

DESIGN FOR EMPATHY: A CO-DESIGN CASE STUDY WITH THE FINNISH PARLIAMENT

Tuomala, Enni-Kukka S E; Baxter, Weston L

Imperial College London

ABSTRACT

Globalisation and the mixing of people, cultures, religions and languages fuels pressing healthcare, educational, political and other complex sociocultural issues. Many of these issues are driven by society's struggle to find ways to facilitate deeper and more emotionally meaningful ways to help people connect and overcome the empathy gap which keeps various groups of people apart. This paper presents a process to design for empathy – as an outcome of design. This extends prior work which typically looks at empathy for design – as a part of the design process, as is common in inclusive design and human centered design process. We reflect on empathy in design and challenge the often internalised role of the designer to be more externalised, to shift from an empathiser to become an empathy generator. We develop and demonstrate the process to design for empathy through a co-creation case study aiming to bring empathy into politics. The ongoing project is set in the Parliament of Finland, and involves co-creation with six Members of the Parliament from five political parties. Outcomes of the process and case study are discussed, including design considerations for future research.

Keywords: Empathy, Case study, Collaborative design, Design process, Design for X (DfX)

Contact:

Tuomala, Enni-Kukka Imperial College London Dyson School of Design Engineering United Kingdom ennikukka@gmail.com

Cite this article: Tuomala, E.-K.S.E., Baxter, W.L. (2019) 'Design for Empathy: A Co-Design Case Study with the Finnish Parliament', in *Proceedings of the 22nd International Conference on Engineering Design (ICED19)*, Delft, The Netherlands, 5-8 August 2019. DOI:10.1017/dsi.2019.13

1 INTRODUCTION

Since the 1970's when Patricia Moore first presented her immersive work on "universal design" (Centre for Policy Research, 2012), empathy has been a prominent part of the design process. Decades of building on this work has resulted in many tools and techniques to support a designer's ability to empathise with users to create relevant products. This type of empathy in the design process aids in the creation of better design outcomes – *empathy for design* – and is typically aimed at enabling the designer to generate insights and subsequent design interventions and is a primary objective of design thinking (Brown and Katz, 2009). Increasingly, empathy is needed as an outcome, rather than simply an ingredient, of the design process.

Challenges around interpersonal interactions and decision making such as patient care, policy making and social cohesion require a deeper understanding of what another person is experiencing to bridge the gap between the 'us and them' mentality. Far less attention has been given to this perspective of generating empathy as the outcome of design – design for empathy. This paper argues the need to design for empathy in an increasingly complex set of situations and presents a design for empathy process to achieve this outcome. We reflect on empathy in design and propose a transition from an empathiser (developing empathy for the user of a design) to an empathy generator (using empathy to solve larger social and cultural issues through design). This requires new tools and methods which go beyond physiological empathy design tools to aids that provide deeper types of socio-cultural empathy. We demonstrate this socio-cultural empathy design through a case study; an ongoing project to bring empathy into politics set in the Parliament of Finland. The project involved an extensive cocreation process with six Members of the Finnish Parliament from five different political parties. From this work, we propose a process for designing for empathy, identify considerations for designers and outline areas for future research.

2 BACKGROUND

2.1 The role of empathy in society

We are experiencing the biggest movement of people since the Second World War (Hallett, 2016). Despite the large-scale mixing of people, cultures, religions and languages people often fail to connect or engage emotionally with each other. Our societies struggle to create deeper and more emotionally meaningful ways to connect and our systems and services are not designed to enable and embrace this need. We may have dreamt of a cultural melting pot, but in reality, we live in a mosaic of segregated communities. This calls for increased empathy across generations, cultures and value systems.

In this paper, we adopt the definition of empathy as: "a way of assessing what another person is thinking, feeling or doing from a quasi-first-person point of view [...] it includes both emotional and cognitive aspects" (Hollan, 2012). The emotional aspect of empathy is the experience of the feeling of another whereas cognitive empathy is the ability to understand the emotional state of another (Cuff et al., 2016). Psychologists debate if it is even possible to feel what someone else feels, and whether it is possible to feel it beyond an individual level (Bloom, 2017). The objective of design is not to necessarily elicit a one-to-one match but to more closely approximate someone's thoughts, feelings and actions.

There is ample evidence of our growing lack of empathic connection – the empathy deficit. The notion of the "empathy deficit" was first launched into our consciousness by President Barack Obama, who announced his concerns in a speech in 2006 (Obama, 2008). More recently, Pope Francis referred to "the globalisation of indifference" (Hooper, 2013). Research supports such claims. An ongoing annual study comparing perspective taking and empathic concern amongst American college students from the late 1970s, to those in the early 2000s, found a near 50% decline in both measures, marking a record low measurement (Konrath *et al.*, 2011).

This deficit is problematic since empathy has been shown to increase collaborative and pro-social behaviours, which in turn can be argued to be key elements in building stronger, more connected communities. Empathy is proven to reduce unconscious racial bias (Todd *et al.*, 2011), reduce conflict between in-and out-group members (Tarrant *et al.*, 2009), increase collaboration even between opposing sides in a conflict situation (Zidenberg and Kupermintz, 2016), as well as increase pro-social behaviour toward strangers (Telle and Pfister, 2015). The potential for design is to move beyond empathy as an aid

in the design of offerings, to fostering empathy for large-scale reform in healthcare, education, politics and other systems consistent with the evolution of design (Buchanan, 2001).

2.2 Empathy as used in design

Experienced designers are familiar with empathy design tools and practices at the core of the human centred design process (IDEO, 2009). Designers use empathy to elicit the needs and wants of the users of the design. There is increasing need for tools and practices to generate a sense of empathy in others. As an empathy generator, the designer becomes embedded in culture and society as an active agent and a partner in creating broader social change.

The concept "designing for empathy" has been explored in prior work such as a case study involving a church community in London (Huck et al., 2014 and Huck et al., 2015). This case study aimed to create empathy between community members to increase pro-community and pro-social behaviour (Huck et al., 2015) and linked empathy design with rituals and ritual creation (Huck et al., 2015). The broader context and objective of the case study offers direction for designing for empathy but stops short of developing an evaluation and analysis of the generalisable process to design for empathy. In this paper, we focus on empathy as a systematic design outcome.

2.3 Tools for empathy generation

The concept of empathy in design was heavily explored in Patricia Moore's experiments on universal design in the 1970s (Centre for Policy Research, 2012). In 1979 Moore transformed herself into an 80-year-old woman, altering her appearance and abilities through extensive prosthetics to experience the difficulties of everyday life as an elderly person. Moore became an early advocate for inclusive design, and although she did not refer to empathy to explain her methods and theories, her work showed the need for the designer to gain better understanding and experience of the audience.

Building on Patricia Moore's work, a number of physical empathy design tools have emerged. "AGNES", developed by MIT's AgeLab, is a suit designed to give the wearer the experience of the physical effects of ageing (Crabtree, 2011). Similar design tools are used by designers to understand what it feels like to be pregnant or suffer from a condition that limits your mobility. Heeju Kim created "An Empathy Bridge for Autism" – a toolkit that gives the user the experience of sensory overload that people with autism often experience (Tucker, 2017). Such tools have largely focused on physiological experience transfer.

Empathy tools are instrumental to the human-centered design (HCD) process (IDEO, 2009). HCD is based on the premise that user needs should guide the design process, and designers should be encouraged to have a direct and ongoing dialogue with the user throughout the process. A key part of this process involves the designer developing empathy for the user (Battarbee *et al.*, 2014).

Over the last few years VR has become popular as an immersive method to increase socio-cultural empathy. BeAnotherLab's "Machine To Be Another" create VR experiments to help people experience a different outlook and background, e.g. swapping genders with someone (Alsever, 2015). VR has even been used in the UN General Assembly to invite representatives to experience living as a Syrian refugee in a refugee camp in Jordan as part of the "Clouds over Sidra" experience (Alsever, 2015).

There is a need and an opportunity to create tools and methods for designers to further develop empathy as an outcome of design rather than a step in their design process. This paper addresses this opportunity with three distinct contributions. Firstly, we present a co-creation case study from the Parliament of Finland as an exploration of social empathy interventions and as the means of identifying the empathy design process. Unlike the previous design examples which are used individually and aim to generate empathy between two users, we share a process for creating empathy in a group setting through collectively shared tools between groups of people in a specific environment or system. The approach taken here also offers a unique example of a partnership between a designer and a politician, suggesting a new model for civic participation through collaboration, and highlighting the future role and responsibilities of the designer in instigating positive systems-level change in society. Secondly, we propose a generalisable process for empathy design. The process is relevant to the development of physiological empathy tools common to accessibility research, and also to socio-cultural empathy work such as the case study highlighted in the paper. And thirdly, we outline areas for future research relating to design for empathy.

3 CASE STUDY

3.1 Background: empathy in politics

Political polarisation has grown at both national governments and the EU parliament (Groskopf, 2016). This is also true in the USA, where the political system has never been more divided (Pew Research Centre, 2017). This makes solving complex future challenges and the types of wicked problems governments are required to tackle through cross-party collaboration increasingly difficult. One approach to addressing political polarisation could be human-centered governance through codesign. Bason (2017) discusses the importance of empathy to inform the creation of this governance process rather design for empathy. Design for empathy adds a different value not just in the political output, but the political culture in itself.

"It turns out that when we go to persuade someone on a political issue, we talk like we're speaking into a mirror. We don't persuade so much as we rehearse our own reasons for why we believe something. [...] Empathy and respect will be critical if we are going to sew our country back together."

(Rob Willer quoted in Shashkevich, 2017).

Willer's research shows that politicians are more likely to present their arguments from the perspective of their own value system. However, when they instead reframe their statements from the point of view of the other party, not only does the likelihood of being understood increase, so does the power of persuasion (Feinberg and Willer, 2015). Unfortunately, members of parliament have stopped listening and lack real, genuine, human interactions resulting in an empathy deficit deepening the rift between politicians. This affects the politicians, their policy-making and consequently the people, raising the question: if the input is devoid of empathy, how can the output be empathic?

Research shows that this void in empathy at the highest echelons of power is not an anomaly; power can reduce a person's ability to empathise (Naish and Obhi, 2015). Sustained power can physically block the brain's ability to empathise Similarly, stress is proven to reduce a person's ability to empathise (Martin *et al.*, 2015).

With this in mind, it is surprising to find that design thinking and innovation in government is most often focused on government output – policies such as the basic income experiment in Finland. Less often has design thinking and innovation penetrated the government itself – the culture, ways of working, and interactions that determine the output. However, if the input remains the same, how can we expect the output to be different? This paper focuses on the latter; re-designing the input inside the government.

3.2 Case study context: Finland

In 2017, on the centenary of its independence, Finland was ranked the best-governed country in the world. Finland is also the regarded as the safest and most stable, second most socially progressive, third most socially just, third least corrupt and third wealthiest country in the world (Henley J, 2018). Finland favours a coalition government, making the need to work together vital. As of December 2018, the government is formed of 4 parties, with another 5 parties in opposition. Recently the political landscape has experienced turbulence and become more fragmented. In June 2017 one of the biggest parties in the current government ("Perussuomalaiset" or "The Finns Party") dramatically split into two separate parties: "Perussuomalaiset" and "Sininen tulevaisuus" ("The Blue Reform Party"), resulting in a change in government. Furthermore, in April 2018, during this project, an experienced and well-known Member of Parliament and businessman Hjallis Harkimo resigned from the government and his party to start a new political movement (Yle Uutiset, 2018).

Finland is ripe for innovation in government. After almost a century of social democracy and welfare driven policy, the need to cut public spending has reached a critical point: the government is undergoing a much-debated restructure of the national welfare system requiring cross-party collaboration.

One of Prime Minister Juha Sipilä's key agenda points for 2015-17 was to create a new framework for more experimental policy design (OECD, 2017). Through this initiative, Finland began a universal basic income experiment, a trial which was recently discontinued after its limited first phase (Reynolds, 2018). In the process of designing the experiment with the government, think tank Demos Helsinki observed a systematic challenge to actually deliver on the vision of experimentation (OECD, 2017). How could the government deliver a culture of experimentation to the outside if there is no culture of experimentation on the inside?

3.3 Project objectives

The aim of this project is to encourage Members of Parliament to empathize with each other to generate a longer-term objectives of embodying the culture of experimentation-agenda set out by the Prime Minister's office and engaging key stakeholders to start building long-term relationships. Specifically, this project seeks to achieve the following:

Objective 1: Create an intervention that inserts empathy in the political process and culture, by focusing on how Members of Parliament may feel, think or act in relation to each other.

Objective 2: Articulate an empathy design process, by creating generalizable methods and tools.

3.4 Participants

The project involved 6 Members of Parliament and was championed by Member of Parliament, Jani Toivola. The six participants represent five political parties of the nine parties currently in the parliament, establishing a wide representation of political ideologies, backgrounds, values and agendas. Two participants are current members of the government and the other four represent the opposition. Two participants are male, the other four female.

3.5 Approach

There were 3 key phases of engagement with the Members of Parliament between January and June 2018. Each phase includes a specific objective, approach and learning as summarised in Table 1.

Phase	I: Understanding	II: Contextualisation	III: Intervention
Objective	Assess the current	Contextualise	Deliver the intervention
	interpersonal environment	understanding and identify	and assess outcomes.
	in politics and inside the	the intervention	
	Finnish parliament.	touchpoint.	
Methods	Physical cultural probe	Immersion into parliament	Co-creation, prototyping
	kits. Interviews with Jani	and observations of	and contextualised testing.
	Toivola. Secondary	various spaces and	
	research into the culture of	interactions.	
	politics and the news.		
Learnings	Structure of parliament,	Physical and emotional	New modes of thinking
	lack of meaningful debate	distance between members	and interacting within
	and collaboration, and	of parliament. Cross-party	parliament.
	stresses on members of	committees as target	
	parliament.	touchpoint.	

Table 1: Project phases I-III

To begin Phase 1, we wanted to improve our understanding of the realities of the interpersonal environment within the parliament. We did this through interviews with Jani Toivola and the distribution of physical cultural probe kits, which the participants completed them in their own time. Through these the everyday realities of the environment started to become clear; the sense of duty, the stress, the pressure, the loneliness, the frustration, the lack of laughter, touch and meaningful debate and collaboration.

Members of Parliament, Finland, 2018

To continue into Phase 2, we needed to contextualize the insights we had gathered and identify the key moment for intervention. We did this through an immersion into parliament, observing everyday interactions and situations. Through this we witnessed the physical and emotional distance between Members of Parliament, and identified cross-party committees as our target touchpoint.

Members of Parliament, Finland, 2018

[&]quot;We already think what we think, we don't have the patience to listen.

[&]quot;The world around us has changed, but we haven't changed our ways of working."

[&]quot;There are too many hard people here."

[&]quot;I think changing the interactions is the key to everything. And it's not so difficult, we just have to see that this is worth doing."

To finish with Phase 3, we had to deliver our design intervention, and assess its outcomes. We did this through co-creation sessions with the participants, which included prototyping and contextualized testing. Through this we were able to co-create the final intervention, and initiate new conversations and interactions inside the parliament.

"I am so lucky to be a part of this! It has opened my eyes to politics in a completely new way!"

"I really like that there could be a system with identified roles and through play I could today adopt this role. I think most people are somehow prisoners of their roles."

Members of Parliament, Finland, 2018

3.6 Case study outcomes and reflections

Below we report on outcomes relating to each of the objectives outlined for the project.

Outcome 1: We designed a collection of three empathy tools through the co-creation and the invaluable input and insight from the participants, which focus on supporting Members of Parliament to consider how each other think, feel and act: 1. The Role-Playing Carousel-game: Encouraging perspective taking through role play (for the beginning of the meeting). 2. The Non-Verbal Communications Cards: Supporting listening and engaging through non-verbal communication (for the duration of the meeting). 3. The Scale of Emotion: Bringing in transparency and openness through sharing a scale of opinions in real time (for the end of the meeting). The tools are designed for the three different stages of committee meetings, the key moment for cross-party collaboration and the identified moment for intervention.

The process and the tools have received largely positive feedback from the participants. The process has helped engage Members of Parliament in new and positive ways harnessing the power of fun and play to unleash creativity methods which the participants were not used to in their roles and in their environment. The process challenged comfort zones and helped fuel conversation around empathy, the relationships and ways of working in the parliament, as well as initiate interest in further experimentation. Following the completion of part one of the project, we identified a few possible safe spaces inside the parliamentary system for continued innovation. Part two will involve engaging key stakeholders to explore scaling up the work for longer-term experimentation and testing, e.g. since the launch of the project an unofficial cross-party working committee has been formed to investigate the ways of working inside the Parliament. The partnership with Jani Toivola is ongoing and has given birth to a number of further projects.

Outcome 2: The project has helped us craft and evolve the new approach to design for empathy as an outcome, and crystallise core principles that can be embodied in future design projects, both inside and outside the political landscape.

This work was not without limitations. In many ways, the Finnish parliament can be seen as an extreme case which may not translate to other contexts. The lack of time, extreme workload, schedule, design of the physical spaces, way parties themselves operate and other contextual limitations create an almost impenetrable hindrance for challenging the so-called rules of the game, even when there is desire amongst the Members of Parliament to do so. Designing for empathy when working with high profile stakeholders has also brought its own challenges. A need to foster empathy in the process itself, as well as the outcome, become important. We were also unsuccessful at convening all the participants together for a joint co-creation and testing session. Due to extreme pressure on time, the time of year before the summer break and the nature of the work in the parliament, the planned joint session with all participants turned into individual sessions which limited deeper exploration. In the next phase of the project this will be crucial for the further development of the empathy tools. While these limitations affected the case study, they did not impede the development of a design for empathy process.

4 THE DESIGN FOR EMPATHY-PROCESS

In this section, we outline a proposed process that can be used to design for empathy, as seen in Figure 1. We then discuss considerations for design in this space.

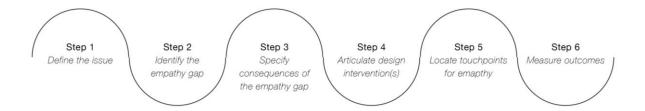


Figure 1: The design for empathy-process

4.1 Process

Step 1: Define the issues

Define the larger issues to be addressed. Empathy is often talked about in a vague way. This process focuses on issue-based empathy – empathy grounded in clearly articulated issues. The successful outcome of this stage is a clear articulation of the larger issue, and the potential role of empathy to address it. The case study defines the issue of growing ideological polarisation of politics, and identifies the lack of real, genuine, human interactions as the empathy deficit in political culture.

Step 2. Identify the empathy gap

Identify the empathy gap within the issue. Empathy is often talked about as an individual feeling two people have towards each other. This process looks at empathy from a collective standpoint. The different user groups have different roles when designing for empathy. It is important to understand who is giving the empathy, who is receiving the empathy and who is the audience. The successful outcome of this stage is an identification of the main actors and their roles within the issue as well as the missing empathic perspective between the actors. The case study focuses on designing for empathy between Members of Parliament, who represent different parties and therefore often have different and conflicting agendas and values. However, they all share a responsibility to be involved in the political decision-making process and keep it moving.

Step 3. Specify consequences of the empathy gap

Specify the consequences of the empathy gap to find the leverage points for intervention. Identifying a lack of empathy is not enough on its own, it's important to identify the specific and actionable consequences of the gap that can be addressed through design. The successful outcome of this stage specifies the actionable consequences of the empathy gap. The consequences of the empathy gap in the case study are a lack of nuanced dialogue, active listening and vulnerability.

Step 4. Articulate design intervention(s)

Articulate what design can do to address consequences. This process outlines two types of addressable empathy briefs: 1. Sensory: empathy is individual, physical and experiential; e.g. empathise with a blind person, and 2. Dynamic: empathy is social, cultural and interactive; e.g. creating empathy in the political system. These should be seen as ends of a spectrum rather than mutually exclusive types. The successful outcome of this stage articulates a clear design outcome, and the design brief; sensory or dynamic. The design brief for the case study is dynamic as it relies on sociocultural experiences.

Step 5. Locate touchpoints for empathy

Locate relevant touchpoints that can be enhanced, replaced or new spaces where touchpoints can be created. Links between empathy and space and systems can be mapped – where empathy already exists and where is it needed. The successful outcome of this stage identifies both existing touchpoints for empathy, as well as opportunities for new touchpoints. Interventions are now designed at these touchpoints. The case study focuses on addressing the different stages of discussion in the cross-party committees in the Finnish parliament.

Step 6: Measure outcomes

Measure the outcomes of the empathy design intervention. Current empathy measures focus on measuring individual empathy, often through self-reported questionnaires or neurological studies, neither which has been explored in the context of design. There is a need for a measurement suitable in a design context including ways to prototype and validate interventions. The outcomes of empathy can be internal or external; when designing for empathy both need to be considered. The successful outcome of this stage demonstrates both internal and external, short-term and long-term measurable outcomes of the empathy design and its impact within the previously defined socio-cultural context.

The short-term outcomes of the case study are measured as: dialogue, insights, tools, touchpoints, impact and process.

4.2 Considerations for designers

The designer has an active role as an empathy generator and is involved in guiding where empathy should be created. Contrary to the traditional design process where the designer tries to empathise with a user to understand their experience and then create a product or a service, the design for empathy process asks the designer to create empathy between different user groups. Biases differ in this type of work and designers need to be aware of such biases and personal empathy gaps.

The conversation around empathy needs to be reframed. Empathy is often talked about as a measure of a good person, and the lack of empathy as a measure of a bad person. As this paper demonstrates, this approach is not fruitful in harnessing the power empathy holds as a tool for positive social change. The designer should take an active role in reframing the conversation and showing the real power of empathy.

The limitations of empathy should be taken into account. It is important to consider the socio-cultural scenarios where the design for empathy-process could be relevant, whilst recognising that it is not always relevant or most appropriate. The designer should consider empathy as a vehicle vs. empathy as a starting point vs. empathy as the end goal vs. empathy for the sake of empathy.

There is an urgent need and an opportunity for future research to expand on the concept of creating empathy through design. Areas for future research include: how to better understand the links between empathy and behaviour, how to better understand the links between empathy and space, how to prototype empathy and measure its impact (especially long-term), how to trial it in different contexts, amongst other areas we are not even aware of yet.

5 CONCLUSIONS

In this paper, we outline the need to move from empathy for design to designing for empathy. We do this by presenting a shift from physiological empathy design tools to design tools for socio-cultural empathy, creating a relevancy and responding to the urgency for design to tackle increasingly important issues beyond the creation of products. We demonstrate it by proposing a systematic and generalisable six-step process for designing for empathy to complement existing design processes, and showcase it in effect through a co-creative case study with the Finnish parliament. Beyond the proposed process, the outcomes of the case study range from dialogue, insights and tools to touchpoints and impact, and include the initiation of a new dialogue about empathy and the ways of working inside the parliament, an unprecedented data set of insights and a set of three tools codesigned to create new types of conversations and interactions in committee meetings. The process and the tools have received largely positive feedback from the participants, leading to further discussions about future interventions and experimentation. Finally, we share considerations for designers and outline needs to be explored in additional contexts in future research.

REFERENCES

Alsever, J. (2015), Is virtual reality the ultimate empathy machine?. [online], Wired. Available at:

 $https://www.wired.com/brandlab/2015/11/is-virtual-reality-the-ultimate-empathy-machine/\ (04.02.2017).$

Bason, C. (2017), *Leading public design: Discovering human-centred governance*, Policy Press, Bristol. http://dx.doi.org/10.2307/j.ctt1t88xq5.15.

Battarbee, K., Fulton Suri, J., and Gibbs Howard, S. (2014), *Empathy on the edge*. [online], IDEO. Available at: https://www.ideo.com/news/empathy-on-the-edge (10.10.2017).

Bloom, P. (2017), Against Empathy, Bodley Head, London.

Brown, T., and Katz, B. (2011), "Change by Design", *The Journal of Product Innovation Management*, Vol. 28 No. 3, pp. 381–383. http://dx.doi.org/10.1111/j.1540-5885.2011.00806.x

Buchanan, R. (2001), "Design Research and the New Learning", *Design Issues*, Vol. 17 No. 4, pp. 3–23. http://dx.doi.org/10.1162/07479360152681056.

Centre for Policy Research (2012), *Policy Brief No. 46. Quality of Life for All Ages, By Design: A Conversation with Patricia Moore*, Maxwell School of Citizenship and Public Affairs, Syracuse University, New York.

Crabtree, J. (2011), Agnes the ageing suit. [online], Financial Times. Available at: https://www.ft.com/content/1fed1eee-b34b-11e0-9af2-00144feabdc0 (15.04.2017).

Cuff, B. M. P., Brown, S. J., Howat, D. J. and Taylor, L. (2016), "Empathy: a review of the concept", *Emotion Review*, Vol. 8 No. 2, pp. 144–153. http://dx.doi.org/10.1177/1754073914558466.

- Feinberg, M., and Willer, R. (2015), "From Gulf to Bridge: When Do Moral Arguments Facilitate Political Influence?", *Personality and Social Psychology Bulletin*, Vol. 41 No. 12, pp. 1665–1681. http://dx.doi.org/10.1177/0146167215607842.
- Groskopf, C. (2016), *European politics is more polarized than ever, and these numbers prove it.* [online], Quartz. Available at: https://qz.com/645649/european-politics-is-more-polarized-than-ever-and-these-numbers-prove-it/ (16.02.2018).
- Hallett, R. (2016), *The world's movement of people in one map*. [online], World Economic Forum. Available at: https://www.weforum.org/agenda/2016/07/the-worlds-immigration-in-one-map/ (10.10.2018).
- Henley, J. (2018), *Safe, happy and free: does Finland have all the answers?*. [online], The Guardian. Available at: https://www.theguardian.com/world/2018/feb/12/safe-happy-and-free-does-finland-have-all-the-answers (01.05.2018).
- Hollan, D. (2012), "Emerging Issues in the Cross-Cultural Study of Empathy", *Emotion Review*, Vol. 4 No. 1, pp. 70–78. http://dx.doi.org/10.1177/1754073911421376.
- Hooper, J. (2013), *Pope attacks 'globalisation of indifference' in Lampedusa visit*. [online], The Guardian. Available at: https://www.theguardian.com/world/2013/jul/08/pope-globalisation-of-indifference-lampedusa (13.05.2017).
- Huck J., Goulton P., Gullick D., Powell P., Roberts J., Hudson-Smith A., De-Jode M. and Mavros P. (2015), "Supporting Empathy Through Embodiment of the Design of Interactive Systems" Work-in-Progress: Poster Presentation. *TEI 2015*, Stanford, 15-19.01.2015, ACM, New York, pp. 523–528. http://dx.doi.org/10.1145/2677199.2687892.
- Huck J., Powell P. and Hudson-Smith A. (2014), Designing for Empathy in a Church Community. *AcademicMindTrek* 'Vol. 14, Tampere, Finland, 04-06.11.2014, ACM, New York, pp. 249–251. http://dx.doi.org/10.1145/2676467.2676497
- IDEO (2009), *Human-Centered Design Toolkit*. [online], IDEO. Available at: https://www.ideo.com/post/design-kit (10.10.2017).
- Konrath, S. H., O'Brien E., and Hsing, C. (2011), "Changes in Dispositional Empathy in American College Students Over Time: a meta-analysis", *Personality and Social Psychology Review*, Vol. 15 No. 2, pp. 180–198. http://dx.doi.org/10.1177/1088868310377395.
- Martin, L. J., Hathaway, G., Isbester, K., Mirali, S., Acland, E. L., Niederstrasser, N., Slepian, P. M., Trost, Z., Bartz, J. A., Sapolsky, R. M., Sternberg, W. F., Levitin, D. J., Mogil, J. S. (2015), "Reducing Social Stress Elicits Emotional Contagion of Pain in Mouse and Human Strangers", *Current Biology*, Vol. 25 No. 3, pp. 326–332. http://dx.doi.org/10.1016/j.cub.2014.11.028.
- Naish, K. R., and Obhi, S. S. (2015), "Self-selected conscious strategies do not modulate motor cortical output during action observation", *Journal of Neurophysiology*, Vol. 114 No. 4, pp. 2278–2284. http://dx.doi.org/10.1152/jn.00518.2015.
- Obama, B. (2008), *Northwestern Commencement Speech 2006*. [online], NorthwesternU, YouTube. Available at: https://www.youtube.com/watch?v=2MhMRYQ9Ez8 (10.11.2016).
- OECD. (2017), "Using systems approaches in policy design: introducing experimental culture as a high-level political goal (Finland)", in: OECD (Ed.), *Systems Approaches to Public Sector Challenges: Working with Change*, OECD Publishing, pp. 79–92. http://dx.doi.org/10.1787/9789264279865-en.
- Pew Research Centre (2017), *The Partisan Divide on Political Values Grows Even Wider*, Pew Research Centre, www.pewresearch.org.
- Reynolds, M. (2018), *No, Finland isn't scrapping its universal basic income experiment*. [online], Wired. Available at: https://www.wired.co.uk/article/finland-universal-basic-income-results-trial-cancelled (10.10.2018).
- Shashkevich, A. (2017), *Empathy, respect for one another critical to ease political polarization, Stanford sociologist says*. [online], Stanford News. Available at: https://news.stanford.edu/2017/01/20/empathy-respect-critical-ease-political-polarization-sociologist-says/ (18.03.2018).
- Tarrant M., Dazeley S., and Cottom T. (2009), "Social categorisation and empathy for outgroup members", *British Journal of Social Psychology*, Vol. 48 No. 3, pp. 427–446. http://dx.doi.org/10.1348/014466608X373589.
- Telle, N-T., and Pfister, H-R. (2015), "Positive Empathy and Prosocial Behavior: A Neglected Link", *Emotion Review*, Vol. 8 No. 2, pp. 154–163. http://dx.doi.org/10.1177/1754073915586817.
- Todd, A. R., Bodenhausen, G. V., Richeson, J. A., and Galinsky, A. D. (2011), "Perspective taking combats automatic expressions of racial bias", *Journal of Personality and Social Psychology*, Vol. 100 No. 6, pp. 1027–1042. http://dx.doi.org/10.1111/j.1467-8624.2011.01730.x.
- Tucker, E. (2017), *Empathy kit uses augmented reality and candy to help users better understand autism*. [online], Dezeen. Available at: https://www.dezeen.com/2017/01/08/heeju-kim-emapthy-bridge-kit-help-users-understand-autism-augmented-reality-candy/ (10.10.2018).
- Yle Uutiset. (2018), *NCP defector Harkimo co-founds new political movement* "*Not a party*", [online], Yle Uutiset. Available at: https://yle.fi/uutiset/osasto/news/ncp_defector_harkimo_co-founds new political movement not a party/10171453 (20.05.2018).
- Zibenberg A., and Kupermintz H. (2016), "Personal Values and Intergroup Empathy", *Journal of Human Values*, Vol. 22 No. 3, pp. 180–193. http://dx.doi.org/10.1177/0971685816650584.

ACKNOWLEDGEMENTS

We would like to thank Jani Toivola for championing this work and without whom nothing would have happened. We would also like to thank the Members of Parliament who participated in the project. Finally, we would like to thank designer Jack Mama, and members of Intentional Interaction Group at Imperial College for their input.