DESIGN REVOLUTIONS

IASDR 2019 CONFERENCE PROCEEDINGS | **VOLUME 3**

PEOPLE

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Manchester Metropolitan University

MANCHESTER SCHOOL OF ART

About IASDR

The International Association of Societies of Design Research (IASDR) is an international, nongovernmental, non-profit-making, charitable organisation, and is comprised of member societies of design research from around the world. Established on 01 November 2005, its purpose is to promote research or study into or about the activity of design in all its many fields of application, through encouraging collaboration on an international level between independent societies of design research. IASDR members include the Chinese Institute of Design (CID), the Design Research Society (DRS), the Design Society (DS), the Japanese Society for the Science of Design (JSSD) and the Korean Society for Design Science (KSDS).

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DESIGN REVOLUTIONS

As the cradle of the industrial revolution, Manchester is known for its radical thinking. Through heritage, culture and innovations, it is a city that embraces revolution. As Tony Wilson famously claimed, "This is Manchester, we do things differently here"…

Design Revolutions explored how design drives and responds to revolutionary thinking through questioning the norm, probing the now and embracing the new. For the first time IASDR conference was held in the UK and fostered new thinking towards a compelling, meaningful and radical dialogue regarding the role that design plays in addressing societal and organisational issues.

The biannual conference enables academics, practitioners and students join together to explore contemporary agendas, emerging directions and future challenges that are at the forefront of design research. IASDR 2019 will provide opportunities for the presentation and publication of a collection of high-quality peer reviewed research papers alongside the space to discuss and debate the evolution and revolution of design.

Editorial

In September 2019 Manchester School of Art at Manchester Metropolitan University was honoured to host the bi-annual conference of the International Association of Societies of Design Research (IASDR) under the unifying theme of DESIGN REVOLUTIONS. This was the first time the conference had been held in the UK. Through key research themes across nine conference tracks – Change, Learning, Living, Making, People, Technology, Thinking, Value and Voices – the conference opened up compelling, meaningful and radical dialogue of the role of design in addressing societal and organisational challenges. The conference was a truly international gathering of the key thinkers in design research from 28 countries. 215 papers were presented and 13 workshops delivered alongside two exhibitions. RADICAL RESPONSES was a peer-reviewed exhibition of the research-informed design practice from academic design staffs from Manchester School of Art. This was complemented by an engaging display of design artefacts from the MATERIAL AND PROCESS INNOVATION COLLECTION curated by University's Special Collections. Such diversity enriched the exchange of ideas at presentations, workshops and social events for the duration of the innovative and dynamic event.

Support and contributions from the design research community have made this conference possible. Our thanks go to each one of our 488 authors for the papers and workshops that provided a rich source of inspiration, all 162 reviewers for ensuring quality and rigour and the 44 session chairs for ensuring the effective flow of ideas and discussion throughout the sessions. We also extend our sincere gratitude to all delegates of the conference who questioned the norm, probed the now and embraced the new. We hope you enjoyed your experience of Manchester and look forward to welcoming you to our city once again.

IASDR 2019 was a part of the design revolution in progress. We are excited to see how these proceedings fuel on-going discourse and debate at IASDR 2021 and beyond.

Martyn Evans, Annie Shaw and Jea Hoo Na

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UNDERSTANDING HUMAN BEHAVIOUR, AND JUST AS IMPORTANTLY MISBEHAVIOUR, PROVIDES OPPORTUNITIES TO DESIGN COLLABORATIVELY FOR, AND WITH, PEOPLE. BY ENABLING SOCIAL AND CULTURAL DIMENSIONS TO BE CONSIDERED, DESIGN CAN CONNECT TO THE NEEDS OF CITIZENS TODAY AND IN THE FUTURE. WHY ARE PEOPLE IMPORTANT TO DESIGN? HOW WILL CO-DESIGN AND CO-PRODUCTION MODELS EVOLVE IN THE NEXT DECADE? WHAT SOCIAL DIMENSIONS IN SOCIETY CAN DESIGN EMBRACE AND WHY?

PEOPLE

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International Association of Societies of
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DESIGN REVOLUTIONS

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Cross-cultural design teamwork: researching at the edge between design and cross-cultural management

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This short paper is to present an emerging area of research at the boundaries between cultural studies and design discipline. People working or studing nowadays in the design field are increasignly involved in cross-cultural collaborations, where they are expected to co-create with highly diverse others (i.e. different ethnicity, religion, language, gender, nations, professions, religions, backgrounds). The paper promotes the exploration of novel design reserch area to gain knowledge about cross-cultural design teamwork. To achieve this goal, the theories developed by the consolidated field of cross-cultural management can inform design. On the other hand, the establishment of a new area of inquiry can possibly provide new insightful knowledge to fairly and effectively manage these teams. The case study of Mybias, a tool designed for cross-cultural design teams, is presented in the paper to show how research in design and cross-cultural management can be intertwined.

Keywords: cross-cultural design teamwork; interdisciplinary research; cultural studies; cross-cultural management.

1   Introduction

Over the past few decades organisations are increasingly adopting cross-cultural teams (i.e. cognitively diverse, demographically diverse or transnational and disciplinarily diverse teams) to effectively deal with contemporary complex challenges. Companies and higher education institutions in the field of design are outstanding examples of witnesses of this transformation. Assuming a holistic view on culture (Mahadevan, 2017), cross-cultural teamwork can be addressed as cross-cultural because it brings together people from different ethnicity, religion, language ("shared vocabulary within a specific context" see Patel & Salih, 2018) gender, nations, professions, religions, backgrounds. The presence of different worldviews in the team requires members to undertake cultural adaptation.

Cross-cultural collaboration manifests itself in the design education because, design-based learning (DBL) (Gómez Puente, 2014) is extensively employed and the field is increasingly international. DBL is intended as a pedagogical approach strongly related with problem-based and project-based learning (Dutton, 1987) where students collaboratively design of an artefact (Gómez Puente, 2014), learning the design practice by doing it (Tracey & Boling, 2014). Besides, the raising importance of internationalisation policies and the growing number of interdisciplinary curricula are transforming the classes into cross-cultural environments. Combining these two factors, it follows that cross-cultural teamwork is

becoming the everyday reality of many students and teachers in the design field (i.e. Christensen & Ball, 2016).

Enterprises in the fields of innovation and design are already performing cross-cultural teamwork and this trend is likely to increase in the future (Chartered Accountants, 2015). Business reports show that there is a correlation between a company's high diversity and good performances and that the diversity of thinking enhances innovation (e.g. Deloitte, 2018; EY, 2013). This shift towards cross-cultural collaborative environments in the design field suggests that practitioners will be increasingly expected acquire a new set of soft skills related with intercultural competences, defined as the ability to interact with culturally diverse people. How do cultural diversity and design practice mutually influence each other? Which are the intercultural competences that support designers to overcome difficulties during cross-cultural teamwork?

Being in the midst of great change with regard to teamwork, design discipline is now urging to gain knowledge about how culturally-diverse individuals interact within the co-creation process (Christensen, Ball, & Halskov, 2017; Wilson & Zamberlan, 2015; Poggenpohl & Satō, 2009; Poggenpohl, 2004). Since the design discipline already counts a considerable number of cross-cultural design collaborations case studies and some researches related to the cross-cultural domain (i.e. Christensen et al., 2017; Lee, 2016; Vivek Gautam, 2012), both in the field of design education and practice, their in-depth analysis can contribute to the development of theoretical frameworks and to analyse the impact of cultural diversity on the design process. The achievement of an extensive understanding about the way culture has an influence on co-creation in design teams could contribute to

- assess teams' dynamics in cross-cultural design teams;
- foster the identification of the transversal competences that a designer must develop to perform and facilitate this type of teamwork;
- find new strategies to underpin the inclusion of diversity in design teams.

The resulting knowledge will hence hopefully foster a wiser management of teams and will contribute to the interdisciplinary discourse about cross-cultural teamwork. The presented research stems from the recognition that intercultural design teamwork is rarely evaluated by itself within the academic design discourse. The paper hence addresses the conference theme "Design Revolutions" tackling the relevant emerging theme of cross-cultural collaborations, inside and outside the discipline, and envisioning how design can play a role in its empowerment. Design research can shape new perspective for cross-cultural teamwork, supporting people to positively contribute to the collaboration, enabling them to bring their own unique worldview. The upcoming research that lays at the border between design studies and cultural studies will be introduce in the next paragraphs. The paper also provides a case study to show how design research can intertwined with cross-cultural management (CCM) and how they can mutually inform each other.

2 Cross-cultural design teamwork and cross-cultural management

The cross-cultural research domain is characterised by a high variety of disciplines that have been established to study culture. Cultural studies (Patel, 2018) cover a vast transversal area of academic inquiry which crosses boundaries between philosophy, anthropology, pedagogy, psychology and management. The literature review disclosed that these disciplines provide frameworks, methods and tools to understand cultural diversity.

In the present case further understanding can be provided by an interdisciplinary research between design and disciplines that relates with the cross-cultural research domain (i.e. social sciences, anthropology, cross-cultural management, cross-cultural psychology, intercultural learning). The research on cross-cultural design teamwork should be rooted in the solid ground provided by these existing fields. Interdisciplinary research is not a new concept in design research that is often addressed as an area of inquiry characterised by blurred-borders and therefore which is often influenced by other disciplines (Bremner & Rodgers, 2013).

Among the disciplines labelled under cultural studies, scholars in the field of cross-cultural management (CCM) are already merging theoretical contribution from other fields (such as organisational behaviour, anthropology, sociology) to create frameworks and hands-on tools to serve managerial practice (e.g. Patel & Salih, 2018). Moreover, the disciplinary proximity of several areas of design research with the managerial discourse further supports the idea that the CCM can be a valid consolidated discipline to establish the research on cross-cultural design. This area of inquiry within design can hence adapt theoretical and managerial frameworks outlined by scholars in the field of CCM to the specific context of creative collaborative processes.

On the other hand, scholars dealing with design practice and education are already developing know-how about the cross-cultural dimension of project-based collaborations. Design research methodology could possibly reframe the issues related with cross-cultural collaborations in a completely new light. For instance, a research through design approach could inform other disciplines, creating an effective synergy between theory and practice. Moreover, an investigation about cross-cultural design teamwork could provide understanding about the role of the creative process in the intercultural interaction between individuals. The interdisciplinary research between design and CCM could hence provide a stream of knowledge in both directions, opening new channels for the two disciplines to mutually inform each other.

3   Mybias, a case study

The development of a design tool, Mybias, is presented in the following paragraph to serve as a case study. The design process of the tool served to stimulate the research interest around the theme of cross-cultural collaborations in design. This paragraph is aimed at providing the explanation of how design clinical research can inform CCM with a bottom-up approach. Moreover, the tool itself constitutes an example of hands-on tool developed in the context of design research that can inform CCM and other cultural studies.

Mybias is a web-based tool designed for cross-cultural teams and aimed at representing team members' biases about any relevant topic related to the design brief (Mattioli, Ferraris, Ferraro, & Rampino, 2018). Using Mybias, all team members define a topic through three images and a short caption (140 characters). This standard representation, called *biascard*, is first created individually by everyone; then, once every team member has created her own *biascard*, everybody shares its content with the rest of the team.

Figure 1. Example of two biascards created by two participants about the topic "city"

The tool testing demonstrated either to support cross-cultural design teams to develop mutual understanding from the very beginning of the design process (i.e. exploration phase, divergent phase) (Mattioli, Ferraris, Ferraro, et al., 2018) and to potentially stimulate ideas generation (Mattioli, Ferraris, & Ferraro, 2018).

Mybias was firstly ideated as a master thesis project and, later, it has been further developed through a wider investigation. The insight that initially drove the whole project was that a wide variety of biases coexist within cross-cultural design teams. First hand experiences showed that biases can sometimes constitute a barrier for mutual understanding, especially if they remain implicit. A lack of mutual understanding becomes problematic (i.e. frustration, time loss, arguments) in the convergent phase of the design process, when the design team must co-create a solution for the issue at hand (Mattioli, Ferraris, Ferraro, et al., 2018). On the other hand, once they are explicit, biases could become shared knowledge between team members empowering the team rather than impeding it. Hence the initial insight has been to design a bias-sharing tool to improve mutual understanding and intercultural understanding of the topic at hand.

The project was initially situated in the context of a clinical research (Buchanan, 2001), meaning that the tool developed was aimed at solving the specific issue encountered in cross-cultural design teams. Clinical research is indeed defined as that research "directed toward an individual case" (Buchanan, 2001) and it must lead to the collection of all the information necessary to solve that problem. In this case the process of gathering information opened-up a wider unexplored research area. Indeed, while reviewing design literature to establish a sound theoretical background for the project, a lack of consolidated area of inquiry on the theme of cross-cultural design collaborations emerged. The research group interest moved from the clinical research question *"how to minimise the negative effects of biases in cross-cultural design teams"* to a wider class of phenomena connected with cross-cultural collaborations and the design practice. This described emerging focus indicates a change in the nature of the research from clinical to applied, because it the research question shifted from the solution of a specific problem to the discover of principles and/or rules-of-thumb to interpret a wider group of phenomena (Buchanan, 2001).

Mybias theoretical background become the presumption for this broader research. Rooting the design collaboration theory in hermeneutical epistemology proposed by Krippendorff (2005), design can be intended as a matter of creating meaning and designers must develop skills in understanding the way other people give meaning to things (Krippendorff, 2005).

The designer's profession is therefore about understanding needs and behaviours of people who are different from their selves, implying the ability of moving from the *self* to the *other and* vice versa (Steen, 2012). The movement from the self and the other become more challenging when it is spaced-out by a relevant cultural difference. Beyond design literature, the theoretical background of Mybias was also widely influenced by theories and insights coming from disciplines such as cross-cultural management and organizational behaviour (Mattioli, Ferraris, Ferraro, et al., 2018), reason why the tool can be listed as an attempt to inform design research by bridging it with cultural studies.

The testing of Mybias demonstrated that the tool gives to team member the opportunity to bridge their preconception and previous experience, creating a space for reciprocal intercultural understanding (Mattioli, Ferraris, Ferraro, et al., 2018). In addition to meeting the initial project objectives, this result also shows a possible future impact of the tool on other disciplinary areas, such as the CCM and the broader area of cultural studies. Indeed, Mybias could be considered as a case of a hands-on tool developed for cross-cultural design collaboration that can support cross-cultural teams operating in different fields.

4   Conclusion

The paper offers an introduction to cross-cultural design teamwork as an emerging area of inquiry in design research. Due to the extensive employment of cross-cultural design teamwork in practice and education, a deeper understanding about these collaborations is needed. The paper demonstrates that the knowledge developed in the consolidated field of CCM could constitute the ground for this new area of design inquiry to develop. Moreover, the knowledge coming from cross-cultural design practice could mutually inform CCM supporting the assessment and development of theories on cross-cultural collaborations.

The case study provides an example on ways in which design research is intertwined with the field of CCM. Mybias, the presented design tool to explore biases in cross-cultural teams, could be either a hands-on tool for practitioners in both fields and a research tool to gain understanding on the role of biases in cross-cultural collaborations.

The paper should be intended as a first attempt to raise attention on the relevance of cross-cultural teamwork in design, and it hence suffers from a lack of a consolidated literature in the design discipline. Additionally, the paper doesn't assess the strategies that researchers should follow to conduct such interdisciplinary research between design and CCM. Forthcoming contributions in this field should disclose the way the interdisciplinary research can be developed. Moreover, further research can identify the most relevant theoretical frameworks of CCM to adapt and apply them to the design practice.

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Francesca Mattioli, PhD candidate in Design: my research focuses on cross-cultural collaboration within design-based learning and it is aimed at disclosing the relationship between cultural diversity (i.e. cultures, disciplines) on the collaborative design process. I previously assessed the role of biases in the conceptual phase of design through the design of a tool, Mybias, to preconceptual ideas on the design topic.