

## **Mark Underwood**

Mark Underwood is currently an Information Security AVP for Strategic Initiatives at Synchrony where he works in cybersecurity R&D. He has previously served as lead engineer or principal investigator on artificial intelligence projects for DARPA and for Army and Air Force research laboratories. Since 2013, he's been active in standards organizations to help foster information assurance and provenance transparency. Underwood is co-chair of the NIST Big Data Public Working Group's security and privacy subgroup, and was co-chair of the 2015 Ontology Summit focused on the Internet of Things. In 2014, he served on the workshop committee for the IEEE Big Data Conference and moderated several panels. He has been a NIST Guest Researcher and served on the ISO/IEC JTC1 Working Group WG9 on Big Data. He is working with standards working groups to craft several emerging new standards: IEEE P7000 (ethics in autonomous systems), IEEE P7001 (transparency), IEEE P7003 (ethics in algorithms), IEEE P2675 (DevOps Standard for Building Reliable and Secure Systems Including Application Build, Package and Deployment), and IEEE P1915.1 (Security for Virtualized Environments).

Underwood was the Invited Keynote Presentation at Semantic Technology for Intelligence Defense Security (STIDS 2016).

### **Writing and Professional Societies**

Professional Associations: ACM, IEEE, ISACA, ISC2, AAAI, INCOSE, ASQ, HIMSS, AHIMA

Certifications: CSQE (ASQ), CRISC (ISACA)

Underwood is an advocate for patient-managed health information, including access to automated decision support systems. He is a professional writer whose emphasis is technology and health topics. In recent years, articles have appeared in The Daily Beast, CBS TechRepublic, and Drugstore News for sponsors that range from GE and the Annenberg Center for Health Sciences to Time Warner Cable. He has written recurring columns for Syncsort, Ipswitch and ADP.

### **Selected Publications**

Underwood M. Intranet Exploitation of Social Network Knowledge Intelligence. In: Chugh R, ed. Harnessing Social Media As a Knowledge Management Tool (Advances in Knowledge Acquisition, Transfer, and Management. Hershey, PA: IGI Global; 2016.

Underwood M. Big Data Complex Event Processing for Internet of Things Provenance: Benefits for Audit, Forensics and Safety. In: Brooks T, ed. Cyber-Assurance for the Internet of Things. Hoboken NJ: Wiley; 2016.

### **Other Interests**

Underwood plays electric violin and edits PoetryandScience.com, InsideTheOrdinary.com and others.

Mark Underwood (@knowlengr | LinkedIn ) writes about knowledge engineering, human performance technology, IoT, patient-managed health information, and Big Data security and privacy.