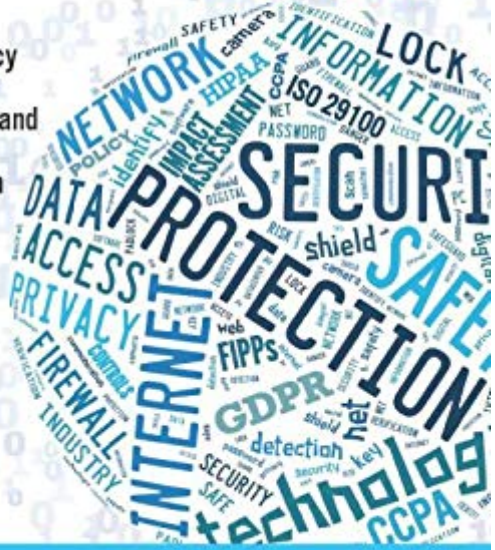
INFORMATION PRIVACY ENGINEERING AND PRIVACY BY DESIGN

Understanding Privacy Threats, Technology, and Regulations Based on Standards and Best Practices



WILLIAM STALLINGS

[EPUB] Information Privacy Engineering And Privacy By Design: Understanding Privacy Threats, Technology, And Regulations Based On Standards And Best Practices

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Information Privacy Engineering and Privacy by Design-William Stallings 2019-12-16 Organizations of all kinds are recognizing the crucial importance of protecting privacy. Their customers, employees, and other stakeholders demand it. Today, failures to safeguard privacy can destroy organizational reputations – and even the organizations themselves. But implementing effective privacy protection is difficult, and there are few comprehensive resources for those tasked with doing so. In Information Privacy Engineering and Privacy by Design, renowned information technology author William Stallings brings together the comprehensive and practical guidance you need to succeed. Stallings shows how to apply today’s consensus best practices and widely-accepted standards documents in your environment, leveraging policy, procedures, and technology to meet legal and regulatory requirements and protect everyone who depends on you. Like Stallings’ other award-winning texts, this guide is designed to help readers quickly find the information and gain the mastery needed to implement effective privacy. Coverage includes: Planning for privacy: Approaches for managing and controlling the privacy control function; how to define your IT environment’s requirements; and how to develop appropriate policies and procedures for it Privacy threats: Understanding and identifying the full range of threats to privacy in information collection, storage, processing, access, and dissemination Information privacy technology: Satisfying the privacy requirements you’ve defined by using technical controls, privacy policies, employee awareness, acceptable use policies, and other techniques Legal and regulatory requirements: Understanding GDPR as well as the current spectrum of U.S. privacy regulations, with insight for mapping regulatory requirements to IT actions

The Privacy Engineer's Manifesto-Michelle Dennedy 2014-03-04 "It's our thesis that privacy will be an integral part of the next wave in the technology revolution and that innovators who are emphasizing privacy as an integral part of the product life cycle are on the right track." --The authors of The Privacy Engineer's Manifesto The Privacy Engineer's

Manifesto: Getting from Policy to Code to QA to Value is the first book of its kind, offering industry-proven solutions that go beyond mere theory and adding lucid perspectives on the challenges and opportunities raised with the emerging "personal" information economy. The authors, a uniquely skilled team of longtime industry experts, detail how you can build privacy into products, processes, applications, and systems. The book offers insight on translating the guiding light of OECD Privacy Guidelines, the Fair Information Practice Principles (FIPPs), Generally Accepted Privacy Principles (GAPP) and Privacy by Design (PbD) into concrete concepts that organizations, software/hardware engineers, and system administrators/owners can understand and apply throughout the product or process life cycle—regardless of development methodology—from inception to retirement, including data deletion and destruction. In addition to providing practical methods to applying privacy engineering methodologies, the authors detail how to prepare and organize an enterprise or organization to support and manage products, process, systems, and applications that require personal information. The authors also address how to think about and assign value to the personal information assets being protected. Finally, the team of experts offers thoughts about the information revolution that has only just begun, and how we can live in a world of sensors and trillions of data points without losing our ethics or value(s)...and even have a little fun. The Privacy Engineer's Manifesto is designed to serve multiple stakeholders: Anyone who is involved in designing, developing, deploying and reviewing products, processes, applications, and systems that process personal information, including software/hardware engineers, technical program and product managers, support and sales engineers, system integrators, IT professionals, lawyers, and information privacy and security professionals. This book is a must-read for all practitioners in the personal information economy. Privacy will be an integral part of the next wave in the technology revolution; innovators who emphasize privacy as an integral part of the product life cycle are on the right track. Foreword by Dr. Eric Bonabeau, PhD, Chairman, Icosystem, Inc. & Dean of Computational Sciences, Minerva Schools at KGI.

The Architecture of Privacy-Courtney Bowman 2015-08-31 Technology’s influence on privacy not only concerns consumers, political leaders, and advocacy groups, but also the software architects who design new products. In this practical guide, experts in data analytics, software engineering, security, and privacy policy describe how software teams can make privacy-protective features a core part of product functionality, rather than add them late in the development process. Ideal for software engineers new to privacy, this book helps you examine privacy-protective information management architectures and their foundational components—building blocks that you can combine in many ways. Policymakers, academics, students, and advocates unfamiliar with the technical terrain will learn how these tools can help drive policies to maximize privacy protection. Restrict access to data through a variety of application-level controls Use security architectures to avoid creating a single point of trust in your systems Explore federated architectures that let users retrieve and view data without compromising data security Maintain and analyze audit logs as part of comprehensive system oversight Examine case studies to learn how these building blocks help solve real problems Understand the role and responsibilities of a Privacy Engineer for maintaining your privacy architecture

Privacy Engineering-Ian Oliver 2014-07-18 Information privacy is the major defining issue of today's Internet enabled World. To construct information systems from small mobile 'apps' to huge, heterogeneous, cloudified systems requires merging together skills from software engineering, legal, security and many other disciplines - including some outside of these fields! Only through properly modelling the system under development can we full appreciate the complexity of where personal data and information flows; and more importantly, effectively communicate this. This book presents an approach based upon data flow modelling, coupled with standardised terminological frameworks, classifications and ontologies to properly annotate and describe the flow of information into, out of and across these systems. Also provided are structures and frameworks for the engineering process, requirements and audits; and even the privacy programme itself, but takes a pragmatic approach and encourages using and modifying the tools and techniques presented as the local context and needs require.

The Privacy Engineer’s Companion-Michelle Finneran Dennedy

2020-02-28 Engineer privacy into software, systems, and applications. This book is a resource for developers, engineers, architects, and coders. It provides tools, methodologies, templates, worksheets, and guidance on engineering privacy into software—from ideation to release and beyond—for technologies, products, systems, solutions, and applications. This book can be used in conjunction with the ApressOpen bestseller, The Privacy Engineer's Manifesto. This book trains and equips users to engage in their own privacy scoping requirements workshops, write privacy use cases or "stories" for agile development, document UI privacy patterns, conduct assessments, and align with product and information security teams. And, perhaps most importantly, the book brings clarity to a vitally important need—the protection of personal information—that is often shrouded in mystery during the engineering process. Go from policy to code to QA to value, all within these pages. What You Will Learn Think of the Fair Information Principles as actionable, normative statements Decode privacy into functional requirements that can be designed and coded Prepare and conduct a privacy scoping requirements workshop Translate privacy requirements into usable stories for agile development Guide user interface designers in creating privacy controls and interfaces Access software, systems, applications, and apps to see if the necessary privacy controls are in place Create privacy engineering documentation (such as data flow diagrams and privacy impact assessments) so that tribal lore is translated into institutional knowledge Access and ready the enterprise to support privacy engineering Who This Book Is For Serves multiple stakeholders, including those involved in architecting, designing, developing, deploying, and reviewing systems, products, processes, applications, and apps that process personal information. This workbook will appeal to software/hardware engineers, technical program and product managers, support and sales engineers, system integrators, IT professionals, lawyers, and information privacy and security professionals.

Privacy's Blueprint-Woodrow Hartzog 2018-04-09 Every day, Internet users interact with technologies designed to undermine their privacy. Social media apps, surveillance technologies, and the Internet of Things are all built in ways that make it hard to guard personal information. And the law says this is okay because it is up to users to protect themselves—even when the odds are deliberately stacked against them. In Privacy's Blueprint, Woodrow Hartzog pushes back against this state of affairs, arguing that the law should require software and hardware makers to respect privacy in the design of their products. Current legal doctrine treats technology as though it were value-neutral: only the user decides whether it functions for good or ill. But this is not so. As Hartzog explains, popular digital tools are designed to expose people and manipulate users into disclosing personal information. Against the often self-serving optimism of Silicon Valley and the inertia of tech evangelism, Hartzog contends that privacy gains will come from better rules for products, not users. The current model of regulating use fosters exploitation. Privacy's Blueprint aims to correct this by developing the theoretical underpinnings of a new kind of privacy law responsive to the way people actually perceive and use digital technologies. The law can demand encryption. It can prohibit malicious interfaces that deceive users and leave them vulnerable. It can require safeguards against abuses of biometric surveillance. It can, in short, make the technology itself worthy of our trust.

Designing for Privacy and its Legal Framework-Aurelia Tamò-Larrieux 2018-11-03 This book discusses the implementation of privacy by design in Europe, a principle that has been codified within the European Data Protection Regulation (GDPR). While privacy by design inspires hope for future privacy-sensitive designs, it also introduces the need for a common understanding of the legal and technical concepts of privacy and data protection. By pursuing an interdisciplinary approach and comparing the problem definitions and objectives of both disciplines, this book bridges the gap between the legal and technical fields in order to enhance the regulatory and academic discourse. The research presented reveals the scope of legal principles and technical tools for privacy protection, and shows that the concept of privacy by design goes beyond the principle of the GDPR. The book presents an analysis of how current regulations delegate the implementation of technical privacy and data protection measures to developers and describes how policy design must evolve in order to implement privacy by design and default principles.

Engaging Privacy and Information Technology in a Digital Age-National Research Council 2007-06-28 Privacy is a growing concern in the

United States and around the world. The spread of the Internet and the seemingly boundaryless options for collecting, saving, sharing, and comparing information trigger consumer worries. Online practices of business and government agencies may present new ways to compromise privacy, and e-commerce and technologies that make a wide range of personal information available to anyone with a Web browser only begin to hint at the possibilities for inappropriate or unwarranted intrusion into our personal lives. Engaging Privacy and Information Technology in a Digital Age presents a comprehensive and multidisciplinary examination of privacy in the information age. It explores such important concepts as how the threats to privacy evolving, how can privacy be protected and how society can balance the interests of individuals, businesses and government in ways that promote privacy reasonably and effectively? This book seeks to raise awareness of the web of connectedness among the actions one takes and the privacy policies that are enacted, and provides a variety of tools and concepts with which debates over privacy can be more fruitfully engaged. Engaging Privacy and Information Technology in a Digital Age focuses on three major components affecting notions, perceptions, and expectations of privacy: technological change, societal shifts, and circumstantial discontinuities. This book will be of special interest to anyone interested in understanding why privacy issues are often so intractable.

Strategic Privacy by Design-R. Jason Cronk 2018-10-15

Future Data and Security Engineering-Tran Khanh Dang 2019-11-22 This book constitutes the proceedings of the 6th International Conference on Future Data and Security Engineering, FDSE 2019, held in Nha Trang City, Vietnam, in November 2019. The 38 full papers and 14 short papers presented together with 2 papers of keynote speeches were carefully reviewed and selected from 159 submissions. The selected papers are organized into the following topical headings: Invited Keynotes, Advanced Studies in Machine Learning, Advances in Query Processing and Optimization, Big Data Analytics and Distributed Systems, Deep Learning and Applications, Cloud Data Management and Infrastructure, Security and Privacy Engineering, Authentication and Access Control, Blockchain and Cybersecurity, Emerging Data Management Systems and Applications, Short papers: Security and Data Engineering.

Privacy and Identity Management. The Smart Revolution-Marit Hansen 2018-06-08 This book contains selected papers presented at the 12th IFIP WG 9.2, 9.5, 9.6/11.7, 11.6/SIG 9.2.2 International Summer School on Privacy and Identity Management, held in Ispra, Italy, in September 2017. The 12 revised full papers, 5 invited papers and 4 workshop papers included in this volume were carefully selected from a total of 48 submissions and were subject to a three-phase review process. The papers combine interdisciplinary approaches to bring together a host of perspectives: technical, legal, regulatory, socio-economic, social, societal, political, ethical, anthropological, philosophical, and psychological. They are organized in the following topical sections: privacy engineering; privacy in the era of the smart revolution; improving privacy and security in the era of smart environments; safeguarding personal data and mitigating risks; assistive robots; and mobility and privacy.

The Risk-Based Approach to Data Protection-Raphaël Gellert 2020-10-06 The concept of a risk-based approach to data protection came to the fore during the overhaul process of the EU's General Data Protection Regulation (GDPR). At its core, it consists of endowing the regulated organizations that process personal data with increased responsibility for complying with data protection mandates. Such increased compliance duties are performed through risk management tools. This book provides a comprehensive analysis of this legal and policy development, which considers a legal, historical, and theoretical perspective. By framing the risk-based approach as a sui generis implementation of a specific regulation model known as meta regulation, this book provides a recollection of the policy developments that led to the adoption of the risk-based approach in light of regulation theory and debates. It also discusses a number of salient issues pertaining to the risk-based approach, such as its rationale, scope, and meaning; the role for regulators; and its potential and limits. The book also looks at they way it has been undertaken in major statutes with a focus on key provisions, such as data protection impact assessments or accountability. Finally, the book devotes considerable attention to the notion of risk. It explains key terms such as risk assessment and

management. It discusses in-depth the role of harms in data protection, the meaning of a data protection risk, and the difference between risks and harms. It also critically analyses prevalent data protection risk management methodologies and explains the most important caveats for managing data protection risks.

Privacy Enhancing Technologies-Germany) Pet 200 (2003 Dresden 2003-12-03 This book constitutes the thoroughly refereed post-proceedings of the Third International Workshop on Privacy Enhancing Technologies, PET 2002, held in Dresden, Germany in March 2003. The 14 revised full papers presented were carefully selected from 52 submissions during two rounds of reviewing and improvement. Among the topics addressed are mix-networks, generalized mixes, unlinkability, traffic analysis prevention, face recognition, privacy legislation, Web censorship, anonymous networking, personalized Web-based systems, and privacy in enterprises.

Engineering Safe and Secure Software Systems-C. Warren Axelrod 2012-11-01 This first-of-its-kind resource offers a broad and detailed understanding of software systems engineering from both security and safety perspectives. Addressing the overarching issues related to safeguarding public data and intellectual property, the book defines such terms as systems engineering, software engineering, security, and safety as precisely as possible, making clear the many distinctions, commonalities, and interdependencies among various disciplines. You explore the various approaches to risk and the generation and analysis of appropriate metrics. This unique book explains how processes relevant to the creation and operation of software systems should be determined and improved, how projects should be managed, and how products can be assured. You learn the importance of integrating safety and security into the development life cycle. Additionally, this practical volume helps identify what motivators and deterrents can be put in place in order to implement the methods that have been recommended.

Biometrics in Identity Management-Shimon K. Modi 2011 In todayOCOs digital infrastructure we have to interact with an increasing number of systems, both in the physical and virtual world. Identity management (IdM) -- the process of identifying an individual and controlling access to resources based on their associated privileges -- is becoming progressively complex. This has brought the spotlight on the importance of effective and efficient means of ascertaining an individualOCOs identity. Biometric technologies like fingerprint recognition, face recognition, iris recognition etc. have a long history of use in law enforcement applications and are now transitioning towards commercial applications like password replacements, ATM authentication and others.This unique book provides you with comprehensive coverage of commercially available biometric technologies, their underlying principles, operational challenges and benefits, and deployment considerations. It also offers a look at the future direction these technologies are taking. By focusing on factors that drive the practical implementation of biometric technologies, this book serves to bridge the gap between academic researchers and industry practitioners. This book focuses on design, development, and deployment issues related to biometric technologies, including operational challenges, integration strategies, technical evaluations of biometric systems, standardization and privacy preserving principles, and several open questions which need to be answered for successful deployments."

Discrimination and Privacy in the Information Society-Bart Custers 2012-08-11 Vast amounts of data are nowadays collected, stored and processed, in an effort to assist in making a variety of administrative and governmental decisions. These innovative steps considerably improve the speed, effectiveness and quality of decisions. Analyses are increasingly performed by data mining and profiling technologies that statistically and automatically determine patterns and trends. However, when such practices lead to unwanted or unjustified selections, they may result in unacceptable forms of discrimination. Processing vast amounts of data may lead to situations in which data controllers know many of the characteristics, behaviors and whereabouts of people. In some cases, analysts might know more about individuals than these individuals know about themselves. Judging people by their digital identities sheds a different light on our views of privacy and data protection. This book discusses discrimination and privacy issues related to data mining and profiling practices. It provides

technological and regulatory solutions, to problems which arise in these innovative contexts. The book explains that common measures for mitigating privacy and discrimination, such as access controls and anonymity, fail to properly resolve privacy and discrimination concerns. Therefore, new solutions, focusing on technology design, transparency and accountability are called for and set forth.

Data Protection and Privacy: (In)visibilities and Infrastructures-Ronald Leenes 2017-02-07 This book features peer reviewed contributions from across the disciplines on themes relating to protection of data and to privacy protection. The authors explore fundamental and legal questions, investigate case studies and consider concepts and tools such as privacy by design, the risks of surveillance and fostering trust. Readers may trace both technological and legal evolution as chapters examine current developments in ICT such as cloud computing and the Internet of Things. Written during the process of the fundamental revision of revision of EU data protection law (the 1995 Data Protection Directive), this volume is highly topical. Since the European Parliament has adopted the General Data Protection Regulation (Regulation 2016/679), which will apply from 25 May 2018, there are many details to be sorted out. This volume identifies and exemplifies key, contemporary issues. From fundamental rights and offline alternatives, through transparency requirements to health data breaches, the reader is provided with a rich and detailed picture, including some daring approaches to privacy and data protection. The book will inform and inspire all stakeholders. Researchers with an interest in the philosophy of law and philosophy of technology, in computers and society, and in European and International law will all find something of value in this stimulating and engaging work.

Security, Privacy, and Applied Cryptography Engineering-Rajat Subhra Chakraborty 2015-09-24 This book constitutes the refereed proceedings of the 5th International Conference on Security, Privacy, and Applied Cryptography Engineering, SPACE 2015, held in Jaipur, India, in October 2015. The 17 full papers presented in this volume were carefully reviewed and selected from 57 submissions. The book also contains 4 invited talks in full-paper length. The papers are devoted to various aspects of security, privacy, applied cryptography, and cryptographic engineering.

Security, Privacy, and Applied Cryptography Engineering-Shivam Bhasin 2019-11-20 This book constitutes the refereed proceedings of the 9th International Conference on Security, Privacy, and Applied Cryptography Engineering, SPACE 2019, held in Gandhinagar, India, in December 2019. The 12 full papers presented were carefully reviewed and selected from 24 submissions. This annual event is devoted to various aspects of security, privacy, applied cryptography, and cryptographic engineering. This is a very challenging field, requiring the expertise from diverse domains, ranging from mathematics to solid-state circuit design.

Security, Privacy, and Applied Cryptography Engineering-Anupam Chattopadhyay 2018-12-06 This book constitutes the refereed proceedings of the 8th International Conference on Security, Privacy, and Applied Cryptography Engineering, SPACE 2018, held in Kanpur, India, in December 2018. The 12 full papers presented together with 5 short paper, were carefully reviewed and selected from 34 submissions. This annual event is devoted to various aspects of security, privacy, applied cryptography, and cryptographic engineering. This is indeed a very challenging field, requiring the expertise from diverse domains, ranging from mathematics to solid-state circuit design.

Group Privacy-Linnet Taylor 2016-12-28 The goal of the book is to present the latest research on the new challenges of data technologies. It will offer an overview of the social, ethical and legal problems posed by group profiling, big data and predictive analysis and of the different approaches and methods that can be used to address them. In doing so, it will help the reader to gain a better grasp of the ethical and legal conundrums posed by group profiling. The volume first maps the current and emerging uses of new data technologies and clarifies the promises and dangers of group profiling in real life situations. It then balances this with an analysis of how far the current legal paradigm grants group rights to privacy and data protection, and discusses possible routes to addressing these problems.

Finally, an afterword gathers the conclusions reached by the different authors and discuss future perspectives on regulating new data technologies.

Threat Modeling-Adam Shostack 2014-02-12 The only security book to be chosen as a Dr. Dobbs Jolt Award Finalist since Bruce Schneier's Secrets and Lies and Applied Cryptography! Adam Shostack is responsible for security development lifecycle threat modeling at Microsoft and is one of a handful of threat modeling experts in the world. Now, he is sharing his considerable expertise into this unique book. With pages of specific actionable advice, he details how to build better security into the design of systems, software, or services from the outset. You'll explore various threat modeling approaches, find out how to test your designs against threats, and learn effective ways to address threats that have been validated at Microsoft and other top companies. Systems security managers, you'll find tools and a framework for structured thinking about what can go wrong. Software developers, you'll appreciate the jargon-free and accessible introduction to this essential skill. Security professionals, you'll learn to discern changing threats and discover the easiest ways to adopt a structured approach to threat modeling. Provides a unique how-to for security and software developers who need to design secure products and systems and test their designs Explains how to threat model and explores various threat modeling approaches, such as asset-centric, attacker-centric and software-centric Provides effective approaches and techniques that have been proven at Microsoft and elsewhere Offers actionable how-to advice not tied to any specific software, operating system, or programming language Authored by a Microsoft professional who is one of the most prominent threat modeling experts in the world As more software is delivered on the Internet or operates on Internet-connected devices, the design of secure software is absolutely critical. Make sure you're ready with Threat Modeling: Designing for Security.

Customer Data and Privacy: The Insights You Need from Harvard Business Review-Harvard Business Review 2020-09-22 Collect data and build trust. With the rise of data science and machine learning, companies are awash in customer data and powerful new ways to gain insight from that data. But in the absence of regulation and clear guidelines from most federal or state governments, it's difficult for companies to understand what qualifies as reasonable use and then determine how to act in the best interest of their customers. How do they build, not erode, trust? Customer Data and Privacy: The Insights You Need from Harvard Business Review brings you today's most essential thinking on customer data and privacy to help you understand the tangled interdependencies and complexities of this evolving issue. The lessons in this book will help you develop strategies that allow your company to be a good steward, collecting, using, and storing customer data responsibly. Business is changing. Will you adapt or be left behind? Get up to speed and deepen your understanding of the topics that are shaping your company's future with the Insights You Need from Harvard Business Review series. Featuring HBR's smartest thinking on fast-moving issues—blockchain, cybersecurity, AI, and more—each book provides the foundational introduction and practical case studies your organization needs to compete today and collects the best research, interviews, and analysis to get it ready for tomorrow. You can't afford to ignore how these issues will transform the landscape of business and society. The Insights You Need series will help you grasp these critical ideas—and prepare you and your company for the future.

Federal Statistics, Multiple Data Sources, and Privacy Protection-National Academies of Sciences, Engineering, and Medicine 2018-01-27 The environment for obtaining information and providing statistical data for policy makers and the public has changed significantly in the past decade, raising questions about the fundamental survey paradigm that underlies federal statistics. New data sources provide opportunities to develop a new paradigm that can improve timeliness, geographic or subpopulation detail, and statistical efficiency. It also has the potential to reduce the costs of producing federal statistics. The panel's first report described federal statistical agencies' current paradigm, which relies heavily on sample surveys for producing national statistics, and challenges agencies are facing; the legal frameworks and mechanisms for protecting the privacy and confidentiality of statistical data and for providing researchers access to data, and challenges to those frameworks and mechanisms; and statistical agencies access to alternative sources of data. The panel recommended a

new approach for federal statistical programs that would combine diverse data sources from government and private sector sources and the creation of a new entity that would provide the foundational elements needed for this new approach, including legal authority to access data and protect privacy. This second of the panel's two reports builds on the analysis, conclusions, and recommendations in the first one. This report assesses alternative methods for implementing a new approach that would combine diverse data sources from government and private sector sources, including describing statistical models for combining data from multiple sources; examining statistical and computer science approaches that foster privacy protections; evaluating frameworks for assessing the quality and utility of alternative data sources; and various models for implementing the recommended new entity. Together, the two reports offer ideas and recommendations to help federal statistical agencies examine and evaluate data from alternative sources and then combine them as appropriate to provide the country with more timely, actionable, and useful information for policy makers, businesses, and individuals.

Data Privacy Management, Cryptocurrencies and Blockchain Technology-Joaquin Garcia-Alfaro 2017-09-13 This book constitutes the refereed conference proceedings of the 12th International Workshop on Data Privacy Management, DPM 2017, on conjunction with the 22nd European Symposium on Research in computer Security, ESORICS 2017 and the First International Workshop on Cryprocurrencies and Blockchain Technology (CBT 2017) held in Oslo, Norway, in September 2017. The DPM Workshop received 51 submissions from which 16 full papers were selected for presentation. The papers focus on challenging problems such as translation of high-level buiness goals into system level privacy policies, administration of sensitive identifiers, data integration and privacy engineering. From the CBT Workshop six full papers and four short papers out of 27 submissions are included. The selected papers cover aspects of identity management, smart contracts, soft- and hardforks, proof-of-works and proof of stake as well as on network layer aspects and the application of blockchain technology for secure connect event ticketing.

An Introduction to Privacy for Technology Professionals-Travis Breaux 2020

Critical Animal and Media Studies-Núria Almiron 2015-10-14 This book aims to put the speciesism debate and the treatment of non-human animals on the agenda of critical media studies and to put media studies on the agenda of animal ethics researchers. Contributors examine the convergence of media and animal ethics from theoretical, philosophical, discursive, social constructionist, and political economic perspectives. The book is divided into three sections: foundations, representation, and responsibility, outlining the different disciplinary approaches' application to media studies and covering how non-human animals, and the relationship between humans and non-humans, are represented by the mass media, concluding with suggestions for how the media, as a major producer of cultural norms and values related to non-human animals and how we treat them, might improve such representations.

The Transparent Society-David Brin 1999-05-07 Argues that the privacy of individuals actually hampers accountability, which is the foundation of any civilized society and that openness is far more liberating than secrecy

Web Privacy with P3P-Lorrie Cranor 2002-09-23 This text explains the P3P protocol and shows Web site developers how to configure their sites for P3P compliance. Full of examples and case studies, the book delivers practical advice and insider tips.

Data Protection and Privacy: (In)visibilities and Infrastructures-Ronald Leenes 2017-02-07 This book features peer reviewed contributions from across the disciplines on themes relating to protection of data and to privacy protection. The authors explore fundamental and legal questions, investigate case studies and consider concepts and tools such as privacy by design, the risks of surveillance and fostering trust. Readers may trace both technological and legal evolution as chapters examine current developments

in ICT such as cloud computing and the Internet of Things. Written during the process of the fundamental revision of revision of EU data protection law (the 1995 Data Protection Directive), this volume is highly topical. Since the European Parliament has adopted the General Data Protection Regulation (Regulation 2016/679), which will apply from 25 May 2018, there are many details to be sorted out. This volume identifies and exemplifies key, contemporary issues. From fundamental rights and offline alternatives, through transparency requirements to health data breaches, the reader is provided with a rich and detailed picture, including some daring approaches to privacy and data protection. The book will inform and inspire all stakeholders. Researchers with an interest in the philosophy of law and philosophy of technology, in computers and society, and in European and International law will all find something of value in this stimulating and engaging work.

Human + Machine-Paul R. Daugherty 2018-03-20 AI is radically transforming business. Are you ready? Look around you. Artificial intelligence is no longer just a futuristic notion. It's here right now--in software that senses what we need, supply chains that "think" in real time, and robots that respond to changes in their environment. Twenty-first-century pioneer companies are already using AI to innovate and grow fast. The bottom line is this: Businesses that understand how to harness AI can surge ahead. Those that neglect it will fall behind. Which side are you on? In Human + Machine, Accenture leaders Paul R. Daugherty and H. James (Jim) Wilson show that the essence of the AI paradigm shift is the transformation of all business processes within an organization--whether related to breakthrough innovation, everyday customer service, or personal productivity habits. As humans and smart machines collaborate ever more closely, work processes become more fluid and adaptive, enabling companies to change them on the fly--or to completely reimagine them. AI is changing all the rules of how companies operate. Based on the authors' experience and research with 1,500 organizations, the book reveals how companies are using the new rules of AI to leap ahead on innovation and profitability, as well as what you can do to achieve similar results. It describes six entirely new types of hybrid human + machine roles that every company must develop, and it includes a "leader’s guide" with the five crucial principles required to become an AI-fueled business. Human + Machine provides the missing and much-needed management playbook for success in our new age of AI. BOOK PROCEEDS FOR THE AI GENERATION The authors' goal in publishing Human + Machine is to help executives, workers, students and others navigate the changes that AI is making to business and the economy. They believe AI will bring innovations that truly improve the way the world works and lives. However, AI will cause disruption, and many people will need education, training and support to prepare for the newly created jobs. To support this need, the authors are donating the royalties received from the sale of this book to fund education and retraining programs focused on developing fusion skills for the age of artificial intelligence.

Software Security Engineering-Nancy R. Mead 2004-04-21 Software Security Engineering draws extensively on the systematic approach developed for the Build Security In (BSI) Web site. Sponsored by the Department of Homeland Security Software Assurance Program, the BSI site offers a host of tools, guidelines, rules, principles, and other resources to help project managers address security issues in every phase of the software development life cycle (SDLC). The book’s expert authors, themselves frequent contributors to the BSI site, represent two well-known resources in the security world: the CERT Program at the Software Engineering Institute (SEI) and Cigital, Inc., a consulting firm specializing in software security. This book will help you understand why Software security is about more than just eliminating vulnerabilities and conducting penetration tests Network security mechanisms and IT infrastructure security services do not sufficiently protect application software from security risks Software security initiatives should follow a risk-management approach to identify priorities and to define what is “good enough”–understanding that software security risks will change throughout the SDLC Project managers and software engineers need to learn to think like an attacker in order to address the range of functions that software should not do, and how software can better resist, tolerate, and recover when under attack

Seeking SRE-David N. Blank-Edelman 2018-08-21 Organizations big and small have started to realize just how crucial system and application

reliability is to their business. They've also learned just how difficult it is to maintain that reliability while iterating at the speed demanded by the marketplace. Site Reliability Engineering (SRE) is a proven approach to this challenge. SRE is a large and rich topic to discuss. Google led the way with Site Reliability Engineering, the wildly successful O'Reilly book that described Google's creation of the discipline and the implementation that's allowed them to operate at a planetary scale. Inspired by that earlier work, this book explores a very different part of the SRE space. The more than two dozen chapters in Seeking SRE bring you into some of the important conversations going on in the SRE world right now. Listen as engineers and other leaders in the field discuss: Different ways of implementing SRE and SRE principles in a wide variety of settings How SRE relates to other approaches such as DevOps Specialties on the cutting edge that will soon be commonplace in SRE Best practices and technologies that make practicing SRE easier The important but rarely explored human side of SRE David N. Blank-Edelman is the book's curator and editor.

Information Security Education – Towards a Cybersecure Society-Lynette Drevin 2018-09-10 This book constitutes the refereed proceedings of the 11th IFIP WG 11.8 World Conference on Information Security Education, WISE 11, held at the 24th IFIP World Computer Congress, WCC 2018, in Poznan, Poland, in September 2018. The 11 revised papers presented were carefully reviewed and selected from 25 submissions. They focus on cybersecurity and are organized in the following topical sections: information security learning techniques; information security training and awareness; and information security courses and curricula.

Effective Cybersecurity-William Stallings 2018-07-20 The Practical, Comprehensive Guide to Applying Cybersecurity Best Practices and Standards in Real Environments In Effective Cybersecurity, William Stallings introduces the technology, operational procedures, and management practices needed for successful cybersecurity. Stallings makes extensive use of standards and best practices documents that are often used to guide or mandate cybersecurity implementation. Going beyond these, he offers in-depth tutorials on the "how" of implementation, integrated into a unified framework and realistic plan of action. Each chapter contains a clear technical overview, as well as a detailed discussion of action items and appropriate policies. Stallings offers many pedagogical features designed to help readers master the material: clear learning objectives, keyword lists, review questions, and QR codes linking to relevant standards documents and web resources. Effective Cybersecurity aligns with the comprehensive Information Security Forum document "The Standard of Good Practice for Information Security," extending ISF's work with extensive insights from ISO, NIST, COBIT, other official standards and guidelines, and modern professional, academic, and industry literature. • Understand the cybersecurity discipline and the role of standards and best practices • Define security governance, assess risks, and manage strategy and tactics • Safeguard information and privacy, and ensure GDPR compliance • Harden systems across the system development life cycle (SDLC) • Protect servers, virtualized systems, and storage • Secure networks and electronic communications, from email to VoIP • Apply the most appropriate methods for user authentication • Mitigate security risks in supply chains and cloud environments This knowledge is indispensable to every cybersecurity professional. Stallings presents it systematically and coherently, making it practical and actionable.

The Ethical Algorithm-Michael Kearns 2019-10-04 Over the course of a generation, algorithms have gone from mathematical abstractions to powerful mediators of daily life. Algorithms have made our lives more efficient, more entertaining, and, sometimes, better informed. At the same time, complex algorithms are increasingly violating the basic rights of individual citizens. Allegedly anonymized datasets routinely leak our most sensitive personal information; statistical models for everything from mortgages to college admissions reflect racial and gender bias. Meanwhile, users manipulate algorithms to "game" search engines, spam filters, online reviewing services, and navigation apps. Understanding and improving the science behind the algorithms that run our lives is rapidly becoming one of the most pressing issues of this century. Traditional fixes, such as laws, regulations and watchdog groups, have proven woefully inadequate. Reporting from the cutting edge of scientific research, The Ethical Algorithm offers a new approach: a set of principled solutions based on the emerging and exciting science of socially aware algorithm design. Michael Kearns and Aaron Roth explain how we can better embed human principles

into machine code - without halting the advance of data-driven scientific exploration. Weaving together innovative research with stories of citizens, scientists, and activists on the front lines, The Ethical Algorithm offers a compelling vision for a future, one in which we can better protect humans from the unintended impacts of algorithms while continuing to inspire wondrous advances in technology.

Security of Ubiquitous Computing Systems-Gildas Avoine

Privacy Program Management, Second Edition-Russell Densmore 2019-04

Cyber-Physical Systems-acatech 2013-01-23 Today, about 98 percent of microprocessors are already embedded in everyday objects and devices, connected with the outside world through sensors and actuators. They are increasingly networked with one another and on the internet. The physical world and the virtual world - or cyberspace - are merging; cyber-physical systems are developing.Future cyber-physical systems will contribute to security, efficiency, comfort and the health systems as never before, and as a result, they will contribute to solving key challenges of our society, such as the aging population, limited resources, mobility, or energy transition. Germany is in the position to become a leader in international competition thanks to innovative cyber-physical systems. In this statement, acatech explains what prerequisites must be created and how Germany can overcome the technical, political and social hurdles on the way to achieving this position.

Operating System Security-Trent Jaeger 2008 "Operating systems provide the fundamental mechanisms for securing computer processing. Since the 1960s, operating systems designers have explored how to build"secure" operating systems - operating systems whose mechanisms protect the system against a motivated adversary. Recently, the importance of ensuring such security has become a mainstream issue for all operating systems. In this book, we examine past research that outlines the requirements for a secure operating system and research that implements example systems that aim for such requirements. For system designs that aimed to satisfy these requirements,we see that the complexity of software systems often results in implementation challenges that we are still exploring to this day. However, if a system design does not aim for achieving the secure operating system requirements, then its security features fail to protect the system in a myriad of ways. We also study systems that have been retro-fit with secure operating system features after an initial deployment. In all cases, the conflict between function on one hand and security on the other leads to difficult choices and the potential for unwise compromises. From this book, we hope that systems designers and implementers will learn the requirements for operating systems that effectively enforce security and will better understand how to manage the balance between function and security."--BOOK JACKET.