ELEANOR 'NELL' WATSON

CITP FBCS FICS FRSS FRSA FIAP FIKE FCMI FLS SMIEEE

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TRUSTED ADVISOR · AI PHILOSOPHER · ADVOCATE

Machine Intelligence, Ethical Analysis, Engineering, Philosophy, Education, Public Speaking, Certification, Standardization, Innovation Management, Leadership



Eleanor 'Nell' Watson, a trailblazer in emerging technologies such as machine vision and A.I. ethics, dedicates her work to protecting human rights and infusing ethics, safety, and values that elevate the human spirit into technologies like Artificial Intelligence.

As IEEE Ethics Maestro, Chair IEEE's ECPAIS Transparency Experts Focus Group, and Vice Chair of P7001 Transparency of Autonomous Systems committee on A.I. Ethics & Safety, Nell is engineering mechanisms into A.I. to help safeguard algorithmic trust.

Nell serves as the President of EURAIO, the European Responsible Artificial Intelligence Office. She has served as Senior Scientific Advisor to The Future Society, and Senior Fellow to The Atlantic Council. In addition, she holds fellowships with the British Computing Society and Royal Statistical Society, among others, as well as being listed as an Icon by the Royal Academy of Engineering. Through her public speaking, Nell has inspired audiences to work towards a brighter future at venues such as The World Bank, The United Nations General Assembly, and The Royal Society.

CORE COMPETENCIES

- Technology Innovation: Possess exceptional entrepreneurial skills demonstrated through start-up, ownership and management of 4+ thriving ventures/organizations; hiring, training and overseeing employees, and successfully running the companies, while enduring market volatility and economic turmoil for close to 6 years.
- Public Education: Well-versed in designing challenging, enriching and innovative technology lesson plans/ activities, facilitating class discussions, guiding as well as explaining complicated scientific and technology concepts in an easily understandable manner whilst utilizing unique teaching strategies.
- Science Communication: Outstanding oral/written communication skills displayed through effectively delivering numerous high-impact lectures, talks and presentations in various platforms. Presents complex technical information in accessible terms for specific audiences, make sense of science and interpret the latest technology advances.
- Research & Scholarship: Original, patented innovations in highly technical domains, and rigorous interdisciplinary scholarship across the domains of ethics, engineering, physics, machine learning, philosophy, and bioinformatics.
- Research Program Management: Proficient at developing technology project plans, coordinating resources, building, training and overseeing high-performance project teams, controlling budgets, preparing and presenting progress reports, as well as managing delivery performance. Successfully headed various complex innovation projects such as certification standards.

ACADEMIC BACKGROUND AND CONTINUING PROFESSIONAL DEVELOPMENT

PhD. Engineering; University of Gloucestershire (expected 2024) (An End-to-End Personal Fine-Tuning Framework for AI Value Alignment.)

PgCert Research Methods; University of Gloucestershire
PgDip Strategic Business IT - Strategic Business Analysis and Information Systems); NCC
Teaching English as a Foreign Language - NVQ Level 2; North Antrim College
Counseling - NVQ Level 2; North Antrim College
Conflict Management; TIDES, Northern Ireland

CAREER SYNOPSIS

Author | Taming the Machine

May 2024 - Present

- Actionable guidance for ethical leadership in the Age of AI. Published by Kogan Page.

Technology Advisory Panel Expert | Information Commissioner's Office

Oct 2022 - Present

 Advice and commissions on matters aligned with the ICO business plan, insights on the nuanced application of existing and developing technologies, impacts upon personal data processing, and the implications for information rights globally.

President | European Responsible Artificial Intelligence Office

Sep 2020 - Present

Chair of the Supervisory Board. EURAIO advises organizations on how to implement AI for Good.

Funding Advisor, Speculation Grantor | Survival & Flourishing Fund

Jan 2022 – Present

Assisting with the direction of around ~\$1MM of ~\$5-10MM in funding, from donors such as Jaan Tallinn and Jed McCaleb, to projects deemed likely to positively influence the long-term future.

Nonresident Senior Fellow, GeoTech Center | Atlantic Council

Sep 2020 - Sep 2022

Conducting research with the GeoTech Center to help champion positive paths forward that nations, economies, and societies can pursue to ensure that new technologies and data empower people, prosperity, and peace.

Design Team, Certified Ethical Emerging Technologist (CEET) Certification | CertNexus

May 2020 - Present

 Developing an original certification in ethics for practitioners of emerging technologies, and comprehensive assessments of their learning, along with writing and presenting associated online courseware. Released on Coursera to positive review.

Executive Consultant Philosopher | Apple

May 2020 - Present

- Consultation on undisclosed ethics and machine intelligence projects and media development.

AI Ethics Maestro, Chair | IEEE Standards Association

Mar 2017 – Present

- Leading the Transparency initiative of ECPAIS (Ethics Certification Program), managing a very complex project to tight schedules, in an environment of scarcity and constant complex societal, technological, and regulatory change.
- Expansion to further roles in guiding the Public Visibility Committee, Experts Assessment Panel, Privacy Experts Focus
 Group, Contact Tracing Technologies Experts Focus Group, Economic Franchise in Emerging Financial Instruments
 Experts Focus Group, Responsible Governance Experts Focus Group, as well as serving as a Standards Balloter.
- Also Chair of 3152 Standard for the Description of the Natural or Artificial Character of Intelligent Communicators, and Chair of 3173 Standard for Endocrine Disrupting Chemical Hazard Labelling, Chair 3152 Standard for Transparent Human and Machine Agency Identification, Vice-Chair 7001 Transparency High Level Experts Group.

Co-Founder, Chair | EthicsNet.org

July 2015 - Present

A project to support crowd-driven AI augmented annotation of ethical examples, to teach humans and machines.

Faculty AI & Robotics, Visiting Scholar | Singularity University

June 2015 – Present

- Invited to speak on topics such as emerging technology, societal disruptions from artificial intelligence, digital health, and the psychology of entrepreneurship.
- Support and mentor others along their own entrepreneurial journeys, in gratitude for the kindness I have received.
- Contribute my expertise and thinking to various mentees and organizations.
- Identify other subject-matter experts and knowledge leaders who can support the organization in a variety of ways and expand the organization's reach and influence.
- Participate in meetings, conventions, conference calls, task teams, and other activities to the fullest extent possible.

Founder and CEO | QuantaCorp.io (formerly Poikos, now BodiData)

Jul 2010 – Oct 2016

- Conceptualized, designed and developed the business, marketing it and expanding it singlehandedly.
- Captain all aspects of the business including implementing the business plan, training and mentoring staff.
- Craft test plans and specifications to improve reliability of current functions and products.
- Wholly accountable for end-to-end business operation and daily administration operations of the company including assessing performance and restructuring systems to grow the business.
- Investigate customer satisfaction or product functionality or reliability non-conformances and provide corrective action for procedural, product, or process deficiencies.
- Orchestrate, reorganize, reallocate staff and implement best practices and performance monitoring systems in support of
 continuous improvement. Brought onboard a new CEO, to take a Board role instead.

ADDITIONAL CAREER HISTORY

Business and IT Development Manager, Kajans Social Enterprise (Contract, Mar 2010 – Jun 2010)

Assistant Content Editor; The Law Society (Contract, Jul 2010 – Dec 2010)

Business and Technical Director; Graffit4hire (Jun 2009 – Feb 2010)

Post-Graduate Lecturer (Computer Science & Business Strategy); Birmingham International College (Jun 2008 – Sep 2009)

Web Administrator/Technical Support Professional; B4U (Jan 2007 – Feb 2008 Secretary/Personal Assistant; Apple Recruitment Services (May 2004 – Jun 2005)

Database Administrator/ Typesetter / Copywriter; Apple Recruitment Services (May 2003 – Apr 2004)

IT Support Officer/Database Administrator; The Rainbow Project (Oct 2001 – Sep 2003

PATENTS

Patents (US8842906, CN104508704B, JP6368709B2, WO2013175228A1, RU2635226C2, BR112014029372A2, EP2856426A1, IL235860A) for a Machine Vision, Machine Intelligence, and Advanced Statistical Analysis driven remote optical 3D Body Measurement invention granted on September 23, 2014, under Poikos (now QuantaCorp/Bodidata).

Provisional Patent Application filed and under review on an original Quantum Machine Learning technique co-developed with researchers at CERN and Michigan State University (Maximum Entropy Boltzmann Machines). (US63/107,144)

FELLOWSHIPS AND MEMBERSHIPS

Chartered Fellow of BCS, The Chartered Institute for IT (FBCS). Fellow of the Institution of Analysts and Programmers (FIAP). Fellow of the Institute for Innovation and Knowledge Exchange (FIKE). Fellow of the Royal Society of Arts (FRSA). Fellow of the Royal Statistical Society (FRSS), Fellow of the Chartered Management Institute (FCMI), Fellow of the Linnaean Society (FLS). Certified Ethical Emerging Technologist (CEET). Senior Fellow The Atlantic Council. Senior Member IEEE (SMIEEE).

Board Member & Secretary Humanity+. Foresight Institute Fellow, Fellow of the MIT Global Startup Workshop. StartingBloc Fellow. Senior Scientific Fellow of the Future Society. Founder & Council Member of the International Society of Digital Medicine. Member of the Royal Institute of International Affairs. Member of the Royal Institute of Philosophy, Member of the Royal Society of Literature. Member of The Asia Society. Member of Mensa (since 1990). Lifetime Member of The Aristotelian Society. Member of the Lunar Society, Member of The Mars Society, Member of The Long Now Foundation. Member of the Society for Participatory Medicine, Member of The Founders Forum for Good. Member of the Council for Inclusive Capitalism.

SELECTION OF PUBLICATIONS (SEE NELLWATSON.COM/PUBLICATIONS)

Augmented Behavioral Annotation Tools, with Application to Multimodal Datasets and Models: A Systematic Review Developing a Maximum-Entropy Restricted Boltzmann Machine with a Quantum Thermodynamics Formalism Docking and molecular dynamics studies of human ezrin protein with a modelled SARS-CoV-2 endodomain and their interaction with potential invasion inhibitors

Psychological and Psychosocial Consequences of Super Disruptive A.I.: Public Health Implications & Recommendations, Special Guest Editor of the Journal *Informatica*, "The Superintelligence Edition", 2018

Author, Understanding Convolutional Neural Networks, O'Reilly Media

Guest Editor, Informatica Journal Superintelligence Special.

Editorial Board Member, Journal of Digital Medicine, Journal of Future Robot Life. Springer's Series on Transhumanism. Peer Review Board Member, AI Ethics Journal, NeurIPS.

Program Committee Officer Safe & Trustworthy AI Workshop Beneficial AGI Summit, AICon.

SELECTION OF ADVISORY EXPERIENCE

Founder & Council Member: The International Society of Digital Medicine

Editorial Board Member: The Journal of Digital Medicine

Peer Reviewer: Computer, NeurIPS Venture Partner: 1000 Angels

Senior Scientific Advisor: The Future Society's AI Initiative, Diversity.AI Membership & Fellowship Assessor, BCS, The Chartered Institute for IT

Judge: The ANA Avatar XPRIZE

Advisory Board Member: Public Health and Longevity, Effective Altruism Ventures, GiveVision, LifeBoat Foundation Advisor: The Millennium Project Global Futures System, Good Judgment Project, The Future of Sentience Society

Advisor: Backstage Ventures, Science Capital, Warwick Entrepreneurs, A.I. Dragons, A.I. Black Belt, Graviky Labs, Dbrain,

Mentor: Startupbootcamp, TechMall accelerators

LANGUAGES