



# Mediasynced – Project Proposals

## Who are we?

At MEDIASYNCED, we are mostly interested in making sense of, and integrating, many different types of media. This is accomplished by taking different streams such as television, radio and Twitter, and then extracting relevant information and then analyzing this information. As of now, we have a set of products mainly geared towards optimizing online campaigns.

## What do we offer?

This is our current product portfolio. All respond in real-time to events on TV or Radio and activate online campaigns in real-time, with short, high intensity bursts across the entire internet:

**TV Commercial sync** Real-time recognition of TV commercials. We immediately start a 1 minute online campaign across the entire web, social networks, pre-rolls, email and mobile. Recognition is done using computer vision to detect logos and entire commercials

**Contextual sync** Matching creatives with hot topics on TV. For instance: as soon as 'Florida' is a hot topic on TV, we start your Florida travel campaign or as soon as cars or sports are hot topics on TV, serve ads that are relevant to these topics. Matching is done by analyzing subtitle streams (or if not available optical character recognition) and social media streams

**Radio commercial sync** We now also use radio commercials as a starting point for online bursts. Matching is done by recognizing sound streams. This can also be used to increase performance on TV-streams

More information can be found on our websites: [MediaSynced.com](http://MediaSynced.com) and [Remotely.tv](http://Remotely.tv)

## Future Possibilities – This is where you come in!

Most of the systems we are running are fairly simple from an AI point of view. However, our vision is that we can utilize more and more AI techniques. For instance, what if we could recognize what people are saying on television and radio without subtitles? What if we know who is talking and what the emotional state of the speaker is? What if we recognize what is going on in the video stream? Is somebody drinking coffee or perhaps packing his suitcase? What if we know if a tweet is positive or negative about a certain product, company or activity? How can we know these things and more importantly: what can we do with these things?

That is what MEDIASYNCED is all about.

## Project Proposal

We would like to work together with a team of Honours students on a research project related to contextual analysis that can be the basis of a possible commercial product relevant to MEDIASYNCED. We are particularly interested in pursuing one of the following lines of research (although we are open to the students' own ideas):

### Integrating Media Streams

At MEDIASYNCED, we deal with various types of data streams: television, radio, twitter, facebook, wikipedia and various other social media and internet databases. All of these data streams have to be

combined to understand what is important in society, but how can we combine such different sources of information. This project is mainly concerned with weighing information from different sources and integrating them into a single output that can be used to give an analysis about the state of a certain topic in society.

## **Context Analysis: Social Media**

A lot of information is generated by people on social media. An interesting research area is to find the context of individual tweets and to extract information about how these tweets relate to each other and to various topics. This project can be approached from different perspectives such as machine learning or language modeling. A good first step would be to reduce the effects of ambiguity of words. Take for instance the tweet: “I am so happy with my new jaguar, it is a beast.” The word jaguar can relate to the animal and to a car, but how can we know if a tweet mentioning a jaguar means the car or the animal. Furthermore, what is said about the jaguar? Finally, how can we use this contextual information to provide better products and sync media?

## **Context Analysis: Mainstream Media**

This is closely related to the previous proposal, but instead focuses on television and perhaps radio. By analyzing subtitle streams and meta-data of programs and even sites related to certain programs, can we find the topics that are discussed in the program? The same problems of disambiguation and relevance-detection are present here, but there is a larger body of data available directly relating to the program. Again the question is, what contextual information can we extract and how could we use this in a commercial setting?

## **Syncing Social and Mainstream Media**

In this project you will do research on how to find relevant tweets for a specific program. Naturally, there are certain hash-tags related to a program, but not everybody is using the same hash-tags. The goal is to detect which other hash-tags are relevant to the program. The problem here is that during a program, not all tweets are related to the program, but they might share hash-tags with tweets that are related to the program.

## **Your Own Idea?**

If you have another idea about combining various streams and extracting new information, feel free to discuss this with us. Note that the idea must be related to contextual analysis and must be at the basis of a possible commercial product relevant to automated context analysis.

## **Practical Details**

MEDIASYNCED is located in “het Werktheater” in Amsterdam on the Oostenburgergracht 75 near Muiderpoort Station. We are a small team with people from various disciplines. Your project will be supervised on our side by MSc AI student Robrecht Jurriaans. We propose to meet up at our office once a week to discuss your progress and offer you guidance.

Note that for a research project at MEDIASYNCED you should be prepared to utilize a wide range of AI topics. Most of the mentioned research projects are related to text analysis, so a strong interest in this topic is very useful. Other topics that might be necessary to have some affinity with are machine learning, statistical analysis, computer vision and decision making.

For further questions you can reach me at: [robrechtjurriaans@gmail.com](mailto:robrechtjurriaans@gmail.com)

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