



SUMMER SCHOOL (Accredited)
DIGITAL TECHNOLOGIES IN CULTURAL HERITAGE & TOURISM
11 Days equivalent workload to 130 hours (incl. 20 hours essay), 5 ECTS
30 July - 10 August 2015
Delphi, Greece

A Collaborative Accredited Programme between
University of the Aegean, Greece
Coastal Carolina University, USA

Delphi, August 2015

SELECTED Q&A¹

COURSE: Introduction, current state-of-the-art, innovation, trends

UNIT: Innovative applications of technology in cultural heritage and trends for future research and development

Nr	Question/Answer
1.	What does ‘digital’ signal mean
A	Discrete time signal
B	Discrete time and discrete value signal
C	Discrete value signal
2.	What does a digital signal represent
A	A sampled continuous signal at specific time intervals with quantized values
B	Nothing, there is no such thing as a ‘digital signal’
C	A sampled continuous signal at specific time intervals with arbitrary values
3.	Why are 3D images better than 2D?
A	3D images are more artistic
B	3D images convey geometry information
C	3D images have higher resolution
4.	Digitization in cultural heritage is the process...
A	...of documenting cultural objects in databases
B	...of identifying the properties of cultural objects
C	...of converting real-world data to digital for further computational processing
5.	Nowadays, documentation of cultural objects includes
A	Complex processes that include library work, content analysis, metadata descriptions
B	Simple processes that catalogue data into databases
C	Pure typical library work
6.	What are ‘metadata’
A	Just a fancy IT word for the data in databases
B	Data about the data, providing another semantic layer
C	Mathematical definitions of data in databases

¹ *red color denotes a correct answer*



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7.	Content-based descriptions empower
A	Navigation in cultural object collections
B	Presentation of catalogues of cultural objects
C	Objective search and retrieval in cultural object collections
8.	Lifetime of a storage medium
A	Is irrelevant, as all media have a long lifetime
B	Is highly important as different media has different expected lifetimes
C	Is important for optical media
9.	In augmented reality (AR)
A	Artificial objects are projected on real-world images
B	Real-world images are projected onto digital objects
C	A virtual environment is projected in a controlled space
10.	3D printing
A	Is a technique for reproducing physical objects from 3D models
B	Is a technique that is not applicable to cultural objects
C	Is a technique that can build physical objects using resin-based only materials



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COURSE: 3D Digitization of cultural heritage

UNIT: 3D digitization theory – current state-of-the-art techniques

Nr	Question/Answer
1.	Digitization results in
A	A good approximation of reality, under specific conditions
B	A complete replication of reality, given hi-tech equipment
C	A bad representation of reality with numerous artifacts regardless of the conditions
2.	3D digitization in comparison to 2D digitization
A	Has not plenty to offer, they both provide digital bitmap images
B	Is vastly more important as it opens a wide range of applications
C	Is more important only because of the multiple views it provides
3.	What are the major 3D data structures?
A	Triangular meshes
B	Point clouds and triangular meshes
C	3D vertices
4.	A point cloud is a set of...
A	...points in a 3D or 6D space
B	...vertices in a 2D or 3D space
C	...points in a 9D space
5.	The indexed triangle set in triangular meshes records
A	Strips of connected vertex indices
B	Sets of 3 counter-clockwise connected vertex coordinates
C	Sets of 3 counter-clockwise connected vertex indices
6.	The two major categories of 3D scanning are
A	Optical and non-optical
B	Active and passive
C	Laser and photography-based
7.	Structure-from-motion
A	Is based on laser and empirical measurements applicable to large monuments
B	Is a general-purpose technique based on photogrammetry
C	Is based on multiple view photography with controlled varying lighting conditions
8.	What are the major factors that should be taken into account in digitization
A	Morphological characteristics, surface complexity and diversity of materials



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B	Size, shape and material of the objects
C	Access to the object, its size and material
9.	Laser 3D scanning is
A	A method that supports all kinds of cultural objects and monuments
B	A method that provides high quality data for specific cultural objects
C	A methods that supports large scale 3D digitization
10.	3D data processing includes
A	Recording of geometry and color data
B	Removing noise and saving for the web
C	Filtering, alignment, decimation, transformation of data



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COURSE: Cultural repositories, description of cultural heritage, international standards

UNIT: Introduction to cultural databases, metadata schemas and international standards

UNIT: Europeana and the European cultural content

Nr	Question/Answer
1.	Main issues of a Web search include
A	Too many results with low accuracy in a volatile name-space with spotty QoS
B	Numerous irrelevant results
C	Huge amount of websites
2.	Metadata are
A	Additional data for specific subjects
B	Structural and descriptive data about other data
C	Data to support better documentation
3.	A metadata schema refers to
A	A set of data fields and basic relations among them
B	A graphical representation of metadata
C	A structure of a typical relational database
4.	In a linear metadata schema
A	Each element is defined in a parent-child relation
B	Each element is discrete and classified according to two variables
C	Each element is discrete and classified according to one variable
5.	Resource Description Framework
A	Is a metadata schema
B	Is a metadata description language
C	Is a standard metadata definition
6.	Europeana is a...
A	...standardization organization that promotes digital cultural heritage in Europe
B	...metadata schema for cultural heritage
C	...metadata description language for heritage applications
7.	An ontology in computer science is
A	A large-scale metadata schema
B	The philosophical study of the nature of being and reality
C	A complete semantic representation of a domain in highly abstract form



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8.	An ontology language
A	Is a formal language used to construct an ontology
B	Is a formal language used to represent metadata in an ontology
C	Is a formal language used to construct relations in an ontology
9.	OWL is
A	A description logic-based ontology language
B	Is a traditional ontology language
C	Is a frame-based ontology language
10.	Basic notions in OWL are
A	Attributes, relations and events
B	Axioms, entities and expressions
C	Axioms, rules and restrictions
11.	Dublin Core
A	Is a standard ontology with 15 elements
B	Is a standard ontology with as much as 35 elements
C	Is a standard ontology with only 5 elements
12.	CIDOC-CRM
A	Is a standard ontology for museums
B	Is a standard ontology for architecture
C	Is a general standard ontology for cultural heritage
13.	Data submission to Europeana
A	Is readily available for every existing individual schema
B	Requires mapping of the individual schema to EDM
C	Requires aggregation mechanisms that are provided by Europeana

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