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**NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**GB/T 21051-2007**

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**Ergonomics of human-system interaction -- Usability methods  
supporting human-centred design**

人-系统交互工效学 支持以人为中心设计的可用性方法

**(English Translation)**

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## Foreword

This standard is identical with ISO/T R16982.2002 "people - Ergonomic system interaction Usability methods supporting human-centered design" (In English), and in accordance with ISO/T R16982.2002 Translation drafted.

This standard Annex A, Annex B, Annex C is informative appendix.

The standard proposed by China National Institute of Standardization.

This standard by the National Standardization Technical Committee on Human ergonomics.

This standard drafting units. China National Institute of Standardization, Lenovo Group, the Chinese Academy of Sciences Institute of Psychology, Dalian Maritime University, Beijing Yisa User Interface Design Co., Ltd. Seoul, Air Force Institute of Aviation Medicine, Tsinghua University.

## Introduction

As computer-based systems development is a fundamental element of the "human-centered design" and more attention.

GB/T 18978.11-2004 and GB/T 18976-2003 provides a "Availability Guide" and "human-centered design of interactive systems Process ".GB/T 18976-2003 provides a"

general guide to people-centered "for product design (hardware and software) and four kinds the main case, but did not set forth specific methods.

This standard is intended to help project managers (in support ergonomics of experts) to make informed decisions when selecting methods available, to support the GB/T 18976-2003 set forth in the human-centered design, and not to make project management staff become Ergonomics expert.

This standard is the availability of existing methods are reviewed, these methods can be used for the design and evaluation, can also be used in combination. Each Methods have their advantages and disadvantages are given as well as their selection and use of other relevant factors, including the life cycle, which stage of the project Impact on the availability of the method chosen.

Given the availability of each method is appropriate depends on the design activities are carried out, therefore, it should be the availability of methods and design phase knot COOPERATION. GB/T 8566 provides an assessment of the suitability of these methods are the basic framework.

Appendix A provides a template for professionals, Appendix B gives examples of the application of this template, Appendix C describes in detail the other

Methods and techniques.

GB/T 21051-2007/ISO/TR16982:2002 Human - system interaction ergonomic support people-centered Usability design methods

## 1 Scope

This standard gives a human-centered usability methods can be used to design and evaluation, and elaborates each Application Availability Advantages, inadequate application and other factors associated with time.

This standard clarifies the influence of individual characteristics and life cycle stages of the project to the availability of the method chosen, and can provide a specific scenario Examples of using the method of application.

Since the primary users of this standard is the project manager, therefore, the standard only necessary depth into the technical aspects of Ergonomics Problem, so that managers from the overall understanding of its relevance and importance in the design process.

As a supplement to this standard, GB/T 18978 given to these issues in a more fully set forth. GB/T 18978 primary user the system developers, specifiers and system buyers. Nevertheless, including end-user systems, including people-centered system development all parties involved are advised to obtain appropriate guidance in this standard.

By adopting the use of the product delivered to characterize the background description of

the list of issues, this standard guide may differ depending on the specific Design scenario cropped. When choosing a suitable method also wish to consider the availability of appropriate life cycle processes.

This standard deals only with methods usability specialists and project managers widely used.

This standard is not clear how the practice or implementation details set forth in the availability of the method.

**Note:** Most of the methods need to be involved ergonomics experts. Lack of appropriate skills and knowledge may not use these methods.

## 2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 8566 Information technology - Software life cycle processes (GB/T 8566-2001, idt ISO/IEC 12207:1995) GB/T 18905 (all parts) Software engineering - Product evaluation (ISO/IEC 14598, IDT) GB/T 18976-2003 human-centered design of interactive systems (ISO 13407:1999, IDT) GB/T 18978 (all parts) use of visual display terminals (VDTs) Ergonomic requirements for office (ISO 9241, IDT)

## 3 Terms and Definitions

The following terms and definitions apply to this standard.

Representative of a product or the integrity of the system or part of the representative, although representation has limitations in some respects, but it can be used for evaluation.

[GB/T 18976-2003]

Individuals interact with the system.

[GB/T 18978.10-2004] GB/T 21051-2007/ISO/TR16982:2002