INTERNATIONAL STANDARD

ISO/ IEC/IEEE 23026

Second edition
2023-07

Corrected version
2023-09

Systems and software engineering — Engineering and management of websites for systems, software and services information

Ingénierie des systèmes et du logiciel — Ingénierie et gestion de sites web pour les systèmes, logiciels et services d'information

Reference number
ISO/IEC/IEEE 23026:2023(E)

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Published in Switzerland

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO/IEC documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*, in cooperation with the Systems and Software Engineering Standards Committee of the IEEE Computer Society, under the Partner Standards Development Organization cooperation agreement between ISO and IEEE.

This second edition cancels and replaces the first edition (ISO/IEC/IEEE 23026:2015), which has been technically revised.

The main changes are as follows:

— updates relating to enhanced technical capabilities for website design and sustainment;

— attention to threats to data privacy and website integrity;

— reorganization to present both the life cycle processes of website information for informational websites and the requirements for website features.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

This corrected version of ISO/IEC/IEEE 23026:2023 incorporates the following correction:

— the edition number on the cover page has been corrected.

Introduction

Continuing improvements in Internet capabilities for technical communication, and the accelerating development of new technical protocols, products and services for website development and hosting, have both simplified and complicated the engineering and management of websites. This document is intended to account for new capabilities, approaches, and interests in using websites to communicate technical information. To a large extent, use of digital communications, particularly those accessible through the Internet or intranets, has supplanted printed publications for conveying technical information. This trend applies to information for users, systems and services documentation, and operational plans, policies, and procedures.

Other factors have also affected the design and operation of websites. The increasing sophistication of information security threats to technical enterprises and their information, as well as concerns for the privacy of Internet users, have markedly complicated the process of delivering information and communication technology (ICT) information over the Web. This document therefore has increased emphasis on information security and privacy concerns.

The diversity of websites for commercial marketing and social networking purposes reflects different interests and media choices from those websites that deliver ICT reference information. This document applies primarily to websites whose purpose is to deliver information about ICT systems, software, and services. It includes increased emphasis on the human factors concerns for making information easily retrievable and usable for the intended audience. It recommends practices for websites based on World Wide Web Consortium (W3C) and related industry guidelines. It continues to address the entire life cycle of website strategy, design, engineering, testing and validation, and management and sustainment, which are the responsibility of the website owner and website provider.

Systems and software engineering — Engineering and management of websites for systems, software and services information

1 Scope

This document defines system engineering and management requirements for the life cycle of websites, including strategy, design, engineering, testing and validation, and management and sustainment for intranet and extranet environments. This document applies to those using web technology to present information and communications technology (ICT) information, such as information for users of systems and services, plans and reports for systems and software engineering projects, and documentation of policies, plans, and procedures for IT service management. This document provides requirements for website owners and website providers, managers responsible for establishing guidelines for website development and operations, website engineers, designers, developers, and operations and maintenance staff, who can be external or internal to the website owner's organization. It applies to websites for public access and for limited access, such as for users, customers, and subscribers seeking information on IT systems, products and services.

The requirements and recommendations in this document address the following aspects of usability of informational websites and ease of maintenance of managed website operations:

a) locating relevant and timely information;

b) applying information security management;

c) facilitating accessibility and ease of use;

d) providing for consistent and efficient development and maintenance practices.

This document is not particularly applicable to websites used primarily for marketing or sales, to deliver instructional material (tutorials), or to provide graphical user interfaces (GUI) for business or consumer transactional application processing. However, this document can provide useful insights for managing such sites.

This document does not address vendor and product considerations for website engineering and management. This document does not include specifications for application development tools, programming and scripting languages used for websites, metadata tags, or protocols for network communications. It does not address tools or systems used for management or storage of information content (data, documents) that can be presented on websites.

This document does not address the design and architecture of software and systems supporting the Internet.

2 Normative references

There are no normative references for this document.

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.