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GUEST EDITORIAL

# Guest Editorial: Story-based Multimedia Contents

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Story-based multimedia contents (e.g., movies) have been popular in many digital media. Such digital contents can contain much useful information on storytelling and narrative structure. In the past, analyzing and reviewing the stories of contents could be the domain of critics in the humanities. However, nowadays since a huge amount of multimedia contents have been published on the digital media and consumed in the internet, analyzing and processing the stories from multimedia contents in computational approaches are required [1, 2].

Currently, story-based multimedia contents are promising in interdisciplinary areas. It needs not only knowledge of data mining, pattern recognition, and image processing, but also humanistic background like narrative theory, storytelling, and so on. Results of this area can be applicable on digital contents delivery platforms and authoring support tools. Also, they can be used for improving performance of the existing recommendation systems and information retrieval systems for multimedia contents [3, 4].

In this special issue, we are focusing on following questions: what is the relation between human cognition and story, how does human understand, remember, and (re)compose story, how can we author story computationally, how can we analyze, estimate, and structuralize story, how meaningful for user is the storytelling based service, and so on. Also, it is opened to every topics about computational processing of story-based multimedia contents.

Thanks to the work of the renowned researchers that provided their anonymous reviews,

We have selected 6 high-quality papers. The scope of these papers can be categorized, as follows.

- Story generation and summarization
- Narrative structure understanding and matching
- Text processing for stories
- Applications

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We summarize the main contributions of the papers as follow:

The first paper, "Serendipity-based storification: from lifelogging to storytelling" by Jai E. Jung, Minsung Hong and Hoang Long Nguyen (10.1007/s11042-016-3682-x), presents the concept of representing the lifelogging-based experiences from users. Most of the lifelogging data collected from social networking services (e.g., Facebook and Twitter) has been integrated for building the personal stories.

The second paper, "Exploiting character networks for movie summarization" by Quang Dieu Tran, Dosam Hwang, O-Joun Lee and Jai E. Jung (10.1007/s11042-016-3633-6), presents an interesting approach on story summarization. Especially, the multimedia annotation system, called CoCharNet, has been presented. This work is also related to the big multimedia issue. One of the interesting goals in this work is to summarize the large amount of multimedia data.

The third paper, "A computational model of transmedia ecosystem for story-based contends" by Jai E. Jung, O-Joun Lee, Eun-Soon Lee and Myoung-Hee Nam (10.1007/s11042-016-3626-5) , shows a novel computational platform for representing transmedia ecosystem. Since a lot of stories are correlated, this work claims that they can be mapped in the transmedia ecosystem. Most importantly, several features (e.g., narrative structures) have been extracted from the stories.

The fourth paper, "A novel approach for automatic text analysis and generation for the cultural heritage domain" by Francesco Piccialli, Fiammetta Marulli and Angelo Chianese (10.1007/s11042-016-3628-3), presents a novel methodology to process textual data automatically for building the stories.

The fifth paper, "Statistical approach for figurative sentiment analysis on social networking services: a case study on Twitter" by Hoang Long Nguyen and Jai E. Jung (10.1007/s11042-016-3525-9), presents a story-based model on figurative sentimental analysis on social networking services (e.g., Twitter).

The sixth paper, "Bas-relief generation from face photograph based on facial feature enhancement" by Hai Thien To and Bong-Soo Sohn (10.1007/s11042-016-3924-y), presents an interesting framework on processing photographic multimedia contents.

The goal of this special issue was to bring together researchers and engineers in areas of story-based multimedia contents to share their visions, research outcomes and experiences, to resolve the issues on story processing and to build worldwide collaborative research and development. We expect that this issue will give a chance to step further the discussion on the potential of digital storytelling across many different communities.

We are most grateful to the authors for their valuable contributions and for their willingness and efforts to improve their papers in accordance with the suggestions and comments from reviewers. More importantly, this special issue has been achieved by a number of fruitful collaborations. We would like to thank the editor in chief of Multimedia Tools and Applications (MTAP), Prof. Borko Furht, and the editorial staffs for their kind support and help during the entire process of publication.

## References

1. Bello-Orgaz G, Jung JJ, Camacho D (2016) Social big data: recent achievements and new challenges. Inf Fusion 28:45–59
2. Cavazza MO, Charles F, Mead SJ (2002) Character-based interactive storytelling. IEEE Intelligent systems 17(4):17–24
3. Hoang Long N, Jung JJ (2015) Privacy-aware framework for matching online social identities in multiple social networking services. Cybern Syst 46(1–2):69–83
4. Jung JJ (2016) Exploiting geotagged resources for spatial clustering on social network services. Concurr Comput Pract Exp 28(4):1356–1367