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Abstract: This is a conceptual paper that explores the notion of metadesign which is premised on redesigning design itself. It interrogates the claim that metadesign is 'open', 'fluid' and 'democratising' by analysing its literature and practices. The paper makes two arguments. First, that metadesign is a theoretical power grab that prioritises language at the expense of material design which separates it from other design approaches. Second, that metadesign currently does not offer conceptual tools for observing and analysing the politics of real-world metadesign. If metadesign wants to be a democratising force, then it needs to question its legacy of transcendent language and engage with metadesign in practice and the politics it enacts in the world. Metadesign must shift towards 'practice-based metadesign' and work with concepts from Science and Technology Studies such as 'infrastructural inversion' to observe the politics of infrastructure and destabilise assumptions about discourse as immaterial and structures as material.

Keywords: metadesign, practice-based, design politics, democratic design, infrastructure

1. What is medadesign?

Metadesign is a concept that has been around since the 1970s in radically different articulations by philosophers such as Jean Baudrillard who describes it as a dematerialisation of design into semiotic meaning (Busbea, 2009), biologists who describe it as an evolutionary process (Maturana, 1997), and designers who see it as creating paradigm shifts (Wood, 2013), participatory methods (Tham et al., 2016), and the deliberate under-specification of systems (Fischer et al., 2004). Unfortunately, metadesign is not an established discipline or a coherent theory (Giaccardi, 2003, p. 144), has issues with being 'vague' and 'elusive' (Giaccardi, 2005, p. 343), there are a multiple versions of metadesign (Bentz & Franzato, 2017), and some of its historic texts have not been translated into English (Van Onck, 1965).

So why should anyone bother with this obscure design approach? My argument is that metadesign is actually an ambitious and self-reflective (Backwell & Wood, 2011) attempt to remake design itself — 'designing the design' (Giaccardi, 2005, p. 343) that offers unique potential. The name metadesign derives from the Greek 'meta' as a preposition meaning above, behind or beyond normal design. Many of its proponents argue that metadesign

offers fluidity, openness for re-use, appropriation by users as well as a political objective of democratisation itself (Backwell & Wood, 2011; Giaccardi & Fischer, 2008; Tham et al., 2016). Giaccardi and Fischer describe metadesign as the "*democratisation of the creative process of invention*" (2008, p. 19), while Vassão describes it "*as an accessible approach to the democratic organization of communities*" (2017, p. 144). The promise of being able to fundamentaly remake design and establish a democratic basis for its operation is important with the world struggling with the crisis of capitalism experienced as social and climate disasters. While a number of transition and decolonising design approaches have emerged (Escobar, 2018; Irwin, 2015), these have not found widespread acceptance and been difficult to translate into practice (Nold, 2021). Perhaps metadesign's reflexive focus on asking 'second-order questions' about the design discipline (Peña, 2020) can add unique insights to the transformation of design. This paper interrogates metadesign's claims of openness and democratisation and explores its potential to remake design and address challenges around the politics of design.

2. Methodology

This study is based on a thematic sampling of the discourse around metadesign. A corpus of 45 texts was identified via searches for the term 'metadesign' and 'meta-design' within design journals such as Design Issues, Design Journal, Design Studies, She Ji, DRS digital library, as well as the broader academic literature. A central core of 20 metadesign texts were identified by being highly cited and used to identify other contemporary and historic papers. In addition, several texts were suggested by participants of the DRS Festival of Emergence 2021. The corpus was analysed to identify themes across the texts with a specific focus on political or democratising arguments as well as examples of metadesign being used as a practical methodology. The study identified two distinct approaches to metadesign outlined in the next sections.

3. Metadesign as transcendent language

This approach to metadesign originates in texts from the 1970s by the biologists and philosophers Humberto Maturana and Francisco Varela. They are recognised for the concept of 'autopoiesis' to describe self-generating living systems. Many contemporary metadesign texts highlight Maturana's essay 'Metadesign' (1997) as foundational. Strikingly, the text barely mentions recognisable design and focuses on theoretical discussion on the biological evolution of emotion and the nervous system. Maturana argues for the importance of language as a way of coordinating the way species interact and organise the world:

> "*All that we human beings do we do it in language. Thus, objects arise in language as manners of coordination of our doings in language; the different worlds that we live arise in language as different domains of doings in coordinations of our doings in language*" (Maturana, 1997, p. 6).

Maturana's concept of language is not as a spoken discourse but as a biological process of *structural coupling* that coordinates the discrete elements of an organism. This notion is opposed to concepts of semiotic communication: "*the interaction of the organisms can be described in strictly operational terms, without recourse to such semantic notions as function or meaning*" (Maturana, 1978, p. 11).

This unusual notion of language has been adopted into metadesign in multiple ways. In the work of John Wood — 're-languaging' (2013) is described as a way to intervene at the 'big picture' level of creating paradigm shifts and changing worldviews and value systems. In Wood's interpretation, metadesign is a visionary way of restructuring the reality of the ecological, cultural, and political forces driving the world. The scale of focus is on the macro level of societal behavioural interventions to rethink, for example, how General Domestic Product (GDP) should be reallocated (Wood, 2013). For Wood, the role of the metadesigner is as a kind of oarsman that directs society through space and time by articulating new paradigms. Caio Vassão offers a similar notion of the metadesigner as a 'game inventor', whose role is "*to create new realities or modification in existing ones*" (2017, p. 149) by "*laying out of rules, laws or procedural limits that entail a consensual reality*" (2017, p. 150). In Vassão's notion of metadesign, the scale of intervention is smaller and concerned with the way "*micro-interactions between individuals or small groups of individuals can compose themselves into increasingly complex behaviors as we increase the scale in which we regard that society*" (2017, p. 147). Other metadesign authors describe the role of language quite differently. Bentz and Franzato used the ideas of van Onck (1965) to suggest that metadesign is a knowledge practice focused on "*design practices as its language object*" (Bentz & Franzato, 2017, p. 136). They argue for metadesign as a linguistic tool for studying design which operates at a discursive level that is separate from physical design and hierarchically positioned above it.

In contrast to the theoretical discussion, the practical application of language-focused metadesign is not as clearly described. Some designers suggest metadesign allows them to deal with the 'intangible' nature of public needs (Germak & Khan, 2017) and the 'immateriality' of worldviews and value systems (Wahl & Baxter, 2008). Ferronato and Ruecker (2018) suggest that metadesign allows them to engage with discursive concepts such as smart citizenship that are usually outside of the remit of material design. In contrast, other designers who work with specific design contexts and participants seem to have found 'languaging' more challenging to work with. Mathilda Tham and colleagues (2016) offer a case study of collaboratively designing an academic research platform. In this example, the workshop organisers describe 'languaging' as a way to coordinate the participants to share their viewpoints, pick the workshop location, and choose the project name. The paper suggests that the use of 'languaging' means the process is 'inclusive' and 'democratic' and "*set[s] up a generous and allowing, open, safe and creative space for inquiry*" (Tham et al., 2016, p. 17).

Yet, the authors do not clarify what distinguishes a metadesign approach from other methods such as participatory design. This is particularly important since participatory design is also premised on the affirmative claim to be open, inclusive, and democratic.

I argue the ambiguity seen in this case study is not surprising considering the way the metadesign literature frames language in multiple ways that are often contradictory. Language is variously described as evolutionary self-organisation, discursive societal paradigms and a semiotic tool for analysing design. It is also notable that theoretical metadesign texts are dense with technical categorisations of human cognition (Vassão, 2017), systemic laws (Dávila & Maturana, 2013) and knowledge hierarchies (Bentz & Franzato, 2017) that seem deliberately focused towards theoretical abstraction rather than practical application.

In general, there is a sense that the linguistic framing of metadesign is being understood by design practitioners as immaterial transcendence that exists above physical design. While creating a new space for design, this also establishes a separation from other approaches. Ian Bogost suggests that the notion of 'meta' as transcendence creates a power grab over that which is left below: "g*oing meta short-circuited the need to contend with meaning in the first place, replacing it with a tower of deferred meanings, each one-upping the last's claim to prominence*" (2021, para. 9). From this perspective, it is possible to see the linguistic focus of metadesign as a power grab that 'goes meta' on design to claim superiority over material design. There is a danger that metadesign will reinforce the epistemic politics which is prevalent across Western culture and venerates immaterial knowledge over physical practices. This sense of top-down politics is also present in the grandiose metaphors of the metadesigner as a societal oarsman and reality designer. Such visions do not carry societal legitimacy these days and have more in common social media influencers and political spin doctors. There's also a danger in framing the metadesigner as an author of high-level paradigms who is elevated above designers creating practical solutions to climate issues. If metadesign wants to live up to its claims of openness, inclusion, and democratisation it needs to develop an awareness of the epistemic politics of knowledge and specifically about how language operates as an object that can reinforce hierarchies and exclude wider publics.

4. Metadesign as infrastructural practice

There is another approach to metadesign that is more material-focused and applied. In the literature, it is possible to see metadesign ideas being used within computer science (Fischer et al., 2004), graphic design, industrial design, information architecture and system design (Giaccardi, 2005, pp. 344–355). In this approach, the focus is not on language, but on infrastructures that support other design processes: "*meta-design is an emerging conceptual framework aimed at defining and creating social and technical infrastructures in which new forms of collaborative design can take place*" (Fischer & Giaccardi, 2006, p. 427). In contrast

to the previous notion, this conception of metadesign is described as operating *below* normal design and being focused on infrastructures that precede design: such as platforms, standards, parameters, metrics, and frameworks. These elements often exist as discursive objects in reports but deal with material design concerns. They are the necessary but unglamorous parts of design that are usually out of view much like a sewer system.

Infrastructures are not just technical systems but involve the interweaving of social and technical elements, which Giaccardi and Fischer describe as "*socio-technical environments that allow users to create the solutions themselves*" (2008, para. 21). Infrastructure is conceptualised as socio-technical in the way it acts as a connective resource that links people and organisations (Star & Ruhleder, 1994), where "*infrastructure is fundamentally and always a relation, never a thing*" (1994, p. 253). Thus, designing infrastructure doesn't just involve hardware but also making relational connections between groups of people as used in the design notion of 'infrastructuring' (Björgvinsson et al., 2012). For Peña, metadesign involves explicit "*methodologies that can be applied to construct other systems*" (2020, p. 64). He presents the example of a typographic system that allows the user to tweak high-level parameters of the system instead of being offered a simple typeface (Peña, 2020). This practical conception of metadesign means it can be integrated with established design approaches such as user-centered and participatory design (Fischer & Giaccardi, 2006, p. 430). What makes the metadesign concept distinctive is that it involves "*opening up solution spaces rather than complete solutions*" (Giaccardi & Fischer, 2008, p. 19). The metadesigner deliberately leaves system designs unfinished for end users to complete. This translates into instructions for 'underdesigning' systems (Fischer et al., 2004) and providing design 'seeds' (Fischer & Giaccardi, 2006), which allow autonomous growth and future redesign. It is in this hands-off approach that the metadesign proponents see its potential for openness and democratisation. By leaving design unfinished, this is described as enabling wider participation in the design process and allowing the public to become creative partners. Giaccardi positions this within a wider cultural movement towards public participation seen in culture and media art from the 1980s onwards (2005). Yet, she argues that there is a danger of metadesign becoming a reductive approach for mass customisation while neglecting the substantive challenge of user participation. Instead, she argues that metadesign needs to be treated as reflexive, open-ended design aimed at emergence, evolution and adaption (Giaccardi, 2005, p. 347).

Reflecting on the infrastructural approach, it is interesting to note that the case studies offer little analysis of the transformations that have occurred due to metadesign processes. For example, the typographic system mentioned earlier is described in the paper as a technical process without any discussion of its wider impacts (Peña, 2020). Instead, the ability for users to participate in specifying technical systems is being equated as a democratic 'good' in itself. The notion of participation being invoked is as an "*abstract concept, a moral good as-*

sociated with positive democratic and sustainability effect" (Green, 2010, p. 1242). Yet as research in other fields such as international development has shown, these kinds of affirmative claims can enable a range of emancipatory as well as neoliberal projects in practice (Green, 2010). To explore this idea, I propose a thought experiment that compares two examples of what might be considered metadesign to analyse how they enact different political dynamics. By using the word 'enact' — I want to create a contrast between rhetorical claims for democracy on the one hand and actions that performatively shape the world on the other (Mol, 2002). This is not to suggest that language does not act politically but to draw attention to the fact that design choices directly shape political impacts (Winner, 1980).

The first example is from the book 'Nudge: Improving Decisions about Health, Wealth, and Happiness' (Thaler & Sunstein, 2008), which proposes the 'choice architect' as having "*the responsibility for organizing the context in which people make decisions*" (2008, p. 3). The authors provide the example of a dinner lady who has to decide how to organise the food arrangement in a lunch hall to make sure children eat the healthy food instead of the unhealthy fattening food. Thaler and Sunstein argued that there is an imperative for the choice architect to adopt the correct option of structurally rearranging the environment to hide the unhealthy food so that the public do not have to make any choice. The designer's role is thus to embed democratic nudge principles into the infrastructure of a spatial arrangement.

The second example is the book 'Consensus decision making' (Seeds for Change, 2009), which is a manual for teaching consensus decision making processes to social change organisations. It describes how to deal with the challenges of consensus decision making when working with people who are only familiar with hierarchical, majority or voting processes. What is interesting is the way the manual foregrounds the process itself as a political goal: "*it aims to dismantle all kind of hierarchy, and replace it with shared power*" (Seeds for Change, 2009, p. 5). Thus, it is not the outcome of decision-making that matters as much as the quality of the collective process itself which is seen as instantiating democratic relations.

What these examples have in common is that they both envisage the designer as creating a 'meta' that operates at an infrastructural level to configure how people interact. Yet, the difference between them, is where they position choice and autonomy and the impacts they aim to create. In the nudge example, democracy is conceptualised as an outcome of a process while the methods are questionably undemocratic, in contrast in consensus decision making, the anti-hierarchical nature of the process is the political goal. Translating this thought experiment to metadesign raises questions as to where its politics are located. Is it enough for metadesign to claim that it creates democratic outcomes, or does it have to account for the politics of its processes? What kind of democracy should metadesign be creating – nudge or consensus decision making? My point is, that this thought experiment opens up questions about the multiple kinds of politics that metadesign can enact in practice which

are different than rhetorically claiming democracy as an affirmative goal. The problem is that the metadesign literature has so far not engaged with the vast literature on politics and democracy (Latour, 2007; Mouffe, 1999). Thus, when Vassão talks about "*trying to configure social action not through direct command and control but by organizing certain interactive modes – by interfering in micro-macro interactions*" (Vassão, 2017, p. 151), this could equally describe the metadesigner as a 'choice architect' (Thaler & Sunstein, 2008) or an anarchist facilitator (Seeds for Change, 2009). Metadesign's lack of engagement with the complexity of enacted politics and literature around democracy means that there is ambiguity about its political potential.

5. Discussion

This paper has identified two different metadesign approaches: one based on transcendent language from *above*, and a second as infrastructure from *below*. For some designers the language focus has extended the scope of design to engage with new scales of paradigm change around ecological and societal issues which are traditionally outside of design's remit. Unfortunately, this expansion of design has taken place at the expense of generating a dualistic distinction between language and material design and separated itself from 'normal' design. Yet, the infrastructural approach to metadesign offers a material focus that highlights structures that underlie design processes such as platforms, parameters, metrics and frameworks. These infrastructures set the limits and constraints of design yet are often not discussed and treated as mere technical issues to be dealt with by other specialists. Focusing on infrastructure could allow metadesigner to tackle the often-hidden structures that define what is politically possible. Yet so far there has been too little empirical engagement with the enacted politics in the world. What is needed is a transition towards empirical case studies that demonstrate the impacts of metadesign. Similar to the way 'ontological design' (Willis, 2006) required a shift towards 'practice-based ontological design' (Nold, 2018), there needs to be a shift towards 'practice-based metadesign'. This would require stronger engagement with theoretical discussions around politics and democracy (Latour, 2007; Mouffe, 1999), as well as extending its methodological toolset for observing its own practices. The discipline of Science and Technologies Studies offers a range of methodological concepts that can be useful in this regard. The notion of 'infrastructural inversion' seems like an apt notion to import into metadesign:

> "*Study an information system and neglect its standards, wires, and settings, and you miss equally essential aspects of aesthetics, justice, and change. Perhaps if we stopped thinking of computers as information highways and began to think of them more modestly as symbolic sewers, this realm would open up a bit*" (Star, 1999, p. 379)

Infrastructural inversion calls for researchers to carry out ethnographic observations of infrastructures to observe the physical components, social arrangements as well as the political

relations they enact. The concept prompts a shift between background and foreground that makes infrastructure visible, political, and malleable. What makes metadesign exciting, is that it opens up space that exists *above* and *below* other design approaches. Yet, introducing infrastructural inversion into metadesign could help to destabilise the metas of *above* and *below* — immaterial transcendence and physical infrastructure. This approach could transform societal paradigms into tangible community-led processes, while technical systems could become topics for public analysis. I suggest that we are already witnessing these kinds of inversions taking place in way the public are challenging the climate discussions of the Conference Of Parties (COP26) (Lakhani, 2021) and interrogating Facebook's algorithms (Milmo, 2021). My argument is that the metadesign discourse needs to shift away from abstraction and move towards actively supporting this kind of politically engaged metadesign already taking place in the world. While the current framing of metadesign is flawed, its ambition and self-reflective ethos can contribute towards changing design by destabilising the infrastructures that exist around a wide range of societal paradigms.

6. References

Backwell, J. L., & Wood, J. (2011). Catalysing network consciousness in leaderless groups: A metadesign tool. In *Presence in the Mindfield: Art, Identity and the Technology of Transformation*. http://research.gold.ac.uk/7116/

Bentz, I. M. G., & Franzato, C. (2017). The relationship between Strategic Design and Metadesign as defined by the levels of knowledge of design. *Strategic Design Research Journal*, *10*(2), 134–143. https://doi.org/10.4013/sdrj.2017.102.06

Björgvinsson, E., Ehn, P., & Hillgren, P.-A. (2012). Agonistic participatory design: working with marginalised social movements. *CoDesign*, *8*(2–3), 127–144.

Bogost, I. (2021). *The Metaverse Is Bad: It is not a world in a headset but a fantasy of power*. The Atlantic. https://www.theatlantic.com/technology/archive/2021/10/facebook-metaverse-name-change/620449/

Busbea, L. (2009). Metadesign: Object and Environment in France, c. 1970. *Design Issues*, *25*(4), 103–119.

Dávila, X. Y., & Maturana, H. R. (2013). Systemic and meta-systemic laws. *Interactions*, *XX*(June), 1–7. http://www.inteco.cl/articulos/006/texto_ing.htm

Escobar, A. (2018). *Designs for the Pluriverse: Radical Interdependence, Autonomy and the Making of Worlds*. Duke University Press.

Ferronato, P., & Ruecker, S. (2018). Smart Citizenship: designing the interaction between citizens and smart cities. *DRS2018: Catalyst*, *5*, 25–28. https://doi.org/10.21606/drs.2018.480

Fischer, G., & Giaccardi, E. (2006). Meta-design: A Framework for the Future of End-User Development. In *End User Development* (pp. 427–457). https://doi.org/10.1007/1-4020-5386-x_19

Fischer, G., Giaccardi, E., Ye, Y., Sutcliffe, A. G., & Mehandjiev, N. (2004). Meta-design: A manifesto for End User Development. *Communications of the ACM*, *47*(9), 33–37. https://doi.org/10.1145/1015864.1015884

Germak, C., & Khan, S. (2017). Interaction design applications for museum spaces. New

exhibit paths driven by a Bluetooth sensor's system. *Design Journal*, *20*(sup1), S3914–S3924. https://doi.org/10.1080/14606925.2017.1352893

Giaccardi, E. (2003). *Principles of Metadesign: Processes and Levels of Co-Creation in the New Design Space* [University of Plymouth]. https://pearl.plymouth.ac.uk/handle/10026.1/799

Giaccardi, E. (2005). Metadesign as an Emergent Design Culture. *Leonardo*, *38*(4), 342–349.

Giaccardi, E., & Fischer, G. (2008). Creativity and evolution: A metadesign perspective. *Digital Creativity*, *19*(1), 19–32. https://doi.org/10.1080/14626260701847456

Green, M. (2010). Making Development Agents: Participation as Boundary Object in International Development. *Journal of Development Studies*, *46*(7), 1240–1263. https://doi.org/10.1080/00220388.2010.487099

Irwin, T. (2015). Transition design: A proposal for a new area of design practice, study, and research. *Design and Culture*, *7*(2), 229–246. https://doi.org/10.1080/17547075.2015.1051829

Lakhani, N. (2021). *'A death sentence': Indigenous climate activists denounce Cop26 deal*. The Guardian. https://www.theguardian.com/environment/2021/nov/16/indigenous-climate-activists-cop26-endangers-native-communities

Latour, B. (2007). Turning Around Politics: A Note on Gerard de Vries' Paper. *Social Studies of Science*, *37*(5), 811–820. https://doi.org/10.1177/0306312707081222

Maturana, H. R. (1978). *Biology of language: The epistemology of reality*.

Maturana, H. R. (1997). Metadesign. In *Instituto de Terapia Cognitiva*. https://www.pangaro.com/hciiseminar2019/Maturana_Metadesign.pdf

Milmo, D. (2021). *Facebook revelations: what is in cache of internal documents?* The Guardian. https://www.theguardian.com/technology/2021/oct/25/facebook-revelations-from-misinformation-to-mental-health

Mol, A. (2002). *The Body Multiple: Ontology in Medical Practice*. Duke University Press.

Mouffe, C. (1999). *Delibertative Democray or Agonistic Pluralism*.

Nold, C. (2018). Practice-based ontological design for multiplying realities. *Strategic Design Research Journal*, *11*(2), 58–64. https://doi.org/10.4013/sdrj.2018.112.02

Nold, C. (2021). *Towards a Sociomaterial Framework for Systems in Design* (No. 2; Social Design Institute UAL). https://www.arts.ac.uk/__data/assets/pdf_file/0034/286369/SDI_Working.Paper_2_Towards_a-Socio-material_Framework_Nold_tagged.pdf

Peña, E. (2020). Font remix (A metadesign). *Design Issues*, *36*(2), 58–71. https://doi.org/10.1162/desi_a_00590

Seeds for Change. (2009). *Consensus decision making: A guide to collaborative decision-making for activist groups, co-ops and communities*. http://books.google.com/books?hl=en&lr=&id=JA08U6ntp-IC&oi=fnd&pg=PA390&dq=Consensus+decision-making&ots=H78DMf0CR4&sig=VezutIUwNuv5aWTU93-xjTR8Hzk

Star, S. L. (1999). The Ethnography of Infrastructure. *American Behavioral Scientist*, *43*(3), 377–391. https://doi.org/10.1177/00027649921955326

Star, S. L., & Ruhleder, K. (1994). Steps Towards an Ecology of Infrastructure: Complex Problems in Design and Access for Large-Scale Collaborative Systems. *Proceeding CSCW '94 Proceedings of the 1994 ACM Conference on Computer Supported Cooperative Work*, 253–264.

Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving Decisions about Health, Wealth, and Happiness*. Yale University Press.

Tham, M., Arvidsson, A.-K., Blomqvist, M., Bonja, S., Hyltén-Cavallius, S., Håkansson, L., Salinas, M., Sterte, M., Ståhl, O., Svensén, T., & Victor, O. (2016). Metadesigning Design Research - How can designers collaboratively grow a research platform. In P. Lloyd & E. Bohemia (Eds.), *Future Focused Thinking - DRS International Conference 2016*. https://doi.org/10.21606/drs.2016.375

Van Onck, A. (1965). *Metadesign*.

Vassão, C. A. (2017). Design and Politics: Metadesign for social change. *Strategic Design Research Journal*, *10*(2), 144–155. https://doi.org/10.4013/sdrj.2017.102.07

Wahl, D. C., & Baxter, S. (2008). The designer's role in facilitating sustainable solutions. *Design Issues*, *24*(2), 72–83. https://doi.org/10.1162/desi.2008.24.2.72

Willis, A.-M. (2006). Ontological Designing. *Design Philosophy Papers*, *4*(2), 69–92. https://doi.org/10.2752/144871306X13966268131514

Winner, L. (1980). Do Artifacts Have Politics? *Daedalus*, *109*(1), 121–136.

Wood, J. (2013). *Metadesigning Paradigm Change*. https://metadesigners.org/Metadesigning-Paradigm-Change-Overview

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