



Technical Report

ISO/IEC TR 21221

**Information technology — Artificial
intelligence — Beneficial AI systems**

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Foreword

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Introduction

At present government, commercial and not-for-profit organizations are increasing their investment and adoption of artificial intelligence (AI) technology in systems and applications for business processes, products and services. As with other innovations, the adoption of AI comes with risks potentially resulting in negative impacts. In some cases, the legal requirements governing the use of the technology have already been imposed to mitigate these risks. To prevent unjustified negative societal attitude towards the AI, there is a need to clearly articulate the benefits of AI for all the stakeholders, comparing the benefits with relevant costs and risks. This can foster transparency and trustworthiness of AI, ensuring better governance, trust, understanding and appreciation of the value of the AI technology.

This document describes a conceptual framework for the articulation of benefits of AI as one of the non-functional characteristics of AI systems. This framework incorporates the make, use and impact perspectives of the stakeholders. It can help to initiate meaningful discussion among the stakeholders and to formulate appropriate business models and value propositions along the AI value chain.

This document also shows how the United Nations Sustainable Goals (UN SDGs) can be incorporated into the benefit components of AI system value ([Annex D](#)). Examples are provided to how an AI system with the proper benefit components in its value proposition can potentially contribute to and help accelerate the UN SDGs and lend support to the ISO's London Declaration^[1].

Information technology — Artificial intelligence — Beneficial AI systems

1 Scope

This document describes the delivery of functional, economic, environmental, social, societal, cultural, intellectual and personal benefits by AI systems as perceived by their stakeholders. The document includes illustrative use cases of AI systems.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 5339:2024, *Information technology — Artificial intelligence — Guidance for AI applications*

ISO/IEC 22989:2022, *Information technology — Artificial intelligence — Artificial intelligence concepts and terminology*