

Artful material utterance: a core competence for participatory designers

DEARDEN, Andy <<http://orcid.org/0000-0002-5706-5978>>

Available from Sheffield Hallam University Research Archive (SHURA) at:

<https://shura.shu.ac.uk/30787/>

This document is the Accepted Version [AM]

Citation:

DEARDEN, Andy (2022). Artful material utterance: a core competence for participatory designers. In: PDC '22: Proceedings of the Participatory Design Conference 2022. ACM, 142-146. [Book Section]

Copyright and re-use policy

See <http://shura.shu.ac.uk/information.html>

Artful Material Utterance

A core competence for Participatory Designers

Andy Dearden

Sheffield Hallam University, Sheffield, UK, a.m.dearden@shu.ac.uk

ABSTRACT

This paper explores the idea of ‘material utterance’ as a way of reflecting on and analysing specific communicative actions in the practice of designing, and in particular in participatory designing. Material utterance extends the notion of utterance as used in linguistic pragmatics. This approach focuses attention on particular, situated communicative actions and draws attention to their materiality and embodiment. Using examples from a single participatory design initiative, the paper illustrates how attending to the specifics of individual material utterances, and relating them to the speaker/maker’s intent, provides a useful perspective for reflection on our practice.

CCS CONCEPTS

• Human-centered computing ~Interaction design ~Interaction design process and methods~Participatory design

KEYWORDS

Material Utterance, Communication, Pragmatics

1 Introduction

Everyone has some ability to ‘design’ in the sense of imagining and communicating about possible futures. But as practitioners, we seek to develop our own competence and the competences of others to become ‘better’ facilitators of Participatory Design (PD). But what is the competence or skill that we are seeking to develop, and how might we explain it to students or novices approaching the field? In this exploratory paper, I draw attention to the situated momentary communicative acts that make up designing conversations. Theories of the pragmatics of verbal communication attend to ‘utterances’ [REF 2, 3, 7, 13, 18]. In linguistic analysis an utterance is a unit of speech produced at a specific time by a specific speaker, beginning with a pause and ending with a pause (or a change of speaker). Distinct from other concepts such as ‘statement’ or ‘sentence’ an utterance is a situated event. I suggest that PD research and practice should attend to ‘material utterances’.

Early accounts of PD noted the importance of developing shared language games [11] with participants, and examining our own positionality and commitments within design processes [10]. Debates questioned trade-offs between paper versus lo-fidelity software prototyping [5]. More recently, authors have highlighted the personal actions of PD practitioners [1]; the role of practitioners in ‘staging’ encounters [4, 9]; the value of culturally accepted and familiar decision making practices to support adoption of PD approaches [9, 21]; and the complex power dynamics in which we, as PD practitioners, find ourselves entangled [6]. As PD has moved from early concerns with digital systems in workplaces to interest in citizens’ participation in the design and delivery of public services and systems, new terminology such as co-creation and co-design have emerged [15]. Co-Design emphasises the diverse capabilities that people with specific training in ‘designing’, and other stakeholders who may be experts within a domain, can bring to a problem situation. However, a general focus on co-design, without explicit reference to questions of participation, risks overlooking or ignoring issues of politics and power dynamics that are constantly in play in design settings. These new terms might thus obscure details that are central to claims of *Participatory Design*. A finer grained analysis using ‘material utterance’ may help us reflect on our own performance in seeking to realise participatory designing.

In co-design and in PD, a key contribution of people with a design training is the ability to shape and form material components to be deployed at various stages in designing, i.e. skills in conducting ‘conversations with materials’ [16, 17]. Many years ago in trying to understand the relationship between my own experiences designing user-interfaces for software systems (in a commercial, team based workplace), to the practices of designing in very different domains including bespoke jewellery [19], I sought to describe the notion of exchanging ‘material utterances’ as a unifying concept. Drawing inspiration from linguistic pragmatics, I sought to expand the idea of an ‘utterance’ – a specific instance of a communicative act by a specific speaker to an audience, in a specific social and historical context. In a material utterance [8], this idea is extended by recognising not only the verbal (or textual), but also the material components of the communicative act.

With respect to how such material utterances are interpreted, I argued in [8] that the meaning that participants associate or ascribe to material utterances is shaped by the histories of both speaker and audience, and the ‘speech genre’ in which they perceive the utterance to be framed. I drew ‘speech genre’ from the work of the Russian literary theorist Bakhtin [3, 13], who contrasted the typical patterns of speech in military commands, from the very different intonations and structures in conversations shared between intimates. Expectations and understandings of ‘speech genre’ then provide a lens through which the audience interprets the meaning of the utterance. I suggested [8] that ‘speech genre’ could be related to Wittgenstein’s concept of ‘language games’, a key theoretical concept in PD since the early days [11]. As a PD practitioner, my concern is whether my various material utterances are ‘artful’ in the sense of: being intelligible (and responsive) to my partner(s) in the design conversation; progressing our shared conversation; helping to devolve power; as well as promoting values of inclusion, equity, democracy and justice in this current process of future making.

Figure 1 illustrates the framework that I used in [8] to describe the important components of a material utterance¹. Attending to the specific actions in which a material object is framed and presented to an audience, could contrast a paper-prototype being presented to participants in ways that seek to close down further design exploration, with a high fidelity software prototype being presented in ways that seek to encourage further exploration. Although these artefacts lend themselves more naturally to the contrary presentation – paper prototype as unfinished and inviting further exploration – that closure or opening of dialogue is not an irreducible property of the artefact. It is an emergent property of the *material utterance* in which the artefact is one component.

This notion of material utterance incorporates not only material components of artefacts present in a PD conversation, but also to the materiality of the setting where a conversation takes place, and the materiality of our bodies and our ‘body language’ in communications. Thus, choices about when and where to hold a PD workshop, or how to arrange seating, what refreshments might be offered, and the body language used when greeting participants, are also elements of material utterance that could be more or less artful.

The practice of exchanging material utterances is not unique to PD. Indeed, much of design practice is composed of exchanges of material utterances. For example, when designers present prototypes, discuss ideas around a whiteboard, produce a specification, or handover blueprints for production, they make material utterances. What is distinctive about PD is the intent motivating (many of) the material utterances that we make. For example, the intent to elicit critiques of existing situations; to engage others in exploring ideas; to draw people into the design conversation; to find non-verbal sources of inspiration or empathic understanding as might occur through an exchange of ‘cultural probes’ [12, 19]; to generate material expression for an idea put forward by other participants; or to suggest some new way of looking at an issue.

¹The arrows in Figure 1 are taken directly from Author (2006), however, I did not provide a clear statement of what how those arrows should be interpreted. In retrospect, I propose a reading that A ‘influences’ B and view the details of these diagrams as somewhat speculative.

My contention is that a central competence for PD practitioners is making artful material utterances. Although the meaning of any material utterance cannot be given any final and incontrovertible definition, and the person making the utterance cannot be certain of the responses it will elicit, we aim to make our material utterances artful in the sense of eliciting responses that contribute towards positive outcomes. Sometimes, we have time and resources to prepare for such utterances, by making artefacts, or setting out a space before participants arrive. At other times, our material utterances are chosen in moment by moment interactions between participants in a setting. The skills required are then bound up in our capacity to make the 'right' (or artful) utterance at the 'right' time, in context, to guide these diverse interactions towards 'positive' outcomes. Of course, these statements contain normative adjectives such as 'right' and 'positive' which each PD practitioner must examine for themselves.

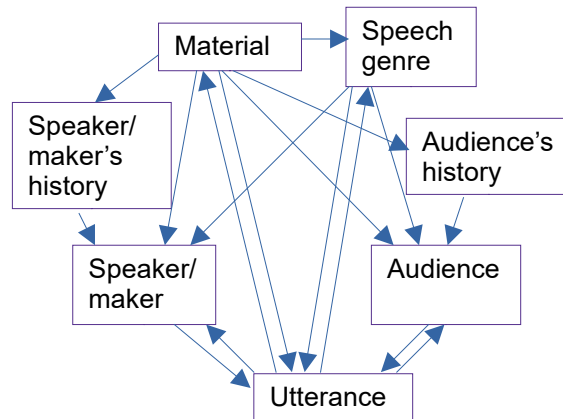


Figure 1 Material Utterance as presented in [8]

Below, I use examples of material utterances from an intervention that I have recently been involved with, where I was seeking both to promote a PD perspective, and to press a specific local political objective. I do not claim that my material utterances here were particularly artful. Rather, I wish to demonstrate how examining and reflecting on these actions as material utterances can support my own learning and skill development.

2 Save the Hedge!

The context of what follows is an effort by myself in collaboration with neighbours and others to participate in shaping the future development of a plot of land at the end of the street where I live. The plot is the site of a former Junior School (ages 7 – 10), that closed in 2012. For a few years the buildings were used by the neighbouring Senior School (ages 11 – 16), but when the Senior School was transferred to a new management arrangement as part of a chain of Academies this usage ceased. The Land is owned by the City Council, and their draft local plan identifies the site as suitable for new housing. More recently, a plan by the Council to renovate and replace a number of library buildings across the city identified that some parts of the primary school buildings, could be re-purposed and re-used for a library and community facilities. The plans then envisage selling the land where the current library is located, and only selling a part of the land associated with the Junior School for housing.

As a member of my local Parish Council² (PC), I became aware of the plans for the site in July 2021 when City Council officers attended the PC meeting to discuss their plans for a public consultation. Over the succeeding 7 months I have been involved in multiple exchanges of material utterances in efforts to influence the plans. Below, I discuss a small number of vignettes that have occurred during this process and use those examples to illustrate how the ‘material utterances’ framework can help to make sense of the various communicative actions, to highlight particular skills and capabilities employed in the process, and to reflect on how my utterances might have been more or less artful. My primary focus is on communicative utterances that I initiated because this allows me some awareness of my intentions and of my assessment of their effectiveness (or otherwise) in relation to my own conception of a ‘positive’ outcome.

Following the discussions at the PC, the City Council produced a leaflet and questionnaire that was distributed to all the addresses in the area served by the library. The leaflet included details of ‘drop-in’ information sessions that were scheduled during the consultation period. An additional material utterance was made towards the residents who live very close to the site, with the leaflet and questionnaire being delivered by hand by the project team, together with a letter inviting these residents to a special drop-in

²Parish councils are the most local level of local government in England. For comparison, the Parish Council’s annual budget is around £25k, whereas the City Council annual budget is around £125 million.

session at the library. The team also knocked on doors to discuss the consultation with those who were at home.

As an audience member for these various material utterances, I (and my wife) felt personally concerned for a variety of reasons, particularly regarding the precise shape of the plot of land that was being proposed for housing, and the impact we believed this might have on the local environment. Although there were no explicit plans for the housing, I was concerned that the shape of the plot being sold could imply a ‘premature commitment’ which would bias development towards particular layouts, with threats to aspects of our street that we (and neighbours) particularly valued, in particular, losing a mature species-rich hedge and a number of trees.

In response to this, my wife & I made a (series of) new material utterances. Our first utterances were on the WhatsApp group for the street, which had been established during the early stages of the Covid-19 pandemic. Immediately following the delivery of the invitations, I posted a message asking “Hi all – this is Andy from number # - I’m interested in what people think about the library proposals – I am on the parish council but there’s no PC meeting August – so none before this first round consultation ends on 3rd Sept”. My wife shared a link to a local newspaper article about the library plans, and I responded that the article also contained a link to the online version of the survey.

At the weekend we made a second (series of) material utterance(s). We went door to door visiting each of the houses in our street and the neighbouring streets that had been invited to the drop-in. We took copies of the City Council leaflet with us, and we encouraged our neighbours to attend. When initially introducing ourselves at the front doors of neighbours who we did not already know well, we were careful to begin by saying our names and our house number, with the aim of providing justification for our visit. We held the leaflet so that it was clearly visible to people answering the door as a way of communicating additional context for our visit. During our conversations, we were able to use the diagrams in the leaflet to explain some of our concerns. Further, we used these conversations as an opportunity to collect people’s email addresses for use in future communications.

These utterances highlight both the importance of the socio-materiality of communications media that we were using, and how that socio-material context itself was imbued with a particular history. Prior to the pandemic in 2020, the street’s WhatsApp group did not exist. It was established specifically because of a concern to care for the most vulnerable people in the street. The utterances at people’s front doors fits within a particular (space of) speech genre(s) associated with ‘cold calling’, and sits within a specific socio-material context in terms of the architecture of the houses and gardens.

Six months later, I found myself standing at the corner of our street next to a small table on which were various papers. I was calling to pedestrians (and some cyclists) who pass by “Excuse me! Can you help us save this hedge?” The materials in this utterance included the table, some pens, a petition labelled “Save the Hedge! Save the Hedgehogs!”, some anti-septic wipes and hand gel, some of the printed materials that had been used in the library consultation, plus some printouts of diagrams from a report that was due to be presented to the City Council Executive for decisions to be enacted. An additional material component of the utterance was the hedge itself, which runs along one boundary of the Junior School site. The material components helped to express the ‘speech genre’ of petitions – although I occasionally felt it necessary to re-assure people who were hesitating that I was only asking them to sign a petition and we were not in the ‘speech genre’ of fundraising. In this instance, the socio-material conditions of communication included the paper petition, but also the anti-septic wipes that I used to clean the pens used by each signatory, and the fact that the petition was addressed specifically to the Executive of the City Council. In choosing to collect signatures on paper, rather than starting the petition online, I had made a judgement that my location and the hedge itself would help me to recruit people who would be concerned by the issue.

During my time standing at the corner, a neighbour called by to sign, and she also took photographs with a view to sharing these with a Facebook group concerned with the local area. This initial Facebook post asked members of the group to come down to sign on paper, but it naturally led to questions about putting

the petition online. Because I was busy collecting signatures on paper, I asked the neighbour (via the WhatsApp group) to put the petition online. However, she responded that she didn't know how to do that. Therefore, I made another material utterance by setting up an online petition using the same text as the paper petition, but with a slight change in the title – Save the <Location> Hedge! Save the Hedgehogs!). The petition was accompanied by a photo of the hedge, and could then be shared by others on the WhatsApp group using their various social media connections.

One incident does stick in my mind from my interactions with passers-by. I had just begun speaking to one man about the hedge as I was still in the process of setting up my table and petition. I had the petition on a clipboard in my hand and, having first engaged the man in conversation, I took a step towards him. He immediately stepped back and started walking away, whilst also reaching into his pocket to take out a face mask. I saw him returning later and surmised (from the timing and my knowledge of the local area) that he had just attended an appointment at the doctors' surgery³.

The final material utterance that I wish to discuss was a 'written' submission to the City Council Executive meeting. The socio-material context of the Executive meeting included the fact that the meeting would be held remotely using Zoom and the deliberations would be webcast. Members of the public are allowed to register to speak at each of these meetings, but for reasons of time management, the Council try to limit the number of speakers to 10 whilst trying to balance the range of speakers to reflect the different issues that are on the agenda. Because some members of the public are asked not to speak, the council also allows members of the public to make written submissions. Although I was one of those who was called to speak, I also took advantage of this situation to make a 'written' submission. However, I was also aware that the agenda pack for the meeting ran to nearly 500 pages. Thus a long textual submission was unlikely to have any significant impact on the deliberations. Instead, my submission ran to four pages, most of which was composed of images. These included: Figure 2(a) created using an image editor to draw the route of a 'wildlife corridor' onto a google maps satellite image of the area; various images drawn from the consultation process; two quotations that I had gleaned from searches over the Council's own specified policies relating to protecting wildlife and listening to citizens; and Figure 2(b) an image of a mock-up (paper prototype?) of one possible site layout that I created by cutting and pasting pieces from the report that the officers were recommending to the council. I remember spending time reflecting on which of the possible site layouts that we had discussed with neighbours I should mock up and use for this submission. After the meeting, I did wonder whether I should have chosen a different one that perhaps conceded more ground than some of my neighbours would have liked, but which was perhaps more 'finished' in its appearance.

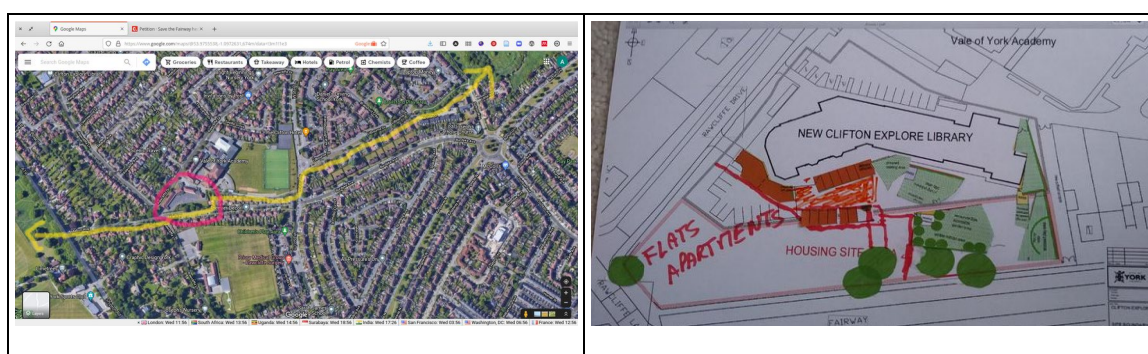


Figure 2(a) Satellite image with the wildlife corridor marked. Figure 2(b) Mock-up of a possible site layout

3 Discussion

I do not claim that my material utterances in this case were all artful. However, I do claim that examining these incidents from the perspective of 'material utterance' provides me with a useful framework for

³This interaction took place at a time when the highly infectious omicron variant of Covid-19 was a major concern.

understanding what happened, and for considering (some of) the diversity of skills that are useful and important in the (ultimately political) work of the PD practitioner.

These encounters show a number of different ways in which materials are implicated in the ongoing dialogues around the Junior School site. Not only were we conducting conversations with materials as components in our exchanges (such as holding the library consultation leaflet in a very visible place when knocking on neighbours doors), but we were also using the specific form of those material components in rhetorical argument so that the materials elements become significant in the persuasiveness or otherwise of conversational moves. Thirdly, the task of creating and arranging material components of the utterance (for example the online petition, or the diagram of the wildlife corridor) depends upon the outcomes of conversations between myself and (physical and digital) materials in the sense of Schön [16, 17]. Further, in selecting conversational moves, awareness and sensitivity to the socio-material contexts within which we communicate came into play.

A notable feature is the way that the materials shared in one utterance can (under certain conditions) become background materials for future utterances, such as my use of the Council's leaflets when knocking on doors, and use of the agenda papers to create the alternative site mock-ups. In many PD settings, a key material utterance might be introducing a toolkit or canvas around which participants can co-operate in framing material utterances of their own, perhaps in response to invitations or provocations from PD practitioners. These may be deliberately open for creative interpretation (see e.g. [11]) or perhaps they might assist participants in exploring a more tightly defined space of possible alternatives (see e.g. [13]). Indeed, it may be useful to ask to what extent our material utterances lend themselves to such appropriations.

Limitations

In this short exploratory paper, I am not able to set out a complete, well-defined and rigorous framework for the analysis of PD in terms of material utterances. Rather, this paper is an invitation to readers to explore and develop this concept further.

One potential challenge is to scope the unit of analysis to maintain consistency. If the layout of a room or the first words of greeting to a workshop participant are both material utterances, then how can a 15 minute presentation of a prototype or critical design artefact be treated within the same framework? Can a distinction between single utterances and conversations composed of multiple utterances over time be clearly demarcated. Could an exchange within a workshop could be analysed as a sequence of utterances, and a series of activities in a PD process could be read as a series of conversations. What other levels of granularity would be useful? Should different terms be used for these different levels of granularity?

Another problem lies in the reliance on the 'speech genre' or 'language game' to capture the contextual background in which the speaker and audience construct and interpret the utterance. Whilst these ideas capture some helpful elements of the background sociomaterial context, the originators of these ideas were operating in a world with a more limited range of communication media. Each of these different media may have associated 'genres' as well as having different sociomaterial properties. Further, figure 1 focuses on a single utterance, and does not represent the possibility that a material artefact presented in one utterance might be manipulated as a means of forming some subsequent utterance. Clearly there is work required to develop this concept into a more systematic framework and I invite others to take that exploration forwards.

Conclusion

My contention is not that my particular way of thinking about material utterances is the ideal framework to examine PD, nor that such fine grained analysis can replace thinking about the higher level structure and organisation of activities in a PD process. However, I do argue that the concept of material utterance is useful both for reflecting on our own practice, and for articulating important distinctions around designing in general, co-designing and participatory designing.

ACKNOWLEDGMENTS

I wish to thank everyone who collaborated with me in efforts to save the hedge. I would also like to thank Reem Talhouk as well as all the anonymous reviewers of this paper who have helped to make the material utterances that are the publication and the presentation of this paper more artful than they might otherwise have been.

REFERENCES

- [1] Y. Akama and A. Light. 2018. Practices of readiness: punctuation, poise and the contingencies of participatory design. In *Proceedings of the 15th Participatory Design Conference: Full Papers-Volume 1*, ACM Press, 1-12.
- [2] J. L. Austin. 1975. *How to do things with words*. Oxford University Press.
- [3] M. M. Bakhtin. 1994. *Speech genres & other late essays* Translated by V W McGee. C Emerson and M Holquist (Eds), University of Texas Press, Austin, Texas.
- [4] E. Bjögvinsson, P. Ehn and P. A.. Hillgren. 2012. Design things and design thinking: Contemporary participatory design challenges. *Design Issues*, 28(3), 101-116.
- [5] S. Bødker & K. Grønbaek. 2020. Design in action: From prototyping by demonstration to cooperative prototyping. In *Design at Work*, CRC Press, 197-218.
- [6] T. Bratteteig and I. Wagner. 2014. *Disentangling participation: power and decision-making in participatory design*. Springer.
- [7] H. H. Clark. 1996. *Using language*. Cambridge University Press.
- [8] A. Dearden. 2006. Designing as a conversation with digital materials. *Design Studies*, 27(3), 399-421.
- [9] D. de los Reyes and A. Botero. 2012. Endearing (re) encounters: participatory design in a Latin-American popular context. In *Proceedings of the 12th Participatory Design Conference: Exploratory Papers, Workshop Descriptions, Industry Cases-Volume 2* ACM Press, 85-88.
- [10] P. Ehn and R. Badham. 2002. Participatory design and the collective designer. In *Proceedings of the Participatory Design Conference (PDC '02)* CPSR, Malmö, Sweden, 1-10.
- [11] P. Ehn and M. Kyng. 2020. Cardboard Computers: Mocking-it-up or Hands-on the Future. In *Design at Work*. CRC Press, 169-195.
- [12] W. W. Gaver, A. Boucher, S. Pennington and B. Walker. 2004. Cultural probes and the value of uncertainty. *Interactions*, 11(5), 53-56.
- [13] P. Morris (Ed.) 1994. *The Bakhtin Reader*. Edward Arnold, London.
- [14] M. J. Muller 1991. PICTIVE—an exploration in participatory design. In *Proceedings of the SIGCHI conference on Human factors in computing systems (CHI '91)*, ACM Press 225-231.
- [15] E. B. N. Sanders and P. J. Stappers. 2008. Co-creation and the new landscapes of design. *Co-design*, 4(1), 5-18.
- [16] D. Schön 1995. *The reflective practitioner: how professionals think in action*. Arena, Alershot, UK
- [17] D. Schön and J. Bennett. 1996. Reflective conversation with materials, in T Winograd (ed.) *Bringing design to software*, Addison Wesley, 171-184
- [18] J. R. Searle. 1969. *Speech acts: An essay in the philosophy of language*. Cambridge University Press.
- [19] J. Wallace, A. Dearden and T. Fisher. 2007. The significant other: the value of jewellery within the conception, design and experience of body focussed digital devices. *AI and society*, 22(1), 53-62.
- [20] H. Winschiers-Theophilus, S. Chivuno-Kuria, G. K. Kapuire, N. J. Bidwell and E. Blake. Being participated: a community approach. In *Proceedings of the 11th Biennial Participatory Design Conference (PDC '10)*, ACM Press, 1-10.
- [21] A. Zewge, Y. Dittrich and R. Bekele. 2015. Adapting participatory design to design information system with rural Ethiopian community. In *AFRICON 2015*. IEEE, 1-5.