





Summary

Dr Stephen Castell FIMA MInstP MBCS MCMI CPhys MIoD CITP MEWI Chairman, CASTELL Consulting

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Dr Stephen Castell CITP, Medallist, *IT CONSULTANT OF THE YEAR* (BCS Professional Awards), is an internationally acknowledged independent ICT expert, management consultant and project manager, with extensive experience in risk assessment, quality assurance, and insurance and dispute resolution considerations, in regard to complex and large-scale ICT systems, technology, investment, contracts, implementation projects and operations. As a globally renowned Expert Witness in ICT disputes he has been involved in a wide range of systems & network development/installation, IP (e.g. patents, copyright, trade secrets), and data forensics litigation. These cases have included the largest and longest ICT systems contract actions to be tried in the English High Court.

Widely published, and a Correspondent of the *Computer Law and Security Report*, his seminal paper "*Forensic Systems Analysis: A Methodology for Assessment and Avoidance of IT Disasters and Disputes*" was issued as a *Cutter Consortium Executive Report*, Enterprise Risk Management & Governance Advisory Service series (Vol. 3, No. 2, March 8, 2006).

Dr Castell has also established a reputation in the building of multimillion pound businesses in voice and data communications, and in broadcasting, information, media and software services, having acted as Business Development Consultant for and on behalf of both the BBC and BT. In the early 1980s he was a pioneer of the Over The Counter Market in the UK, responsible for assessing several hundred high-tech and telecommunications companies in a 5-year period, in preparing their flotation prospectuses, and serving as Non-Executive Director. In 1982, he was founder Technical Director of the venture capital funded *International Communications Technology Holdings SA*, based in Luxembourg and listed in London, and was Chairman of its UK subsidiary *Telephone Broadcasting Systems plc*.

https://archivesit.org.uk/interviews/stephen-castell/

Accredited Member, Forensic Expert Witness Association, Los Angeles Chapter



CORP AMERICA Expert Witness of the Year 2016 (Risk Assessment & Management)

LAWYER Expert Witness

Computers Expert Witness of the year

tmt

BEST INDEPENDENT ICT PROJECT MANAGER 2016 – UK

A *Acquisition International* 2016 Excellence Award Most Outstanding Independent ICT Project Manager 2016

A *Acquisition International* Expert Witness of the Year 2016 Award Leading Expert Witness from the United States

Committee Member, Programme Development & IT Professionalism, British Computer Society Law Specialist Group http://www.bcs.org/category/10868

http://realmedia.press/looks-like-signature-i-never-signed-berrys-rbs/

'IT LOOKS LIKE MY SIGNATURE, BUT I NEVER SIGNED IT' – THE BERRYS & RBS By Real Media - February 16, 2017 ... DR CASTELL 'I wanted the best', says Mark Berry, 'We'd never had this document. The loan was based on the limited customer account. We searched the Internet and found an expert called Dr Steve Castell who had been involved in fraud cases in Australia." Castell seemed to fit the bill. He was an award winning IT Consultant with extensive experience in complex IT systems and dispute resolutions, including previous work as an expert witness. He'd published several papers on his areas of expertise and worked as a correspondent for the Computer Law Society and Security Report. ...

Recent Illustrative Expert Assignments

1. December 2017: Appointed Technical Expert by the Permanent Court of Arbitration, ICC Paris, in regard to a dispute between a Global US Manufacturing Corporation and a Sovereign State concerning transfer of undertakings and business between countries, to carry out authentication of circulation and signing of a key electronic document, necessitating identifying, verifying and examining many document creation and transmission systems, and data archives, dating back seven years. Dr Castell's Preliminary Report successfully assisted the Tribunal in making its determination.

2. November 2017: Shortly after completing his Expert's Report for attorneys in Midwest USA, in connection with an Arbitration of a software contract dispute involving a major US manufacturing company and an international ERP software vendor, Dr Castell was informed by the attorneys that the case, with \$multi-million claims, had settled, saying "*I'm happy to report that we were able to resolve this dispute today. We sincerely appreciate the efforts that you put forward within a very challenging time frame. ... your report was critical in getting the Claimant to reduce the amount of their claim. Thanks again for your superb work".*

3. 2015-2018: Appointed expert on behalf of Limited Liability Partnerships, instructed by Chartered Accountants, in connection with a dispute with HMRC in the UK, heard by the First Tier Tax Appeals Tribunal in January 2018, concerning £100m+ investments in and valuation of software packages and businesses, and capital allowance aspects thereof. Dr Castell was cross-examined at the Hearing on Monday, January 22nd, 2018. The software was in financial services/stock exchange trading, and online betting and gambling, application areas. The case necessitated intensive technical effort and examination in regard to software reconstruction and re-establishing real-time software execution and operability, for systems originally developed 10+ years ago, in Asia, the USA, and Australia. This presented many significant challenges, but the systems were successfully resurrected, allowing validation of software functionality, and the carrying out of live demonstrations of online trading transactions, towards underpinning a reasoned and objectively justifiable commercial valuation of the software. https://www.pumptax.com/wp-content/uploads/2018/10/Decision-TC.2011.01672-TC.2012.03780-Daarasp-LLP-Betex-LLP-13-September-2018.pdf

4. November 2013-June 2014. Expert in the English High Court case *EYG v Technal,* T&CC, Claim No HT-13-64, on behalf of RSA PI insurers, concerning software for calculating 'U Values' for windows used in a London residential development, and the problems encountered from condensation in dwellings in that development alleged to be due to incorrectly determined U Values. A detailed analysis was carried out of the allegations, the BSI/European building and insulation standards applicable, and the physics and mathematical modelling involved, together with the software applications written and how they were used, with what data etc. Dr Castell's preliminary reports and affidavits served to persuade the software supplier to cease its claim that its methodologies had been sound, and the dispute proceeded to settlement through mediation.

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5. Completion in April 2014 of a 100-page report as Single Joint Expert for *Anglo v Paloma*, Mayors and City of London County Court Case No: 2MY500008, examining a copy of the online recruitment industry software in dispute and reporting on its content and functionality, providing expert views on the alleged defects or inadequacies highlighted in the amended Particulars of Claim, as expressed in a jointly-prepared Scott Schedule (as regards the format and scope of which Dr Castell provided quidance to both parties and their legal advisers).

6. During 2012-2013, instructed by US law firm *Patterson Thuente Pedersen, P.A.,* expert research was carried out by Dr Castell on early devices, software and systems in regard to applications providing online/mobile surveys/questionnaires/feedback. This was in connection with identifying Prior Art, on behalf of *Kaspersky Lab*, for a significant US Patent case, which concluded in October 2013, achieving a remarkable outcome for the 'patent troll industry':

http://arstechnica.com/tech-policy/2013/10/patent-troll-lodsys-chickens-out-folds-case-rather-than-face-kaspersky-lab/ by Joe Mullin - Oct 2 2013

In 2011, Lodsys seemed like it was working hard to earn the title of the nation's most-hated patent troll by sending threat letters to small developers. ... After settling dozens of cases, the patent-holding firm finally ran into one man who was willing to face it down in front of a jury: Eugene Kaspersky, founder of Kaspersky Lab. Lodsys decided over the weekend to dismiss its case against Kaspersky with prejudice. ... It was an unconditional surrender. "There was no settlement with Lodsys," Kaspersky's lead lawyer, Casey Kniser, told Ars in a phone interview ... Lodsys has claimed that anyone using basic online business techniques such as "in-app" purchases or even customer feedback forms owe it money for its patents. After two years of threats, Lodsys was finally going to have those outlandish claims tested in front of a jury ...

7. A standout ongoing US case concerns a software fault that occurred during computer-based Bar Exams, for which Dr Castell has given a *pro bono* expert opinion on behalf of Jonathan Bolls, a US Bar Exam student, negatively affected by that software fault, who is involved in a continuing campaign in the US courts, described in his blog: http://jonathanbolls.blogspot.co.uk/. This dispute clearly critically concerns the reliability and forensic accountability of computer systems used for computer-based testing for Bar Exams in all of the fifty states of the US.

8. During the first half of 2010, Dr Castell was appointed expert on behalf of one of the largest international oil industry companies in its dispute over the quantum of damages appropriate for replacement of a Government Data Centre after its destruction in an explosion, with a claim for over £10m. Expert audit, loss verification, capacity assessment, and analyses and 'technical refresh cycle' modelling of a schedule of hundreds of items of high-end mainframe, server and datacommunications ICT equipment were carried out. Dr Castell's expert report, served into Court, provided professional quantitatively and commercially justified technical estimates and opinions as to the proper replacement values. As a result, settlement of the dispute on satisfactory terms was achieved days before a trial was due to start in the English High Court.

9. In July 2010 Dr Castell was appointed expert in a high-profile IT systems contract case in the NSW Supreme Court, Sydney, Australia, concerning the failed 'TCard' *Integrated Ticketing and Transport System* project there. This, the largest complex software development contract case to date in Australia, involved a claim for AU\$90m, with a cross-claim for AU\$200m+. Dr Castell's initial expert's report was produced in February 2011, with a Further Expert Report submitted in response to the other side's expert's report, and then an 'Expert Conclave' process getting underway in December 2011 towards producing a Joint Agree/Disagree Report. The case was scheduled to commence trial in mid-February 2012, but settled just days before, partly as a result of the Expert Reports that Dr Castell had produced, together with his insightful and robust conduct of the 'Expert Conclave' process. http://m.smh.com.au/it-pro/government-it/tcard-battle-settled-out-of-court-20120217-1tegm.html

Assessments by Clients, and the Courts

Dr Castell has been a long-standing provider of independent, professional consultancy and effective business improvement services in technology, software and systems, telecommunications, broadcasting, marketing and the media. As a skilled Expert Witness with an international reputation, he is highly experienced in all aspects of computer, systems and telecommunications disputes and litigation, well-known to and respected by legal professionals and clients worldwide. He is also an entrepreneurial new business development specialist.

Clients have said: "Dr Castell is in many respects unique in the totally professional and stunningly effective way he makes things happen and gets things done for his clients and business partners. If you want results, economically, on time, and with high quality implementation, go to Dr Castell".

"thank... you for your incredible commitment, professionalism and hard work in advising and assisting the Company ... you and all your team have worked far and away beyond what could reasonably have been expected of you ... the skill and expertise of our advisers ... achieving a successful outcome. Many thanks ... for your all your advice, assistance and support". Andrew Cooper, Head of Legal Services, *AirTours* (now *MyTravel plc*), 2001, in re the *Airtours* -*v*- *EDS* litigation, the largest software and systems development/outsourcing contract action to have come to trial in the English High Court, with a £200m+ Claim and £50m+ Counterclaim.

In his Judgment of 03 May 2005, HHJ David Richards said "I found Dr Castell to be an honest and conscientious witness" ([2005] EWHC 749 (Ch)); and in his Judgment of 05 July 2005, The Hon. Mr. Justice McKinnon referred to "Dr. Castell's helpful report" (Case No: HQ0101509; Neutral Citation Number: 2005 EWHC 1334 (QB)).

Personal Attributes

"His key attributes are:

- A real expert in large scale/complex computer software products.
- An ability to understand the perspectives of both supplier and customer.
- Someone who recognises the inherent complexities in achieving a satisfactory implementation of large bespoke contracts and, as importantly, the difficult technical elements therein.
- Outspoken and very fair in opinions given objective in all he does regardless of who is paying.
- A pioneer in the forensic science of software systems analysis, bringing a large intellect and access to a team of experts in different fields of technology." *Director, Main Board of a major listed plc*

Other Key Words and Phrases Used by Clients

Analytical • Creative • Practical • Professional • Rigorous • Thorough Reliable • Dependable • Performing • High-Quality • Reputable • Successful Diligent • Resolute • Constant • Inspired • Unselfish • Enthusiastic • Decisive Independent Thinker • Authoritative • Scholarly • Thought-Leader • Capable. Track-record for multimillion financial business development achievements on behalf of clients • A Natural Leader & Manager • Established Public Profile and Standing Pioneer • Do-er • Achiever • Respected • Supportive • Effective Team-Builder.



Dr Stephen Peter CASTELL

Management, Financial and Business Development, Economics and Investment Consultant.

Experienced Practitioner and Manager in Information Systems, Computer and Communications Software, Technologies, Industries, Economics, Legislation and Regulation; Broadcasting, Media, Telecommunications, Internet, E-commerce. New Entrepreneurial Business Development Specialist. Expert Witness. CEDR-Trained Mediator, ICC Arbitrator, Expert Determiner. On the List of Experts of the Arbitration and Mediation Center of the World Intellectual Property Organization, Geneva.

Personal

Married (to a Solicitor & CEDR Mediator: Senior Lecturer, Inns of Court School of Law, London, 2000-2006; Skills Training Professional, *Lovells*, November 2006). Deceased 02 March 2008:

Obituary in the Law Society Gazette: http://www.lawgazette.co.uk/news/obituaries-91)Children: four - 44, 43, 40 and 32 years oldBritish Passport and Driving Licence

Education

University of Nottingham PhD in Mathematics : "Certain Transformations in Gas- and Magnetogas-Dynamics". Whole of PhD thesis published in international mathematics/physics journals. Postgraduate Prizewinner. MSc in Mathematics (Computer Science and Fluid Mechanics)

University of London

BSc First Class Honours in Mathematics, Physics and Psychology

Schooling

Hamond's Grammar School, Swaffham, Norfolk 11 'O' Levels, 2 'A' Levels. House Captain. Athletics *Victor Ludorum*. Prince Rupert School, Wilhelmshaven, Germany Magnus Grammar School, Newark, Nottinghamshire

Career

1978 to present: Chairman, Castell Computer and Systems Telecommunications Ltd ('CASTELL' or 'CASTELL Consulting')

Own independent consultancy company. *CASTELL* specialises in the strategising, planning, management and development of businesses in information and communications technologies, broadcasting and the media, and in analysing and influencing the financial, market, economic, regulatory and legal factors which affect them. It undertakes professional consultancy in IT and communications software/systems development, economics, management and strategy. Dr Castell is in particular well known for the high quality and effectiveness of his work as an Expert Witness in major computer software and systems litigation having developed powerful techniques of *Forensic Systems Analysis*, and having achieved a special reputation in researching computer law and evidence issues. He has a track-record for business development/management in the fields of professional services, e-commerce/the internet, new media, databroadcasting, satellite, digital television, and image, voice, data and multimedia communications, particularly for entrepreneurial new companies and corporate venturing.

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Previously:

- Manager, Group Management Services
- Bremar Holdings Ltd, international merchant bankers
- Consultant, Touche Ross & Co, Management Consultancy
- Senior Mathematician, Bearing Research Centre, RHP plc
- Applied Mathematician, Chalfont Park Research Laboratories, BACo plc.

Publications

A large number of papers and articles in national, international, professional, trade and technical press on IT, mathematical, technology, finance and investment subjects. Bestseller book "*Computer Bluff*", 1983. "*The APPEAL Report*", May 1990, a major study commissioned by the CCTA (H M Treasury) on admissibility of computer evidence in court and the legal reliability/security of IT systems. Numerous letters published in e.g. *The Times* and *Financial Times* on business, finance, technology, communications, science and law topics. Many appearances at International Conferences to present papers on e.g. information services, software, databroadcasting, satellite business services, digital television, computer evidence, venture capital, enterprise management, litigation and ADR. Author and Presenter of '*Avoiding IT Disasters – the Expert Way*' Course, first held Nice, France, March 2005.

Other Qualifications

Languages

CITP – Chartered IT Professional FIMA, MInstP, MBCS, MCMI, CPhys, MIoD Law Society's Directory of Expert Witnesses Member of the Expert Witness Institute

Working knowledge of French and German

Awards

Medallist, *IT CONSULTANT OF THE YEAR*, British Computer Society IT Professional Awards.

Recreations

Business, Family. Swimming, Music, Sailing, Golf, Tennis. Patron, *London Cantamus Bach Choir and Orchestra* Past Parent School Governor, 1982-1985. Endowed "*Castell Computer Creativity Contest*".

Member, Real Time Club Past Member, Working Groups of British Computer Society's Strategy Review Panel Committee Member, British Computer Society *Law Specialist Group* Past Member, British Computer Society *Legal Affairs Committee* Correspondent Panel Member, *Computer Law and Security Report*.

Links

http://www.e-expertwitness.com http://www.computerweekly.com/Articles/2005/09/13/211761/Disasterbutnorecovery.htm http://archive.bcs.org/bulletin/dec96/seek.htm

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Dr Stephen Castell is a leading UK professional consultant, and business builder, in the convergent 'digital domains' of IT, telecommunications, broadcasting and the media and has for 40 years been Chairman of *CASTELL Consulting*, his own consultancy company. He specialises in the strategising, planning, management and development of systems and businesses in information and communications technologies, broadcasting and the media, and in analysing and influencing the financial, market, economic, regulatory and legal factors which affect them. He has established a special reputation in voice telephony and in satellite communications, databroadcasting and value-added services and businesses; and in discussing the 'legal reliability' of information systems and technologies. As an Expert Witness in IT&T disputes and litigation, he has been involved in a wide range of cases including the largest and longest software development contract trials in the English High Court and Sydney Supreme Court. He is also a (CEDR-trained) Mediator and (ICC) Arbitrator.

CASTELL Consulting's clients have included:

Airtours plc (Expert Witness in its £250m action versus EDS, 2001)

Axon Solutions Ltd (Expert Witness on behalf of *Hiscox*, its PI Insurers, in re Part 20 Defendant in the definitive action *W H Smith versus Fujitsu Siemens Computers* concerning UK's largest SAP implementation).

British Broadcasting Corporation (BBC Data; Telecoms/Broadcasting Regulatory & Business Strategy).

BBC Enterprises Ltd (BBC Datacast; BBC Eurocast/OLYMPUS Satellite).

British Telecom plc (New Venture Business Development; Satellite Services).

BT Syntegra (Expert Witness in actions: Ministry of Defence; and SwapsWire, High Court, 1999-2002). Cable and Satellite Telecommunications Ltd (National Transcommunications Privatisation; Channel 5 TV

Licence Bid). Central Computer and Telecommunications Agency (CCTA, H M Treasury, British Government). Cincinnati Bell Information Systems Ltd (Cable TV/Telephony Systems and Services).

Department of Trade and Industry, British Government (Telecoms Product Development; VANS Licensing). **ERG/ITSL (Expert Witness: AU\$270m action v PTTC, Supreme Court of NSW, Sydney, Australia, 2012).** European Commission/BT Tallis (INFOSEC Trusted Third Party Services). European Space Agency (Satellite Databroadcasting). France Telecom (New Venture Strategic Advice; AT&T Telemarketing).

GEC-Marconi (Expert Witness: action *versus* London Fire & Civil Defence Authority, High Court, 1992). H M Treasury (Expert Witness - Lord Chancellor's Department in its action *versus* Price Waterhouse). HSR, Milan (Expert Witness: action *v.* ACT Medisys re Hospital Information System for large Italian Hospital). International Chamber of Commerce, Paris (Arbitrator in 3-man ICC Arbitral Tribunal, European litigants). INFOCAST/Citibank (Databroadcasting Strategy). London Ambulance Service (Expert Witness in its action *versus* CAP-CGS). Mercury Communications Limited (National Transcommunications Privatisation). Misys plc (Expert Witness: major cases in the UK, Italy, Ireland and Australia; Business/Product Strategies). Motorola (Mobile Communications Interconnect & Licensing). Pearson Group plc/FT (Databroadcasting). Personal Communications Networks: Mercury PCN and Unitel.

SAIT Electronics SA, Belgium (Satellite Communications and Databroadcasting Development).

Superdrug Stores Plc (Expert Witness in its actions *versus* TEC UK Ltd, High Court, 1994). The Meteorological Office, UK (New Business Development: Data/Databroadcasting Services).

The Press Association, London (Satellite Data Distribution).

Transfield Obayashi Joint Venture (Expert Witness in regard to Australia's largest infrastructure project, *Melbourne Citylink*, 2000).

United Arab Shipping Company S.A.G., Kuwait (Expert Witness: software action v BIDM Inc, New York).

A noted business and financial innovator, with a background in mathematics, industrial research and merchant banking, Dr Castell has a reputation for initiating, leading or assisting in building multimillion pound businesses in voice and data communications, and broadcasting, information and software services. He was a pioneer of the Over The Counter Market in the UK, responsible for assessing several hundred high-tech and telecommunications companies in a 5-year period, in preparing their flotation prospectuses, and serving as Non-Executive Director. In 1982, he was founder Technical Director of the venture capital funded *International Communications Technology Holdings SA*, based in Luxembourg and listed in London, and was Chairman of its UK subsidiary *Telephone Broadcasting Systems plc*.

Dr Castell has presented papers at many International Conferences, for example, SATELCOM '91, Bucharest, Romania, the first pan-European satellite communications conference co-sponsored by the European Broadcasting Union (EBU), the European Space Agency (ESA) and Eutelsat. Another was the *First World Congress Multimedia*, Barcelona, October 1993, with his presentation "Channel 5 - A national digital broadband communications highway". He is a prolific author on business, technology, legal, regulatory and financial matters and a correspondent for **The Computer Law and Security Report**. He wrote the best-selling **Computer Bluff** (1983), and **The APPEAL Report** (1990) on the admissibility of computer evidence in court, and is a past contributor to Sweet and Maxwell's *Encyclopedia of Information Technology Law*. In 1980, in one of many letters published in the *Financial Times*, he coined the term **Business Television**.



CASTELL Consulting

Founded 1978. Independent, professional consultancy services in software and systems, telecommunications, broadcasting, marketing & the media. Expert Witnesses experienced in all aspects of computer disputes and litigation, well-known and respected by legal professionals internationally. Entrepreneurial new business development specialists. Clients say: "CASTELL is in many respects unique in the totally professional and stunningly effective way it makes things happen and gets things done for its clients and business partners. If you want results, economically, on time, and with high quality implementation, go to CASTELL."

Dr Stephen Castell New Business Development Consultancy Experience and Illustrations

From 1978 CASTELL - Director

My own personal consultancy company. I have initiated, directed and managed sales and marketing operations of my own and my clients' businesses. I have resourced and directed senior professional consultancy teams working for example on major computer software development litigation projects. CASTELL has also built a unique reputation for 'visionary' trend-spotting, software and communications industry thought-leadership, and high-quality, entrepreneurial yet professional, business development and project implementation.

[I long ago identified for example: 'passive tagging' for entity ID and location, 'communications infostructures' (eg digital broadband superhighways), and multimedia user empowerment (including voice recognition and virtual reality), as future new drivers of computer software development, systems integration and process reengineering imperatives].

1978 - 1984 Infolex Services Limited - Director

I co-founded this company with Neil Maybury, solicitor, as my partner. It was the UK's first commercially-available computer-assisted legal information retrieval service for practising lawyers (CLARUS and STALUS databases covering English Case Law and Statutes). I sold the first subscriptions entirely by telephone and organised conferences, exhibitions, demonstrations, press coverage, etc. I later built a sales and management team. Infolex contributed to business organisation reengineering of solicitors' and barristers' practices through development of legal IT/office technology and information services, achieving an international reputation in this field. In 1984 the company was sold-out at a profit to Wolters Kluwer.

1978 - 1983 CASTELL Client: Harvard Securities plc - Consultant

Harvard was the UK's largest licensed dealer in securities, serving 40,000+ private investors on an entirely non-discretionary basis. I was well-known in the City as its Consultant and, with e.g. Sir Marcus Fox MP, was one of several external independent advisers.

I assisted in launching the professional Over-The-Counter (OTC) share market in the UK. At my own initiative I identified, contacted and evaluated over 400 smaller high-tech companies and their business/sales plans. I negotiated, developed and assisted in public flotation processes. Many companies of my introduction/evaluation were floated eg Micromite plc, Godwin Electrical plc, Bleasdale Computers plc, Design Furniture Group plc. I served as Non-Executive Director and/or Business Development Consultant to several such companies.

The introduction of the OTC in the UK led to the development by the London Stock Exchange (LSE) of the USM and then Third Market. In 1995 these developments were once again revived by the LSE (despite the TAURUS debacle, SEAQ-replacement review and CREST delays) with its commencement of AIM. This was followed by for example OFEX, the 'import' of the US OTC Nasdaq system, and its European version Easdaq, and a planned merger of the LSE and Frankfurt Stock Exchange.

1985 - 1991 CASTELL Client: BBC Enterprises Limited - Business Development Consultant

BBC Enterprises was the wholly-owned £250m t/o subsidiary of the British Broadcasting Corporation. I built from scratch the *BBC Datacast* professional databroadcasting business, effectively acting as Managing, Marketing and Sales Director. I achieved a £3.5m t/o business from zero within 3 years, securing long-term contracts with blue-chips such as London Stock Exchange, Coral Racing and Post Office Nu-Media. This placed BBC Datacast firmly on the international datacommunications business 'map', as the market-leader in Europe in point-to-multipoint information and communications services.

I initiated professional sales promotion activities and designed, appeared on and chaired many international conferences/seminars etc. I defined and implemented internal sales monitoring, leadbank, etc. management information systems. I hired a full-time Sales and Marketing Manager when the business was established.

I advised on and drew up detailed business plans and strategies for a number of other BBC Enterprises business ventures: eg 'BBC Videocast' (use of overnight transmission hours, subsequently launched as 'BBC Select') and 'BBC Satcast' (SSSO Licence Application). I initiated and negotiated unique OLYMPUS DBS satellite contracts with the European Space Agency, involving *interalia* personally obtaining the agreement of the Austrian Communications Minister for use of Austria's WARC-allocated DBS Channel 20.

1986 - 1990 CASTELL Client: British Telecom plc - Business Development Consultant

I provided proactive, 'catalytic' counsel to the General Manager, Government National Accounts (a £300m t/o business, then the largest UK corporate national sales division within BT), in assisting him define and implement his own division's, and his customers', business communications processes and culture reengineering strategies and techniques. I produced new value-added services and systems-integration business development, sales strategy, sales prospecting programmes for BT Account Management and other sales and professional staff.

I identified several strategically important new business areas and new business 'styles', and structures, for BT to migrate towards, and also to enter dramatically. These included EDI, databroadcasting, satellite business services, intelligent voice services. Specific industry sectors, national and international, were closely researched - and actively penetrated. One of the most visible achievements was the ACCESS-UK Group: I managed BT's sponsorship of this definitive pan-industry tourism and travel project, serving as founder Technical Task Force Leader on the 4-man ACCESS-UK Board under the Chairmanship of Sir Colin Marshall, CEO, British Airways.

I developed a novel 'corporate venturing' strategy and action programme for the BT UKC Board and was mandated to form a new company on BT's behalf to launch an innovative form of software and datacommunications business. This was subsequently put on hold in the light of the 'SOVEREIGN' BT-wide reorganisation. For BT Vision (subsequently BT Broadcast and Visual Services), I developed an extensive Business Plan, including Products, Sales, Sales Management, Corporate Structuring details, for a new point-to-multipoint satellite venture.

In summary, over some 30+ years a track-record has been established by Dr Stephen Castell not only for delivering professional consultancy and business development counsel services of high quality and undoubted reputation, but also for directly and actively conceiving, introducing, marketing, selling, and/or managing the sales and business processes of well over £20m of personally-accountable products, services, companies or projects.

Dr Stephen Castell CITP: Significant Criminal Case Involvement

Crown Court – Criminal Prosecution for Theft. An Expert Report was produced and served on behalf of the Defendant who, when employed by a major retail store chain, allegedly made fraudulent credit card refund transactions to his own credit card using the store's electronic till system. Expert technical investigations revealed that the design of the system was such that it was 'neutral' as to whose credit card could be used for such refunds and no system security checks were made nor audit trail produced. It was therefore not possible to prove beyond any reasonable doubt that the Defendant had made such erroneous refunds deliberately, and with criminal intent, rather than by innocent mistake, or even due to a sporadic system malfunction. The findings of this expert investigation were clearly reported by Dr Castell to the court and (most unusually) were fully accepted by the Prosecution without any need for cross-examination, assisting in achieving a Not Guilty verdict from the Jury.

This case reveals some potentially serious security and integrity issues concerning credit card refund transactions in the retail sector. The store chain in question utilised, without any customisation, a leading \mathcal{J}^d -party credit cardswipe and pinpad authorisation package widely employed in electronic till systems across the whole retail industry.

Dr Stephen Castell CITP: Significant US Case Involvement

Digital TV/Databroadcasting - US Patent Actions. Dr Castell has been appointed in re defending patent infringement actions (i) as consulting expert on behalf of *DirecTV* concerning US Patent No. 5,404,505; and (ii) as testifying expert on behalf of EchoStar (and *Hughes, DirecTV*, and *Thomson*) concerning US Patent No. 6,076,094. Expert investigations, evidentiary documents and insightful analyses have been provided on prior art and inventive step, as regards possible invalidity of the respective patents, from the perspective of *inter alia* Dr Castell's unique professional and business involvement in the launch and development of the international *databroadcasting* industry, and associated innovative data broadcast systems and design techniques (for example, in his high-profile role as *Business Development Consultant* to the British Broadcasting Corporation for *BBC Datacast*, 1986-1992).

Dr Stephen Castell, Chartered IT Professional and Member of the Expert Witness Institute, is Chairman of *CASTELL Consulting*. He is an internationally acknowledged independent computer expert who has been involved in a wide range of computer litigation over many years. After receiving a First Class Honours Degree in Mathematics, Physics and Psychology from the University of London, **Dr Castell** carried out research in Mathematics (Computer Science and Fluid Mechanics) at Nottingham University, where he was awarded an MSc, and prizewinning PhD. He was a senior applied mathematician and research manager in industry before joining Touche Ross & Co as a Management Consultant, working on a variety of commercial computer systems projects, particularly in the banking and finance sectors. Prior to forming his own IT management and financial consultancy, *CASTELL Consulting*, he was for three years Group Management Services Manager for Bremar Holdings Limited, international merchant bankers, involved also in corporate finance and venture capital.



CASTELL Consulting, provides independent professional consultancy and expert services in computer systems, software, project management, strategy, contracts and disputes, to a wide variety of international clients and companies. As an Expert Witness in computer litigation **Dr Castell** has acted in many cases including the largest and longest computer actions to have come to trial in the English High Court. He is the author of the best-selling *Computer Bluff* (1983), and of *The APPEAL Report* (1990) on the admissibility of computer evidence in court and the 'legal reliability' of information systems and technologies (with the CCTA).

Disputes over failed software construction projects raise interlinked technical and legal issues which are complex, costly, and time-consuming to unravel – whatever the financial size of the claims and counterclaims, the facts and circumstances of the contract between the parties, or the conduct of the software development. *CASTELL Consulting* has been involved as Expert in a wide variety of such disputes. The practice is regularly instructed (in the UK, Europe, the Arabian Gulf, Australasia, and the USA) in substantial legal actions over contracts which are *terminated*, with the software *rejected* amidst a considerable range and variety of allegations expressed by both supplier and customer. These include allegations of *incomplete or inadequate delivery*, *software or database errors, faulty design, operational or performance deficiencies, shifting user or business requirement specifications, poor project management, delays and cost over-runs*. This Expert work, in some 200 cases over the past 25 years, is routinely for Claimants and Defendants; systems/software customers and suppliers; in the High Court, or in Arbitration and Mediation, or other forms of ADR. **Dr Castell** is also himself experienced as a (CEDR-trained) Mediator and as an ICC Arbitrator.

One of the most important issues on which a party's Expert, or a court-appointed Single Joint *Expert*, is asked to give an expert opinion in software development or implementation cases is: what was the quality of the delivered software and was it fit for purpose? To answer this, and other equally crucial technical questions posed in software contract cases, CASTELL *Consulting* has over the years developed a range of rigorous analytical techniques, *Forensic* Systems Analysis, for assessing failed, stalled, delayed or generally troublesome software development and implementation projects. These techniques, founded on sound software engineering principles, are objective and impartial, favouring neither customer nor supplier, software user nor software developer. This objectively justifiable and properly unbiased approach is particularly important where software projects involve a mixture of 'customised' software packages and 'bespoke' software construction. These techniques are becoming internationally accepted and an account of the Forensic Systems Analysis methodology was first published in the October 2000 issue of Charter, the Journal of the Institute of Chartered Accountants in Australia (and are to be further promulgated on the forthcoming website www.ForensicSystemsAnalysis.com). The methodology also brings principles of project management to the conduct of litigation, arbitration or ADR processes, and Dr Castell can assist lawyers handling cases for clients with introduction of rigorous, timely and costeffective 'dispute project management' techniques, checks and deliverables.

Dr Castell is the Author and Presenter of the 'Avoiding IT Disasters – the Expert Way' Course, first held Nice, France, March 2005. He is the author of the much-cited seminal article, 'The future decisions of RoboJudge HHJ Arthur Ian Blockchain: Dread, delight or derision?', Castell, S. (2018), Computer Law & Security Review, Volume 34, Issue 4, August 2018, Pages 739-753, the Landmark 200th issue of CLSR under the Editorship of Emeritus Professor Steve Saxby. https://doi.org/10.1016/j.clsr.2018.05.011.

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