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Lifelong Digital Libraries

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ABSTRACT

The organisation of personal data is receiving increasing research attention due to the challenges that are faced in gathering, enriching, searching and visualising this data. Given the increasing quantities of personal data being gathered by individuals, the concept of a lifelong digital library of rich multimedia and sensory content for every individual is becoming a reality. This panel brought together researchers from different parts of the information retrieval and digital libraries community to debate the opportunities and challenges for researchers in this new and challenging area.

Categories and Subject Descriptors

H [Information Systems]: General; H.3.7 [Digital Libraries]: Collection

General Terms

Experimentation, Human Factors

Keywords

panel, lifelogging, lifelong personal data

1. INTRODUCTION

Recent technological advances have introduced new types of sensors (informational sensors, physical sensors) and devices (for example Google Glass or Apple's iWatch) which allow the individual to compile vast archives of personal data. Captured over a long period of time, these heterogeneous digital libraries can provide a detailed picture of the activities of an individual and will require search, summarisation and knowledge extraction tools to make them valuable.

Therefore it comes as no surprise that Lifelong Digital Libraries are receiving increasing attention within the research community. An example is *NTCIR Lifelog*¹, a new evaluation task at NTCIR-12 that focuses on the evaluation of

¹<http://ntcir-lifelog.computing.dcu.ie/>

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personal digital libraries, commonly referred to as lifelogs. Apart from technical challenges arising from gathering and accessing such vast amount of data (see [1] for a detailed discussion of these challenges), various additional aspects need to be considered that are concerned with the impact on these new technological advances both for individuals as well as for society as a whole.

This panel discussion aimed to bring this topic to the attention of the JCDL audience and motivate some of the key research challenges that the community will need to address in the coming years. The main questions discussed include:

- What are the main technical challenges for the creation and access to personal digital archives?
- How to make progress towards making personal digital libraries easier for an individual to manage and extract value from?
- What are the most promising current approaches to maintain and access such archives?
- In which areas are further technical advances required to improve access to such archives?
- How best to motivate and encourage research in the area?
- How to deal with privacy and data security challenges that arise when such archives become commonplace?
- What ethical issues arise from the creation of such archives?
- Who should own these archives and where should the data be hosted?
- How to ensure digital preservation of such archives?
- What are the concerns and expectations of the research community towards this area in the years to come?
- What will personal digital libraries look like in ten years time?

After each panel member introduced themselves, their research and expertise, they individually shared their point of view on these topics. In addition, the chairman encouraged and welcomed input and questions from the floor.

2. REFERENCES

- [1] C. Gurrin, A. F. Smeaton, and A. R. Doherty. Lifelogging: Personal big data. *Foundations and Trends in Information Retrieval*, 8(1):1–125, 2014.