International Workshop on Personalized Access to Cultural Heritage

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ABSTRACT

ACM PATCH 2021, organized in conjunction with the 29th International Conference on User Modeling, Adaptation and Personalization, is the meeting point between researchers and practitioners of personalization in cultural heritage, aiming to enhance the user experience in digital and physical Cultural Heritage sites. The PATCH workshops started in 2007 and they are typically held in conjunction with UMAP, IUI and recently AVI Conference series. This paper summarizes the main ideas addressed in the articles accepted for presentation at PATCH 2021 and for publication in the workshop proceedings.

CCS CONCEPTS

• **Information systems** → *Recommender systems*; *Personalization*; *Search interfaces*; • **Human-centered computing** → *Visualization*; *User Models*; *Human computer interaction (HCI)*; *Empirical studies in HCI*; *Mobile devices*; *Accessibility systems and tools*.

KEYWORDS

Cultural Heritage; Personalization; User Modeling.

1 INTRODUCTION

Following the successful series of PATCH workshops, PATCH 2021, the new link in the long chain of PATCH workshops series, will be again the meeting point between state-of-the-art cultural heritage (CH) technology-related research and personalization – using any kind of technology, while focusing on ubiquitous and adaptive

scenarios, to enhance the personal experience in CH sites. The workshop is aimed at bringing together researchers and practitioners who are working on various aspects of CH that are interested in exploring the potential of state of the art mobile technology (onsite as well as online) to enhance the visit experience. This paper motivates the organization of the workshop and it presents the main ideas emerging from the articles accepted for presentation at the event and for publication in the workshop proceedings.

2 MOTIVATION

CH has traditionally been a privileged area for personalization research, with a specific focus on enhancing visitors' experience by providing information that they are interested in, and in a format that they can enjoy. Indeed, CH sites are particularly rich in objects and information. Moreover, a plethora of information can be retrieved from Open Data repositories in order to further enrich the knowledge about CH items. However, CH fruition is an exploratory search task [4] in which visitors frequently lack a clear idea of what to expect, they may have different learning goals, and they are typically subject to strict time constraints for the visit. Moreover, visitors differ and their visit experience involves a combination of the physical, the personal, and the socio-cultural context and identity-related aspects [2]. Hence, they may benefit from individualized support that takes into account contextual and personal attributes. The provision of CH information has thus historically been associated with context-aware information filtering and with the management of user-adaptive, multimodal presentations, aimed at improving user experience in the exploration and in the interpretation of possibly large amounts of data.

However, new challenges and opportunities for personalization research are emerging as CH is now giving visitors the active role of information providers, instead of only considering them as a passive receivers. Specifically, the recent interest in co-creation, participation and human-involvement opens further research possibilities for personalization as an instrument to enhance user empowerment in CH preservation and promotion. Curation is in fact extending to a collaborative process in which, not only professional actors, but also visitors, become active information providers, by describing personal viewpoints, and sharing and discussing their perceptions of items with other people. Moreover, the preservation and promotion of CH is extending to deal with Natural Heritage, in order to

enhance the appreciation of the richness of the territory, with its historical, architectural, and natural monuments, as a whole.

In this broad perspective, information exploration support and recommender systems are core enabling technologies, but they become even more powerful when combined with collaboration and participation support technologies, developed for mobile settings, which favor user interaction while "on the move". A key ingredient is also to address many classes of ambience: touristic routes, cities, parks, archaeological sites, ancient buildings and museums, as well as spontaneous sources of artwork such as street art.

The goal of the PATCH workshop is the investigation of all of these aspects to discover new synergies among researchers, and new enabling technologies than can bring CH fruition one step forward.

3 PATCH'21 PROGRAM

We are honored to host the invited lecture by Rose Ginosar, Director of Development and International Relations at the Tower of David Museum of the History of Jerusalem. Her talk is about "Renewal and Conservation of the Tower of David Museum – Technology and the Planning Process".

The papers accepted for publication in the workshop proceedings and for presentation at PATCH 2021 cover a wide range of topics on personalized access to cultural heritage:

- Diaz-Agudo et al. [1] discuss methodologies and technologies to support a recommender system of CH objects that will achieve the goals of social cohesion and inclusion within CH contexts, aiming to support citizen curation (i.e., the process in which CH objects are used as a resource by citizens to develop their own personal interpretations).
- Kavvetsos et al. [3] discuss the importance of privacy in personalized CH applications. They propose a preliminary privacy preservation model that can be adopted by CH institutions and which can be used in CH applications.
- Mauro et al. [5] explore the personalized recommendation of items related to the fruition of Natural Heritage. They leverage the data about the experiences offered in the Airbnb platform as a source of information about items. They discuss models supporting item suggestion based either on previous guests' feedback, or on the hosts' viewpoints, taking the multiple actors involved in experiences into account, as they all contribute to item appreciation and thus deserve to be explicitly represented.
- Nasrolahi et al. [6] discuss the community engagement approach in CH projects. They present the design of a mobile application for engaging different stakeholders (e.g., local people) in decision-making processes related to the conservation and management of the Bisotun World Heritage Site.
- Sansonetti et al. [7] discuss the design and small-scale evaluation of a personalized recommendation approach of textual and multimedia resources related to artistic and cultural points of interest. They use Linked Open Data to retrieve content related with cultural points of interest, and social media to personalize recommendations to the target visitor.

We wish you a pleasant reading of the proceedings and we hope that they will be fruitful for your research activities.

4 ORGANIZATION

Workshop organizers:

- Liliana Ardissono (University of Torino, Italy);
- Cristina Gena (University of Torino, Italy);
- Tsvika Kuflik (The University of Haifa, Israel);
- Noemi Mauro (University of Torino, Italy);
- George E. Raptis (Human Opsis, Greece);
- Alan Wecker (The University of Haifa, Israel).

Program Committee:

- Angeliki Antoniou (University of West Attica, Greece);
- Carmelo Ardito (Politecnico of Bari, Italy);
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- Giovanni Semeraro (University of Bari, Italy);
- Oliviero Stock (FBK-irst, Italy);
- Maria Vayanou (University of Athens, Greece);
- Manolis Wallace (University of Peloponnese, Greece);
- Massimo Zancanaro (University of Trento, Italy).

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