the users, who interpret and appropriate technologies, and on the technologies themselves, which can evoke emergent forms of mediation" [16, pp. 371-372]. Both user and artifact are, in this view, agentive and placed in relationship to the perception of their particular context. This brings us back to the choice of artifact in this paper. As noted earlier, Barbie™ has been analyzed predominantly from a cultural studies/feminist studies perspective and has been reduced to its conditions instead of considering it as what Barbie™ exactly does in the course of use which is mainly play. Here the focus has been on the cultural positioning and implications of the dolls for consumption, gender and identity. Our desire in this particular paper is to attend closely to the ways in which this particular material artifact mediates the co-construction of the worlds of young girls and to unpack the complex interactions between artifact and user in praxis.

IV. THE STUDY

The study focused on a set of ethnographic case studies undertaken with immigrant Iranian families with young girls aged 5-9 living in an Australian capital city. The research was designed with a qualitative paradigm as a broad framework becoming more specific through the application of an ethnographic, participant observation approach that followed the ways in which young girls interact with, narrate and redesign Barbie™ fashion dolls in home-based play. Specifically, it involved the study of doll play by young girls in their family homes in order to develop an understanding of this activity as an empirical application of Verbeek's post-phenomenological theoretical frame in a contemporary diasporic community. The main tools for data collection were participant-observation, interviews, photography and in-depth field notes. The particular case described here is a part of this larger ethnographic study. Mona is a nine-year-old girl, the only child, of an Iranian immigrant family living

in Adelaide. Mona's family immigrated to Australia three years prior to the research, when Mona was six. The data described and summarized here was collected across three visits to Mona's home where doll play was observed in various areas of the house. In what follows we weave together descriptions of Mona's everyday doll play with an analysis that makes use of Verbeek's post-phenomenological lens. We believe that this provides a powerful example of the potential for Postphenomenology in practice.

A. Analysis: Mediation of interaction

Through modifying physical and material characteristics, our participant (Mona) modified the script in order to fit it in the context of her own life. She was also modifying the scenario to fit the doll for the setting. For example, as a part of her play Mona styled the dolls' hair to make them ready for a specific scenario such as attending a rock party. She started to re-design the doll through coloring its hair and giving her a "rocky" look. In another instance, Mona created a 'rock chick' for the doll and then played a Rock DVD to create a rock party. In yet another play instance, Mona used perfume, powder and color to redesign the dolls and the narrative attached and started to pretend it is a Rock party. In the course of play, Mona showed the curls on the doll's hair after she plaited the doll's hair. She emphasized how the same thing happens to her own hair when her mother plaits her hair. Another example is when Mona used the dolls as audiences and played the piano for them. In another instance she used them as audiences and performed an Iranian dance for them.

In one of the plays, Mona played the scenario of the prettiest girl in the country. While she styled the dolls' hair to make them ready for this scenario, she also introduced them according to their age and the country they are from. The dolls were either from Iran or Australia which shows Mona's interest in interacting with her world by using the dolls.

While Mona reads the original design scripts, she also actively uses the dolls in order to interact with her world. In this case Mona creates her own scenarios from her world as she experiences and transforms it to the material form of artifact (the doll in this case). Mona designs new intentionalities for her dolls to appropriate them 'to direct' her to experience some aspects of her real life.

Similar behaviors were observed with the other research participants in this study.

Modifications of physical characteristics of the dolls, either temporary or permanent, were an ongoing activity in the practice of play. The examples showed the process might start from the application of physical changes or assigning a scenario and then applying changes and developing a new scenario. Either way, materialistic modification is the main action in this activity. The user develops a new physical appearance for the doll and moves on to herself and her real life and again she returns and creates another modification of the doll to fit it to the context. It is clear that Mona's real life experiences and her contextual daily practices are the source of her new creations. Also her new modified versions

inscribe a new series of actions and influence her actions and the ways she performs in the context.

Mona consistently used the dolls to create a bridge between her world as she experiences it or even as she expects it to be and herself. Mona and the doll, as an artifact, co-constructed the world in interactive interactions. In all examples Mona showed the constant move from modifying physical characteristics of the dolls and the context and vice versa which herself and the doll were co-shaping each other. This action is termed re-scripting in this study as it addresses the user's re-consideration of script. I argue that there is no 'pre-existed' script in Postphenomenology as always users (humans) read and interpret their own version of scripts through the individual process of experiencing the world. Through re-scripting, users modify the physical and material characteristics of the artifacts to appropriate them for their personal plan of actions and set them in the context. In other words re-scripting is an instant plan of interactions which occurs in the process of interacting with artifacts and mediates the relations between humans and their world (their interaction with the world). The cultural aspects which Mona applied in the process of her interaction with these dolls did not show any materialistic modifications and were mostly conceptual. While given examples revealed the mediation of perception and mediation of action, a new kind of mediation has been revealed in the process of the usage of everyday artifacts as *mediation of interaction*.

V. CONCLUSION

Material artifacts are concrete material objects; the things – tools, weapons, ornaments – produced by humans and used within a culture. While Verbeek's model has been used to focus on the use and implications of more mainstream technologies [1], I argue in this paper that Barbie™ is a significant technology of the everyday, carrying scripts and potentially co-constructing various realities. Indeed, Barbie™ dolls have long been accused of being implicated in constructions of gender and identity for young girls in western, cultures, however this close analysis of agentive re-scripting and mediation demonstrates the complexities of these constructions, particularly for a contemporary childhood that is formed across and within diasporic communities and global media cultures. While the main functionality of these dolls is being as playthings, the empirical studies and the examples used shows how they go beyond their functionality. They become as facilitators to create more intensive engagement between the girls and the world. The examples discussed here show the relations between Mona's actions and the influence of contextual factors such as her daily life experiences and her cultural context. Through the process of interaction with artifacts, the world (as it is experienced) and the artifact are merging by users through the process which we termed as re-scripting. Re-scripting is the process of re-designing the artifacts to integrate them with the context and appropriate them for the process of experiencing the world. By introducing this concept, I expand postphenomenology though considering another type of mediation as mediation of interaction. This type of mediation is shaping on the basis of re-scripting and

the process of practical use of everyday objects. According to their material characteristics and the contextual setting, artifacts mediate an interactive relationship between human beings and the world. Re-scripting is the start point for this type of interaction.

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