

DR MAXWELL J ROBERTS

UK | +44 1255 583000 | mjr@tubemapcentral.com

INFORMATION DESIGNER | RESEARCHER | LECTURER

[Underground Maps Unravalled] "Max has created what can only be described as a masterpiece of design and beauty. He equally has created some truly vile monsters just to illustrate, good and bad, and what can be achieved but remaining within the rules. There is enough here to make your jaw drop and your eyes burst."

Douglas Rose, Managing Director, FWT Studios (Information Design Specialists)

Inspirational, recognised subject matter expert and international authority on schematic map design. Thought leader who drives innovation and change in visual communication via a clearly defined framework and evidence-based methodologies. Published author, researcher, designer and multidisciplinary public speaker and lecturer, who uniquely combines Psychology with Information Design, Cartography, Computer Science and Art.

- **Pioneers alternative design principles and achieves real world impact;** demonstrable evidence of design methods, such as curved or concentric circles maps being used or considered in Europe, Asia and the USA.
- **Undertakes client-driven consultancy and academic research projects,** and validates theories via usability testing and internet studies. Produces evidence-based designs optimised for visual information configuration, resulting in reduced cognitive load and improved wayfinding performance.
- **Delivers lively, engaging and entertaining international presentations** to industry, public and academic audiences. Raises visibility and awareness of advancements in usability-driven map design via books, peer-reviewed articles, keynote speeches, joint venture exhibitions, conferences and specialist training workshops.
- **Spearheads education of design principles;** integrates research outcomes and frameworks into course modules and content for undergraduate, postgraduate and PhD students. Lectures potential future designers.

AREAS OF EXPERTISE

Schematic Map Design	Usability & Acceptability Testing	Visual Information Communication
Book Design & Editing	Lectures & Presentations	Human Reasoning/Problem Solving
Rapid Map Prototyping	Training Workshops	Research Methods & Protocols
Digital Map Reconstruction	Exhibition Curation	Statistical Data Analysis

PROFESSIONAL EXPERIENCE

TUBE MAP CENTRAL (<http://www.tubemapcentral.com/>)

2007 – PRESENT

CONSULTANT | TRANSIT MAP DESIGNER | RESEARCHER | PUBLIC SPEAKER

Established Tube Map Central as an online conduit to promote professional consultancy services in transit map design, research and training, publicise alternative cartography concepts and highlight real-world applications. Worked with a wide range of industry, public and academic partners to evaluate, identify and disseminate evidence-based benefits.

- Created a clear framework for effective map design; quickly responds to requests and advises cartographers and map designers around the world on suitability of design rules and identification of potential problems, alternative options, solutions and improvements.
- Top four design publications cited over 120 times; champions research into alternative design methodologies and improving customer experience. Created alternative London Underground and Paris Metro maps to validate usability theories. Conducted psychological tests that demonstrated these designs are easier to use.
- Influenced change; clear evidence of design principle application and curved transit map implementation in real-world applications in UK and Germany, as well as inclusion in university research programs in Germany and Netherlands. Currently investigating development of computer software to automate schematic map generation.
- Investigates personal and client commissioned projects; created 200+ bespoke map designs, delivered rapid prototyping, proof of concept and digital map reconstruction services to remit, budget and deadline.
- Designs usability tests, constructs research protocols, creates test materials and reports on statistical data analysis to prove or disprove suitability of alternative map layouts over traditional concepts. Evaluates and provides clear beneficial evidence of efficacy of wayfinding information and information design.
- Prepared, organised and delivered tailor-made lecture series, one-off presentations and exhibition lectures. Created bespoke hands-on workshop experiences that engaged audiences to explore data, understand complexity of design and gain insight into emerging ideas in visual communication.
- Written, edited and published books, newsletters and web articles; advised clients on book design, layout, typography and production. Regularly explains design concepts on BBC, ITN and Monocle as well as USA and Canadian radio channels; delivers keynote speeches at conferences and events across Europe. Frequently features in German and Taiwanese media and Art, Design and Cartography journals. Massive internet presence.

SELECTED CONSULTANCY PROGRAMMES

- **Advised Karlsruhe Transport Authority (KVV)** on schematic/transit map design and tutored design principles, rules and options to in-house cartographer. Supported implementation of “curvilinear maps” across KVV transport network and explained effective design and delivery benefits to staff.
- **Contracted by FWT Studios**, a major UK designer of public transport information, to advise and consult on solutions to transit map design and usability.
 - Designed and implemented a large-scale usability study of prototype route diagrams for the Docklands Light Railway. Presented findings and achieved Transport for London adoption of recommended designs.
 - Documented, presented and gained acceptance of the implications of the importance of psychological concepts for schematic map design and wayfinding information, including cognitive load and intelligence.
 - The effect of cognitive load on usability is now referred to on CHK USA (FWT sister company) website publicity highlighting their approach to information design.

UNIVERSITY OF ESSEX 1993 – PRESENT

Department of Psychology – www.essex.ac.uk/psychology/staff/mjr

LECTURER | RESEARCHER: TRANSIT MAP DESIGN, 2007 – PRESENT

Leads innovative development of multidisciplinary approaches to transit map design, usability testing and assessment; delivers positive impact on wider implications for visual information. Combines psychology and design expertise to create maps with proven reduced cognitive load for journey planning via fact-based evidential data.

- **Wrote full course content for a unique elective module based on research findings:** Transit Maps: Past Present and Future. Lectures design context, map history, psychological theories, usability testing and design techniques to third-year undergraduates. Devised and implemented innovative and engaging hands-on assessments.
- **Invited as a guest lecturer and assessor at design schools.** Evaluated students’ transit map designs from Parson’s New York School of Art & Design, USA and South Essex College, UK.
- **Co-planned, organised and chaired a two-day international workshop and exhibition.** Disseminated research findings, theories and practical applications to academics and practitioners. Sponsored by the British Cartographic Society.

LECTURER | RESEARCHER: COGNITIVE PSYCHOLOGY, 1993 – PRESENT

Joined as the fifth member of a newly founded department in 1991; today a world-class teaching and research centre with a faculty of 45 and a state-of-the-art Centre for Brain Science. Lectures to a continually growing undergraduate cohort, 250 per year currently. Known for attention to detail and consistency of procedural application.

- **Creates and delivers course content, and coordinates module development;** lectures core/elective topics to undergraduate students on human, animal and machine intelligence, emphasising cross-disciplinary issues.
- **Supervises undergraduate and PhD research projects across core subjects,** including individual differences in reasoning strategies, effects of social context on reasoning, and reading and dyslexia remediation.
- **Achieved a Google H-Index of 19;** promotes research into human intelligence, psychometric testing, problem solving, reasoning, inference and decision making; authored/co-authored books and articles in peer reviewed journals, and presented findings as an invited speaker at conferences and workshops.

EDUCATION | SCHOLARSHIPS | TRAINING

Honorary Lecturer, University of Kent School of Computing, 2016

Information Design Summer School, Simplification Centre, 2015

PhD, Psychology, University of Nottingham, 1992

Awarded Gertrude Cropper Scholarship for Excellence in Research, University of Nottingham, 1990

Awarded EPS Study Visit Grant, Age & Cognitive Performance Centre, University of Manchester, 1990

BPS Level A Psychometric Test Administration, Saville & Holdsworth Ltd, 1989

BSc, Psychology (First Class Hons), University of Nottingham, 1988

MEMBERSHIPS | EDITORIAL POSITIONS

Member of Sign Design Society, 2010 – Present

Associate Editor – European Journal of Cognitive Psychology, 2009 – 2011

Editorial Board & Peer Reviewer – European Journal of Cognitive Psychology, 2005 – 2008

Associate Editor – British Journal of Psychology, 2001 – 2006