Question 23/16 – Digital culture-related systems and services

(Continuation of Question 23/16)

1 Motivation

The application of ICT technology in the field of culture can effectively maintain the cultural diversity, and support the exchange and sharing of cultures around countries in the world. Recent catastrophic events in the cultural sphere have made the need for such applications more urgent.

Digital culture is the general term of products and services which aim at maintaining cultural diversity and improving the effectiveness of cultural communication. Digital culture-related systems and services refer to a structure set of capabilities intended to support culture related applications with the advanced digital multimedia technologies.

Digital culture mainly includes cultural resource digitization and cultural content expression.

Culture resource digitalization uses digital technologies to support collection, classification and storage of culture resources which include tangible and intangible cultural heritage, culture relics, artworks, museum collections and other culture related resources. Although a series of standards related to cultural resources have been developed by relevant organizations, important gaps exist and the applicability level of these standards in digital culture-related systems and services still need to be improved.

Culture content expression uses multimedia technologies to support the creation, dissemination and representation of digital culture products such as animation, game, reading, music etc. Digital gallery, digital museum and digital cultural space in community are typical applications which represent digital culture content on general or dedicate terminals with advanced multimedia technologies.

With the rapid development of technology, the next generation mobile communications, cloud computing, artificial intelligence, big data, internet of things (IoT) and virtual reality have also been introduced into digital culture-related systems and services. These technologies bring various type of culture experience and multimodal interaction applications, but they also increase the systematic complexity and interoperability difficulty at the same time, so normative definition, requirements, and architecture are needed for digital culture-related systems and services.

Study Group 16, as the lead study group for multimedia coding, systems and applications, will coordinate the technical standardization of multimedia systems and services for digital culture-related applications in ITU-T. This Question will develop corresponding Recommendations and other deliverables, drawing on the best possible expertise, which may reside in other Questions, ITU-T Study Groups and other standards committees.

2 Study items

Study items to be considered include, but not limited to:

– scope and definitions of digital culture-related systems and services;

– use cases and requirements of digital culture-related systems and services;

– architecture of digital culture-related systems and services;

– roadmap of digital culture-related standards;

– application of relevant existing standards for culture resource digitalization that support collection, classification and storage of culture resources;

– application of relevant existing standards for culture content expression which support the creation, dissemination and representation of digital culture products;

– multimodal interaction experience of digital culture-related systems and services;

–	security and privacy of digital culture-related systems and services;

–	big data and intelligent application in digital culture-related systems and services;

–	new directions or emerging services and applications based on digital culture technologies, including gap analyses;

–	standards evolution strategy for digital culture.

## 3	Tasks

Tasks include, but are not limited to:

–	develop Recommendations on the definitions of terminologies, requirement, reference architecture, testing and evaluation for digital culture-related systems and services;

–	develop the roadmap of digital culture-related systems and services;

–	develop Recommendations on big data and intelligent application for digital culture-related system, service and application;

–	develop Recommendations on application of culture resource;

–	develop Recommendations on application of culture content expression;

–	develop Recommendations on multimodal interaction experience of digital culture-related systems and services;

–	develop Recommendations on the security and privacy of digital culture-related systems and services;

–	promote close liaison with relevant organizations, such as UNESCO and ISO/IEC JTC1 groups;

–	identify new trend, emerging services and applications of digital culture-related systems and services;

–	maintain deliverables under the responsibility of the Question, including: Recommendations ITU-T F.740.1, T.621.

Other topics can also be studied as appropriate, based on contributions.

An up-to-date status of work under this Question is contained in the SG16 work programme (https://www.itu.int/ITU-T/workprog/wp_search.aspx?sp=17&q=23/16).

## 4	Relationships

Recommendations

–	E, F, G, H, I, Q, T, V, X, Y-series Recommendations under the responsibility of SG16

Questions

–	Questions 5/16, 6/16, 21/16, 24/16

Study Groups

–	ITU-T SGs 12, 13, 17 and 20

Other bodies

–	UNESCO and other institutions working on the digital culture field

–	ISO, ISO/IEC JTC1 SC 2 (Coded character sets), SC 7 (Systems development), SC 24 (Computer graphics, image processing and environmental data representation), SC 29 (Coding Audio picture, multimedia and Hypermedia information), SC 27 (Security), SC 36 (Information technology for Learning, education and training), SC 41 (Internet-of-Things), and SC 42 (Artificial Intelligence)