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Efsthios Kefallonitis  
Prokopios Theodoridis *Editors*

# Strategic Innovative Marketing and Tourism

8th ICSIMAT, Northern Aegean, Greece,  
2019



Springer

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Androniki Kavoura • Efstathios Kefallonitis •  
Prokopios Theodoridis  
Editors

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*This volume and every of our ICSIMAT  
COMMUNITY volume is dedicated to  
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prestigious journals and all the ICSIMAT  
community, which have contributed to our  
success. All for one, one for all!*

# **Preface**

## **Aims and Scope of the Conference**

The International Conference on Strategic Innovative Marketing and Tourism (ICSIMAT) 2019 was held from 17 to 21 July 2019 at the Northern Aegean while the conference included parallel sessions and workshops in three different Greek areas (Chios, Oinousses and Lesbos).

ICSIMAT provided a timely and interactive international platform for academics, government and industry practitioners in order to discuss and develop new perspectives in the field of marketing, innovative technologies and tourism. They were able to discuss and debate issues that affect the future direction of marketing research and practice in a digital and innovation era. ICSIMAT community includes worldwide well-known scholars, faculty members, doctorate students, researchers and business practitioners who network and exchange research work and inter-institutional co-operations.

More than 280 pre-registered authors submitted their work in the conference. ICSIMAT finally accepted and hosted 150 original research papers, after a double-blinded peer review process. Fifteen were part of the established industry session that is organized during ICSIMAT conferences. Seventeen sessions in total were held in order to advance and contribute to specific research areas in the field of strategic innovative marketing and tourism.

The sessions that were created under ICSIMAT were chaired by

Stephen Havlovic, Laurentian University, Canada, on POLICIES/STRATEGIES RELATED ISSUES IN MARKETING, MANAGEMENT, ECONOMICS, EDUCATION AND HOSPITALITY

Nikos Grammalidis, Information Technologies Institute, Centre for Research and Technology, Greece, on IT TECHNOLOGIES IN MARKETING, MANAGEMENT, TOURISM AND CULTURE

Victor-Alexandru Briciu, Transilvania University of Braşov, Romania, on HUMAN RESOURCES PERSPECTIVES

Eda Yasa, Mersin University, Turkey, and Emel Yarimoglu, Yaşar University, Izmir, Turkey, on CUSTOMERS'/TRAVELLERS'/AUDIENCES' PERSPECTIVES AND ROLE

Flavio Tiago and Teresa Borges Tiago, University of the Azores, Portugal, on MANAGEMENT/RELATED ISSUES IN MARKETING AND HOSPITALITY

Sofia Asonitou, University of West Attica, Greece, and Natalya Totskaya, Laurentian University, Canada, on SKILLS AND COMPETENCIES

Pinelopi Athanasopoulou, University of Peloponnese, Greece, on BRANDING RELATED ISSUES

Spyridon Nomicos, University of West Attica, Greece, on SMART APPROACHES

Alexios-Patapios Kontis, University of the Aegean, Greece, on MOTIVATION IN TOURISM/SPORT/MARKETING

Aikaterini Stavrianea, National and Kapodistrian University, Greece, on COMMUNICATION/ADVERTISEMENT PERSPECTIVES.

Maria Lekakou, University of the Aegean, Greece, on BLUE DEVELOPMENT AND MARITIME TOURISM

Hatice Ulusoy, Sivas Cumhuriyet University, Turkey, and Maria Tsirintani, University of West Attica, Greece, on HEALTH MANAGEMENT/TOURISM RELATED ISSUES

Kostas Fouskas, University of Macedonia, Greece, on IT TECHNOLOGIES, MOBILE AND WEB APPLICATIONS

Dorothea Papathanasiou, Hellenic Open University, Greece, on ENTREPRENEURSHIP PERSPECTIVES AND INNOVATION IN ORGANISATIONS, COMPANIES, COUNTRIES

Chara Agaliotou, Loukia Martha and Maria Vrasida, University of West Attica, Greece, on SUSTAINABLE TOURISM

Dorin Coita, University of Oradea, Romania, on BLOCKCHAIN AND RELATED ISSUES

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# Topics

Marketing, Social Media Marketing, e-Branding and Brand Experience Management, Digital marketing, Marketing Analytics, Marketing Research, Services Marketing, Integrated Marketing Communications, Consumer Behaviour, New Product Design and Development, Sports Marketing, B2B and B2C Marketing, Pricing Strategies, Art and Cultural Marketing, Mobile Services, Gaming, Gamification and Augmented Reality, Location-based Services, Internet-of-Things, Heritage and Museum Management in the Digital Era, Cross-cultural marketing, Tourism and Destination Marketing, Enogastronomic Tourism, Event Tourism, Health Tourism, Transport Industry Marketing, Social Media, Experiential and Sensory Marketing, Customer Relationship Management and Social CRM, Collaborative Marketing, Safety Marketing, Economics of Business Strategy, Accounting Marketing, Global Business, Marketing Finance, Healthcare Management, Accounting Education, Skills and Competences, Higher Education, Retail Marketing, Sales Management, Public Relations and Crisis Management, E-commerce, Marketing Strategy, Sectoral Marketing, Safety Management and Marketing, Entrepreneurship.

# Conference Details

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Anthony Gortzis, President, European Business Ethics Network (EBEN)

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# Exploiting Human Cognitive Architecture to Design a New Cultural Narrative for Non-captive Audiences: The TOURiBOOST Project



Dorothea Papathanasiou-Zuhrt, Aldo Di Russo, and Kevser Cinar

**Abstract** Heritage settings generate often a spatiotemporal gap between the object and the audience, as the tangible form is perceivable by the eye, but the meanings are codified. This particular condition, further supported by cultural and mentality differences, impedes non-captive audiences to fulfill satisfactory experiences. Following Aristotelian hermeneutics we defend that the spatio-temporal gap in heritage settings is of cognitive nature. Thus, to understand and embrace heritage values and effectively bridge the gap between the object and the observer, we need to link the audience to heritage meanings and values. The supply side, is often unaware of the human cognitive architecture, thus narratives and descriptions stay codified in the expert language, while the demand side is looking for compelling stories and multisensory experiences. The still ongoing ERASMUS + Project 2018-1-TR01-KA203-058344 (TOURiBOOST) for Higher Education builds an attempt to design and test a knowledge acquisition pattern for non-captive audiences from a human cognitive architecture point of view. In this vein, we present the design for the production of a multimedia iBook presenting 30 heritage places in TR/HU/NL/IT/GR with the principal aim to create the enabling environment for both onsite and dislocated audiences to engage in critical thinking and inspire them to replace gazing and clicking with cognition and emotions.

**Keywords** Cultural heritage · Human cognitive architecture (HCA) · Spatio-temporal gap

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## 1 Introduction

In his seminal work *The Past is a Foreign Country*, David Lowenthal indicates the variety of attitudes towards the past from early periods to the present [1]. Indeed, different people in different historic periods have different views of the past and their conceptions of it depend on many variables—visitors at heritage places are no different—thus the question arises how to interpret the past in places with cultural significance. In his opus magnum, *Truth and Method*, Hans-Georg Gadamer deploys the concept of philosophical hermeneutics to explain understanding as interpretation with a temporal distance. To Gadamer, hermeneutics is not a method for understanding, but an attempt to clarify the conditions in which understanding takes place [2: 263]. Among these conditions are, crucially, prejudices and fore-meanings in the mind of the interpreter. Understanding is therefore interpretation, which uses one's own preconceptions so that the meaning of the object can really be made to speak to us [2: 358]. One of the main problems is how to distinguish 'true prejudices', by which we understand, from the 'false' ones, by which we misunderstand. Gadamer suggests developing a 'historical' self-awareness which makes conscious of one's own prejudices and allows one to isolate and evaluate an object on its own. Another important condition in which understanding takes place is the temporal distance. For Gadamer, present and past are firmly connected and the past is not something that has to be painfully regained in each present, if the interpreter has the tools to decode it [2: 254].

By applying hermeneutics to illuminate the learning conditions in the cultural landscape we can easily trace a gap that disables the decoding (of the heritage) of the past: it is the missing link between the *code* and the *understanding*, which is both of emotional and cognitive nature. This happens when visitors are not given the chance to relate the contents of a site, collection or a monument to their previously acquired experiences, staying attached to 'pre-understanding' and 'prejudice' as Gadamer defines these terms. Not being able to decipher cultural content and derive satisfaction from their experience, the audience, especially the digitally innate youth, acquires lesser opportunities for meta-cognition and critical thinking. Examples of museums or portals rich in information but contextually sterile, is the proof that the cultural heritage system fails to activate the cognitive process of its members [3: 28–29]. This lack of understanding is not addressed by providing information through a standard descriptive apparatus, because the human cognitive system is very complex and because low abstraction capabilities interrupt the knowledge assimilation process.

## 2 Literature Review

The term *experience* regains contemporary understanding from the reference work *Experience Economy*, where Pine and Gilmore demonstrate that there is a fourth level of economic value called *experience* and that customers are willing to pay a

premium for it [4]. An experience is multi-sensory, emotional or spiritual (or all together), but it is a cognitive process *de facto*. Experiential travel is rooted already in the antiquity with testimonies from Herodotus, Xenophon and Pausanias. Johann Wolfgang von Goethe's famous travel account and the emblematic painting of him by Tischbein in 1787 led to the promotion of Italy as a must-see destination among the elites [5].

In modern-day the digital revolution has altered the communication pattern impacting the common sense through the interpretation of visual codes and thus the generation of personalized and multimedia travel accounts. This semantic shift is generating new cultural consumers who wish to be intellectually challenged, understand, appreciate and be involved at heritage places: [6: 548, 7: 55–57, 8: 2, 9: 378–382]. Along the lines, 84% of the Europeans declare cultural heritage as personally important, 90% as nationally important, while 80% perceive it as bonding tissue of the EU [10: 7]. Despite that scholarly research suggests that cultural attachment is based on cognitive, affective and conative attributes and personalized perceptions, access to culture is not satisfactory: Fernandez, García and Prieto establish a cultural consumption pattern of adolescents in 28 OECD countries, where only movies and theater is the prevailing preference [11: 4]; Hanquinet and Savage surveyed 1900 visitors in Belgium demonstrates that visitors perceive museums as educative leisure, but a successive study notes that the inability to decode meanings is keeping the audience away [12: 7, 13: 67]. In sum 2% of the citizens in Europe enjoy a ballet/opera performance, 12% visit a monument and 46% make use of TV to access culture [14: 36]. It is very probable that inability of the audience to decode meanings at heritage settings is caused by the spatiotemporal gap: while the tangible object is perceivable by the eye, meanings and values are not interpreted. In this way non-captive audiences are disabled to grasp and derive satisfaction from their visit. We suggest that presentations to the public, as authored by the supply side, are not designed from a human cognitive architecture perspective. It seems that these particular conditions that regulate cognitive processing, perception and understanding in the informal learning environment are not considered as indispensable ingredients for the design and delivery of the cultural heritage experience.

### 3 Research Methodology

There is a consensus among cognitive psychologists that human working memory is limited in capacity with respect to the number of elements it can handle simultaneously and that rehearsal is necessary to prevent information loss [15–19]. This condition cannot be met with time-scarce non-captive audiences at heritage places. In order to restructure the learning paradigm and the methodological approach to attract the audience in heritage settings, we focus on: (a) the human ability for categorical knowledge; (b) the limitations and interactions of working and long-term memory and their implications for learning in non-formal and informal

environments; (c) the particularities of informal learning in heritage settings esp. the short time-budget and knowledge gaps correlation and (d) the rising desire of the audience for experienced-based products and services.

Following previous research undertaken by Papathanasiou-Zuhrt and Weiss-Ibáñez in 2014 and Papathanasiou-Zuhrt et al. in 2016, heritage assessment was undertaken in the Project Area and 30 Statements of Significance are produced on the basis of six intrinsic qualities: inherent values, visibility in the landscape, spatial importance, social recognition, accessibility, interpretive potential, and carrying capacity [20: 307–308, 21: 20–21].

A field research followed, to investigate heritage supply in TR52/HU101/EL41. Three successive study visits took place in December 2018 (TR52); in March 2019 (EL41) and in April 2019 (HU101) to explore the perceptions of 90 respondents on heritage services offered in Konya and Sille (TR); Chios (GR) and Budapest (HU) including an evaluation of guided visits; information panels; museum labels; multi-media and AV contents liaised to the Konya Archaeological Museum/TR; the Sille Museum/TR; and the Acquincum Museum and Archeological Park in Budapest/HU and the Chios Mastic Museum/GR. Via qualitative interviews the views of 90 participants have been explored after each study visit. It was observed that 79% of the respondents have disengaged their attention, where parallel processing was required for complex visual and auditory stimuli. 21%, mainly composed by adults over 35 years, has attempted to assimilate new cognitive content by re-reading labels and panels and re-watching explanatory short films however without success, due to: (a) barriers in understanding terminologies; (b) long text blocks; (c) poor quality in graphic design; (d) external factors like noise and bad lighting; (e) inflexible time frame of the study visits. After the onsite experience was completed, the corpus of the respondents was presented three audiovisual narratives accessible via portable devices. The contents are not linked to the onsite experiences made in situ, but present three different stories in three different heritage places, however designed in the exact same fashion: storytelling is supported by multivision technologies, animation, narrative and auditory text. 78% of the sample—independently of age and nationality—has devoted attention to the audiovisual narratives, which they found ‘compelling’, and ‘revelatory’ compared to the onsite experience, which was evaluated as ‘tiring’. The minor part of the sample (22%) has explicitly stated that learning outcomes are paramount to their recreational objectives, e.g. they have enjoyed the audiovisual narratives, not necessarily intending to ‘learn’. These preliminary findings indicate, that also non-formal learning is a traumatic process and requires a special mental effort, more conditioned by external factors than the intrinsic motivation to learn and that heritage presentation requiring recipients to engage in complex reasoning and involve combinations of unfamiliar elements with high interactivity degree, lead to the disengagement of the audience.

## 4 The Experience Design

The Cognitive Load Theory has guided the process to develop an alternative learning paradigm that facilitates knowledge transfer in heritage settings [22–24]. Six planning considerations guided the design: (1) which experiences shall take place during the heritage visit; (2) how to facilitate visitors without prior knowledge bridge the spatiotemporal gap; (3) how to embed technical and socio-historical information into a compelling narrative; (4) how to create a hermeneutic and participatory paradigm, where non-captive-audiences think contextually and act autonomously in a self-directed learning modus; (5) how to exploit the technology intense experience to impact the cognitive paradigm.

The three study visits in TR/GR/HU have clearly demonstrated that that main difference between learners in formal education and non-captive audiences is the possibility to rehearse material. As the human working memory is limited in capacity with respect to the number of elements it can handle simultaneously, rehearsal is necessary to prevent information loss [15]. This condition cannot be met with time-scarce non-captive audiences. In order to create a mental bridge to selected phenomena, and make the novel seem familiar by relating it to prior knowledge and/or universal concepts in a much shorter time period and more entertaining way, the three audio-visual narratives used as a proxy, presupposed a limited working memory capacity to deal with visual, auditory and verbal material and an almost unlimited long term memory [25]. Scholarly research demonstrates that visitor endurance in the first phase of the visit is high but an acceleration of interest loss in the middle visit-phase is to be observed, due to work memory fatigue and inability to process more novel elements than the working memory is capable to process [26, 27]. Foreign language(s), crowded environments, noise, high/low temperatures and other location-related inconveniencies nourish visitor-fatigue as the heritage visit is progressing. During the three study visits in TR/GR/HU it has been observed that time allocated to reading labels was between 45 s. While and 60 s. This observation led to a planning decision: namely that information chunked with max. Three novel concepts per unit, below the limit proposed by Miller [15], could decongest WM as meanings communicated through the use of universal concepts differ substantially from transmitting formal knowledge.

## 5 Conclusion

Storytelling enhances leisure experiences by incorporating educational elements in recreational settings, meeting an audience's demand, which prefers educational interactive entertainment to passive observation. Learning objectives are met if enthusiasm is created among visitors for heritage meanings. In leisure settings, however, learning experiences are not imposed by conventional instruction methods. Learning in recreational environments is tailored to non-captive audiences, a fact

that differentiates instructional design from formal academic settings. In contrast to formal education, where learning motivation is often dependent on fear of punishment or on forfeiture of reward, learning content must rather be willingly embraced by visitors. In leisure settings audiences select freely to attend or ignore communication content; in addition, visitors' perspective regarding the experience and the learning outcomes may be paramount to recreational objectives. Cultural heritage experiences should therefore offer enjoyment and relevance to audiences based on clearly organized message nuclei, if they are to attract the audience. A mismatch in skills supply of the CH Sector to address the constantly uprising connected experience seeker market is evident. Further research is required to the understanding of the limitations of heritage institutions as cultural providers, the assessment of the production-consumption fashion of the cultural industry and the understanding of cultural heritage as a participatory public space, that promotes critical thinking, intercultural dialogue with more educated and sensitized citizens. Facilitating access to unfamiliar environments in places with cultural significance, e.g. opportunities for connections to visitors as well as memorable experiences, is a task that requires diverse skills. Brain literacy is an indispensable factor to facilitate meta-cognitive awareness. Heritage contents should therefore adjust to the principles of human cognitive architecture: eye scan path movement, a limited working memory (WM) and an infinite long term memory (LTM), the innate cognitive ability *g*, category learning etc. We have attempted to design and deliver heritage narratives that reduce the working memory load and reinforce the association by exploiting the powers of schema construction and automation. A cognitive-driven strategy has been adopted to structure a knowledge acquisition pattern for non-captive audiences and facilitate knowledge transfer in cultural heritage settings. The knowledge acquisition pattern tested in situ has considered three types of cognitive loads (CL) to repurpose the heritage visit according to the findings obtained by empirical evidence. A first attempt was made to address the temporo-spatial gap between the *object* (heritage place, asset, item) and the *observer* (tourist, visitor, consumer, prosumers, recreationist) in the cultural heritage settings aforementioned. We have exploited the powers of storytelling to link the audience with the intangible dimensions, symbols, meanings and values of heritage places. The heritage audiovisuals created to test the visitor satisfaction tell a story and users are given the tools to decode this story. Still we don't know if self-transfer of skills works or not, because we are in front of a spontaneous literacy proposed by the technical possibility, disordered, rhapsodic and still tied to the default procedures offered by the software and hardware seller. Where this process will lead us is a balance between building new procedures for the processing of meaning and the repetition of low profile self-models. What is certain is that these possibilities have a significant weight in the processes to create abstractions and propose new skills, and are crucial in cultural heritage as they can lead to the cognitive reconstruction of an appropriate context, e.g. they are fostering the (further) development of cultural capital. This exciting opportunity for the development of knowledge should not be lost. However, there is a risk that this great opportunity is abandoned with no vision on final results or thinking the result is a technology that is properly working by



itself: people with no technical skills, people with no digital capabilities, people risking their life to reach the civilized world, they have stories to tell, their stories can be the starting point of the process to participate as content creators, together with a senior and expert author, step by step, abandoning any idea that the process can be automatic, spontaneous, procedural. ICT and AV Technologies are indeed a good gateway to produce and disseminate the arts, but creation, is strictly connected to what is unexpected [28, 29].

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