

# SCRIPT Centre for IP and Technology Law Report to School of Law, 2016-17



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## Cover of SCRIPT-ed 2016

### **The Centre:**

SCRIPT is a Research Centre for IP and Technology Law that explores the intersection between law, technology and society from a multidisciplinary and multi-jurisdiction perspective. In its first incarnation, as the “Shepherd and Wedderburn Centre for Research in Intellectual Property and Technology Law” it started in 1998 as a centre of excellence in the disciplines of intellectual property law (IP) and information technology law (IT). From 2002 to 2012, it was generously supported by two consecutive grants by the Arts and Humanities Research Council. It is currently founding member of the RCUK funded CREATE network on copyright in the creative industries.

### **Current Membership:**

### **Academic members**

Edinburgh members: Burkhard Schafer (Director), Smita Kheria (Co-director IP), Judith Rauhofer (Co-Director IT), Rachel Craufurd Smith (Co-director Media) , Jane Cornwell, Emmanule Oke, Nicholas Jondet, Paolo Cavaliere Gerard Porter, Shawn Harmon, Nayha Sethi, Hector MacQueen,, Richard Jones

### **Postgraduate Student members:**

Leslie Stevens, Evgenia Kanellopoulou, X. Hernandez, Jack Beattie, David Komouves, Jesus Niebla, Daniel Torres Goncalves Narondeck , You-Hung Lin Michael Morris, Nevena Kostova; Laurence Diver, Matt Jewell, Jiahong Chen, Wenlong Li, Humberto Carrasco, Pepe Guerra

**External members:** Daithí Mac Síthigh, Wiebke Abel, Jamil Ammar, Yolande Stolte

### **Guest visitors**

Reka Markovich, assistant Professor at the Department of Business Law at the Budapest University of Technology and Economics (BME), and also lecturer at the Department of Logic at the Eötvös Loránd University (ELTE) is visiting the Centre from February to August 2017. She will be working with Burkhard Schafer on the formalization of rights (basing on the Hohfeldian fundamental legal conceptions), paying special attention to the logical structure of human rights. A very warm welcome to her and we hope she will enjoy her stay!

Giorgia Guerra (University of Padua)"visited the Centre in December 2016 and had discussions with SCRIPT and Mason Institute colleagues regarding legal issues in robot medicine.

### **2016/17: A year in review**

The reporting year 2016/17 began with the Brexit vote, and inevitably Brexit cast a long shadow also over the activity of last year, with continuing uncertainty over the legal status of half the SCRIPT core team. Despite, or because, of this, 2016/17 saw a flurry of activities aimed at consolidating the position of SCRIPT as an internationally leading research centre in IT, IP and Media law.

Europe provided not only news, but also significant funding success, when SCRIPT became partner in a Dundee-led application to Nordforsk, an organisation under the Nordic Council of Ministers that provides funding for and facilitates Nordic cooperation on research and research infrastructure. Nordforsk will support the multinational consortium with partners in the UK, Finland, Demark and Norway over the next three years with over 1m euro to explore the use of advanced surveillance methods in northern Europe.

The international theme also continued in the activities of SCRIPT members, who gave talks as nearby as Herriot Watt University and as far away as Kenya, Bogota and Mexico. All in all, more than 30 papers and presentations were given in Kenya, Mexico, Bogota, France, Italy, Germany, Portugal and Austria.

We in turn opened our door to the world and welcomed speakers and visitors from Hungary, the US, Italy, Belgium, the Netherlands, Mexico, France, and Ireland. New collaboration agreements were reached with France, Mexico, China and Estonia.

SCRIPT was able to build on its success from 2015 also when it came to academic awards and recognitions, with members winning the Google best postgraduate paper award at the BILETA conference in Braga, Portugal, second place and a shortlist place at the Lexis Nexis best paper award at IRIS Salzburg, and best student paper at the AIPP essay competition on Artificial Intelligence and IP law.

In total, SCRIPT core members and postgraduate members published 20 papers across a wide range of topics and disciplines, from data protection to the empirical study of IP litigation, from media regulation post-Brexit to the logical representation of copyright law in autonomous software agents.

In addition to its contribution to the academic debate, SCRIPT and SCRIPT-members keep shaping the way law and society responds to technological change. Members served in the ethics and law steering groups of national and international initiatives such as the EU funded Innovative Medicine Initiative or the UK's Alan Turing Institute and engaged with industry through membership in working groups of the Royal Academy of Engineers, consultancy work for major law firms or advice to foreign governments. SCRIPT members shared their knowledge and expertise with artists, programmers, judges, government officials and industry in a range of events, joint activities or dedicated training initiatives. They addressed also members of the public through a wide range of public engagement events such as film screenings, public talks and participation in festivals and symposia.

Within the university, Script was part of two new exciting initiatives – the launch of a new Centre on Blockchain technology at the School of Informatics and the Application for ACE status of the Centre for Cyber Security Research, one of the many university research groups with overlapping membership. We supported the digital agenda of the university through participation in the digital day of ideas and through participation in steering groups and committees on all levels of the university

### **Funding news**

**Featured: “Taking surveillance apart?: Accountability and Legitimacy of Internet Surveillance and Expanded Investigatory Powers”**

In May, work started on a project funded by Nordforsk, the funding council of the Nordic Council of Ministers, with euro 1107301 for 3 years (38.000 to Edinburgh)

“Taking surveillance apart? Accountability and Legitimacy of Internet Surveillance and Expanded Investigatory Powers” will explore questions of surveillance and the law from the dual perspective of “borders” and “space”, with partners in Denmark, Norway, Sweden and Finland and involving computer scientists, geographers, social scientists, police officers and lawyers. SCRIPT will be represented by Burkhard Schafer as one of the Co-Is.

### **Other funding:**

Rachael Craufurd Smith was invited, together with Paolo Cavaliere, to research and write the UK media plurality report for the Media Pluralism Monitor. This is a major 30 plus country study of trends relating to media freedom and independence in Europe (with 200 indicators), funded by the EU. It will thus track developments such as the impact of anti-terrorism and surveillance legislation on the media and the regulatory framework post Leveson. The study will involve a workshop in 2017 at the University of Edinburgh and a final conference at the European University Institute, Florence, which is directing the research and attracts £5000 in funding.

Smita Kheria was successful in ensuing funding for a PhD student from the Scottish Graduate School for Arts & Humanities. Giorgos Vrakas will join us in September and be supervised by Smita and Burkhard.

## **Knowledge Transfer, public talks, consultancy and impact**

### **Featured: CREATE results presented to legal profession**

Jane Cornwell was invited to present findings from her CREATE-funded empirical research into IP litigation at the Court of Session at a conference organised by Burness Paull LLP, solicitors, in Glasgow in May 2017. The audience included solicitors, patent and trade mark attorneys and a range of industry stakeholders. Jane will also present her research to Scottish legal practitioners at a CLT conference in Edinburgh in October 2017.

### **Featured: Burkhard Schafer joins Data Ethics Group of Alan Turing Institute**

Burkhard Schafer joined the Data Ethics Group of the Alan Turing Institute in September. The Alan Turing Institute is the national institute for data science, headquartered at the British Library. Five founding universities – Cambridge, Edinburgh, Oxford, UCL and Warwick – and the UK Engineering and Physical Sciences Research Council created the Alan Turing Institute in 2015. The Data Ethics Group will act as advisor on the ethical use of data in the activities of the ATI, act as a conduit between the ATI, government and civil society on issues of data ethics and algorithmic governance, and also coordinate and conduct research into questions of data governance, law and ethics.

As part of this group, Burkhard contributed to the response of the ATI to the government consultation of algorithmic governance, and co-authored a report for Westmidlands Police on the ethical and legal problems of their predictive policing initiative,

### **Other KT and impact activities**

Smita Kheria was invited to speak at a meeting of the European group of The International Federation of Musicians, in Belgrade in November 2016. The Federation's main objective is to protect and further the economic, social and artistic interests of musicians represented by its member unions. Smita spoke on the recent proposal for a new EU Directive on Copyright in the Digital Single Market, drawing upon her extensive empirical research on the intersection of copyright with the everyday lives of professional creators and performers

Smita Kheria and Nicolas Jondet, provided an international perspective on collective rights management in a stakeholder forum, in Nairobi, organised by the Kenya Copyright Board. The Kenya Copyright Board is holding several stakeholder forums with a view to establishing a workable a regulatory framework that promotes transparency, accountability and good governance among Kenyan Collective Management Organizations (CMOs)

Judith Rauhofer was invited to speak at an event on access to information and data protection in Macedonia, which was part of a project on monitoring the work of the Macedonian Directorate for personal data protection and the Commission for protection of the right to free access to public information. The event served as a kick-off event for the project and as a platform to discuss the challenges and opportunities for data protection and access to information. The audience was composed of representatives of state institutions, civil society organisations, regulatory bodies and academia. Judith spoke about the global challenges of a right to privacy.

Judith Rauhofer was invited to participate in a media roundtable organized by the Internet Society to launch its annual Global Internet Report 2016 in London. The report, entitled "The Economics of Trust", focused on data breaches and their implications for business, public bodies and individuals. The event was structured as a closed, VIP-style roundtable discussion between invited participants and press. Judith was featured among the panel of experts asked to discuss data protection laws.

Judith Rauhofer was invited to participate in a Law Roundtable on Data Governance organised by the British Academy and the Royal Society. The event formed part of a joint project on data governance through a review of the science and its implications, and a holistic consideration of the governance landscape. The overarching aim of the workshop was to test emerging recommendations for new governance arrangements and to inform the project's evidence gathering on data protection in the next decade. Judith was asked to present examples of data governance tools and of international data governance models and initiatives.

Judith Rauhofer was invited to take part in a closed-doors Policy Meeting on 'Reappraising EU Security Policy: Effectiveness, Rule of Law & Rights' that was organised by the Centre for European Policy Studies (CEPS) in collaboration with the

European Commission, DG Migration and Home Affairs, Task Force Security Union in Brussels. The event will feed into the Comprehensive Assessment that the European Commission has launched in the field of security policy. The objective of the meeting was to bring together EU policy makers and academics, and collect inputs from scholars having participated in social sciences projects so as to contribute towards an evidence-based assessment of EU Security Policy. Judith was one of three academics asked to make an intervention on the challenges presented by/for International cooperation

Burkhard Schafer was invited to join the working group on Regulation of Autonomous Systems by the Royal Academy of Engineering and attended a stakeholder meeting in London in May. The working group will develop a “Challenge Paper” for the government.

Burkhard Schafer and colleagues from Informatics and ISTI held a meeting with lawyers acting on behalf of the government of Japan. Our guests commented highly favourably on the meeting and indicated it will inform the response of the Japanese ministry regarding the regulation of robotics.

Burkhard Schafer participated at the Festival of Politics at the Scottish parliament on a panel discussion on robotics and the fourth industrial revolution, followed by a film screening of Ex Machina and public discussion.

Burkhard Schafer participated at a public Podium Discussion: Geistiges Eigentum in der digitalisierten und vernetzten Gesellschaft to mark the launch of the new Zentrum für geistiges Eigentum at the TU Berlin, Co-panellists included representatives from industry (Bitcom, VW) academia and politics (Brigitte Zypries, MdB)

Burkhard Schafer, together with colleagues in Informatics, carried out a consultancy project for Eversheds on AI for the legal profession

Burkhard Schafer participated at a panel discussion sponsored by the Alan Turing Institute on “Communicating machine learning”, held at the Informatics School of the University of Edinburgh. It brought together machine learning researchers, lawyers and media professionals to discuss the challenges posed by this dialogue, and the best practice in outreach and science communication.

Burkhard Schafer chaired a session on non-personal data/machine to machine data at the “Safeguarding rights in the big data revolution” event at Wilton Park, organised by the Institute for Human Rights and Business and Ericsson. The meeting brought together around 55 stakeholders including government, business and civil society from a range of countries. Other panellists in his session were Vincent Franceschini, Chief Technology Officer, Global Research Office, Hitachi Data Systems and Nick Coleman, Global Head, Cybersecurity Intelligence, IBM

### **SCRIPT in Edinburgh**

SCRIPT remains deeply embedded in all university activities in the field of technology and society, and the digital revolution. SCRIPT members serve on the Digital Humanities Steering group of the college of Humanities and Social Sciences, and the

University Data Initiative. Members of SCRIPT are also members of various cognate research centres such as CRISP and SKAPE.

### **Featured: Centre for Cyber Security and Privacy research gains ACE recognition**

In August 2016, the Centre for Cyber Security and Privacy Research gained ACE (academic centre of excellence) status from EPSRC and the National Cyber Security Centre (NCSC), the first such centre in Scotland to gain the accolade

Burkhard Schafer, who is also a member of CSPR, contributed to the submission, and SCRIPT provided crucial evidence of impactful research environment and successful PhD supervision beyond the School of Informatics. The award was celebrated by a visit of the Cabinet Office Minister Ben Gummer that also saw him talking to SCRIPT PhD students Laurence Diver and Mathew Jewell who presented their work as part of the event.

The recognition received widespread press coverage, with reports in the Scotsman, The Times, Herald, Metro, The Independent, Evening News and The Courier amongst others. Prof Charlie Jeffery spoke to BBC Radio Scotland on Monday morning; and Dr Kami Vaniea gave interviews to STV, Forth FM and Heart FM.

### **other cross-universiy activity**

Burkhard Schafer became a founding member of the new Blockchain Technology Laboratory, set up under the leadership of Prof. Aggelos Kiayias as a joint enterprise between the University and Input Output Hong Kong Ltd (IOHK). As a first joint activity, Burkhard gave a talk on “Blockchain assisted e-voting and the law: Balancing transparency, secrecy and inclusivity” at the Smart Contracts Day: Cryptography & Law: Information, Privacy and Smart Contracts in Athens

Burkhard Schafer organised a workshop on blockchain technology and IP law at the Digital Day of Ideas.

### **SCRIPT in the world**

Building new and strengthening existing international collaboration and networks is a key concern of SCRIPT, made even more urgent by Brexit. SCRIPT remains an active partner in the international Network of Centres (NoC) on IT and Society, and has joined this year also a EU COST COST Action on wearable robots (wearablerobots.eu)

### **Featured: SCRIPT in Africa**

Smita Kheria and Nicolas Jondet, , provided an international perspective on collective rights management in a stakeholder forum, in Nairobi, organised by the Kenya Copyright Board. The [Kenya Copyright Board](#) is holding several stakeholder forums with a view to establishing a workable a regulatory framework that promotes

transparency, accountability and good governance among Kenyan Collective Management Organizations (CMOs)

**Featured: SCRIPT at the UN.**

Students from SCRIPT Member Paolo Cavaliere's Freedom of Expression Law Clinic prepared two petitions that were submitted to the UN Working Group of Arbitrary Detention, urging the group to support detained Vietnamese bloggers, Nguyễn Hữu Vinh and Ngô Hào.

**Other international networking and activities**

SCRIPT became part of the Latin American network of excellence for forensic science, the only European member of the network. To mark this occasion, Burkhard Schafer gave a keynote talk at the IX Congreso Internacional De Derecho Procesal "La Prueba Y La Decisión Judicial", Cartagena August 2016, neuroscientific memory erasure and enhancement as a problem for reasoning about evidence.

As a first network activity, Carmen Patricia López Olvera, PhD student and researcher at the Legal Research Institute of the National Autonomous University of Mexico will be visiting SCRIPT in June and July 2017. The exchange, funded by Conacyt, the Mexican Council for Science and Technology as part of its Frontiers of Science Agenda will explore computer support for judges in evaluating forensic evidence, in particular DNA evidence.

Burkhard Schafer deepened the collaboration with the department of neuroscience at the University of Munich by teaching on an international postgraduate training course held at the International University Venice and organised by the Ludwig Maximilian University Munich. In the Fortgeschrittenen-seminar on: Empathie: Philosophische und naturwissenschaftliche Perspektiven, he organised a session on "Empathy, Neuroscience and the law"

Initiated by Nicholas Jondet, SCRIPT began a new collaboration with the University of Grenoble. A first result of this new and exciting link was a workshop on "Intellectual Property and Information Technology outside its borders", held at the CUERPI Research Centre where SCRIPT showed up in force –details below under "talks". Grenoble and SCRIPT are currently working on a joint funding application for blockchain technology and the law

Burkhard Schafer participated as speaker (data property and AI: a Chinese-EU comparison) at the AHRC workshop on Copyright in China that invited speakers from Chinese businesses and government agencies to Edinburgh in June. The event was part of the project on Convergence or differentiation in IP protection strategies and business models? The project of which Schafer is Co-I is funded by the AHRC Centre for Digital Copyright and IP Research in China and CREATE

## Publications by Centre members

### **Featured: SCRIPT Success at LexisNexis Best Paper award**

Important added value is created by the SCRIPT centre through fostering of collaborative projects of Centre members and by assisting young scholars and early career researchers in turning ideas into articles. 2 papers written jointly between LLM students on the Innovation Technology Programme and staff received high praise at the annual IRIS conference in Vienna.

A paper by Burkhard Schafer and Erica Fraser won Second Prize in the Lexis Nexis Best Paper award, from over one hundred submissions from across Europe. Their 'Self-made (machine) men IP implications of inventions by robots' discusses the IP status of inventions made by robotic devices such as Aaron and is now published in Erich Schweighofer, Franz Kummer, Walter Hoetzendorfer, Christoph Sorge (ed.) 20 Years of IRIS (Weblaw AG, Bern 2017) 171-178

A second paper, by Tobias Schulz and Burkhard Schafer was shortlisted for the award. 'Legal challenges for the use of blockchain-based E-voting systems in Germany' analyses the potential use of distributed ledger technology for elections. The paper also marks the first output of the new collaboration between the SCRIPT Centre and the new Blockchain Technology Laboratory in the School of Informatics

It was published in Erich Schweighofer, Franz Kummer, Walter Hoetzendorfer, Christoph Sorge (ed.) Trends and communities of legal informatics (Weblaw AG, Bern 2017) 147-154

### **Other publications by centre members include:**

Jane Cornwell, 'Between the formal and the informal: 'repeat players', 'one-shotters' and case trajectories in intellectual property infringement litigation at the Scottish Court of Session', Civil Justice Quarterly (2017, forthcoming)

Jane Cornwell, 'Intellectual property litigation at the Court of Session: a first empirical investigation', Edin. L.R. 2017, 21(2), 192-216

Jane Cornwell, 'Under-referred, under-reasoned, under-resourced? Re-examining EU design law before the Court of Justice and General Court', I.P.Q. 2016, 4, 318-351

Rachael Craufurd Smith, Mediadem: The Freedom and Independence of Public Service Media in Europe: International Standards and Their Domestic Implementation – Introduction, IJOC 11(2017), 1925–1935

Rachael Craufurd Smith, together with Evangelia Psychogiopoulou, Dia Anagnostou and Yolande Stolte (SCRIPT/UoE), The Freedom and Independence of Public Service Media in Europe: International Standards and Their Domestic Implementation, IJOC 11(2017), 1936–1955

Smita Kheria, Charlotte Waelde, Nadine Levin, 'Digital transformations in the Arts and Humanities Negotiating the copyright landscape in the United Kingdom' in Renee Hobbs (ed.) *The Routledge Companion on Media Education, Copyright and Fair Use* (Routledge 2017)

Laurence Diver, Burkhard Schafer, 'Opening the black box: Petri nets and privacy by design', (2017), *International Review of Law, Computers and Technology*, Vol 31, pp 68-90

Burkhard Schafer and Lilian Edwards, L "I spy, with my little sensor": fair data handling practices for robots between privacy, copyright and security  
30 May 2017 *Connection science*. 29, 3

Burkhard Schafer, 'Closing Pandora's box? The EU proposal on the regulation of robots', (2016), *Pandora's Box - The journal of the Justice and the Law Society of the University of Queensland*, Vol 19, pp 55-68

Burkhard Schafer, 'Compelling truth: Legal protection of the infosphere against big data spills', (2016), *Philosophical Transactions A: Mathematical, Physical and Engineering Sciences*, Vol 374

Burkhard Schafer, 'What a parcel of rogues in a nation's database - The Scottish ID Database and Britain's Asymmetric Constitution ', (2016), *Jusletter IT*, Vol 6, pp 1-9

Stephan Leuenberger, Burkhard Schafer, 'The whole truth about the law Reasoning about exceptions in legal AI' in Erich Schweighofer, Franz Kummer, Walter Hoetzendorfer, Christoph Sorge (ed.) *Trends and Communities of Legal Informatics* (Austrian Computer Association 2017) 131-138

Tobias Schulz, Burkhard Schafer, 'Legal challenges for the use of blockchain-based E-voting systems in Germany ' in Erich Schweighofer, Franz Kummer, Walter Hoetzendorfer, Christoph Sorge (ed.) *Trends and communities of legal informatics* (Weblaw AG, Bern 2017) 147-154

Burkhard Schafer, Erica Fraser, 'Self-made (machine) men IP implications of inventions by robots' in Erich Schweighofer, Franz Kummer, Walter Hoetzendorfer, Christoph Sorge (ed.) *20 Years of IRIS* (Weblaw AG, Bern 2017) 171-178

Burkhard Schafer, 'Speaking truth to/as victims A jurisprudential analysis of data Breach notification laws' in Mariarosaria Taddeo, Luciano Floridi (ed.) *The Responsibility of Online Service Providers* (Springer 2017) 79-100

Jesus Niebla Zarttarain *The role of automated technology in the creation of copyright works: the challenges of artificial intelligence*. *Journal International Review of Law, Computers & Technology* Volume 31, 2017 - Issue 1: BILETA Special Edition page 91-104. Publicado el 22 de febrero de 2017. Online ISSN: 1364-6885

Jesus Niebla Zarttarain *Acceso Abierto y Derechos de Autor: La Necesidad de Una Perspectiva Incluyente*. Publicado en *INNOVA ITES CyT* Year 3 Number 3, February-June. 2016. Mexico.

Chen J, 'How the best-laid plans go awry: the (unsolved) issues of applicable law in the General Data Protection Regulation' (2016) 6(4) *International Data Privacy Law*

### **Invited speakers and seminar series organised by the Centre**

In addition to its occasional speakers series, SCRIPT continues to support the student-led seminar series by our very active IP, Media and IT discussion group, chaired currently by SCRIPT centre members Jesus Manuel Niebla Zatarain, Jiahong Chen, Laurence Diver, Matthew Jewell and Wenlong Li.

Speakers this year included:

Judith Townend (Sussex) – Legal and technological vulnerabilities for journalistic sources and whistleblowers in a pre/post Brexit UK

Jef Ausloos (KU Leuven) – Ctrl-Alt-Delete: Tracing the Right to Erasure ('right to be forgotten') in EU Data Protection law

Dr Angela Daly, QUT: Regulating decentralisation: the consequences of technological developments for legal design and enforcement

Lachlan Urquhart, University of Nottingham: User-centric Regulation for the Domestic Internet of Things

Dr Humberto Carrasco Blanc (Universidad Católica del Norte) - organised jointly with the Europa Research Group: Understanding the Legal Issues of IANA Transition: What Next for ICANN after the End of US Control of the Internet?

Pablo Velasco (University of Warwick) Understanding Cryptocurrencies as Political Devices

Dr Nóra Ni Loideain (University of Cambridge): A Bridge Too Far? The Investigatory Powers Bill, Oversight and Human Rights

Dr John Danaher (NUI Galway): The Logical Space of Algocracy: A Guide to the Territory

Dr Eric Stoddart (St Andrews) Surveillance and the Common Good

Dr Giorgia Guerra (University of Padua) "Product Safety law and Automated Medical Technologies: a Comparative view"

Prof. Andrea Matwyshyn (Northeastern University), The Internet of Bodies' -

### **Workshops and conferences organised**

Organising and co-organising workshops, conferences, panels and discussion fora are an important vehicle to join up the work of SCRIPT with other research centres within and outside Edinburgh

**Featured: *SCRIPT hacks the future of law:***

On 31 March, students from the Innovation Technology Law Programme, supported by SCRIPT and mentored by Burkhard Schafer, led a landmark Law and Artificial Intelligence Hackathon at the University's Outreach Centre. The event, part of the University's Festival of Creative Learning, engaged with questions about the future and potential of artificial intelligence. Organised by student society Edinburgh Law Connections, the Hackathon included a panel discussion with three distinguished speakers - David Halliwell from Pinsent Masons, Akber Dattoo of D2 Legal Technology and Jimmy Vestbirk of Legal Geek.

The event was featured in an article in The Times newspaper, discussing how artificial intelligence may be a boost for lawyers in the future.

**Other workshop activities**

SCRIPT assisted with the organisation of the ESRC Festival of Social Science, led by Dr Sophie Flemig from the Centre for Service Excellence. Our PhD students Jesus, Matthew and Laurence assisted with the organisation of the event, framing of questions and dissemination of results, and Burkhard Schafer participated in the panel discussion on "Robots in Wigs? Our Legal Services' Future" with experts from the Scottish Court and Tribunal Services, the Scottish Legal Aid Board, MBM Commercial, UEBS, and Citizen Advice Scotland. The event was reported in a front page article of the Scottish Times LeglScot Supplement.

Burkhard Schafer co-organised and participated as panellist at the CodeX Uni Stanford/IRIS Platform Joint Meeting, February 2017 that saw researchers from Europe and the US engage in a virtual meeting to discuss issues of blockchain technology in the legal sector.

Members of SCRIPT also interact with the wider academic community by serving on programme committees for conferences and workshops. This year, Centre members served on the programme committees of Jurix 2017, ICAIL 2017, RuleML 2016, FTVI 2016, ECAI 2016, IRIS 2017

**Invited talks and conference papers**

**Featured: SCRIPT PhD wins Google best paper award - again**

A key task of the Centre is the support of early career and doctoral researchers. We were therefore particularly delighted that Matthew Jewell won the Google Award for Best Postgraduate Paper for "Contesting decision: Living in (and living with) the smart city". This award was given at the BILETA conference, held at the University of Braga in

Portugal. Many congratulations to him! This is the second year in a row that students from the SCRIPT Centre won this important award.

### **Featured: Did you know, in France, SCRIPT is called La Scripte?**

Initiated by Nicholas Jondet, SCRIPT began a new collaboration with the University of Grenoble. A first result of this new and exciting link was a workshop on “Intellectual Property and Information Technology outside its borders”, held at the CUERPI Research Centre where SCRIPT showed up in force.

Jane Cornwell and E Prothière (Avocat, Jones Day LLP) talked about ‘European harmonisation of enforcement of IP rights’, University of Grenoble, “Intellectual Property and Information Technology outside its borders”. Rachael Craufurd Smith gave a talk about ‘E Privacy and the Protection of Minors in the EU’.

### **Other talks given by Centre members**

Rachael Craufurd Smith: Presentation on ‘European Media Regulation and the Wider Implications of Brexit’ for the Scotland Policy Conferences Keynote Seminar on The TV market in Scotland: Audiences, Commissioning and the Future of the BBC, 21 September 2016, Edinburgh.

Rachael Craufurd Smith: Paper on ‘Brexit, News and Fake News’ at staff seminar run by the Centre for Cultural Policy and Cultural Industries, University of Glasgow, 15 February 2017.

Rachael Craufurd Smith: Joint paper with Professor Lorna Woods, on ‘Algorithms, Media Governance and Political Disinformation’ at the Algorithm Workshop, University of Strathclyde, 15 February 2017.

N. Jondet: The French private copying system after the 2016 copyright law reforms. Given at BILETA 2017, April, Braga/Portugal

P. Cavaliere: Invited Keynote: Freedom of expression on social networking websites Bocconi University, February 2016

J.Rauhofer “Global challenges of a right to privacy” Invited talk at kick-off event on access to information and data protection in Macedonia, by the Macedonian Directorate for personal data protection and the Commission for protection of the right to free access to public information.

J Rauhofer “Cross-border data transfers: A right dog’s Brexit”, 2017 BILETA Annual Conference 20 April 2017, Braga

B. Schafer “Getting creative with legal AI: what computational creativity research can tell us about the nature of law and legal reasoning” Invited Keynote at the BILETA annual conference 2017, Braga, Portugal April 2017

B. Schafer, “The computer says no: algorithmic decision making and the GDPR: Talk given at the European Lawyers Association General Meeting, Berlin May 2017

“Blockchain assisted e-voting and the law: Balancing transparency, secrecy and inclusivity” invited paper given at the Smart Contracts Day: Cryptography & Law: Information, Privacy and Smart Contracts, Athens, March 2017

B.Schafer ”Algorithmische Verwaltung an Beispielen aus dem Vereinigten Königreich” invited talk at the Speyerer Forum zur Digitalen Lebenswelt, Speyer April 2017

B. Schafer : “Legal challenges for the use of blockchain-based e-voting systems in Germany” paper given at IRIS International Rechtsinformatik Symposium Salzburg, February 2017

B. Schafer: “Copyright and the creative machine: teaching robots copyright from copywrong: invited Keynote at CO:OPYright: Challenges and Practices of Copyright and Licensing of Digital Cultural Heritage conference, Graz April 2017

B. Schafer “When computers say no: ethical and legal transparency duties for data scientists.”, seminar given on invitation of the Dept. of computer science, Herriot Watt University, Edinburgh February 2017

B.Schafer “Learning the trade: will the acquisition of professional soft skills be compromised by the automation of simple, repetitive tasks? Talk given at the UCL workshop Ethics, computer systems and the professions, London, UCL March 2017

B.Schafer “Self-Made (Machine) Men – IP Implications of Inventions by Robots” paper given at IRIS International Rechtsinformatik Symposium Salzburg, February 2017

B. Schafer “Talk to the hand for the ear is not listening” - data ownership and data control in medical implant devices and the “Internet of bodies” Invited talk at the OII workshop on The Ethics of Medical Data Analytics: Opportunities and Challenges, Oxford OII, December 2016

B.Schafer "A Game of you: Gamification, personalised medicine and the ethics of data research" paper invited for the conference: Digital Health: Exploring Ethics and Policy, Zurich December 2016

B. Schafer "Getting creative with AI and IP", invited Keynote at Yerra Solutions 4th European Conference, London, October 2016

B. Schafer "Neuroscience, Memory and the law" Paper given at workshop on Neurophilosophy, organised by the Graduate School of Systemic Neuroscience, LMU Munich and held at the International University Venice, September 2017

B. Schafer "Let the memory live again” - neuroscientific memory erasure and enhancement as a problem for reasoning about evidence, Invited Keynote lecture at the IX Congreso Internacional De Derecho Procesal “La Prueba Y La Decisión Judicial”, Cartagena August 2016

B. Schafer "Algokratie – die Macht der Daten und die Ohnmacht des Rechts?" Invited talk at the DGRI 2-Laender Treffen, Hambach, June 2016

B Schafer "RoboCop(y) - enforcing copyright in a world of computer co-creators" invited talk, CREATe Festival 2016: Copyright and the Future of Digital Creativity, London, June 2016.

B. Schafer "Fair data handling and robotics" given at AISB workshop on "Principles of Robotics", Sheffield, April 2016

Jesus Niebla Zarttarain: "Autómatas y Derecho: El Rol de la Tecnología Inteligente en la Aplicación de la Ley". As part of the National Congress of Law: El Futuro del Derecho a la Luz de los Nuevos Paradigmas, organized by the Autonomous University of Sinaloa December 1st 2016, Mazatlán, Sinaloa, Mexico.

Jesus Niebla Zarttarain "Inteligencia Artificial y Derechos de Autor: Implementación de un Modelo Jurídico Cognitivo para el Manejo de Material Artístico Digital" as part of the V International Journeys of Legal Philosophy at UNAM, Legal Constructivism, Complexity and Law. Mexico City, Mexico. November 22nd 2016.

Jesus Niebla Zarttarain "Propiedad Intelectual, Derechos de Autor en el Acceso Abierto" presented along with Dr. Javier Solorio Perez, as part of the Seminar Institutional Repositories and their Interoperability in the National Repository. INFOTEC, August 18th 2016. Mexico City, Mexico.

Jesus Niebla Zarttarain "Robotics and Copyright: The Role of Artificial Intelligence Towards the Generation of Automated Material" as part of the XIV Symposium of Mexican Students and Studies "Knowledge into Solutions", presented at the University of Edinburgh. Edinburgh, Scotland, 16th of June de 2016.

Jesus Niebla Zarttarain "The Role of Automated Technology in the Creation of Copyright Works: The Challenges of Artificial Intelligence" dentro 31ra Conferencia Anual British and Irish Law Education and Technology Association 2016 (BILETA) April 12 2016

J Chen: Still the Best Partners? The Strengthened Regulatory Model of Consent and Necessity in the GDPR and Its Applicability to Online Behavioural Advertising', 2017 BILETA Annual Conference (20 Apr 2017, Braga).

J Chen: How the Best Laid Plans Go Awry: The (Unsolved) Issues of Applicable Law in the General Data Protection Regulation', ILPC Annual Workshop 'Restricted and Redacted: Where now for human rights and digital information control?' (9 Nov 2016, London).

L. Diver, L Edwards, D McAuley, L "From Privacy Impact Assessment to Social Impact Assessment: Building Trust in the Internet of Things" (IEEE International Workshop on Privacy Engineering 2016, San Jose, California)

## **Contribution to Press, newspapers and other media**

Rachael Craufurd Smith: Liberalisation of Advertising Product Placement Rules in the AVMSD – A Step Too Far, October 2016, on the LSE Media Policy site - <http://blogs.lse.ac.uk/mediapolicyproject/2016/10/06/liberalisation-of-advertising-product-placement-rules-in-the-avmsd-a-step-too-far/>

Rachael Craufurd Smith: ‘Revising the advertising and product placement rules in the Audiovisual Media Services Directive (AVMSD): an ‘optimal’ outcome for industry and consumers?’ in the EUI Media Policy and Journalism Discussion Series Site, 29 September at: <http://journalism.cmpf.eui.eu/discussions/advertising-product-placement-avmsd/>

Burkhard Schafer was interviewed by the *Verge* on The EU proposal for electronic personhood for robots: <https://www.theverge.com/2017/1/19/14322334/robot-electronic-persons-eu-report-liability-civil-suits>

Burkhard Schafer was interviewed by *LexisNexisPSL* on “LEGAL PRINCIPLES: Robots and civil liability”. [https://www.lexisnexis.com/uk/lexispsl/ipandit/document/412012/5M1Y-88Y1-DYW7-WOWN-00000-00/Robots\\_and\\_the\\_law\\_civil\\_liability](https://www.lexisnexis.com/uk/lexispsl/ipandit/document/412012/5M1Y-88Y1-DYW7-WOWN-00000-00/Robots_and_the_law_civil_liability)

Burkhard Schafer was interviewed by *FutureScot* on liability for robotics: <http://futurescot.com/alexa-guilty-not-guilty/>

## **Student-led activities**

### **SCRIPT supports LLM Debate:**

LLM students debate responsibility of Internet Service providers at SCRIPT Centre event. On Friday 27 November, Edinburgh Law School’s SCRIPT Centre hosted a debate for LLM students on the motion “This House believes that Internet Service Providers should be responsible for unlawful file sharing on the Internet”.

The debate was organised and led by the class representatives on the 'Intellectual Property Law: copyright and related rights' course (Angela Ndambuki, Christopher Thordson, Giacomo Pizzolon and Jennifer Ching). It was aimed at enhancing the students’ understanding of the diversity of issues at stake in regulation of content-sharing in the digital environment.

Speaking in favour of the motion, the students argued for a sophisticated regime of blocking websites that distribute copyright infringing content. Arguing against the motion, the students highlighted various human rights issues and potential abuses that may result from an extensive website-blocking regime. Both teams argued passionately while demonstrating a nuanced grasp of the topic, but the team opposing the motion secured a clear victory.

The debate was chaired by Dr Smita Kheria, Lecturer in Intellectual Property Law, who awarded two best speaker prizes to Giacomo Pizzolon (LLM in Intellectual Property Law) and Penny Wright (LLM in Innovation, Technology and the Law).

SCRIPT on Twitter

## **SCRIPTed**

We continue to be the home of SCRIPTed, the student lead, peer reviewed journal for law and technology. <http://script-ed.org/>

This year SCRIPTed published the winners of the AIPP essay prize competition sponsored by TrademarkNow, the Finland-based Trademark Services Company. The fifth AIPP (Artificial Intelligence and IP) workshop had been organised in Braga, Portugal as part of the CREATE project. We were particularly delighted that the panel of international judges selected one of our own Innovation Technology Law students for the best student paper award. Her paper, “computers as inventors – legal and policy implications of artificial intelligence on patent law” grew out of her LLM dissertation, supervised by Burkhard Schafer. The special issue of SCRIPTed that contained the winning papers also demonstrated again the benefits for SCRIPT and the wider Law School for our research, teaching and postgraduate community.

*SCRIPTed's* authors are continuing to make a valuable contribution to the ongoing issues concerning law, technology and society, around the world and in languages beyond English. Indeed, among our most read articles in recent years is “El derecho penal y la pornografía infantil en el derecho comparado a nivel internacional, de Argentina, Estados Unidos y Europa”, published in 2016. Other recent popular articles include: “Blockchains and Online Dispute Resolution: Smart Contracts as an Alternative to Enforcement”; “Comparative Case Studies in Implementing Net Neutrality: A Critical Analysis of Zero Rating”; and “Does the EU Data Protection Regime Protect Post-Mortem Privacy and What Could Be The Potential Alternatives?”.

The quality of our contributors and of the editorial team resulted in remarkable ranking success. According to the Washington and Lee University School of Law Journal Rankings (<http://lawlib.wlu.edu/LJ>) updated as of April 2017, of all online, peer-reviewed law journals, *SCRIPTed* is ranked 8<sup>th</sup> in the world, and 1<sup>st</sup> in the UK. Furthermore, according to the same rankings, *SCRIPTed* is placed 1<sup>st</sup> in the world for online, peer-reviewed law journals in both sectors of IP and technology law. In the UK, of all peer-reviewed law journals, we are ranked 3<sup>rd</sup> in technology law and joint 3<sup>rd</sup> in IP law (which puts us in good company with the *European Intellectual Property Law Review*, the Sweet & Maxwell publication launched in 1978) and, across all law disciplines, we are ranked 39<sup>th</sup>, not far off well-established generalist publications such as the *Modern Law Review* (13<sup>th</sup>) or the *Cambridge Law Journal* (29<sup>th</sup>).

2016/17 saw considerable improvement in the journals layout and environment.

We signed an agreement with William S. Hein & Co., Inc. This means that all of

*SCRIPTed*'s published content from Volume 1 onwards, in addition to always being fully and freely available on our website, is available on the legal database HeinOnline (<http://home.heinonline.org/>), which contains more than 2,300 law and law-related periodicals. This will allow for improved indexing and searchability. In addition, *SCRIPTed* has been indexed by a range of widely used services, including Westlaw UK and ResearchGate. We are also working on the inclusion of *SCRIPTed* into Directory of Open Access Journals (DOAJ), which will further enhance the impact of the journal.

The *SCRIPTed* website (<https://script-ed.org>) has been wholly redesigned (and special thanks here to Laurence Diver) adding a fresh look to our journal. Further technical changes include:

- A complete redesign and streamlining of our publishing workflow, automating the generation of volume, issue, and article page layouts as far as possible, leading to a much more unified and professional design.
- Volume, issue, and article metadata are now stored properly and exposed in the appropriate formats for machine-to-machine communication, including using Google Scholar and Open Graph tags. Each issue also has an automated metadata export, enabling a vastly simplified DOI submission process.
- The new design is fully responsive, meaning it adapts to mobile screens of various sizes. Graphics have also been converted to vectors where possible, to accommodate new high resolution screens and high-quality printing.
- Alongside the redesigned document templates mentioned below, the website's print stylesheet has been redeveloped to support high-quality printing of articles directly from the web browser.
- The website has been wholly migrated to HTTPS, improving security and speed, and reflecting the general technical and societal trends towards greater privacy online.

Simultaneous with the launch of our new website, *SCRIPTed* established a blog for the first time (<https://script-ed.org/blog>). The *SCRIPTed* Blog serves as a platform for legal researchers in any stage of their career, but particularly those who are starting out, to explore ideas before rigorous peer review, through short pieces that can solicit informal reader feedback.

Further changes have been made in 2017:

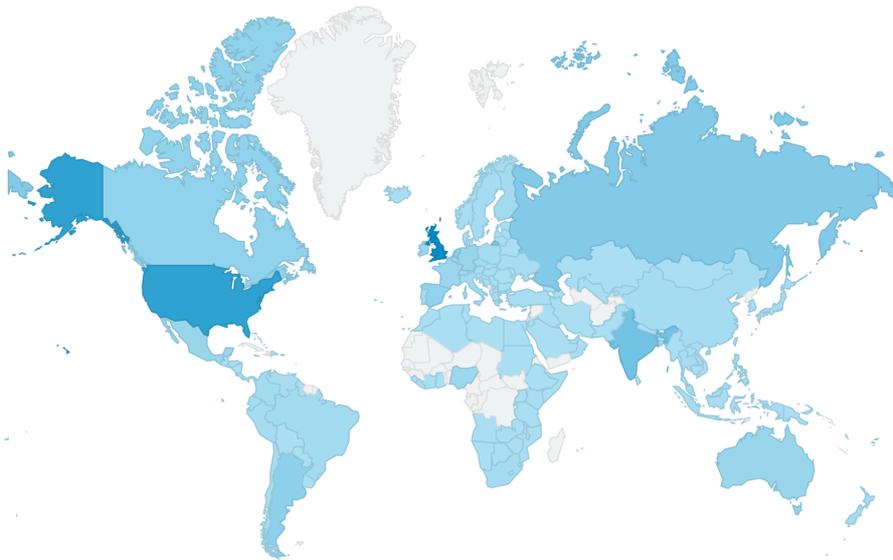
- In May, after months of planning, we launched thoroughly amended Author Guidelines (<https://script-ed.org/submission-guidelines/author-guidelines/>) and wholly redesigned templates for our Articles and Book Reviews. This was the first revision to the templates since the journal's founding in 2004. We believe these new templates afford a modern look and continue our committed effort to making *SCRIPTed* a professional, highly regarded journal in the medical law, IT and IP fields. All three issues of Volume 14 that are planned for publication will adopt this new look.
- We are continuing our photo competition for cover photos of each issue of Volume 14, which successfully drew interest in 2016 for Volume 13.
- We have also continued to add many new student editors, which provides invaluable experience in academic writing and editing (which, we note, is a tremendous benefit to any lawyer as well).

Since the launch of the new website in mid-2016, there has seen a marked increase in interest in the journal. Statistics from Google Analytics show that since the launch of the website, compared with the preceding period we have seen:

- A **69% increase** in website sessions (from 13,800 to 23,300);
- A **67% increase** in website users (from 10,700 to 17,900);
- A **52% increase** in page views (from 23,500 to 35,700);
- A **106% increase** in sessions referred from social media (from 656 to 1,349);  
and
- A marked increase in individual article views and downloads.

Much of this increase in traffic can be attributed to the redesign, which has meant the website is compliant with modern standards and as such receives greater exposure in search engine results pages.

*SCRIPTed's* reach is truly international. The map below shows the volume of site visits from each country since June 2016:



*SCRIPTed's geographical reach. The darkest areas represent the highest number of visits.*