Where's the Fun in Games?

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1 Background

The amount of time people spend playing is staggering. Researchers have long tried to put that energy to good use, by creating games with a purpose. These are games whose outcome can be used to solve a scientific or industrial issue. The problem with these attempts is that they have mostly failed. Aside from simple labeling games, few were successful.

This generates the question - are researchers naturally inept at making tasks fun? What are the pieces that are missing from the puzzle? You will create a series of user studies to find out.

2 Description and Tasks

In previous projects conducted this year, four Android apps were constructed by fellow students, that allow people to play a game to solve a serious task. All of them are related to words and their positive or negative polarity. What differs is the gameplay. From swiping as fast as possible to shooting bubbles or exiting a maze that keeps on revolving, different choices were implemented. Now we need to know which one will actually lead to good results, and why.

We will answer the questions above with a trial and error approach. We will ask the players to tell us what they liked and disliked about each of the games. They will play, we will record their answers and their assessments of the difficulty and.. fun factor. You will be responsible for conducting these user studies.

Moreover, for each of the games, we will use the recorded answers to solve some pressing problems in the field of sentiment analysis:

- What sentiment words are ambiguous? (e.g. *large* is ambiguous, while *excellent* is not)

- Which contexts change the polarity of ambiguous words? (e.g. *big room* is desirable, while *big problem* is not)

You will thus have three distinct tasks

- organize supervised group play sessions, in which people will enjoy a pizza, play, and tell us about their experience

- create leaflets, to spread around the campus to get students to know this work and participate

- gather the results and interpret them

Interpreting the results about the sentiment analysis is straightforward. It is simply an aggregation of the answers. The more interesting part, from a human computation point of view, is to understand what lead to good results in one game and poor results in another.

The data in all the games needs to be aligned. This means that you will might need to compile the existing code with new inputs (e.g. change the words that the game shows to the user). This will not require changing the game functionality.

3   Skills

- Good people skills. You will need to convince people to play.

- Some Java experience

- Mobile app development experience is a plus

4   Benefits

- Learn how to design user studies.

- Learn about opinion mining and subjectivity

- Learn about app programming