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Nota di contenuto	Cognitive Approaches in HCI Design -- Towards Cognitive-Aware Multimodal Presentation: The Modality Effects in High-Load HCI -- Supporting Situation Awareness in Demanding Operating Environments through Wearable User Interfaces -- Development of a Technique for Predicting the Human Response to an Emergency Situation -- A Dynamic Task Representation Method for a Virtual Reality Application -- An Investigation of Function Based Design Considering Affordances in Conceptual Design of Mechanical Movement -- CWE: Assistance Environment for the Evaluation Operating a Set of Variations of the Cognitive Walkthrough Ergonomic Inspection Method -- The Use of Multimodal Representation in Icon Interpretation -- Beyond Emoticons: Combining Affect and Cognition in Icon Design -- Agency Attribution in Human-Computer Interaction -- Human-UAV Co-operation Based on Artificial Cognition -- Development of an Evaluation Method for Office Work Productivity -- Supporting Cognitive Collage Creation for Pedestrian Navigation -- Development of a Novel Platform for Greater Situational Awareness in the Urban Military Terrain -- The User Knows: Considering the Cognitive Contribution of the User in the Design of Auditory Warnings -- Interaction and Cognition -- The Influence of Gender and Age on the Visual Codes Working Memory and the Display

Duration – A Case Study of Fencers -- Comparison of Mobile Device Navigation Information Display Alternatives from the Cognitive Load Perspective -- Visual Complexity: Is That All There Is? -- Operational Decision Making in Aluminium Smelters -- Designers of Different Cognitive Styles Editing E-Learning Materials Studied by Monitoring Physiological and Other Data Simultaneously -- Analyzing Control-Display Movement Compatibility: A Neuroimaging Study -- Graphics and Semantics: The Relationship between What Is Seen and What Is Meant in Icon Design -- The Effect of Object Features on Multiple Object Tracking and Identification -- Organizing Smart Networks and Humans into Augmented Teams -- Quantitative Evaluation of Mental Workload by Using Model of Involuntary Eye Movement -- Spatial Tasks on a Large, High-Resolution Tiled Display: Females Mentally Rotate Large Objects Faster Than Men -- Neurocognitive Workload Assessment Using the Virtual Reality Cognitive Performance Assessment Test -- Sensing Directionality in Tangential Haptic Stimulation -- Effects of Design Elements in Magazine Advertisements -- The Influence of Shared-Representation on Shared Mental Models in Virtual Teams -- Harnessing the Power of Multiple Tools to Predict and Mitigate Mental Overload -- Acceptance of E-Invoicing in SMEs -- Mental Models in Process Visualization - Could They Indicate the Effectiveness of an Operator's Training? -- Effects of Report Order on Identification on Multidimensional Stimulus: Color and Shape -- Confidence Bias in Situation Awareness -- Tactical Reconnaissance Using Groups of Partly Autonomous UGVs -- Driving Safety and Support -- Use of High-Fidelity Simulation to Evaluate Driver Performance with Vehicle Automation Systems -- Applying the "Team Player" Approach on Car Design -- New HMI Concept for Motorcycles– The Saferider Approach -- Night Vision - Reduced Driver Distraction, Improved Safety and Satisfaction -- Measurement of Depth Attention of Driver in Frontal Scene -- Understanding the Opinion Forming Processes of Experts and Customers During Evaluations of Automotive Sounds -- HR Changes in Driving Scenes with Danger and Difficulties Using Driving Simulator -- Driver Measurement: Methods and Applications -- The Assessment of Driver's Arousal States from the Classification of Eye-Blink Patterns -- Guiding a Driver's Visual Attention Using Graphical and Auditory Animations -- Fundamental Study for Relationship between Cognitive Task and Brain Activity During Car Driving -- A Study on a Method to Call Drivers' Attention to Hazard -- An Analysis of Saccadic Eye Movements and Facial Images for Assessing Vigilance Levels During Simulated Driving -- Implementing Human Factors within the Design Process of Advanced Driver Assistance Systems (ADAS) -- A Survey Study of Chinese Drivers' Inconsistent Risk Perception -- Design for Smart Driving: A Tale of Two Interfaces -- Aviation and Transport -- Supervision of Autonomous Vehicles: Mutual Modeling and Interaction Management -- Conflicts in Human Operator – Unmanned Vehicles Interactions -- Ergonomic Analysis of Different Computer Tools to Support the German Air Traffic Controllers -- Behavior Model Based Recognition of Critical Pilot Workload as Trigger for Cognitive Operator Assistance -- A Design and Training Agenda for the Next Generation of Commercial Aircraft Flight Deck -- Future Ability Requirements for Human Operators in Aviation -- The Application of Human Error Template (HET) for Redesigning Standard Operational Procedures in Aviation Operations -- Effect of Aircraft Datablock Complexity and Exposure Time on Performance of Change Detection Task -- A Regulatory-Based Approach to Safety Analysis of Unmanned Aircraft Systems -- Using Acoustic Sensor Technologies to Create a More Terrain Capable Unmanned Ground

	Vehicle -- Critical Interaction Analysis in the Flight Deck -- Understanding the Impact of Rail Automation -- Cognitive Workload as a Predictor of Student Pilot Performance -- Direct Perception Displays for Military Radar-Based Air Surveillance -- A Selection of Human Factors Tools: Measuring HCI Aspects of Flight Deck Technologies.
Sommario/riassunto	This book constitutes the refereed proceedings of the 8th International Conference on Engineering Psychology and Cognitive Ergonomics, EPCE 2009, held in San Diego, CA, USA, in July 2009, within the framework of the 13th International Conference on Human-Computer Interaction, HCII 2009, together with 10 other thematically similar conferences. The 66 revised papers presented were carefully reviewed and selected from numerous submissions. The book has been split into the following four topical sections: cognitive approaches in HCI design, interaction and cognition, driving safety and support, and aviation and transport.