

INTERDEM MEMBERS – BRIEF CURRICULUM VITAE

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Please can you also add a picture of yourself



NAME: Michael P. Craven

TITLE: Dr.

PROFESSIONAL GROUPING:

Academic, University employee & National Health Service (NHS) employee

University researcher in bioengineering, electronic engineering & computer science

WORK ADDRESS:

NIHR MindTech Healthcare Technology Co-operative, Institute of Mental Health, University of Nottingham
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<https://www.nottingham.ac.uk/engineering/people/michael.craven>

PRESENT POSITION (e.g. Director of.....):

Main role: Senior Research Fellow, NIHR MindTech Healthcare Technology Co-operative; University of Nottingham Bioengineering research group & member of Centre for Dementia ; Member of the East Midlands Research into Aging Network (EMRAN).

Secondary roles: Health Economist at Nottingham University Hospitals NHS Foundation Trust, in the Centre for Healthcare Equipment and Technology Adoption (CHEATA). <http://www.cheata.co.uk>

Nottingham Healthcare (Mental Health) NHS Foundation Trust (honorary contract).

Voluntary role: Trustee & co-director of Trent Dementia Services Development Centre charity which runs the <http://ATdementia.org.uk> website

HIGHEST ACADEMIC QUALIFICATION (e.g. PhD, MD etc.):

PhD

PROFILE OF MEMBER:

22 years of experience since PhD graduation in 1994 spanning healthcare technology knowledge exchange, electronic engineering & computing design, health economics and 5 years in teaching & learning.

MindTech projects since 2013 include (details at <http://www.mindtech.org.uk/projects.html>):

- Design and evaluation of assistive and smart technologies for older people with dementia and carers (MinD, CASA and KuPA projects – details below);
- Smartphone apps for self-monitoring in mental healthcare (SnappyApp & iRAM projects focussed on Attention Deficit Hyper Activity Disorder);
- Gamification of public health awareness on large touchscreens (Attention Grabber project);
- Evaluation of digital technology (websites and Apps) for mental health and well-being co-produced by young people (Innovation Labs evaluation project);
- Remote therapy and counselling using video calling (Big White Wall online mental health website with Live Therapy plus advisory role on projects in self-harm and health anxiety)

Prior to joining MindTech (2003-2013):

10 years in the Multidisciplinary Assessment of Technology Centre for Healthcare (MATCH) programme at University of Nottingham researching methods and tools to ease the process of determining the value of medical devices. Projects with NHS innovation partners and the medical device industry. Knowledge exchange activities included early stage health economic modelling and human factors methods to capture the needs of users (health professionals and/or patients) and delivery of training workshops with the support of Medilink organisations and the Knowledge Transfer Network. He also conducted Health Technology Assessments for the Department of Health Centre for Evidence Based Procurement (CEP), The NHS National Institute for Health and Care Excellence (NICE) and the Manufacturing Advisory Service (MAS), part of the government backed Business Growth Service.

10 years in Electronic Engineering and Computer Science post-doctorial research and teaching.

AREAS OF EXPERTISE:

Technology in dementia and mental healthcare:

- Dementia work focussed to date on evaluation of assistive and smart (including smart home) technologies with carers of people with dementia. Knowledge of available technology, its use and limitation, and literature about technology design and use.

Assistive Technologies:

- Currently involved with INTERDEM as co-author of the position paper/review that is currently in progress led by Prof. Franka Meiland
- Invited author for forthcoming 2nd Ed. of Scherer et al. Assistive Technologies Assessment Handbook on gesture, body and eye-tracking.
- Module lecturer, University of Nottingham: Dementia and Aging (MSc/PGDip/PGCert Mental Health Research) during 2016.

Ambient Assisted Living:

- Member of Programme Committee (paper reviewer) for international conferences UCAMI/IWAAL 2014 (Belfast, Northern Ireland, December 2015) and UCAMI/IWAAL/AMIHEALTH 2015 (Puerto Varas, Chile, December 2015).

Healthcare Technology Assessment:

- Medical devices, e-Health, m-Health in general, including qualitative and quantitative evaluation methods and health economic assessment.

KEY PUBLICATIONS (Maximum 5):

1. Evans, J., Brown, M., Coughlan, T., Lawson, G., Craven, M. P. *A Systematic Review of Dementia focused Assistive Technology*. In: Kurosu M (Ed.): Human-Computer Interaction, Part II, HCI 2015, LNCS 9170, 406-417, 2015. Springer. doi: 10.1007/978-3-319-20916-6_38
2. Craven, M. P., De Filippis, M. L. and Denning, T. *Quality of Life Tools to Inform Co-design in the Development of Assistive Technologies for People with Dementia and their Carers*. in Pecchia et al. (Eds.). *Ambient Assisted Living and Daily Activities*, LNCS 8868, 394-397. Springer, 2014. doi: 10.1007/978-3-319-13105-4_57
3. De Filippis, M. L., Craven, M. P., and Denning, T. *Informal carer role in the personalisation of assistive solutions connected to aspirations of people with dementia*. in Pecchia et al. (Eds.). *Ambient Assisted Living and Daily Activities*, LNCS 8868, 236-243, 2014. Springer. doi: 10.1007/978-3-319-13105-4_35
4. Sharples, S., Martin, J., Lang, A., Craven, M., O'Neill, S., Barnett, J. *Medical Device Design in Context: A Model of User-Device Interaction and Consequences*. *Displays* 33 (4-5), 221-232, 2012. doi: 10.1016/j.displa.2011.12.001
5. Craven, M.P., Allsop, M.J., Morgan, S.P., and Martin, J.L. *Engaging with economic evaluation methods: insights from small and medium enterprises in the UK medical devices industry after training workshops*. *Health Research Policy and Systems*, 10:29, 2012. doi:10.1186/1478-4505-10-29

RELEVANT RESEARCH ACTIVITY:

Please indicate for past 5 years only (i) Grants Awarded: Names of Investigators; Years; Title of Project; name of awarding agency (ii) PhD and other projects: Title, start or completed date.

(i) Grants awarded (dementia projects only).

- 2015-19 Designing for People with Dementia: designing for mindful self-empowerment and social Engagement (MinD). H2020 RISE Marie Curie Action Programme. Principal Investigator: Kristina Niedderer, University of Wolverhampton. Nottingham Co-investigators: Michael Craven, Tom Denning. Many other international CIs.
- Nov 2014 - Sept 2015. Knowledge based person centred activity service (KuPA). Norwegian Research Council. Industry led project. Principal Investigator at University Nottingham: Michael Craven. <http://www.mindtech.org.uk/projects/93-kupa-knowledge-based-person-centred-activity-service-dementia-theme.html>
- Jan-Sept 2014. Connecting Assistive Solutions to Aspirations (CASA). Awarding Agency: Technology Strategy Board/Innovate UK. Industry led project with other UK partners. Principal Investigator at University of Nottingham: Tom Denning. Nottingham Co-investigator: Michael Craven. <http://www.mindtech.org.uk/projects/66-connecting-assistive-solutions-to-aspirations-dementia-theme.html>

(ii) PhDs

- 2015- An Ethnographic Study of Gender Dysphoria Care (PhD Studentship supervision)
- 2010 - 2013 Users' behaviour with respect to imaging and diagnostic medical devices. PhD Studentship supervision (completed)

CURRENT RESEARCH INTERESTS/ONGOING PROJECT TITLE:

2015-19 Designing for People with Dementia: designing for mindful self-empowerment and social Engagement (MinD), as above.

2016- Computer-based games to support cognitive improvement & reserve. MindTech internal project.

Current research interests in general: remote and self-monitoring of health (devices & Apps); games and simulation; information design in diagnostics and screening; evaluation of imaging and surgery navigation