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## Panagiotis Andriotis

*Senior Lecturer  
in Computer Forensics and Security*

University of the West of England,  
Computer Science Research Centre.  
*Address:* Department of Computer Science  
and Creative Technologies, University of the  
West of England, Frenchay Campus, Bristol,  
BS16 1QY, U.K., Office 4Q57.  
*Tel:* +44 (0) 11732 86692  
*E-mail:* panagiotis.andriotis@uwe.ac.uk  
*Web:* andrio.eu

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### Education

- 01/2016      **PhD in Computer Science**, *University of Bristol, U.K.*  
Dissertation: “Towards Task Automation for Mobile Device Forensics”
- 11/2011      **MSc (Distinction) in Computer Science**, *University of Bristol*,  
Thesis: “Steganography Detection with Benford”
- 06/2006      **BSc in Mathematics**, *University of Athens, Greece.*

### Professional Memberships

**Higher Education Academy**, Fellow  
**IEEE, IEEE Computer Society, IEEE Young Professionals  
Group, Internet Society**, Member

### Academic Experience

- 09/2018 - Present      **Academic Personal Tutor**, Forensic Computing and Security Course,  
**Instructor**, UFCFXN-15-M “Cyber Security Futures Emerging Trends  
and Challenges” (PG), UBLLY7-60-M “Dissertation” (PG), UFCFM5-  
30-3 “Information Systems Dissertation” (UG), UFCFE6-15-3 “Profes-  
sional experience” (UG), UFCFW5-30-2 “Mobile and Embedded De-  
vices” (UG). *University of the West of England, U.K.*
- 09/2017 – Present      **Module Leader**, UFCFP4-30-1 “Computer Crime and Digital Evi-  
dence”, (UG). *University of the West of England, U.K.*
- 09/2017 – Present      **Instructor**, UFCFTK-30-1 “Introduction to Databases”, UFCFC5-15-  
3 “Forensic computing practice”, UFCFJ6-30-2 “Security and forensic  
tools”, UFCFXK-30-3 “Digital systems project” (UG). *University of the  
West of England, U.K.*
- 09/2016 – 03/2017      **Instructor**, UFCFB3-30-1 “Web programming”, UFCFC5-15-3  
“Forensic computing practice”, UFCFJ6-30-2 “Security and forensic  
tools”, UFCFP4-30-1 “Computer crime and digital evidence”, (UG),  
Espresso Programming, (UG, PG), UFCFE6-15-3 “Professional experi-  
ence”, (UG). *University of the West of England, U.K.*
- 10/2012 – 01/2015      **Teaching Associate**, COMSM1500 “Systems Security”, (UG, PG),  
COMSM1201 – COMSM1211 “Programming in C”, (PG, PG Ad-  
vanced Courses), COMS10002 “Programming and Algorithms I”, (UG),  
COMS20700 “Databases”, (UG, PG), *University of Bristol, U.K.*

## Funding

- 03/2018 **Royal Society**, *International Exchanges 2017, R3*, “Embedding Privacy on Social Media Streaming Services”. Funding: £2,950 (PI).
- 08/2017 – 08/2018 **University of the West of England**, *Vice-Chancellor’s Early Career Researcher Development Awards, 2017/18*, “An Adaptive, User-driven and Privacy-aware Recommendation System for Online App Stores”. Funding: £12,640 (PI).
- 11/2017 **Great Britain Sasakawa Foundation**, Great Britain Sasakawa Foundation Small Grants, Funding: £1,600 (PI).
- 03/2017 – 08/2017 **Japan Society for the Promotion of Science**-日本学術振興会, *Short Term Post-doctoral Fellowship for EU Researchers*, “Spam Detection in Social Media”. Funding: ¥2,45M (approx. £19,000) (PI).

## Awards – Scholarships – Internships

- 11/2017 **Cyber Security Awareness Week 2017**, *CSAW’17 Applied Research Winners, Europe, 2nd place Prize*, for the paper “MaMaDroid: Detecting Android Malware by Building Markov Chains of Behavioral Models”, 2017. (Mariconti et al.)
- 08/2015 **University of Bristol, Alumni Foundation**, *Conference Travel Grant*, HCI International 2015, Los Angeles, U.S.A.
- 02/2015 – 04/2015 **National Institute of Informatics**, *NII International Internship Program 2014 – 2015*, LDEAR Laboratory of Data Engineering and Archiving, Tokyo, Japan.
- 08/2014 – 09/2014 **Chinese University of Hong Kong**, *Global Scholarship Programme for Research Excellence 2014-15*, WISC Web Intelligence and Social Computing Lab, Hong Kong, China.
- 05/2014 **2014 HoneyNet Project Workshop**, *Student Scholarship*, Warsaw, Poland.
- 01/2014 **Systems Centre**, University of Bristol, *Best PhD Poster Award*, 1st Inaugural PhD in Systems Research Conference, Bristol, U.K.
- 07/2013 – 09/2013 **National Institute of Informatics**, *NII International Internship Program 2013 – 2014*, LDEAR Laboratory of Data Engineering and Archiving, Tokyo, Japan.
- 06/2013 **Systems Centre**, University of Bristol, *Best PhD Poster Award*, 4th Annual IDC in Systems Research Conference, Bristol, U.K.

## Academic Activities and Service

- Currently **Member**, IFIP WG 11.9, (Working Group on Digital Forensics), IEEE, Cybersecurity Community, JSPS Alumni Association (U.K. and RoI).
- 09/2018 **Program Committee Member**, The 13th International AAAI Conference on Web and Social Media (ICWSM), June 11-14, 2019, Munich, Germany.
- 09/2018 **Program Committee Member**, The 8th International Workshop on Socio-Technical Aspects in Security and Trust, Affiliated with the AC-SAC 2018, December 04, 2018, San Juan, Puerto Rico, USA.

- 01/2018 **Program Committee Member**, The 3rd IEEE Cyber Science and Technology Congress, CyberSciTech 2018, Athens, Greece, August 2018.
- 01/2018 **Program Committee Member**, The 12th International AAAI Conference on Web and Social Media (ICWSM-18), Stanford, California, June 2018.
- 11/2017 **Shadow Program Committee Member**, ACM – Usenix Eurosys’18, Porto, Portugal, April 2018.
- 07/2017 **Board Member**, 5th International Conference on Human Aspects of Information Security, Privacy and Trust, HCI International 2017, July 2017, Vancouver, Canada.
- 07/2016 **Board Member**, 4th International Conference on Human Aspects of Information Security, Privacy and Trust, HCI International 2016, July 2016, Toronto, Canada.
- 07/2017 **Conference Session Chair**, “Advances in Human Aspects of Cyber Security”, 5th International Conference on Human Aspects of Information Security, Privacy and Trust, HCI International 2017, Vancouver, Canada, July 2017.
- 01/2016 **Conference Session Chair**, Poster Session Chair, 12th Annual IFIP WG 11.9 International Conference on Digital Forensics, New Delhi, India, Jan. 2016.
- 01/2015 **Conference Session Chair**, Database Forensics, 11th Annual IFIP WG 11.9 International Conference on Digital Forensics, Orlando, Florida, USA, Jan. 2015.
- 05/2017 **Program Committee Member**, 10th International Conference on Security, Privacy and Anonymity in Computation, Communication and Storage (SpaCCS 2017), Guangzhou, China, Dec. 2017.
- 03/2017 **Program Committee Member**, 7th International Conference on e-Democracy, Athens, Greece, Dec. 2017.
- 01/2017 **Program Committee Member**, 13th EAI International Conference on Collaborative Computing: Networking, Applications and Workshar-ing, Guangzhou, China, Nov. 2017.
- 01/2017 **Program Committee Member**, Workshop on Security and Privacy in Cyber-Physical Systems 2017, will be held as part of the 3rd IEEE International Conference on Cybernetics (CYBCONF 2017), University of Exeter, UK, June 2017.
- 10/2016 **Shadow Program Committee Member**, ACM – Usenix Eurosys’17, Belgrade, Serbia, April 2017.
- 09/2016 **Program Committee Member**, 13th Annual IFIP WG 11.9 International Conference on Digital Forensics, Orlando, Florida, USA, Jan. 2017.
- 09/2015 **Program Committee Member**, 12th Annual IFIP WG 11.9 International Conference on Digital Forensics, New Delhi, India, Jan. 2016.
- 09/2014 **Program Committee Member**, 11th Annual IFIP WG 11.9 International Conference on Digital Forensics, Orlando, Florida, USA, Jan. 2015.

## Editorial Work – Journal Reviews

08/2018	<b>Reviewer</b> , Telematics and Informatics, Elsevier.
04/2018	<b>Reviewer</b> , Journal of Cybersecurity, Oxford University Press.
10/2017	<b>Reviewer</b> , Journal of Information Security and Applications, Elsevier.
05/2016	<b>Reviewer</b> , Transactions on Dependable and Secure Computing, IEEE.
02/2016	<b>Reviewer</b> , Future Generation Computer Systems, Elsevier.
05/2015	<b>Reviewer</b> , ESORICS 2015.
03/2015	<b>Reviewer</b> , Telecommunication Computing Electronics and Control.
05/2014	<b>Reviewer</b> , International Journal of Information Security, Springer.
02/2014	<b>Reviewer</b> , Journal of Information Security and Applications, Elsevier.
10/2013	<b>Reviewer</b> , Transactions on Image Processing, IEEE.

## Invited Talks

19/05/2016	<b>Digital Forensics: Retrieving Evidence from Mobile Devices</b> , University College London, Information Security Group (InfoSec) Seminar, London, U.K.
15/07/2015	<b>Mobile Authentication mechanisms and attacks I &amp; II</b> , Intensive Programme on Information and Communication Security (IPICS) Summer School 2015, Mytilene, Greece, July 2015.
18/07/2014	<b>Mobile Authentication mechanisms and attacks</b> , Intensive Programme on Information and Communication Security (IPICS) Summer School 2014, Mytilene, Greece, July 2014.
18/07/2014	<b>Steganography and forensic Steganalysis in JPEG using Benford's Law</b> , Intensive Programme on Information and Communication Security (IPICS) Summer School 2014, Mytilene, Greece, July 2014.
11/12/2013	<b>Physical acquisition on Android and mobile data analysis and visualisation</b> , Forensics Workshop, University of Bristol, UoB InfoSec.

## Conference Presentations

12/2018	<b>Emotional Bots: Content-based Spammer Detection on Social Media</b> , 10th IEEE International Workshop on Information Forensics and Security (WIFS), Hong Kong, China, December 2018.
13/07/2017	<b>A Comparative Study of Android Users' Privacy Preferences under the Runtime Permission Model</b> , 5th International Conference on Human Aspects of Information Security, Privacy and Trust, Vancouver, Canada, July 2017.
13/07/2017	<b>Privacy Decision-Making in the Digital Era: A Game Theoretic Review</b> , 5th International Conference on Human Aspects of Information Security, Privacy and Trust, Vancouver, Canada, July 2017.
05/12/2016	<b>Permissions Snapshots: Assessing Users' Adaptation to the Android Runtime Permission Model</b> , 8th IEEE International Workshop on Information Forensics and Security (WIFS) 2016, Abu Dhabi, December 2016.

- 06/01/2016 **The Effects of Power Users' Data Privacy Measures on Mobile Device Investigations**, 12th IFIP WG11.9 International Conference on Digital Forensics, New Delhi, India, January 2016.
- 04/01/2016 **Optimizing Short Text Sentiment Analysis for Mobile Device Forensics**, 12th IFIP WG11.9 International Conference on Digital Forensics, New Delhi, India, January 2016.
- 05/08/2015 **Messaging Activity Reconstruction with Sentiment Polarity Identification**, HCI International 2015, Los Angeles, U.S.A., July 2015.
- 27/01/2015 **A framework to describe multimedia circulation in the smartphone ecosystem**, 11th IFIP WG11.9 International Conference on Digital Forensics, Orlando, U.S.A., January 2015.
- 26/06/2014 **Complexity metrics and user strength perceptions of the pattern-lock graphical authentication method**, HCI International 2014, Crete, Greece, June 2014.
- 10/01/2014 **Smartphone Message Sentiment Analysis**, 10th IFIP WG11.9 International Conference on Digital Forensics, Vienna, Austria, January 2014.
- 17/04/2013 **A pilot study on the security of pattern screen-lock methods and soft side channel attacks**, ACM WiSec13, Budapest, Hungary, April 2013.
- 03/12/2012 **Forensic analysis of wireless networking evidence of Android smartphones**, IEEE WIFS12, Tenerife, Spain, December 2012.

## Professional Experience

- 09/2016 – Present **Senior Lecturer in Computer Forensics and Security**, University of the West of England (UWE Bristol). Teaching and Research on Digital Forensics and Security.
- 03/2017 – 08/2017 **Visiting Researcher**, Japan Society for the Promotion of Science, Postdoctoral Fellowship for Overseas Researchers, National Institute of Informatics, Tokyo, Japan.
- 08/2016 – 03/2016 **Research Associate**, University College London (UCL), “Inferring the Purpose of Network Activities”, EPSRC grant EP/N008448/1.
- 11/2015 – 02/2016 **Cyber Security Research Expert**, De Montfort University (DMU). A research position embedded within Airbus Group research division seeking to develop digital security and forensic capabilities for Critical Infrastructure Supervisory Control and Data Acquisition (SCADA) and Smart Grid Systems.
- 10/2014 – 06/2015 **Researcher**, University of Bristol, “NIFTy: Novel Image/photo Forensic Tools for fighting against child pornography”, EU DG Home Affairs - ISEC (Prevention of and Fight against Crime) / INT (Illegal Use of Internet) programme.
- 01/2012 – 09/2014 **Researcher**, University of Bristol, “ForToo: Forensic Tools”, EU Prevention of and Fight against Crime Programme “Illegal Use of Internet” - ISEC 2010 Action Grants, grant ref. HOME/2010/ISEC/AG/INT-002.

- 06/2006 – 07/2009 **Tutor – Teacher, Mathematics**, Private and Public sector (High School level and UG level), Athens, Greece.
- 12/2007 – 09/2008 **Teller**, Citibank plc. Zografou branch, Athens, Greece.
- 05/2005 – 05/2006 **Conscript Sergeant**, Hellenic Army, Compulsory Service, Lesvos, Greece.
- 09/2000 – 05/2005 **Customer Support**, Vivartia, Athens, Greece.

### Certifications – Seminars – Summer Schools

- 02/2018 **Postgraduate Certificate (with Distinction) in Teaching and Learning in Higher Education**, University of the West of England, Bristol, U.K.
- 08/2014 **STFC Hartree Centre Summer School on Big Data 2014**, Daresbury, Warrington, U.K.
- 09/2012 **IPICS2012 Summer School**, Vienna, Austria.
- 05/2012 **ECRYPT II Summer School on Tools**, Mykonos, Greece.
- 08/2010 **Educational Psychology**, University of Athens, e-school.

### Publications

- [1] Aboluwarin, O., Andriotis, P., Takasu, A., and Tryfonas, T. (2016). *Optimizing Short Message Text Sentiment Analysis for Mobile Device Forensics*, pages 69–87. Springer International Publishing.
- [2] Anastasopoulou, K., Kokolakis, S., and Andriotis, P. (2017). *Privacy Decision-Making in the Digital Era: A Game Theoretic Review*, pages 589–603. Springer International Publishing, Cham.
- [3] Andriotis, P., Li, S., Spyridopoulos, T., and Stringhini, G. (2017). *A Comparative Study of Android Users' Privacy Preferences Under the Runtime Permission Model*, pages 604–622. Springer International Publishing, Cham.
- [4] Andriotis, P. and Oikonomou, G. (2015). Messaging activity reconstruction with sentiment polarity identification. In Tryfonas, T. and Askoxylakis, I., editors, *Proceedings of the 3rd International Conference on Human Aspects of Information Security, Privacy, and Trust (HAS 2015), Held as Part of HCI International 2015, Los Angeles, CA, USA, August 2-7, 2015*, pages 475–486. Springer International Publishing.
- [5] Andriotis, P., Oikonomou, G., Mylonas, A., and Tryfonas, T. (2016a). A study on usability and security features of the Android pattern lock screen. *Information and Computer Security*, 24(1):53–72.
- [6] Andriotis, P., Oikonomou, G., and Tryfonas, T. (2012). Forensic analysis of wireless networking evidence of Android smartphones. In *2012 IEEE International Workshop on Information Forensics and Security (WIFS)*, pages 109–114.
- [7] Andriotis, P., Oikonomou, G., and Tryfonas, T. (2013a). Jpeg steganography detection with benford's law. *Digital Investigation*, 9(3–4):246–257.

- [8] Andriotis, P., Oikonomou, G., Tryfonas, T., and Li, S. (2016b). Highlighting Relationships of a Smartphone's Social Ecosystem in Potentially Large Investigations. *IEEE Transactions on Cybernetics*, 46(9):1974–1985.
- [9] Andriotis, P., Sasse, M. A., and Stringhini, G. (2016c). Permissions snapshots: Assessing users' adaptation to the Android runtime permission model. In *2016 IEEE International Workshop on Information Forensics and Security (WIFS)*, pages 1–6.
- [10] Andriotis, P., Stringhini, G., and Sasse, M. A. (2018). Studying Users' Adaptation to Android's Run-time Fine-grained Access Control System. *Journal on Information Security and Applications*, 40:31–43.
- [11] Andriotis, P. and Takasu, A. (2018). Emotional Bots: Content-based Spammer Detection on Social Media. In *2018 IEEE International Workshop on Information Forensics and Security (WIFS)*, page : To appear.
- [12] Andriotis, P., Takasu, A., and Tryfonas, T. (2014a). *Smartphone Message Sentiment Analysis*, pages 253–265. Springer Berlin Heidelberg, Berlin, Heidelberg.
- [13] Andriotis, P. and Tryfonas, T. (2016). *Impact of User Data Privacy Management Controls on Mobile Device Investigations*, pages 89–105. Springer International Publishing.
- [14] Andriotis, P., Tryfonas, T., and Oikonomou, G. (2014b). Complexity metrics and user strength perceptions of the pattern-lock graphical authentication method. In Tryfonas, T. and Askoxylakis, I., editors, *Proceedings of the 2nd International Conference on Human Aspects of Information Security, Privacy, and Trust (HAS 2014), Held as Part of HCI International 2014, Crete, Greece, June 22-27, 2014*, pages 115–126. Springer International Publishing.
- [15] Andriotis, P., Tryfonas, T., Oikonomou, G., and King, I. (2015). *A Framework for Describing Multimedia Circulation in a Smartphone Ecosystem*, pages 251–267. Springer International Publishing.
- [16] Andriotis, P., Tryfonas, T., Oikonomou, G., Li, S., Tzermias, Z., Xynos, K., Read, H., and Prevelakis, V. (2014c). On the development of automated forensic analysis methods for mobile devices. In Holz, T. and Ioannidis, S., editors, *Proceedings of the 7th International Conference on Trust and Trustworthy Computing (TRUST 2014), Heraklion, Crete, June 30 – July 2, 2014*, pages 212–213. Springer International Publishing.
- [17] Andriotis, P., Tryfonas, T., Oikonomou, G., Spyridopoulos, T., Zaharis, A., Martini, A., and Askoxylakis, I. (2013b). On Two Different Methods for Steganography Detection in JPEG Images with Benford's Law. In *Proceedings of the 7th Scientific NATO Conference in Security and Protection of Information (SPI 2013)*.
- [18] Andriotis, P., Tryfonas, T., Oikonomou, G., and Yildiz, C. (2013c). A Pilot Study on the Security of Pattern Screen-lock Methods and Soft Side Channel Attacks. In *Proceedings of the Sixth ACM Conference on Security and Privacy in Wireless and Mobile Networks, WiSec '13*, pages 1–6, New York, NY, USA. ACM.
- [19] Andriotis, P., Tryfonas, T., and Yu, Z. POSTER: Breaking the Android Pattern Lock Screen with Neural Networks and Smudge Attacks.

- [20] Andriotis, P., Tzermias, Z., Mparmpaki, A., Ioannidis, S., and Oikonomou, G. (2013d). Multilevel visualization using enhanced social network analysis with smartphone data. *International Journal of Digital Crime and Forensics (IJDCF)*, 5(4):34–54.
- [21] Li, S., Chen, J., Spyridopoulos, T., Andriotis, P., Ludwiniak, R., and Russell, G. (2015). Real-time monitoring of privacy abuses and intrusion detection in android system. In Tryfonas, T. and Askoxylakis, I., editors, *Proceedings of the 3rd International Conference on Human Aspects of Information Security, Privacy, and Trust (HAS 2015), Held as Part of HCI International 2015, Los Angeles, CA, USA, August 2-7, 2015*, pages 379–390. Springer International Publishing.
- [22] Li, S., Tryfonas, T., Russell, G., and Andriotis, P. (2016). Risk Assessment for Mobile Systems Through a Multilayered Hierarchical Bayesian Network. *IEEE Transactions on Cybernetics*, 46(8):1749–1759.
- [23] Mariconti, E., Onwuzurike, L., Andriotis, P., Cristofaro, E. D., Ross, G. J., and Stringhini, G. (2017). MaMaDroid: Detecting Android Malware by Building Markov Chains of Behavioral Models. In *24th Network and Distributed System Security Symposium (NDSS 2017)*, pages 1–15.
- [24] Read, H., Xynos, K., Sutherland, I., Roarson, F., Andriotis, P., and Oikonomou, G. (2015). An extensible platform for the forensic analysis of social media data. In Tryfonas, T. and Askoxylakis, I., editors, *Proceedings of the 3rd International Conference on Human Aspects of Information Security, Privacy, and Trust (HAS 2015), Held as Part of HCI International 2015, Los Angeles, CA, USA, August 2-7, 2015*, pages 404–414. Springer International Publishing.
- [25] Tryfonas, T., Carter, M., Crick, T., and Andriotis, P. (2016). Mass surveillance in cyberspace and the lost art of keeping a secret. In Tryfonas, T., editor, *Proceedings of the 4th International Conference Human Aspects of Information Security, Privacy, and Trust (HAS 2016), Held as Part of HCI International 2016, Toronto, ON, Canada, July 17-22, 2016*, pages 174–185. Springer International Publishing.

## In the Press

10/04/2018      **The endless game of cat and mouse with spammers**, *Eureka*,  
<https://eureka.eu.com/gdpr/spammers-game/>

## Volunteering Roles and Other Activities

09/2012 – 08/2015      **Senior Resident**, Postgraduate Warden at University of Bristol Accommodation Residences, U.K.

08/2015      **Student Volunteer**, HCI International 2015, Los Angeles, CA, USA.

06/2014      **Student Volunteer**, HCI International 2014, Crete, Greece.

09/2012 – 05/2014      **Undergraduate Mentor**, Disability Services, University of Bristol, U.K.

09/2012 – 05/2014      **Scribe and Exam Scribe**, Disability Services, University of Bristol, U.K.

07/2012      **Group Leader**, “HeadStart 2012” Summer School, University of Bristol, U.K.



**Previous Students (MSc)**

01/2014 – 09/2014 Mr. Oluwapelumi Aboluwarin, Mr. Constantinos Constantinou, Mrs. Julia Metochi, Mr. Zhaoqian Yu (University of Bristol).

**Previous Students (BSc)**

09/2017 – 04/2018 James Broadberry (University of the West of England).

**Interests - Hobbies**

I love photography, travelling and running.

I tweet @PanosAndriotis and I am a social media fan.

I admire the Japanese culture and Japan's beauty.

I am a member of the Computer Science Research Centre (CSRC) at UWE Bristol.

<http://www.andrio.eu>

<https://www.flickr.com/photos/andriot/>