Smart culture for the smart city

Konstantine Karczmarski

Department of innovations, ITMO University, Russia, konstantine.karczmarczyk@gmail.com

ABSTRACT: Many European cities have outstanding cultural heritage which, combined with digital technology, may not only provide additional number of tourists but create added value, jobs, knowledge available for everybody and other benefits for society. However, there are several factors that hinder this potentially fruitful connection. Further to EVA St.Petersburg that took place in June 2015, several projects that we observed and/or participated in, can be characterized as experiments in pure environment and which results can be successfully interpreted for Europe to obtain desired effects. This presentation will address the following main problems: a) most of the necessary technologies are already available, but there is no market place for professional digital content required for travel, entertainment, education; b) individual technology startups in the field of digital culture have zero potential for success without having entire value chain from production to distribution to consumption to monetization. c) Almost all countries and even regions are trying to do the same projects, being the best in one or two competences required, but lack of internationalization leads to low quality of projects. d) Important stakeholders like telecommunication companies are lagging very much behind modern society's and especially smart cities' needs to embrace new business models and technologies; e) different social groups have desire to consume cultural content, but their perception in many cases is so different that to meet multiple audiences' expectations we need to provide a variety of technologies, content layers and interfaces. Solutions of these critical problems will undoubtedly create "smart culture" for smart cities. Among these problems, however, there is one typical success story – multimedia galleries. They have demonstrated tremendous interest of general population in art.

1. INTRODUCTION

We have analyzed the following typical projects:
- 360video production – a VR lab at ITMO University;
- Piligrim XXI – augmented reality "time machine" project – www.piligrimxxi.com
- Russian culture cloud – www.culturecloud.ru, also developed partially at ITMO University
- www.thngs.co – a Ukraine-based startup that provides visual tool to collect and track history of physical things including both technology, architecture, design etc.

2. WHAT IS MISSING?

When a decade-long romance with user-generated content ended, everybody realized that there is just no content that meets requirement of new user experience that can be created by currently available technologies. And without sizeable amount of accumulated professional, hence expencive, content it is really really hard to create sustainable business models for applications of technologies in culture.

Another aspect is the lack of new distribution channels or systems. Traditional media

Together, the above projects represent almost complete picture of how technology could but so far doesn/t serve society.
systems no longer work as they have become purely financial systems that do not see the difference even between painting and synging. Hence, even though you might have content, and technology, nobody will see it.

Add monetization systems absence – and this is where telecoms could make a very significant contribution – and you have culture isolated from society.

3. START UP CULTURE DOESN'T RESULT IN SMART CULTURE

E.g. mobile applications without the rest of the value chain cannot survive. It takes 10 times more to promote and even more to create enough content. It's really hard to find investment in a stand-alone application. Besides, "grass-roots entrepreneurship" without industrial insights very rarely produce applicable results.

4. THE ROLE OF INTERNATIONALIZATION IN SMART CULTURE

The example of "culture clouds" demonstrated that every country is attempting to create its own "cloud" while one is good at interface design, another one – in maths and onthologies, another one in organizing content. The actual need is to stimulate high quality content production with databases open for the best developers of applications, business solutions etc., regardless the country of residence. Moreover there might be many "culture cloud" user interfaces working with the same content.

5. REACHING OUT TO DIFFERENT LAYERS OF SOCIETY

Art and culture can have outstanding impact on society, but it is also known that perception of cultural objects depends on memetic codes of every social group and every piece of content. Smart Culture should identify those memetic codes and deliver specific content to specific social groups according to those matching codes. This approach, besides creating Smart Culture itself, lead to efficient solution of problems like social adaptation of migrants. In fact this implies creation of radically new digital content distribution system.

6. THE ROLE OF INTERDISCIPLINARY APPROACH TO BUILDING SMART CULTURE

Collaboration of several industries – telecoms, media, banking – and scientific fields like social anthropology, psychology etc. is essential. Studying lifecycles of start-up or projects initiated inside an industry-centric organization clearly demonstrated this.

7. FURTHER PLANS.

Creation of an international accelerator - "growth factory" in Cannes, France and private Russian- European venture fund to address the afore-mentioned issues. An academic "shell" - innovation center of several universities will be organized around this public-private initiative.

8. CONCLUSION

Pan-European PR and GR work is absolutely necessary to address the following issues:
- backing of massive production of professional content by public authorities
- involvement of telecom industry in building Smart Culture
- research of "memetic codes" of content and social groups by academic institutions for further practical applications