

A. Usability definitions:

Common Definition: Usability is the effectiveness, efficiency, and satisfaction with which users achieve their goals using a product in each context. The definition of usability may vary based on the context. ISO 9241-11 defines usability based on user goal achievement, while ISO/IEC 9126 defines usability based on effort and individual assessment of use.

B. Use in Context: ISO/IEC DTR 9126-4 and ISO WD 20282 provide guidelines for quality assurance in software and consumer products. They stress the importance of user-centered design and provide metrics for evaluating effectiveness, productivity, satisfaction, and safety in software products. These reports also define a test method and criteria for a "normal user" in consumer products.

C. Software Interface and Interaction: ISO standards, such as 14915, 9241, and 9126, provide guidance for usability, interface design, and evaluation in software. ISO/IEC 11581 offers recommendations for designing icons in user-computer dialogues.

D. Hardware Interface: ISO 9241 and ISO 13406 provide guidance on ergonomic and usability principles for hardware design, while ISO/IEC 14754 specifies gesture commands for pen-based interfaces and ISO 11064 contains ergonomic requirements for control center design. These standards are important for complying with European regulations and ensuring high-quality hardware and interfaces.

E. Documentation: ISO/IEC 15910 and ISO/IEC 18019 are international standards that provide guidance on creating user documentation for software with a user interface, including printed and online documentation. They specify the minimum process for creating user documentation and provide guidelines on how to determine what information users need and how to make it available.

f. Development Process: ISO standards guide user-centered design and evaluation during software development. ISO 13407 emphasizes human factors and ergonomics for better effectiveness, efficiency, and safety. ISO/IEC 14598 evaluates software products, ISO DTR 16982 outlines usability methods, INUSE assesses adherence to ISO 13407, and TRUMP recommends user-centered design methods.

G. Usability Capability of the Organization:

ISO TR 18529 assesses an organization's usability capability to create user-centered products. The Usability Maturity Model rates HCD processes to identify improvement areas, such as specifying user requirements, understanding context, producing designs, evaluating, and introducing the system.

H. other related standards:

ISO standards related to usability include ISO 9241-1 and 9241-2 for ergonomic requirements and task/job design involving VDTs, ISO 10075-1 for mental workload terminology, and ISO DTS 16071 for designing accessible computer systems for users with disabilities, providing guidance for usability and accessibility in system design.