



## PROPOSAL FOR A NEW FIELD OF TECHNICAL ACTIVITY

**PROPOSER:**

SAC

**DATE OF CIRCULATION:**

2024-07-09

**CLOSING DATE FOR VOTING:**

2024-10-01

A proposal for a new field of technical activity shall be submitted to the Office of the CEO (to [tmb@iso.org](mailto:tmb@iso.org)), which will process the proposal in accordance with [ISO/IEC Directives, Part 1, Clause 1.5](#).

Furthermore, a proposal will be considered as complete if every information field is complete and follows the guidelines for proposing and justifying a new field of activity given in the [ISO/IEC Directives, Part 1, Annex C](#).

**TITLE**

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.2](#))

Creative digital design

**SCOPE**

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.3](#))

Standardization of protocols, including requirements and guidance, for processes, organization, operations and capacity building activities, related to human-based creative design of digital elements to be used, in the field of e-games, digital art, digital fashion design, cinema effects. By being technology-neutral, this doesn't include specifications related to IT-technology aspects.

Excluded:

- ISO/IEC JTC 1 Information technology
- ISO/TC 68/SC 8 (Reference data for financial services)
- ISO/TC 83 (Sports and other recreational facilities and equipment)
- ISO/TC 145/SC3 (Graphical symbols for use on equipment)
- ISO/TC 171 (Document management applications)
- ISO/TC 307 (Blockchain and distributed ledger technologies)
- IEC/TC 100 (Audio, video and multimedia systems and equipment)

**PURPOSE AND JUSTIFICATION** (Please use the field immediately below or attach an annex.)

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.13](#))

Creative design mainly concerns the human generation of original ideas, images and styles either individually or collectively with colleagues. These particularly refer to those have never existed before, although they may involve or adapt some existing materials.

Creative digital design involves carrying out original human creative activities by using digital means, focusing on the creative processes rather than the subsequent editing and manipulation of digital

content. It has significantly impacted various related fields, such as e-games, digital art, digital fashion design, and cinema effects, by improved originality, added value and branding influence, which contribute to the global digital economy.

The creative digital design related industries have demonstrated significant growth and potentials in various sectors. In 2023, Disney's entertainment revenue reached USD 40.635 billion. The global box office revenue for 2023 was USD 33.9 billion, according to the British data observation company Gower Street, and it is projected to surpass USD 40 billion by 2029. The digital artwork market is also expanding, with its value at USD 4.22 billion in 2022, and it is anticipated to generate an estimated revenue of USD 17.48 billion by 2032, according to Polaris Market Research. The digital fashion design sector is experiencing rapid growth; "Digital FashionZ Market Overview and Report" states that the global digital fashion market was valued at USD 342.71 million in 2022 and is expected to expand at a CAGR of 187.88%, reaching USD 195.072 billion by 2028. Furthermore, Midia Research forecasts that by 2030, the global gaming industry will achieve an annual revenue of USD 301.2 billion, with 3.8 billion active players worldwide.

Creative digital design is rapidly growing amongst the young, diversified & innovative generation for future, with new trends of mixing various cultures by virtual, deriving "NEW-NORMs" e.g. new work mode, consumption habits and social patterns, enabling massive and remote collaborations, adopting rapidly evolving tools and methods, with increasing demands for cross-application recognitions, whilst creating unique added-value when comparing against AI uses.

This new TC proposal provides protocols (or, policies and procedures) including requirements and guidance for process, management & operation in creative digital design, e.g., e-games, digital art, digital fashion design and cinema effects. It aims to assist the optimization of the gradually decentralized and globalized processes and aid communication in related areas, to cultivate and train more young professionals in the context of constantly evolving technologies and related industries, to invite new stakeholders, e.g., creative designers, artists, studios and societies of arts, to join ISO activities, and to improve creativity and embrace the enormous market potential that are accelerated with the digital creative industries and digital economy.

This new TC proposal intends to be technology-neutral, and will enable compatibility with numerous futural uses for cross-platform application scenarios, which indicates significant potential for spaces to grow, however, also with certain challenges that could jeopardize this trend, summarized as below:

- **Insufficient diversity and overreliance on existing but similar design elements** can decrease the enjoyment and experience in e-games, digital art such as craft arts and applied arts, digital fashion design, virtual individuals and virtual ambassadors, as well as cinema effects results from a lack of creativity.
- **Ignorance of protecting original design and intellectual property rights at different levels** can hinder the recognition of creative initiatives and put the rights of original creativity at the risk of plagiarism, thereby dampening the motivation and enthusiasm of professional creative designers, artists, studios, state-of-art cinemas, or relevant enterprises.
- **Lack of knowledge-sharing mechanism, collaborative design** can result in **unnecessary duplicated investments** and redundant back-and-forth endeavors due to ineffective collaborations in this field. With the absence of a widely accessible digital library which offers creative elements, the potential for collaborative creation and re-creation can be severely reduced.
- **Incapable digital creative designers and artists** can lead to low-quality digital design, increase costs and risks, which cause project failure and make a bad effect on related industries.
- **Insufficient compatibility** can limit the potential uses of creative elements across various platforms and applications. This further reduces user choices and restricts the market potential for creative elements.

This new TC proposal will help relevant stakeholders such as professional creative designers, artists, studios, state-of-art cinemas, enterprises and societies in related industries to improve competency, to strengthen the standardization in this area through main objectives to tackle the above issues:

- **to optimize the process for creative digital design.** Standardization in this field can identify creative

design processes by digital means, interpret multiple cultures, and improve the opportunities for, and quality level of, original design.

- **to protect the originality throughout creative digital design.** Standardization in this field can safeguard creativity, deliver original digital design concepts more efficiently and swiftly.
- **to encourage remotely collaborative design approaches between multiple studios.** Standardization in this field can eliminate technical barriers, encourage collaborative approaches and enlarge the global market in this area, which further promotes international exchanging and collaboration.
- **to minimize risks by strengthening the quality assurances of outsourcing SMEs/teams.** Standardization in this field can enhance the quality of outsourcing during the creative design process, reducing related risks in this field. It can also shorten the creative cycle and improve efficiency.
- **to improve the creative capability of creative digital designers and artists.** Standardization in this field can develop and train more young professionals for the constantly evolving industry and improve the creative capability of creative digital designers and artists.
- **to enable various potential uses across multiple platforms and different scenarios.** Standardization in this field can enable trans-applicational uses with improved immersive experiences, which can further enhance the attractiveness, quality, and value of creative elements over time.

This new TC proposal will contribute to several United Nations Sustainable Development Goals (3, 4, 8, 9, 10, 11, 12), and bring positive impacts and new opportunities to the global industrial growth, market expansion in related fields, and enhance connectivity and accessibility, fostering the transition and advancement of digital economy.

Currently, there are no existing ISO/TCs focusing on the field of this TC proposal. The existing TC/SCs, such as ISO/TC 307 (Blockchain and distributed ledger technologies), ISO/TC145/SC3 (Graphical symbols for use on equipment), ISO/TC171 (Document management applications), ISO/TC 83 (Sports and other recreational facilities and equipment), ISO/TC68/SC8 (Reference data for financial services), ISO/IEC JTC 1 and its SCs include SC23 (Digitally recorded media for information interchange and storage), SC24 (Computer graphics, image processing and environmental data representation), SC27 (Information security, cybersecurity and privacy protection), SC29 (Coding of audio, picture, multimedia, and hypermedia information), SC32 (Data management and interchange), SC35 (User interfaces), SC41 (Internet of things and digital twin) and SC42 (Artificial intelligence), primarily focus on digital information technology, which are indeed supportive and technical enablers for this TC proposal activities. This TC proposal will also exclude the work of IEC/TC 100 (Audio, video and multimedia systems and equipment), ITU-T SG12 (Performance, quality of service (QoS) and quality of experience (QoE)), and ITU-T SG16 (Multimedia and related digital technologies).

This new TC proposal aims to be technology-neutral and will foster collaborative impacts in transforming creative processes from silo approach to collaborative approaches among professional creative designers, artists, studios, state-of-art cinemas, enterprises, outsourcing SMEs or teams, and societies through coordinated managerial, organizational, operational, and capacity-building activities, by improving originality, diversity and efficiency, enhancing immersive experience, and reducing duplication in labor cost and investment, thereby promotes the overall potential industry eco-system. It will not focus on any specific information technology, particularly those related to environmental data representation, graphics processing, protection of information and ICT, coding of information, data exchange, user-system interfaces, digital twin or blockchain technologies. This new TC proposal does not necessarily involve Artificial Intelligence either.

This new TC proposal will start with clarifying definitions related to creative digital design. It will develop standards on the guidance for process of interpreting culture related elements, and guidelines for designing, creating, fostering originality, IP proofing, and collaborative design. These standards will, in turn, promote innovative uses, enhance the values in this field and form potential industry eco-system.

**PROPOSED INITIAL PROGRAMME OF WORK** (Please use the field immediately below or attach an annex)

Please see the [ISO/IEC Directives, Part 1, Annex C.4.4 and C-4.5](#))

For each item, the initial work programme shall define the deliverable type and target dates. The initial work programme shall also assign priorities to the different items.

The proposer intends to develop the following standards for creative digital design, as defined by the proposed scope, and prioritized standards in **BOLD** fonts are expected to be developed within 5 years:

Foundational standards, such as terms & definitions, classification, and cultural elements.

- **ISO IS “Creative digital design – Vocabulary”**
- ISO IS “Creative digital design – Principles and framework for creative digital design”
- **ISO IS “Creative digital design – Guidance for process for interpreting culture related elements”**

Standards for requirements and guidance of digital creative design of items in e-games, creative designers and studios, outsourcing.

- **ISO IS “Creative digital design – Guidance for creative design process of e-games”**
- **ISO IS “Creative digital design – Outsourcing SMEs regarding design of items in e-games”**
- ISO IS “Creative digital design – Capacity building for professional creative designers”
- ISO IS “Creative digital design – IP proofing considerations related to e-games”

Standards for human-created digital arts, including fine arts, artworks and artifacts including craft arts.

- **ISO IS “Creative digital design – Definitions of digital artworks”**
- ISO IS “Creative digital design – Guidelines for collaborative approaches in digital arts amongst artists”
- ISO IS “Creative digital design – Procedures for developing digital artifacts”
- ISO IS “Creative digital design – Assessment and proofing factors of digital fine arts”

Standards for identity-driven creative elements, such as virtual individuals and virtual ambassadors, digital fashion design and cinema effect design, etc.

- ISO IS “Creative digital design – Guidance for outfit features, e.g., figure, color, fabric and style”
- ISO IS “Creative digital design – Practices for knowledge-sharing platforms”
- **ISO IS “Creative digital design – Guidance for collaborative design of cinema effects amongst designers and studios”**

**RELATION OF THE PROPOSAL TO EXISTING INTERNATIONAL STANDARDS AND ON-GOING STANDARDIZATION WORK**

- The proposer has checked whether the proposed scope of the new committee overlaps with the scope of any existing ISO or IEC committee or JTC1 sub-committee
- If an overlap or the potential for overlap is identified, the affected committee has been informed and an agreement has been reached between proposer and committee on
  - i. modification/restriction of the scope of the proposal to avoid overlapping,
  - ii. potential modification/restriction of the scope of the existing committee to avoid overlapping.
- If agreement with the existing committee has not been reached, please explain why the proposal should be approved.

- Have proposals on this subject been submitted into an existing committee and rejected? If so, what were the reasons for rejection?

## **LISTING OF RELEVANT DOCUMENTS (SUCH AS STANDARDS AND REGULATIONS) AT INTERNATIONAL, REGIONAL AND NATIONAL LEVEL**

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.6](#))

The proposed new TC will refer to existing relevant standards and documents. The following are listed below will be referenced, is applicable, when developing international standards for creative digital design:

ISO/DIS 55013: Asset management - Guidance on the management of data assets

ISO/IEC 27001: Information security, cybersecurity, and privacy protection - Information security management systems - Requirements

ISO/IEC 15444: Information technology - JPEG 2000 image coding system

ISO/IEC 15938: Information technology - Multimedia content description interface

ISO/IEC 23005-1: Information technology Media context and control

ISO/IEC 23005-4: Information technology Media context and control Part 4: Virtual world object characteristics

ISO/IEC 23000: Information technology - Multimedia application format (MPEG-A)

ISO/IEC 23001: Information technology - MPEG systems technologies

ISO/IEC 29199-2: Information technology - JPEG XR image coding system — Part 2: Image coding specification

ISO/IEC 14496: Information technology - Coding of audio-visual objects

ISO/IEC 11179: Information technology - Metadata registries (MDR)

ISO 4669-1:2023: Document management Information classification, marking and handling Part 1: Requirements

ISO 80416-4:2005: Basic principles for graphical symbols for use on equipment Part 4: Guidelines for the adaptation of graphical symbols for use on screens and displays (icons)

IEC 61850: SER Series Communication networks and systems for power utility automation - ALL PARTS

IEC TS 62443-1-1: Industrial communication networks - Network and system security - Part 1-1: Terminology, concepts and models

ITU-T SG16 880 H.DLT-DCS: Technical framework of DLT-based digital collection services

ITU-T SG12 P.BBQCG: Parametric bitstream-based Quality Assessment of Cloud Gaming Services

ITU-T SG16 F.DC-IRS-RA: Reference architecture for an image recognition system for cultural relics and artworks

ITU-T SG16 F.DTP-reqts: Requirements and framework of digital twin platform for supporting multimedia services

IEEE P3221: Standard for Technical Requirements of Digital Collection Services Based on Blockchain Technologies

ITU: ICT Infrastructure as a Basis for Digital Economy

G20 Osaka Summit Leaders' Declaration

United Nations Conference on Trade and Development (UNCTAD): "Digital Economy Report"

International Data Corporation (IDC): "Worldwide Virtual and Augmented Reality Market Forecast"

Stanford University Virtual Human Interaction Lab: "Virtual Reality Annual Report"

Whitepaper Immersive Design Status Quo – Tools - Applications

Note\*: Other standards, and regulations, at international, regional, and national level will be researched and included as appropriate.

**LISTING OF RELEVANT COUNTRIES WHERE THE SUBJECT OF THE PROPOSAL IS IMPORTANT TO THEIR NATIONAL COMMERCIAL INTERESTS**

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.8](#))

China, United States, United Kingdom, France, Germany, Japan, Korea, Singapore, Indonesia, India, Canada, Brazil, Australia, South Africa, Saudi Arabia

**LISTING OF RELEVANT EXTERNAL INTERNATIONAL ORGANIZATIONS OR INTERNAL PARTIES (OTHER THAN ISO AND/OR IEC COMMITTEES) TO BE ENGAGED AS LIASONS IN THIS WORK**

(Please see the [ISO/IEC Directives, Part 1, Clause C.4.9](#))

ISO/TC 251, ISO/TC 83, ISO/TC 307, ISO/TC 312, ISO/TC 68/SC 8, ISO/TC 145/SC3, ISO/TC 171, JTC1/SC23, JTC1/SC24, JTC1/SC27, JTC1/SC29, JTC1/SC32, JTC1/SC35, JTC1/SC41, JTC1/SC42, IEC/TC 100, ITU-T SG12, ITU-T SG16

**IDENTIFICATION AND DESCRIPTION OF RELEVANT AFFECTED STAKEHOLDER CATEGORIES**

(Please see [ISO Connect](#))

	<b>Benefits/Impacts/Examples</b>
<b>Industry and commerce – large industry</b>	<ul style="list-style-type: none"><li>—Promote industry development by bringing creative design advancement and innovation.</li><li>—Reduce costs by avoiding duplication of workload and redundant uses of resources, which improves production efficiency and resource utilization.</li><li>—Protect original creativity and intellectual property proofing as relevant. The protection of original IP and R&amp;D outcomes can enhance competency in long run.</li><li>—Strengthen cooperation and exchanges by sharing and cooperating between enterprises, encouraging remotely collaborative design approaches between multiple studios.</li><li>—Deliver better user experiences by providing assurance for functions and performance of digital creative elements to meet user needs and expectations.</li><li>—Improve the creative capability of creative digital designers and artists.</li><li>— Enjoy higher margins generated by better added-value creativities for enterprises related to e-games, digital arts, digital fashion design, cinema effects design, etc.</li></ul>

<b>Industry and commerce – SMEs</b>	<ul style="list-style-type: none"> <li>—Improve creativity with high-quality design by helping SMEs such as studios to improve the level of standardization and enhance competitiveness and market recognition.</li> <li>—Protect original design and intellectual property rights of SMEs. The protection of original IP and R&amp;D outcomes can enhance the design and R&amp;D strength by SMEs.</li> <li>—Encourage remotely collaborative design approaches between multiple studios instead of silo approach.</li> <li>—Minimize risks by strengthening the quality assurances of outsourcing SMEs or teams.</li> <li>—Enable knowledge-sharing, synergy and collaboration by remoter.</li> <li>—Reduce creative digital design costs and the risk of project failure.</li> <li>—Enhance the credibility and reputation of SMEs.</li> </ul>
<b>Government</b>	<ul style="list-style-type: none"> <li>—Promote industrial development and enhance the local economic strength and competitiveness.</li> <li>—Promote original innovation by encouraging enterprises to carry out creative design activities.</li> <li>—Increase international collaboration by cooperating with other organizations in creative elements to expand the global market.</li> </ul>
<b>Consumers</b>	<ul style="list-style-type: none"> <li>—Ensure that consumers can obtain more creative and reliable digital elements and items in different fields such as in e-games, digital arts, digital fashion design.</li> <li>—Provide immersive experience when watching state-of-art films or similar activities.</li> </ul>
<b>Labour</b>	<ul style="list-style-type: none"> <li>—Promote employment opportunities with related field in creative digital design.</li> <li>—Promote career growth and better capacity building for designers, artists and other related employees.</li> <li>—Improve knowledge-sharing environment for freelancers.</li> </ul>
<b>Academic and research bodies</b>	<ul style="list-style-type: none"> <li>—Provide unified standards for reference.</li> <li>—Promote knowledge-sharing and cooperation with different academic and research institutes.</li> </ul>
<b>Standards application businesses</b>	
<b>Non-governmental organizations</b>	<ul style="list-style-type: none"> <li>—Promote collaboration and cooperation by developing protocols for creative digital design among different NGOs.</li> <li>—Lifting the image and reputation of NGOs can broaden organisation's influence and appeal.</li> <li>—Strengthen resource integration and management capabilities of NGOs, and improve the operational efficiency.</li> </ul>

Other (please specify)	
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**EXPRESSION OF LEADERSHIP COMMITMENT FROM THE PROPOSER**

(Please see the [ISO/IEC Directives, Part 1, Annex C, Clause C.4.12](#))

If ISO agrees to establish this committee, China is willing to undertake the work of the Secretariat

- The proposer confirms that this proposal has been drafted in compliance with iso/iec directives, part 1, annex c

**SIGNATURE OF THE PROPOSER**

**COMMENTS OF THE ISO CENTRAL OFFICE (IF ANY)**