1. Record Nr. UNISA996464383803316 HCI for cybersecurity, privacy and trust: third International Conference, **Titolo** HCI-CPT 2021, held as part of the 23rd HCI International Conference. HCII 2021, Virtual event, July 24-29, 2021, proceedings / / Abbas Moallem, editor Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2021] ©2021 **ISBN** 3-030-77392-2 Descrizione fisica 1 online resource (500 pages) Collana Lecture Notes in Computer Science; ; v.12788 005.8 Disciplina Soggetti Computer security Data encryption (Computer science) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia

Nota di contenuto

Intro -- Foreword -- HCI International 2021 Thematic Areas and Affiliated Conferences -- Contents -- Usable Security -- Authentication Management of Home IoT Devices -- 1 Introduction -- 2 Background -- 2.1 Security and Privacy Issues in Home IoT Devices -- 2.2 Usability of Home IoT Security -- 2.3 Authentication Challenges in Multi-user Smart Home Devices -- 3 Study -- 3.1 Survey Structure -- 3.2 Participants -- 4 Results -- 4.1 Security and Data Privacy Concern --4.2 Password Management of Home IoT Devices -- 4.3 Features for Home IoT Password Management -- 5 Discussion -- 5.1 Design Guidelines for an IoT Password Management Tool -- 5.2 Limitations and Future Work -- 6 Conclusion -- References -- Emics and Etics of Usable Security: Culturally-Specific or Culturally-Universal? -- 1 Introduction -- 2 Emics-Etics Framework for Usable Security: A Culture-Centric Framework to Address Usability Problems with Security Tools -- 3 When Security Emics Meets Etics: Culture-Specific Security Challenges -- 3.1 Software Piracy -- 3.2 Password Sharing -- 3.3 Mobile Phone Sharing -- 4 Discussion -- 4.1 Sharing as Cultural Norm and Necessity -- 4.2 Sharing in Business Strategy -- 4.3 Sharing in Technology Tools -- 5 Conclusion -- References -- Development of a Novice-Friendly Representation of Camouflaged Boolean Networks

-- 1 Introduction -- 1.1 Past Research -- 1.2 Present Research -- 1.3 Hypotheses -- 2 Development Process -- 3 Study Method -- 3.1 Participants -- 3.2 Procedure -- 4 Results and Implications -- 5 Conclusions and Future Research -- References -- Testing Facial Recognition Software for Young Adults and Adolescents: An Integrative Review -- 1 Introduction -- 1.1 Pervasiveness -- 1.2 Lingering Questions -- 1.3 Answering Questions with User Testing -- 2 Methods -- 3 Results -- 3.1 Included Studies -- 3.2 Study Participants -- 3.3 Study Methods. 3.4 Study Findings -- 3.5 Study Limitations -- 3.6 Study Quality -- 4 Conclusion -- References -- Eye Gaze and Interaction Differences of Holistic Versus Analytic Users in Image-Recognition Human Interaction Proof Schemes -- 1 Introduction -- 2 User Study -- 2.1 Research Questions -- 2.2 Study Instruments -- 2.3 Sampling and Procedure -- 3 Analysis of Results -- 3.1 Differences in Time to the Solve Image-Recognition HIP Challenge Between Holistic and Analytic Users -- 3.2 Differences in Time to Visually Explore the Image During Solving the Image-Recognition HIP Challenge Between Holistic and Analytic Users -- 3.3 Differences in Eye Gaze Behavior During Solving the Image-Recognition HIP Challenge Between Holistic and Analytic Users -- 4 Main Findings -- 5 Conclusions and Future Work -- References -- Risk Assessment of ``Ostrich ZIP" -- 1 Introduction -- 2 Organizing the Ostrich ZIP Discussion -- 2.1 Literature Review -- 2.2 Web Survey -- 2.3 Advantages of Ostrich ZIP -- 2.4 Disadvantages of Ostrich ZIP -- 2.5 The Ostrich ZIP Threats --2.6 Background of Ostrich ZIP Usage -- 2.7 Alternative Methods for Ostrich ZIP -- 3 Survey on the Current Status of the Ostrich ZIP -- 3.1 Specification -- 3.2 Encrypted ZIP Support in Typical Environments --3.3 Automatic Ostrich ZIP -- 4 Model of Information Leakage Events in File Sharing During E-Mail Sending and Receiving -- 4.1 Events Related to Information Leakage via E-Mail -- 4.2 Situation of E-Mail Use and Incidents of Information Leakage -- 4.3 Event Model and Simplified Probability of Leakage Occurrence for Each Leakage Case -- 5 Leakage Risk Assessment Using Event Models -- 6 Discussion -- 6.1 Information Leakage Risk and Usability -- 6.2 Discontinuation of the Use of TPE and the Effect of AES Support in Various Environments --6.3 Control of Information. 6.4 Reasons for Adopting Ostrich ZIP and Current Status -- 6.5 Overseas Trends -- 7 Conclusion -- References -- Identity Recognition Based on the Hierarchical Behavior Characteristics of Network Users --1 Introduction -- 2 Literature Review -- 2.1 Research on Identity Recognition Based on Network User Behavior -- 2.2 Classifiers Used in Existing Research -- 3 Methodology -- 3.1 Research on Hierarchical Behavior Characteristics of Network Users -- 3.2 Characteristics Fusion and Identity Recognition Methods -- 4 Experimental Analysis and Results -- 4.1 Experimental Analysis -- 4.2 Results -- 5 Limitations and Future Work -- 6 Conclusions -- References --Security Analysis of Transaction Authorization Methods for Next Generation Electronic Payment Services -- 1 Introduction -- 2 Emerging Transaction Authorization Methods -- 3 Threats to Transaction Authorization -- 4 Risk Analysis -- 5 Countermeasures -- 6 Conclusions -- References -- Security and Privacy by Design --Beyond Murphy's Law: Applying Wider Human Factors Behavioural Science Approaches in Cyber-Security Resilience -- 1 Introduction --1.1 Case Study -- 2 Recognised HF Approaches -- 2.1 HF Adoption of Formal Cyber-Security Methods -- 2.2 HF Practitioner Experience --2.3 Culture -- 2.4 Safety Assurance Applied to Security -- 3 Methods -- 4 Discussion -- 4.1 Iterative Model Development and Validation --

4.2 Integrating Cyber and HF Approaches -- 4.3 Qualitative and Quantitative Methods -- 5 Conclusion -- References -- A Human Factor Approach to Threat Modeling -- 1 Introduction -- 2 Background and Related Work -- 2.1 Human Factors -- 2.2 Human Factors and Cybersecurity -- 2.3 Threat Modeling -- 3 STRIDE-HF -- 3.1 Implementing STRIDE-HF into an Interactive Experience: Another Week at the Office -- 4 Discussion and Implications -- 4.1 Human Factors and Threat Modeling.

4.2 STRIDE-HF as a User-Orientated Threat Modeling Approach -- 4.3 Future Work -- 5 Concluding Remarks -- References -- Smart Technologies and Internet of Things Designed for Aging in Place -- 1 Introduction -- 2 Aging in Place with IoT and Health-Related Smart Home Technologies -- 2.1 User Needs and Technology Requirements -- 2.2 IoT Standards: Technical Challenges -- 3 Models to Inform IoT and Smart Technology Adoption -- 3.1 Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT) -- 3.2 Human/Activity/Space/Technology Model (HAST) -- 4 Designing Smart Technology and IoT for Aging in Place -- 5 IoT, Privacy and Security, Acceptance and Adoption -- 5.1 Technology Acceptance Interviews -- 5.2 Privacy by Design, Usable Security for Home Healthcare Systems -- 6 Conclusion -- References -- Please Stop Listening While I Make a Private Call: Context-Aware In-Vehicle Mode of a Voice-Controlled Intelligent Personal Assistant with a Privacy Consideration -- 1 Introduction -- 2 Background and Related Work --3 IPA Task -- 3.1 IPA Functions Analysis in Vehicles -- 3.2 Personal Information of the IPAs -- 4 Method -- 4.1 WoZ-Prototype IPA -- 4.2 Participants and the Experiment Environment -- 4.3 Scenario -- 4.4 Participants and the Experiment Environment -- 5 Evaluation -- 5.1 Vehicle Contextual Function -- 5.2 Voice Interaction -- 5.3 Verbal Privacy -- 5.4 Carpooling -- 5.5 Car-Sharing -- 6 Discussion and Future Research -- References -- Enterprise Data Sharing Requirements: Rich Policy Languages and Intuitive User Interfaces -- 1 Introduction -- 2 Data Requester Specification -- 3 Shareability Theory Extension -- 4 Policy Review Matrix -- 5 Summary -- References --Heuristic Evaluation of Vulnerability Risk Management Leaders' Presentations of Cyber Threat and Cyber Risk -- 1 Introduction -- 2 Background -- 3 Method.

3.1 Participants -- 3.2 Dataset -- 3.3 Procedure -- 4 Results -- 4.1 Relationship of Scores to Tool Outputs -- 4.2 Color Use -- 4.3 Number Scheme -- 4.4 Visual Chart -- 5 Analysis -- 6 Conclusions and Future Work -- References -- Human Individual Difference Predictors in Cyber-Security: Exploring an Alternative Scale Method and Data Resolution to Modelling Cyber Secure Behavior -- 1 Introduction -- 2 Background -- 2.1 Individual Differences in Cyber-Security -- 2.2 Measurement Techniques and Data Resolution -- 3 Method -- 3.1 Participants -- 3.2 Study Design, Materials and Procedure -- 4 Results -- 4.1 SeBIS Device Securement -- 4.2 SeBIS Proactive Awareness --4.3 SeBIS Updating -- 4.4 SeBIS Password Generation -- 5 Discussion -- 6 Limitations -- 7 Conclusions and Future Directions -- References -- Privacy Design Strategies and the GDPR: A Systematic Literature Review -- 1 Introduction -- 2 Methodology -- 2.1 Planning -- 2.2 Execution -- 3 Results Analysis -- 4 Discussion -- 5 Conclusions and Future Work -- References -- User Behavior Analysis in Cybersecurity -- 'Just-in-Time' Parenting: A Two-Month Examination of the Bi-directional Influences Between Parental Mediation and Adolescent Online Risk Exposure -- 1 Introduction -- 2 Background -- 2.1 Adolescent Online Safety and Risks -- 2.2 Parental Mediation Influence on Adolescent Online Risk Exposure -- 3 A Family

Systems Approach -- 4 Methods -- 4.1 Diary Study Overview -- 4.2 Diary Study Measures -- 4.3 Data Analysis Approach -- 4.4 Participant Recruitment -- 5 Results -- 5.1 Descriptive Statistics -- 5.2 Exposure to Explicit Content -- 5.3 Risk Exposure to Sexual Solicitations -- 5.4 Exposure to Online Harassment -- 6 Discussion -- 6.1 Parent vs. Teen Perceptions of Mediation and Risk Exposure -- 6.2 Risk Exposure Affects Parental Mediation -- 6.3 'Just-in-Time' Parenting. 6.4 Limitations and Future Research.