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SWINBURNE UNIVERSITY OF TECHNOLOGY

DESIGN4HEALTH

Melbourne 2017

Proceedings of the
4th International Conference on Design4Health
Melbourne Cricket Ground, Melbourne, Australia

4-7th December 2017

Editors: **Deirdre Barron and** Kurt Seemann

DESIGN4 HEALTH MELBOURNE 2017

Sheffield Hallam University

LAB 4 LIVING

Cover:
Jayden Ryles-Smith
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Preamble

Welcome to the first Design4Health Conference in Australia, convened by the Centre for Design Innovation, Swinburne University of Technology, on behalf of, and jointly chaired with, the conference founders, Lab4Living, Sheffield-Hallam University, UK.

The Centre for Design Innovation investigates and validates the key factors that underpin the design of products, services, systems, spaces, and symbols to improve the chance of user uptake and impact.

Lab4Living, who established the conference, is an interdisciplinary research initiative that develops products and environments, and proposes creative strategies for dignified, independent and fulfilled living for all.

This international event invited the world of health and design practitioners and researchers to come together between the 4th and 7th of December, 2017 in Melbourne, Victoria, Australia.

About the conference

Design4Health is an international conference that brings together designers, health professionals and creative practitioners with researchers, clinicians, policy makers and users from across the world to discuss, disseminate and test their approaches and methods in the ever-changing nexus between design and health.

The conference hosted a series of different events that provided an active forum to explore how the disciplines of design and health might intersect to bring forth new ways of thinking and working in what is a dynamic, innovative and increasingly important area of research and practice. The central question has been:

> How can we work together to achieve positive and sustainable impact on the social, economic and cultural factors within our communities and beyond?

The range and insights presented at the D4HMelbourne event has revealed both the enormous value of this movement in research, and the benefits from undertaking serious, applied, and critical efforts that design and health expertise generate when they come together.

We invite you to browse the innovative ideas and critiques scoped in these proceedings

Sincerely

Associate Professor, Kurt Seemann, PhD. | Convenor | Design4Health 2017

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Lab4Living, Sheffield-Hallam University, UK.
Melbourne Cricket Ground, Melbourne.
Ms Sarah Markey-Hamm and Ms. Siobhan Bahn, Conference Managing Agents, ICMS.
Peter Stacey, Human Scale

Acknowledgments

Many people have contributed their time and skills to assist the 2017 International Design4Health Conference in Melbourne, Australia, and the compilation of the proceedings. We wish to personally thank and acknowledge the work by Associate Professor Deirdre Barron, (Chair, Academic Review Board), and the boards two executives, Dr Alen Keirnan, and Dr. Nicole Aimers. Also wish to thank the work of:

Ms. Fatma. Mohammed, and Ms Andrea Streckfuss (Centre Coordinators, Centre for Design Innovation, Swinburne University of Technology).
Ms. Jenny Jiang (Project Management Intern)
Associate Professor Simone Taffe (Design4Health Melbourne Exhibition)
Ms. Bridgette Engeler (Design4Health Melbourne Exhibition)
Dr. Gianni Renda (Design4Health Melbourne Exhibition)

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Scholarly Review Policy for the 2017 International Design4Health Conference Proceedings, Melbourne, Australia.

All papers included in these proceedings have been double-blind refereed by peers and revised to take into account the referees' recommendations.

Citation for Proceedings

Seemann, K and Barron, D. (Eds.). (2017). *Design4Health, Melbourne. Proceedings of the Fourth International Conference on Design4Health 2017*, Melbourne Cricket Ground, 4 - 7 Dec 2017, Melbourne, Victoria, Australia: Centre for Design Innovation, Swinburne University of Technology.

ISBN-13: 978-0-6480892-1-6

Citation for Paper in Proceedings (format)

Author Surname, First Initial. Second Initial. (Year). Conference paper title. In Seemann, K and Barron, D. (Eds.). (2017). *Design4Health, Melbourne. Proceedings of the Fourth International Conference on Design4Health 2017*, (pp. page range of paper) Melbourne Cricket Ground, 4 - 7 Dec 2017, Melbourne, Victoria, Australia: Centre for Design Innovation, Swinburne University of Technology.

ISBN-13: 978-0-6480892-1-6

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Table of Contents

1. The role of users in an innovative service design process in healthcare 12

   Alhonsuo, M. and Miettinen, S.

2. Learning critical communication in social services: Innovations in communication practices and technologies through simulation pedagogy and service design 16

   Vuojärvi, H., Alhonsuo, M., Marttila, H.

3. Foyle Bubbles: How can design reduce suicide attempts using everyday social and civic spaces? 20

   Alwani, R., Raby, E., West, J., Bichard, J. and Spencer, J.

4. How do space and information technology affect patients' waiting experience in an ambulatory centre? 24

   Annemans, M., Stam, L., Coenen, J. and Heylighen, A.

5. When interest pays off: The relationship between motivation, wellbeing and learning of technologies by older adults 27

   Beh, Jeanie and Sonja Pedell

6. Fit for purpose 31

   Bell, Alison

7. **Design standards and disability: Limitations in person-centred home modifications** 36

   Lo Bianco, Michael, Sonja Pedell, Gianni Renda, and Ajay Kapoor

8. The prototyping process of a patient support device for radiotherapy of breast and regional lymph nodes in prone position 39

   Boute, Bert,[1] Wilfried De Neve[2] and Jan Detand[3]

9. Wardrobe Adapted for Wheelchair Users 45

   Bruckner, Melanie Sol, Gabriela Elise Fensterseifer, Gustavo Henrique Lagemann, Silvia Trein Heimfarth Dapper

10. Delivering healthcare: A reframing tool to uncover the right problem to solve. 50

    Cockburn, Jane[1] and Clementine Thurgood[2]

11. Design Anthropology and the medicalisation of ageing: Reflections on Designing for mild cognitive impairment 55

    Collier, G., Kayes, N., Reay, S., Hayes, N. and Bill, A.

12. Giving people living with dementia a strong voice: reflecting on the role of design to create enabling activities 60

    Claire, C.[1] and Pedell, S.[2]

13. Discourse and collaborative design: exploring a critical approach to community engagement for design research insight 64

Cunningham, Helen J.,[1] Joanna K. Fadyl,[2] Stephen D. Reay[3] and David E. White[4]
Introduction

14. Design for health: Experience of women-based food innovation initiative to overcome nutrition related health issues in Sri Lanka. 71

De Silva, S.[1] and Akane, M.[2]

15. Co-designing to understand the tracheostomy product experiences of long-term tracheostomy users. 74

Dickson, C., Reay, S.D., Douglas, R. and Nakarada-Kordic, I.

16. The refuge project: Designing through health, architecture and landscape 79

Donnelly, Samantha, Sue Dean, and Tracy Levett-Jones
The intervention:

17. Prototyping an emotionally responsive hospital environment 83

Douglas, R., Reay, S.D., Munn, J. and Hayes, N.

18. Designers and hospitals: Considerations from an ongoing collaboration 88

Daphne Flynn, Kate McEntee, Rowan Page and Troy McGee

19. Strategic design innovating wellness for the 21st Century workforce 91

Fry, A. and Alexander, R.

20. Using co-design workshops to develop a ward-level patient experience improvement toolkit. 95

Gwilt, I.,[1] Partridge, R.[2] Peacock, R.,[3] Marsh, C.,[4] Sheard, L.Bradford,[5] Lawton, R.[6] and Langley, J.[7]

21. Integrating responsive design and interdisciplinarity for healthcare environments 99

Haskell, N.[1] and Loy, J.[2]

22. Interdisciplinary and cross-cultural approaches to design for healthy ageing 103

Scharoun, Lisa,[1] Danny Hills[2] and Carlos Montana Hoyos[3]

23. The impact of user experience on simulation or VR-based training software in the field of medical surgery and teaching environment. 106

Hilgers-Yilmaz, Ute

24. Can you have your cake and eat it too? A dilemma-driven approach to design for the early stages of health behaviour change 110

Ludden, Geke,[1] Deger Ozkaramanli,[2] Armağan Karahanoğlu[3]

25. Wellbeing and the lived experience of dying with dementia in a typical Australian RACF 115

Kennedy, Karen

26. Design for dementia: Making spaces for uncertainty 118

Fennell, Jac,[1] Cathy Treadaway[2] and Gail Kenning[3]

27. Craft as purpose: Co-design for people living with advanced dementia 122

Kenning, Gail,[1] Cathy Treadaway,[2] Jac Fennell,[3] David Prytherch[4] and Andy Walters[5]

28. Reciprocal design: inclusive design approaches for people with late stage dementia 125

Kenning, Gail

29. QuittyLink: Involving smokers in the design of technology that supports individuals in quitting 128

Paay, Jeni,[1] Jesper Kjeldskov,[2] Uma Brinthaparan,[3] Lars Lichon,[4] Stephan Rasmussen[5] and Nirojin Srikandaraja[6]

30. Communication design project: Redesigning medicine administration for the elderly in Hong Kong 133

Kwok, S.H.

31. Thick care: Designing for an ethic of care and complexity in community aged care services 138

Lorenzetto, Anna

32. Creating a personalised self-management system for post stroke rehabilitation; utilising a user-centred design methodology 142

Mawson, Susan,[1] Nasrin Nasr,[2] Jack Parker,[3] Huiru Zheng,[4] Richard Davies[5] and Gail Mountain[6]

33. Designing for emergency departments: A literature review 146

McGee, T., Flynn, D., Coxon, S. and Keith, J.

34. Kids in the waiting room: Lessons from Melbourne's Royal Children's Hospital 150

McLaughlan, R., Willis, J. and Sadek, A.

35. Evidence and borrowing: Conversations with 8 architects on the use of evidence and innovation in the design of contemporary healthcare facilities 153

McLaughlan, Rebecca, Philip Goad, and Alan Pert

36. ICU journey: Humanising the patient experience of Intensive Care 156

Meldaikyte, G., Fusari, G., Matthews, E. and West, J.

37. Designing creActivities: Creative Methods to engage young people experiencing psychosis in co-design 160

Nakarada-Kordic, Ivana,[1] Nick Hayes, [2] Stephen D. Reay,[3] Carla Corbet[4] and Amy Chan[5]

38. Responsive tangible rewards in physical activity gamification 167

Novak, James I.[1] and Jennifer Loy[2]

39. Design across the Spectrum: Enhancing inclusion for children on the autism spectrum in the playground 171

Owen, Ceridwen, Damhnat McCann, Christopher Rayner, and Jackson Wells

40. Increasing confidence through competence in people with dementia through meaningful conversations 175

Paay, Jeni,[1] Metta Bank[2] and Ivan Aaen[3]

41. Interactive technologies helping young adults manage low self-esteem 179

Paay, Jeni,[1] Helle Larsen[2] and Heidi Nielsen[3]

42. The SEE toolkit: How young adults manage low self-esteem using personal technologies 183

Paay, Jeni,[1] Helle Larsen[2] and Heidi Nielsen[3]

43. Speculative co-design: a framework for designing medical devices towards enhanced usability, through explorations of experience. 187

Rowan Page

44. Utilising Lego® Serious Play® to engage children and young people with ADHD and their parents 191

Powell, L.,[1] Parker, J.,[2] Harpin, V.[3] and Mawson, S.[4]

45. Enhancing social connections amongst older residents of a rural town with community mapping and technology 195

Paulovich, Belinda.

46. Technology in health and social care: a critical reflection from across two continents 198

Pedell, S.[1] and Claire, C.[2]

47. Pictorial Language: A bridge to meaningful conversation between grandparent and adolescent grandchildren 202

Mayasari, Angeline and Sonja Pedell

48. The hospital environment through the eyes of adolescents with long-term patient experience. Young people affected by cancer speaking 207

Peeters, Kimberl, Pleuntje Jellema, Margo Annemans, and Ann Heylighen

49. Communicating information in health: Engaging students in design for health awareness. 211

Potter, E., Reay, S.D. and Thornhill, B.

50. Stigma and the weight it carries when establishing a user experience Strategy: User research discoveries around mobility related issues 215

Neagu, E., Raby, E. and McGinley, C.

51. Foyle Reeds: How can design reduce suicide attempts at a specific place whilst at the same time improving the experience for all? 219

Raby, E., Alwani, R., West, J., Bichard, J. and Spencer, J.

52. Design for well-being: Examining Aceh post-tsunami houses 223

Rahmayati, Y.

53. Dear pelvic floor exercises: A qualitative study among health professionals, pregnant and postnatal women 226

Barnard, R., Rodríguez Ramírez, E.R., Caudwell, C. and Baartman, V.

54. NZ Fauna AR: an augmented reality exergame system to assist stroke survivors with independent rehabilitation. 230

Petrie, R., Rodriguez-Ramirez, E. and Chan, K.

55. Exergames for healthy ageing: Inclusion through design 235

Čaić, Martina,[1] Vanessa Rodrigues,[2] Stefan Holmlid,[3] Dominik Mahr[4] and Gaby Odekerken-Schröder[5]

56. Psychosocial Needfinding 239

Savig, E.S.[1] Gurevitch, J.H.,[2] Jackson, J.E.,[3] Alinowski, A. Agarwal-Hashmi, R.,[4] Sourkes, B.M.,[5] Cohen, H.J.[6] and Leifer, L.J.[7]

57. Review of waste management service design for health and wellbeing in rural and remote Aboriginal and Torres Strait Islander communities 247

Seemann, K., McLean, S. and Fiocco, P.

58. Designing innovative wayfinding systems in healthcare: from exploratory prototyping to scalable solutions 252

Short, E., Reay, S.D., Douglas, R.

59. Designing health information to an acceptable standard: the state of the art, science craft, and design 259

David Sless

60. Sharing the city: An intergenerational VR experience 262

Symington, Nicole, Kathy Constantin, and Sonja Pedell,

61. Reimagining ageing: Insights from teaching co-design methods with designers, seniors and industry partners 268

Taffe, Simone,[1] Sonja Pedell[2] and Andrea Wilkinson[3]

62. Taking the pulse: A survey of design for health development in Singapore 272

Koon Boon Tan, Michael

63. Framing food literacies: Reflections from two Australian design-led innovation projects 278

Angela Turner

64. Research-led Design of a Communication Strategy for a Health Accelerator Program 283

Turukalo, M.,[1] Thompson, J., Pedell, S.[2] and Kommatas, C.[3]

65. Making better use of recorded patient experiences: transforming literature into a collaborative tool for inspired interaction 288

Villalba, C., Jaiprakash, A., Donovan, J., Roberts, J. and Crawford, R.

66. Designing for health beyond healthcare: From the institutional assumption to community health design 293

Vink, Josina,[1] Vanessa Rodriques,[2] Lisa Malmberg,[3]

67. Designing emotionally resonant aesthetic experiences in healthcare. 297

Wan, T.,[1] Reay, S.D. [2] Smith, A., [3] Douglas, R.A.[4]

68. Evaluation of universal design—A scoping project 302

Watchorn, Valerie.,[1] Cathryn Grant,[2] Richard Tucker,[3] Danielle Hitch,[4] Patsie Frawley,[5] Susan Ang,[6] and Kathryn Aedy[7]

69. Decreasing the burden of hypertension: A design intervention to foster more accurate blood pressure measurements. 305

Jackson Wells, Ceridwen Owen, James Sharman, Niamh Chapman, and Rebekah McWhirter

70. Developing the Double Diamond process for implementation—insights from a decade of Inclusive Design projects 310

West, J., Fusari, G. , Raby, E., Alwani, R., Meldaikyte, G., Wojdecka, A., Matthews, E.

71. SlowMo/Mo—digital technology to provide support in coping with daily life 314

West, J., Wojdecka, A. and Matthews, E.

72. Co-creating a digital decision aid for people with dementia and their caregivers to fulfil their unmet needs 317

Van Zuthem, H.M.,[1] Cila, N.[2] and Wildevuur, S.E.[3]

73. Designing Information and Communication Technologies to support chronic disease self-management in practice: a case study from Australia and the Netherlands 322

Wildevuur, Sabine E.,[1] Fleur Thomese,[2] Julie Ferguson[3] and Ab Klink[4]

74. What we wish we had known when we began: Insights on designing together with people with dementia in research and education 326

Wilkinson, A.[1] and Hendriks, N.[2]

75. Violence, vulnerability, and care: A women's history of HIV in America 329

Matthew Wizinsky

76. Using Knowledge Mobilisation theory to inform the design of a co-design workshop for healthcare research and innovation 334

Joe Langley[1], Dan Wolstenholme[2], Rebecca Partridge[1], Ian Gwilt[1]

77. Improving the blood donation experience through better designed phlebotomy. 337

Wood, Caitlin and Selby Coxon,

78. Actualising the participant designer: a case study in the design of health communications 342

Barnes, C.,[1] Wragg, N.[2] and Wragg, L.[3]

79. Playscapes: Pure Ludens 347

Yan, J.[1], Hedges, S.[2], Reay, S.D.[3]

80. Strength for task training (STT) exergaming for lower limb stroke rehabilitation 352

RuiFeng Yeo and Edgar R. Rodríguez Ramírez

SlowMo/Mo—digital technology to provide support in coping with daily life

West, J., Wojdecka, A. and Matthews, E.

Helen Hamlyn Centre for Design, Royal College of Art, London

Keywords

Digital health, mhealth, etherapy, inclusive design

Introduction

This project builds on previous work bringing inclusive design methodologies and expertise to therapy for paranoid and suspicious thoughts in people with severe mental health problems. Culminating in an interactive digital platform to support service users both in and outside of therapy sessions, this prior work established core design principles (West et al 2016), with the platform currently going through a multi-centre randomised controlled trial (Garety & Hardy, 2017).

This project seeks to extend the benefits of the digital platform beyond diagnosed mental health difficulties to include a standalone app for anyone seeking to better regulate emotions and cope with daily life. Difficult emotions and life stressors are ubiquitous, but access to psychological interventions is limited (Haller et al, 2014). Even when available, people can be reluctant to take them up (O'Dea et al, 2015).

The establishment of design principles when considering 'extreme' users (service users with severe mental health problems) lays the foundation for interventions that benefit a much broader cohort. It is in the appropriate application (and augmentation) of these principles that the success of this project hinges, with broader implications for digital innovations for mental health.

Background

SlowMo is a digital platform resulting from a partnership between psychologists and designers, working closely throughout each project phase with front line therapists and mental health service users presenting with differing degrees of psychosis. Previous therapy had comprised six sessions, supported with basic visual materials, helping service users notice unhelpful thoughts and fast thinking habits, and improve slower thinking. The SlowMo intervention redesigned the content, adding an app extending the benefits of therapy beyond the consulting room to people's daily lives. The intervention is being tested in a randomised controlled trial. In parallel, the team is building on this work to create an intervention for a wider user base: those who seek better emotional regulation and support in coping with daily life. Translating the SlowMo design and therapeutic principles into a commercial product broadens the reach and potential benefits, but requires a different design approach.

Methods

The fundamental therapeutic principles underpinning SlowMo include (among others) the ability to recognise unhelpful thoughts, to slow down 'fast' thinking (jumping to conclusions), and the identification of alternative explanations for the observed situation or upsetting thought. The design principles of SlowMo include (among others) representing thoughts as bubbles, resizing them, and slowing down 'spinning' bubbles to encourage the user to engage in slower thinking. A larger scale clinical trial will establish its clinical efficacy compared to treatment as usual. The project aim is to adapt and expand both the therapeutic and design principles to target a broader audience with common emotion difficulties experienced by the majority of the population.

The team combined the 'Double Diamond' methodology (Design Council, 2015) with agile working with developers (Dybå, Dingsøyr et al. 2008). Insights were gained through extensive interviews and workshops with a variety of potential users. Personas were built up from these insights, informing subsequent co-creation sessions. A number of extra functions and concepts were created, and refined using critical feedback. The additional app framework and functionality were refined, along with the visual language and branding. Rapid iterative design and coding work packages allowed for the collaborative development and testing of sections of the app.

Design

The aim was to expand the focus beyond fast thinking to a broader range of thinking habits targeted in CBT, and incorporate other psychotherapeutic strategies (i.e. relaxation, distraction, mindfulness). This integrated a range of different therapeutic approaches to create an emotional regulation toolkit and bring the benefits of varied strategies to as many people as possible.

Much of the original SlowMo design work is retained. Bubbles are still used to recognise and visualise difficulties, and the focus on slowing down thinking and logging alternative and less upsetting thoughts is included as a type of emotion regulation, sitting within a broader framework of features and functions. Bubbles now reflect any type of difficulty and coping strategy (e.g. behaviours, relationships, emotions, as well as thoughts).

The research, mirroring empirical findings, suggested that supported therapy is more helpful than pure self-help. This led to the development of 'Mo', a personalised digital therapist. Mo supports the user with their difficulties, helps them find strategies to cope and encourages them to focus on solutions. The research pointed to the importance of the digitised therapist's interpersonal style for users' engagement. Responding to the insights, Mo can adopt one of three different personality types (selected by the user, delivering the same content in differing styles): friend, therapist and coach.

The app is structured such that Mo provides an introduction and overview to the user, as well as checking in with them periodically. Mo guides them through much of the SlowMo content, to help support more helpful thinking habits. These are now conceptualised as 'life traps' to reflect the broader range of issues people may input into the new interface, and represented visually as well as by text. Mo can also direct the

user to a 'GoMo' section of the app (games to support distraction) and a 'FlowMo' section (tasks to support relaxation and mindfulness).

These functions augment the original 'SlowMo' to broaden the appeal to a range of users. The addition of Mo, and the ability to tailor the personality of the digital therapist is an important feature, as there is no longer a human therapist present.

Conclusion

The methods employed in both the original SlowMo and the augmented version (with Mo) were largely similar. The aims and insights were different, leading to distinct design solutions, albeit with overlapping features and functions. The additional features in Mo allow for targeting a broader market and range of needs. This reflects a focus on improving access to psychological techniques in the general population, to address limited availability of therapy and barriers to people seeking help. It is envisaged that this broader focus will lend itself to user testing with diverse groups, with insights iteratively incorporated into future versions of Mo, laying the foundations for a strong commercial product launch.

Acknowledgements

We would like to acknowledge the King's Commercialisation Institute, King's College London, the Maudsley Charity and the Helen Hamlyn Trust for their funding of this work. The authors declare no conflicts on interest.

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