From Lived Bodies to Inclusive Interfaces. Plessner, Feminist Standpoint Theory, and Gender Inclusive Design Synergies

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Abstract. This article displays the potential of the combination of Helmuth Plessner's Philosophical Anthropology and Donna Haraway's concept of Situated Knowledges for Feminist Product Design processes. It is shown that Haraway can be used to argue for a product design, that takes materiality into account to prevent the reproduction of a male dominated technology design. By following this line of argument, the role of the body in a product design process is being strengthened. To maximise the analytical acuity Helmuth Plessner's Philosophical Anthropology is being introduced, for it allows the distinction of three spheres of the human being: Leib (lived body), Körper (body) and Person (persona). It is shown, that during the process of subjectivation every sphere is being gendered in a different way. The article finishes by analysing each of them in terms of their significance for human-technology interaction.

1. Introduction

Every day, we encounter technical artefacts (ta). But are these tas actually built for all of us? Nelly Oudshoorn, Els Rommes and Marcelle Stienstra (2004) were able to show that this is mostly not the case and that product design is primarily done for a masculine norm. Feminist Product Design (FPD), which is a branch of Feminist Science and Technology Studies (FSTS), has already produced some approaches in response to this problem. However, the problems begin where a category, that is as complex and difficult to define as sex/gender[1] is to be practically applied.

[1] Due to the interdependence of the phenomena of gender and sex, I use the terms in the form used above with a slash. This is to emphasise that when talking about the phenomenon of gender, it is impossible to separate sex and gender. For a detailed argument: Annie Duchesne and Anelis Kaiser Trujillo (2021, p. 2).

In this article, I will explore how Donna Haraway's (1988) concept of Situated Knowledges can be fruitfully combined with Helmuth Plessner's (1975) Philosophical Anthropology to conceptualise sex/gender in a way that can be applied to product development processes.

In the following, I will first present various views on the relationship between technology and society in order to derive the relationship between technology and sex/gender that is assumed for this article. I will work out that a so-called co-emergent approach is advocated in this article (Allhutter, 2014, p. 18), as it is the only one that is able to counter the body-mind dualism and its implications, by emphasising the materiality of technology and society. I will show that existing concepts of FPD do not sufficiently recognise this materiality.

Following this, Donna Haraway's (1988) critique of science will be roughly outlined. It will be shown that an FPD presupposes the adoption of a Feminist Standpoint (FS). Using the concept of Situated Knowledges, it will then become clear that for Haraway a FS is closely intertwined with corporeality. It follows from this that FPD in a Harawayian line of argument is only possible if we also think about the body in socio-technical systems.

The question of what it might look like to think about the body in socio-technical systems is explored in the fourth chapter. I will show that, for Helmuth Plessner (1975), the Körper (body) must be analytically distinguished from the Leib (lived body) and that these two, together with the Person (persona), form the three spheres of being from which the human being is constituted. I will show that sex/gender has a different effect on each of these three levels, which has different consequences for the interaction with tas.

In the future, this finding will enable a more precise analysis of sex/gender-relevant aspects in design processes. It also has the advantage that it does not fall prey to either social determinism or technological determinism and does justice to both the cultural and physical aspects of sex/gender and technology.

I would now like to mention a few assumptions that give this work its motivation: I follow the radical feminist line of argument that sex/gender is the central analytical category of (post-)modernity. I reject a perspective that understands sex/gender as a pure product of social norms. Instead, I am convinced of material evidence of sex/gender. Similarly, I reject the biologisation of the sex/gender debate and am convinced that sex/gender is to a considerable extent a cultural achievement. This work is to be understood as normative in the sense that I believe that women are still socially disadvantaged and I see it as the task of science in general and technology research in particular to work against these inequalities (Chapter 2). The statements I will make below, come from the perspective of a white woman from Germany who has been spared many levels of (social) discrimination. The limitations of this approach to the world have to be emphasised at this point.

2. Gender Inclusive Design

In the 1970s the first sociological research on the social construction of artifacts occurred (Paulitz, 2008, p. 780). According to Doris Allhutter (2014, pp. 17–18) there are three different ways to conceptualise the relation between society and technology: 1) the social constructivist approach; 2) the co-constructivist approach; and 3) the co-emergent approach.

The social constructivist approach holds the view, that the usage of a technological artifact forms it socially, in a way that the users' configuration of a ta leads to an inscription of norms and ideas into said artifact. Such perspectives have become known under names such as Social Construction of Technology (SCOT) or Social Shaping of Technology (SHOT) (Allhutter, 2014, p. 17). In contrast to this, co-constructivist approaches assume that technology and society are mutually constitutive. Here, questions come to the fore that deal with how technology shapes sex/gender perceptions and how the development and use of technology genderizes areas of life. In these approaches, sex/gender difference is perceived as performative and overcoming the sex/gender binary presupposes an understanding of development practices as socio-technical and showing the gendered character of technical paradigms by dissolving dualisms such as objectivity/subjectivity and/or technology/society (Allhutter, 2014, p. 18). These approaches can be found among »classical« Feminist Science and Technology (FSTS) theories such as Judy Wajcman's (2010).

In this article, I would like to highlight the third approach: the co-emergent one. In its understanding of the interdependence of technology and society it resembles the co-constructivist approach, yet it argues less discursively and more materially. Sociotechnical practices are not only understood in a way that social structures and norms play an active role but so do the physical bodies of both human beings and technological artifacts as well as »material realities« as codes or programs (Allhutter, 2014, p. 18). This concept of the relation between society and technology enables us to avoid the reproach of a technological determinism just as much as the one of a social determinism. Instead, we are provided with a concept that tries to mediate the dualism of society/technology, of culture/nature and of mind/body.

Those three dualisms are intimately intertwined with major questions of feminism (Klinger, 2019). Since sex/gender is the result of a natural-cultural process, the co-construction of society and technology also means the co-construction of sex/gender and technology.

Ingo Schulz-Schaeffer (2019, p. 17) conceptualises the process of the construction of a technological artifact as the objectivation of a "sinnhafte Intention" (causal intention). Therefore, the designer of an artifact of any sort has to decide what form of causal

intention shall be objectified in an artifact. Oudshoorn et al. (2004) showed that designers usually design for a male dominated norm. This critique grounds the demand for FDP2.

By facing the daily practice of designing for a masculine norm, we are looking for a sociotechnical solution for a sociotechnical problem which fits Paulitz' and Prietls (2019, p. 3) definition of a social innovation. By fitting this definition, the project of the development of heuristics on how to implement the sex/gender category must be a normative one.

The demand for sex/gender-inclusive design has already been formulated by others: Stanford University's Gendered Innovations (no date), Lucy Suchman's Human Machine Reconfigurations (2007) or Claude Draude, Susanne Maß' and Kamila Wajda's GERD-Modell (2014) all provide different solutions for sex/gender sensitive design. But neither of them starts with what we introduced to be a co-emergent approach towards the relation between sex/gender and society and hence take the sphere of the material fully into account. Corina Bath's De-Gendering Informatischer Artefakte (2009) is an exception from this. In her work she combines Karen Barad, Lucy Suchman and Donna Haraway to constitute a conception of the relation of society and technology which she calls a "Ko-Materialisierung" (Bath, 2009, p. 97) (co-materialisation) and which is structurally identical to what we call the co-emergent approach. Alas, in spite of a highly lucid and holistic theorisation of the relation of society and technology (Bath, 2009, chap. 3) in addition to an impressively extensive analysis of the dimensions and mechanists in which artifacts are being gendered (Bath, 2009, chap. 4), she falls short of providing a well-founded theory of sex/gender. Allhutter and Hofmann (2014) show, that there is no way to generalise the relation of sex/gender and technology but that sex/gender exists in relation to an artifact in a temporary and situated way. We therefore need a concept of sex/gender that is both definite enough to actually implement into heuristics for gender sensitive software design, and flexible enough to remain open towards the shifts that it undergoes during its production in a sociotechnical system. Furthermore, it has to take material aspect of the co-emergence into account.

To achieve this, we need to realise, what it means, to design for women; therefore, what it means to consider a FS in design processes. To this end, Donna Haraway's (1988) concept of Situated Knowledge will now be presented and its implications elaborated.

[2] The division along the line of sex/gender difference as such is indeed questionable (Allhutter, 2014, p. 15). But in the radical feminist tradition of thought (Jaggar, 2004, p. 59), I would like to understand sex/gender difference as "the fundamental structure of the symbolic world" (Kuster, 2019, p. 4 translated from German original).

3. Feminist Standpoint Theory

Feminist Standpoint Theory (FST) arose from the view that the 20th century women's movement, as Sandra Harding (2004a, p. 4) put it, “needed knowledge that was *for* women”. For a long time, science had produced knowledge that was – according to feminists – disadvantageous for women (Haraway, 1988, p. 575). One of the main points of criticism lies in the supposed objectivity proclaimed by science (Harding, 2004c, p. 20). Feminists argue that this objectivity does not merit the name, since it is not objective at all. Instead, the production of knowledge underlies the historical and spatial localisation of the individual that produces it and therefore just as much the individual’s social background (Jaggar, 2004, p. 55). That way, knowledge is per definitionem subjective. An epistemology that subordinates knowledge to the historical-material environment of an individual finds its origin in Marxian thinking (Harding, 2004a, p. 2)[3]. Socialist feminists emphasise that what is considered »knowledge« must always be a representation of the dominating class’ thought (Jaggar, 2004, p. 55). This makes (scientific) knowledge not only not objective, but also political.

Donna Haraway (1988, p. 581) calls the practice of hiding the scientist’s position in space and time “the god trick”. Different bodies mean different material situations that influence the acquisition of knowledge. By dethematising the spacio-temporal situatedness of a knowledge-producing individual, the context in which a scientific finding becomes a fact and consequently a possible truth is also obstructed (Haraway, 1988, p. 580; Harding, 2004b, p. 129). This removes it from scrutiny by the scientific community: possible blind spots cannot be assessed (Haraway, 1988, p. 583).

The result is the universality of knowledge, which in reality is mostly male, white, Western and precisely localised in space and time. Groups of people who do not belong to this leading class – in the socialist feminist sense – cannot easily shed their physicality and are excluded from the process of knowledge production[4]. Technology development always involves science; either in the form of prior research or at least in the form of scientific core assumptions, on the basis of which product development can only be possible. Consequently, this means that technology development is also indirectly male, white, Western and precisely localised in time.

[3] The ways in which this understanding of the origin of knowledge is played out differs between different Feminist Standpoint Currents. In this article I will mostly primarily refer to socialist Feminist Standpoint Theories, as presented by Alison Jaggar (2004).

[4] An explanation on why e.g. women can never have no body is being provided by: Klinger (2019).

If technology development is to become more inclusive, FST must be given space in terms of the situatedness of knowledge. If the FS is to be given space, the materiality and consequently the spatio-temporal situatedness of knowledge has to be taken into account. For Haraway, this means tying knowledge back to the body (Haraway, 1988, p. 581).

By pointing out their physically based spatio-temporal situatedness, scientists enable other scientists to judge their work. Objectivity is then not created through a single work, but through a network of complementary, recognisably subjective works (Haraway, 1988, p. 588).

Implementing a FS in a product development process must therefore, if we want to follow Haraway, tie technology back to the body.

For this aim, it is worth taking a closer look at what exactly is meant by the body and how it relates to the human being. Western philosophy alone can look back on over 2000 years of history in which the question of the relationship between humans, their »reason« and their physicality has been raised time and again. In the following, I would like to present Helmuth Plessner's answer to the mind-body problem. It will be shown that, for Plessner, the human being is divided into three spheres. These will be outlined below. In addition, I would like to sketch their respective significance for the process of gendering in broad strokes and work out what this process of gendering means in relation to a co-emergent approach.

4. Helmuth Plessner’s Philosophical Anthropology and its Potential for the Analysis of Sociotechnical Systems

In 1928, Helmuth Plessner (1975) published his opus magnus: Die Stufen des Organischen und der Mensch. In it, he develops a theory of the human being that attempts to do justice to the cultural diversity of humanity just as much as its individual diversity. With the help of his phenomenological-hermeneutic method, he works out three types of life fulfilment: the azentrische (acentric), the zentrische (centric) and the exzentrische Positionalität (eccentric positionality)5 (Lüdtke and Fritz-Hoffmann, 2012, p. 93).

The minimum requirement for a phenomenon to be considered alive is the independent realisation of its own boundary (skin, membrane, etc.). A phenomenon that »merely«

[5] At this point, I would like to point out, that only a few works of Plessner have been translated to languages other than German. In the following, I will work with the German terminology after roughly translating them into English. The translations might differ from the original ones, to which, at this point I do not have access.

realises its own boundary exhibits a zentrische Positionalität. As a plant grows, it independently constitutes an outside and an inside and thus places itself in a relationship to its environment. Once removed from this environment (withdrawn from the light, or uprooted, etc.) it must perish. An animal also realises its own boundary, but it is also forced to move its body and relate it to its environment. In addition to the physical constitution of inside and outside, this opens up a metaphysical inside-outside distinction: the animal has a physical body that is relatively located in the environment. This is what Plessner calls the Körper (body). In addition to that the animal has a perceived body that represents its absolute spatio-temporal location (here and now): This is what Plessner calls the Leib (lived-body). “The location is therefore a double one […] yet it is one, for the distance to its body is only made possible by its complete oneness with it alone” (Plessner, 1975, p. 237 translated from German original). Since there is no difference between Leib-Sein (being-a-lived-body) and Körper-Haben (having-a-body) for an animal, its being oneself remains hidden (Plessner, 1975, p. 288). The „absolutes Hier-Jetzt“ (Plessner, 1975, p. 289) (absolute here-and-now), that had acted as an existential category for the animal, is now lost to the human being in their exzentrische Positionalität.

As a moving organism, humans also possess the Leib-Körper duality. However, their environment does not appear to them as directly given, but as a Sachstruktur (structure of things) (Plessner, 2019, p. 97) from which individual objects can be detached at any time and made the object of reflection: a brightly shining star just as much as a grammatical structure. As an independent object that can be removed from its immediate context, a pen is not only suitable for writing things down, but also for putting your hair up. Plessner describes this as the loss of Unmittelbarkeit (immediacy) (Plessner, 1975, p. 327).

This ability to abstract has two consequences: 1) it means that a human being is forced to organise their environment. Since Unmittelbarkeit and, as a consequence, cultural achievement are existential, for Plessner (1975, p. 309) culture is the nature of man. 2) The ability to abstract objects from the Sachstruktur also means that a human being can reflect on their own physical presence and thus make it their object. In short: nothing is immediate to man any more, but everything, including their own corporeality, has become dubious.

For Plessner, this dubiousness leads to the disintegration of the human being into a triad:

1) The human being senses their Leib. The Leib is the sphere of the absolute Here-Jetzt, which creates a metaphysical inner to the human being (Plessner, 1975, p. 295). It is also the sphere from which in a complex interdependence with the Mitwelt, the Ego arises.

2) A human being is able to turn their corporality into an object: One's own Körper is no longer just an experienced Leib, but also an object that can be viewed and studied as such from the outside. To be able to look at something from the outside requires an external vanishing point. A life form that can observe itself from the outside without leaving their Leib-Körper requires an entity that can cognitively create a distance to themselves (Plessner, 1975, p. 290). Plessner describes this instance as a
3) Person. It is personified culture and a result of what Plessner calls the Mitwelt (Joint-World) (Krüger, 2012, pp. 40–41). This Mitwelt is – roughly said – close to what is generally called society. A society of embodied human beings, that are constantly in a social relationship.

In the course of their life, a human being is faced with the task of mediating this triad at every moment in such a way that a unity, a human being, is created and at the same time interacting with the world around them from these three levels (Plessner, 1975, p. 325). All three spheres structure each other and are subject to each other.

Gesa Lindemann (2011) can be credited with applying Plessner's theory to the sex/gender question for the first time. Building on Lindemann, I could establish that gendering is produced differently on all three spheres, and that it signifies a different reality in each case (Reinhardt, 2022).

In the following, these three levels will be briefly analysed. The aim is to illustrate the extent to which they are relevant for technology research.

4.1. Gendering at the Sphere of the Körper

The Körper is the sphere of the outside. It is the object to which other people can relate and with which the human being is bound in a relative spatio-temporal sphere.

A human being is being gendered by the world into which they are born, either before or at the latest at the moment of birth. The newborn is assigned a sex/gender based on the shape of their genitals. From this moment on, the Leib-Körper functions as a gendered Leib-Körper. What such a gendered Körper should look like socially is a question of the respective social institution.

For Foucault (1992) the Körper is the central point of reference for power. In addition, he understands sex/gender as the central category of power for establishing a society (Siebenpfeiffer, 2014, p. 269). This leads to sex/gender being applied to the Körper as a category of power.

Lindemann was able to show that the relationship of sign, in which a certain Körper shape suggests a sex/gender affiliation that is so strong that the Körper as a sign carrier does not refer to a sex/gender affiliation, but that it is synonymous with it. In other words, the

Körper *is* sex/gender (Lindemann, 1995, p. 78). Due to this relationship – in which the Körper *is* sex/gender – it is a synthesis of gendered Körper and gendered Leiber (gendered Leib-Körper) that is moving in a society.

Since, for Plessner, humans have a Körper, this means that they have a physical sex/gender.

As the external sphere of human beings, spatially seen human beings are physical bodies that move within a society. The Körper is therefore an element of society. If society and technology are co-emergent, then this means that Körper and technology are also co-emergent. Since, socially, Körper are always gendered Körper, we can conclude that gendered Körper and technology are co-emergent.

Analytically, in the interaction between technology and humans, a gendered Körper, which *is* a sex/gender, meets a technical object, which at first glance is a-gendered. They produce each other in this encounter.

4.2. Gendering at the Sphere of the Leib

Lindemann (2011, p. 56) shows that at the sphere of the Leib, sex/gender is structured via so-called Leib-Inseln (Islands of the lived body).

Once conceived as a gendered Körper, the human being is placed into the world in a gendered way. Children of different physical sexes are exposed to different stimuli shortly after and even before birth, which leads to different developments in the structure of the brain (Imhoff and Hoffmann, 2023). These changes not only lead to a demonstrable change in the body, but also to different environmental relationships.

For Plessner, the Leib is the sphere of environmental intentionality. It is the sphere of sensing that locates people in space and time absolutely here and now and from which they experience their environment, its effect on them and their effect on them. By establishing different neuronal connections between the sexes in early childhood, the physical experience of a person changes qua genderedness. As elements of socialisation meet biological presence, the result is a sensed perception of the world that becomes an experienced truth via the Körper and society. Therefore, a human being is their sex/gender. Since a human being has to realise their own life in every moment, they also do their sex/gender. They are it by doing (Reinhardt, 2022, p. 73).

When human beings and technology meet, two bodies come together on the one hand, and a Leib and an inanimate object on the other.

As a sentient Leib, the human being encounters the ta as a gendered Leib: Humans, who according to Plessner must realise their relationship to their environment at all times, do so from the sphere of the Leib, which means that they do so in a gendered way.

The sentient Leib with which a human interacts with a ta is – if we remain in a binary sex/gender system – different for women than for men: Statistically, tas are mostly produced by men. Oudshoorn et al. (2004) showed, that in most of the cases they are also produced for men. Schulz-Schaeffer (2019, p. 17) conceptualised the development of a ta as the objectification of a sinnhafte Intention. In the interpretation proposed here, this means that tas are objectifications of an environmental intentionality. Since every environmental intentionality happens in a gendered way, it follows that the process of action that is materialised in the ta is a gendered process, too.

In this way, a sentient and gendered Leib on the one hand and an inanimate, but in its »environmental intentionality«, if one can speak of it, gendered object on the other, meet in the interaction.

This finding is remarkable in that technology development is usually preceded by a significant amount of research.

If the prevailing research practice is, as Haraway criticises, disembodied, then this means first of all that it is also supposedly free of a Leib. However, since an individual in research reaches out to their environment and interacts with it, science is of course not free of a Leib. By banning the body from science in favour of objectivity, the inevitably necessary sphere of the Leib of research is obstructed. Thus, firstly, there is a male environmental intentionality in the research preceding technology development and, secondly, the objectification of a male meaningful intention.

So if we ask ourselves again why tas are used differently by different sex/genders or are accessible to sex/genders differently, then this reading of Plessner offers a promising perspective.

For the co-emergence of technology and society, this means that qua the androcentrism of the world, people who are not men (have to) realise their relationship to the environment by dealing with tas that were not developed for them. Since sex/gender is realised in relation to the environment, for all sex/genders that are not men this means that they perform their sex/gender in demarcation to a world that is not made for them. Lindemann (2011, p. 202) has already made this finding in a different way and without reference to technology.

Since men build disembodied technology, but said technology presupposes emerges from a constituted ego that arises from the Leib, for the interaction with the ta a Leib is considered that does not correspond to the Leib of a woman: the result is an irritation in the action. However, since the interaction is co-emergent, the Leib shifts. Due to the androcentric use of technology, women's processes of becoming a Leib, shift in contrast to those of men.

4.3. Gendering at the Sphere of the Person

The third sphere of which Plessner speaks is the Person. This sphere binds the human being into a common frame of reference among other Körper. Here, the human being becomes a relatum in social relationships. For Plessner, this social space is the so-called Mitwelt. From it, a human being subjectivises themselves (Krüger, 2012, pp. 40–41). No matter what happens to a human being in their life, they are included in a social relationship between people. As children, humans experience themselves as the absolute here and now. By interacting with other entities, that happen to be other Leiber, that appear to them from birth, the young human being positions themselves in this structure, whereby they subjectivise themselves. In this respect, in Plessner's Philosophical Anthropology, the ego of a human being arises from the Mitwelt. This environment is always shaped in some way against the backdrop of the cultural achievement that humans must always achieve in their environmental relationships. How, depends on the culture into which an individual is born. All cultures have rules and norms that structure their Mitwelt. As the subject grows up in a Mitwelt that is structured by rules and norms in a specific way, an individual is not only characterised by the values and norms of a society, but it also arises from them as a subject. If we now understand the Mitwelt as a place of lived sociality, and in its form as that which for Plessner comes closest to a society, we must understand technology and the Mitwelt as co-emergent.

If society and technology are co-emergent and technology is primarily produced by men, then this form of technology design produces a Mitwelt that is itself structured by men. For the subject emerging from the Mitwelt, this means that, regardless of which sex/gender they have at the sphere of the Körper and which sex/gender they do by being, they must shape their personhood within the patriarchal framework, i.e. they must carry it out in some way in differentiation from the general male.

Subjectivation from a Mitwelt that is co-emergent with technology leads to the finding that people always subjectivise themselves from the technological design of a particular epoch. The instance of the Person, which can thus refer to its Körper and its Leib, is always already gendered and technicised. By implementing the technological into the Körper-Leib, the human being becomes what one might call a Cyborg[6]. In terms of interaction, this means that the ta interacts with a Person who is always already partly technical, but whose technicality depends on their sex/gender.

[6] The cyborg is a metaphorical figure, that was initially introduced by Haraway to exceed western dualisms (Haraway, 1995). Due to this article’s limitations this connection cannot be displayed in more detail.

5. Conclusion and Outlook

Throughout this article it has been illustrated how Donna Haraway's (1988) concept of Situated Knowledges can be fruitfully combined with Helmuth Plessner's (1975) Philosophical Anthropology to conceptualise sex/gender in such a way that it can be applied to product development processes. To this end, after an introduction to FSTS, I introduced Donna Haraway's concept of Situated Knowledge. This made it possible to demonstrate the necessity of thinking about the body in socio-technical systems in two ways: 1) this must be done to counter body-mind dualism and its implications and 2) this must be done because FPD must maintain a FS and from Haraway's perspective, a FS cannot be conceived without the body.

Subsequently, I was able to show that a human being is gendered in different ways in each of their three spheres of being. I was also able to show that interaction with a ta takes place differently in each of the three spheres of being:

1) On the sphere of the Körper, a gendered Körper, which is sex/gender, and a supposedly a-sexual ta meet and produce each other in the encounter.
2) At the sphere of the Leib, a sensual gendered Leib meets a lifeless objectification of a doubly masculine sinnhafte Intention. Women relate to their environment differently than men, which leads to a shift in the processes of becoming a Leib in the interaction.
3) The co-emergence of society and technology means that the technologised world is structured in a masculine way. As the subject in Plessner's work emerges from this technicised Mitwelt, it arises a male-structured technicised Mitwelt, whereby they become a cyborg. Depending on their sex/gender, subjects are cyborgs in different ways.

For FPD from a perspective that wants to take materiality into account, this means that corporality has to be considered in three ways and cannot be thought of in a non-gendered way.

Plessner's division of the human being into a triad of Körper, Leib and Person, makes it possible to refine the analytical grid for the gendered factors in product development processes. It can be worked out more precisely which aspects of sex/gender are actually relevant in product development processes and on which levels they are effective. The fact that the three spheres are mutually dependent means that materiality is always taken into account, and the fact that a human being is embedded in a cultural framework means that their cultural framework is also taken into account.

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