

# Game for Connection of Metadata and Sources in the Domain of Multimedia

Aleš MÄSIAR\*

*Slovak University of Technology in Bratislava  
Faculty of Informatics and Information Technologies  
Ilkovičova 2, 842 16 Bratislava, Slovakia  
alesmasiar@gmail.com*

Amount of information on the Web is growing rapidly every day, therefore it is important to have the information organized using metadata. Especially, when considering multimedia sharing services, it is desirable for the user to be able to search or browse through the media effectively. This is achieved by constructing metadata layer over the media.

Metadata acquisition methods can be divided into 3 particular categories, which are expert work, crowd work and machine-based approaches [1]. Hired experts can produce metadata of high quality, but since they are mostly working in exchange for financial reward, this approach is limited by available financial resources. In contrast, machine-based methods can produce high quantities of results, while being low-cost, but there is lower guarantee of quality.

In our work, we focus on crowdsourcing, which uses work of large groups of people motivated by means other than financial. Crowd work can produce large quantities of results that are in sufficient quality. Games with a purpose motivate player by providing relax and entertainment and whose mechanics are built in a way they can produce required results.

Our game specializes in a field of video metadata acquisition. The reason for this is that many users do not provide satisfactory amount of relevant metadata, while uploading their videos, which then results in their videos being very hard to find or even lost amongst videos, which are better described. We chose video sharing service Vine<sup>1</sup>, where users upload six-seconds-long videos from mobile devices and they mostly want to do it as quickly as possible, so they provide only low amount of metadata in form of short description or a few keywords.

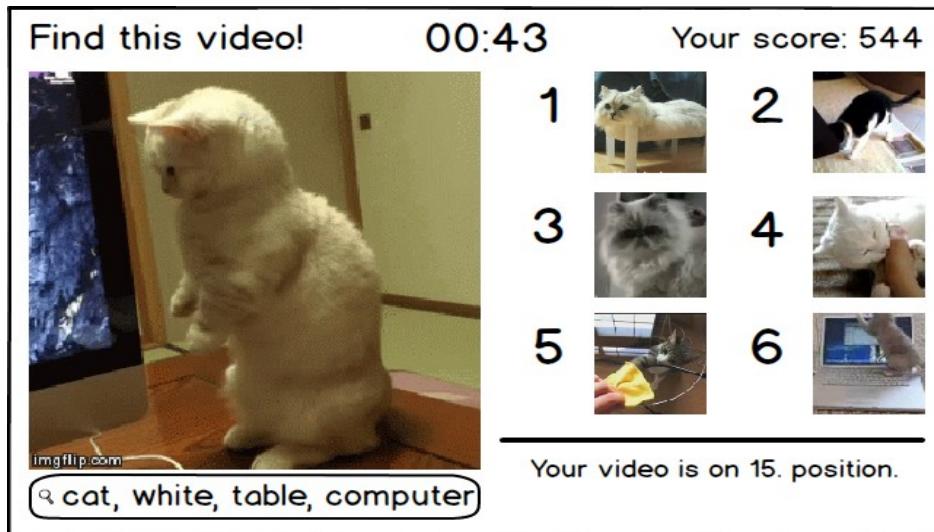
Mechanics of our game are based on a search engine, which is inspired by Little Search Game [2], single-player game with a purpose for acquisition of lightweight semantics. In our method, search engine indexes the videos using the description

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\* Supervisor: Jakub Šimko, Institute of Informatics and Software Engineering

<sup>1</sup> [www.vine.co](http://www.vine.co)

provided by users. As shown in Figure 1, player only sees the video in the left screen without any additional information displayed. His goal is then to type specific queries into the search box, so the video playing on the screen is returned on a position higher than threshold. The best strategy for the player is to type keywords, which best describe the video he sees. Player's queries will be logged into database and after the game we will be able to extract the metadata from them.



*Figure 1. Graphical user interface of our game.*

To evaluate our method, we first plan to perform a closed experiment in a controlled environment. Small amount of players will play the game voluntarily and in their free time. The latter evaluation will be performed by experts familiar with the domain.

In the next phase, we plan to perform a live experiment, where we deploy our game on the Web, where it can be publicly played. With this experiment, we can evaluate, whether our game is interesting and enjoyable enough to be played without any external motivation. After satisfactory amount of played games, we will perform data correctness evaluation as with the closed experiment.

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## References

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