

Ed Matthews

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Academic and professional background

Ed Matthews joined the Helen Hamlyn Centre in February 2007 to support its growing focus on inclusive design for healthcare and patient safety. His role is to contribute to development of the centre's strategy in this area, build and mentor the research team, strengthen the centre's networks and engage industrial partners in development projects.

He is highly experienced in product development in a broad range of sectors, and has specialised in medical devices and healthcare products since 1990. He has a track record of combining different working cultures and technologies to establish new approaches to development. He has also pioneered the provision of technical expertise, design-for-manufacture, materials selection and CAD/CAM capabilities within industrial design consultancy.

His commercial experience includes setting and implementing strategy as partner and technical director of design company Pearson Matthews, and working in senior consulting roles for PA Technology and PA Consulting Group. He has been a visiting tutor at Central St Martin's School of Art and Design. He has won the Overall and the Mechanical Design Prize in the CAD/CAM International Awards, and the British Steel Melchett Award. He has spoken at, and chaired, conferences for CAD/CAM and Medical Device Technology, and been a member of the Editorial Advisory Board for Medical Device Technology magazine. His first degree was a BSc (Hons) in Mechanical Engineering with French from the University of Bath, and his second degree was the MDesRCA in Industrial Design from the Royal College of Art.

Research interests

Ed Matthews' medical work, encompassing both creative design innovation and management of development teams, has been carried out in a technology consultancy environment for demanding commercial clients, where risk-management has been of key importance. It has led him into the fields of diagnostics, drug delivery, laboratory equipment and surgical instrumentation and implants. Each of these human-interactive products

has required him to acquire new knowledge rapidly through research into diverse aspects of anatomy, biomechanics, cognition and user psychology.

Working within technology and science cultures he has needed to champion the role of industrial design and human factors. He is therefore highly motivated to establish the unmet needs of the user and the human factors issues underlying product development, to harness and influence evolving technology and materials innovations, and to identify product engineering and manufacturing process opportunities that can lead to better and more cost-effective products.

Current projects

He is a key member of the team developing an intelligent resuscitation trolley in partnership with the National Patient Safety Agency, St Mary's Hospital Paddington and Imperial College.

He has joined the major multi-centre EPSRC-funded research project 'Taking Care to the Patient' that is exploring the technologies needed to support the ongoing reconfiguration of urgent healthcare delivery within the NHS. The study aims to bridge the gap between community and hospital provision of urgent and emergency care, involving adaptable and reconfigurable vehicles and treatment units.

He is advising on the development of medical device projects as part to the [Triangle Projects](#) collaboration between the RCA and Imperial College.

Publications

- Matthews, E. (2006) 'Winning Products Born of Technology, Manufacturing and Human Factors', a Thought Leadership article for PA Consulting Group
- Matthews, E. (1997) 'Economic Considerations for Device Design and Development' Article for *Medical Device Technology* magazine, November 1997, pp18 - 26, published by Octo Media Publications, based on a paper of the same title delivered at the MDT Conference, Olympia, February 1997