

## Clipflair: Online Revoicing and Captioning of Video Clips for FL

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### Abstract

*This paper presents ClipFlair, a web platform which provides captioning and revoicing tools and activities specifically designed for foreign language learning. It proposes a productive and motivating way of working with AV material: by asking learners to flair a clip, i.e. to revoice or caption a video.*

*The ClipFlair Studio (<http://studio.clipflair.net>) offers the captioning and revoicing tools needed by activity authors to create activities. This is also where learners can practise and learn their target language(s) by carrying out these activities. It is basically a zoomable area, containing the activity components: the clips, texts (e.g. instructions, clues or scripts), captions, voice-recordings, images and maps. Each component is editable for size, zoom and features to suit the pedagogical rationale of each activity, depending on each learner's level and needs. Users can collaborate, interact, share materials, provide feedback, watch tutorials and study guidelines for activity creation and evaluation through groups and forums at the ClipFlair Social Network (<http://social.clipflair.net>).*

*Reusable materials, including activities, clips, images and texts, are accessible through the ClipFlair Gallery (<http://gallery.clipflair.net>). Given the component-based nature of the ClipFlair Studio, the same material can be mixed differently for different activities. For example, the same clip may be exploited in different ways for different levels, or a given set of instructions can be used in various activities. Each item in the Gallery is accompanied by relevant metadata which facilitates searching and identifying materials.*

*Within the project's scope, activities for 15 languages are being developed, but in the long term the project intends to expand the community regardless of language or level.*

### 1. Introduction

The use of audiovisual materials is considered a beneficial resource for learning ([1], [2], [3], [4], [5]). According to recent research, watching subtitled material brings additional advantages, such as content comprehension ([6], [7]) or vocabulary retention ([8], [9]). Related activities vary from casual watching at home to carrying out carefully designed pre- and post-activities. However, teachers using this resource face the difficulty of finding active tasks that will engage learners and go beyond passive viewing.

ClipFlair aims to enhance interactivity when working with audiovisuals by providing a motivating, open and user-friendly platform where learners and teachers can create, access and carry out activities based on revoicing and captioning. Revoicing involves recording one's own voice onto a clip, as allowing for foreign or same language dubbing, free commentary, audiodescription and karaoke singing. Captioning is to add written words onto the clip: e.g. standard subtitles, captions for accessibility, annotations or intertitles. This way, authentic materials are enhanced with authentic tasks, which, as opposed to note-taking or gap filling, have a tangible, shareable result: the captioned or revoiced clip. Clips can be short video or audio files, of any type, whole or parts of a longer video, fiction or non-fiction, including documentaries, film scenes, news pieces, animations and songs.

As with most authentic tasks, subtitling and dubbing can be complex and difficult. High cost software, technical knowledge and professional expertise can discourage both teachers and learners. In 2004, there was a first effort to overcome these obstacles, with the development of subtitling software and activities specifically designed for language learning, the Learning via Subtitling (LeViS) project [10]. According the LeViS survey ([11], learners not only consolidated and improved their linguistic skills, they were also enthusiastic about the innovative nature of the subtitling activities. ClipFlair aims to build on the success of LeViS by:

- offering revoicing tools and activities in addition to captioning
- promoting an ever growing gallery of activities
- establishing a community of activity authors, teachers and learners

### 2. Conceptual Framework and Pedagogical methodology



ClipFlair is based on a methodological framework that includes fundamental principles and factors involved in language learning, educational specifications for the web platform, as well as clip selection criteria. A set of interrelated and mutually influenced factors is taken into account: the learners as the centre of the learning process, the teachers and their different roles, the learning context and the teaching approach.

Starting with the learner, ClipFlair's approach is that learning is active, so it focuses on highly active skills such as audiovisual writing (captioning) and audiovisual speaking (revoicing) while less active skills such as reading (e.g. subtitles) and listening (e.g. dialogues) become more active. Different levels of participation are catered for, depending on the learner needs and level, from the minimum level of activity (e.g. watching a video) to the maximum (e.g. captioning in L2 without a script). Based on the supposition that learning is a unique and individual process, the fact learners learn at different paces is also taken into account. ClipFlair allows learners to follow instructions and repeat videos as many times as they need in order to complete an activity. But learning is also a social process, so even though it is also suitable for individual use, the platform provides collaboration tools including forums, groups and blogs to allow for different levels of learner involvement.

Teacher involvement is also seen as a continuum from minimum to maximum contribution. Using the filters in the ClipFlair Gallery, teachers may find an existing activity that is suitable for their teaching goals and decide to introduce it in their course. They might become more involved by creating their own activities, enhancing thus the Activity Gallery, or producing videos and adding them to the Clip Gallery. The maximum teacher involvement would be to deliver a whole course through the platform, by creating a Group (of students), designing and uploading activities for each course unit, and providing feedback to the students through the Social Network.

The learning context where ClipFlair can be used is flexible. In the case of teacher-driven learners who follow a course with predefined units and lessons, the teacher decides how learners can best use ClipFlair for activities integrated in the syllabus, as supplementary material, or otherwise (remedial work, voluntary work, further reference, etc.). Activities may be carried out in the language lab or at home, in face-to-face or distance education courses. At the other end of the continuum, independent learners selecting and organising their own learning path, goals and strategies, are able to use ClipFlair activities freely, to modify and adapt them for their needs or even create their own.

### 3. The ClipFlair Studio and Activities

The Studio (<http://studio.clipflair.net>) offers the necessary captioning and revoicing tools to create activities and it is the space where learners can practice and learn languages. It is basically a zoomable window *container* of floating window *components*, or activity parts (see Figure 1).

There are six types of components:

- the clip component, for loading and viewing clips
- the text component, for viewing and editing text with instructions or other information
- the captions component, for inserting, editing and deleting captions
- the revoicing component, for recording voice, as well as saving and listening to saved recordings
- the image and map component, for loading and viewing images and maps respectively

Experienced activity authors can start with a blank activity, a container with no components. In this case, they can use the Studio toolbar to add as many components as they deem suitable. An activity may be simple: containing one clip, one set of instructions and one captioning (or revoicing) component. Alternatively, it may be more complex with both captioning and revoicing, as well as maps, images and various texts. Simple activities are preferable for independent learners as they are easier to follow without guidance.

Each component is editable as far as size, zoom and features are concerned. The author can decide, for example, how much screen space each component will take up, highlighting each one accordingly. The position of the components is also up to the author's choice, as they can be dragged to any point of the activity area.

When the activity design is completed, editable options can be deactivated so that the learner can focus only on the content of the activity and does not accidentally change, say, the zoom or position of the components.

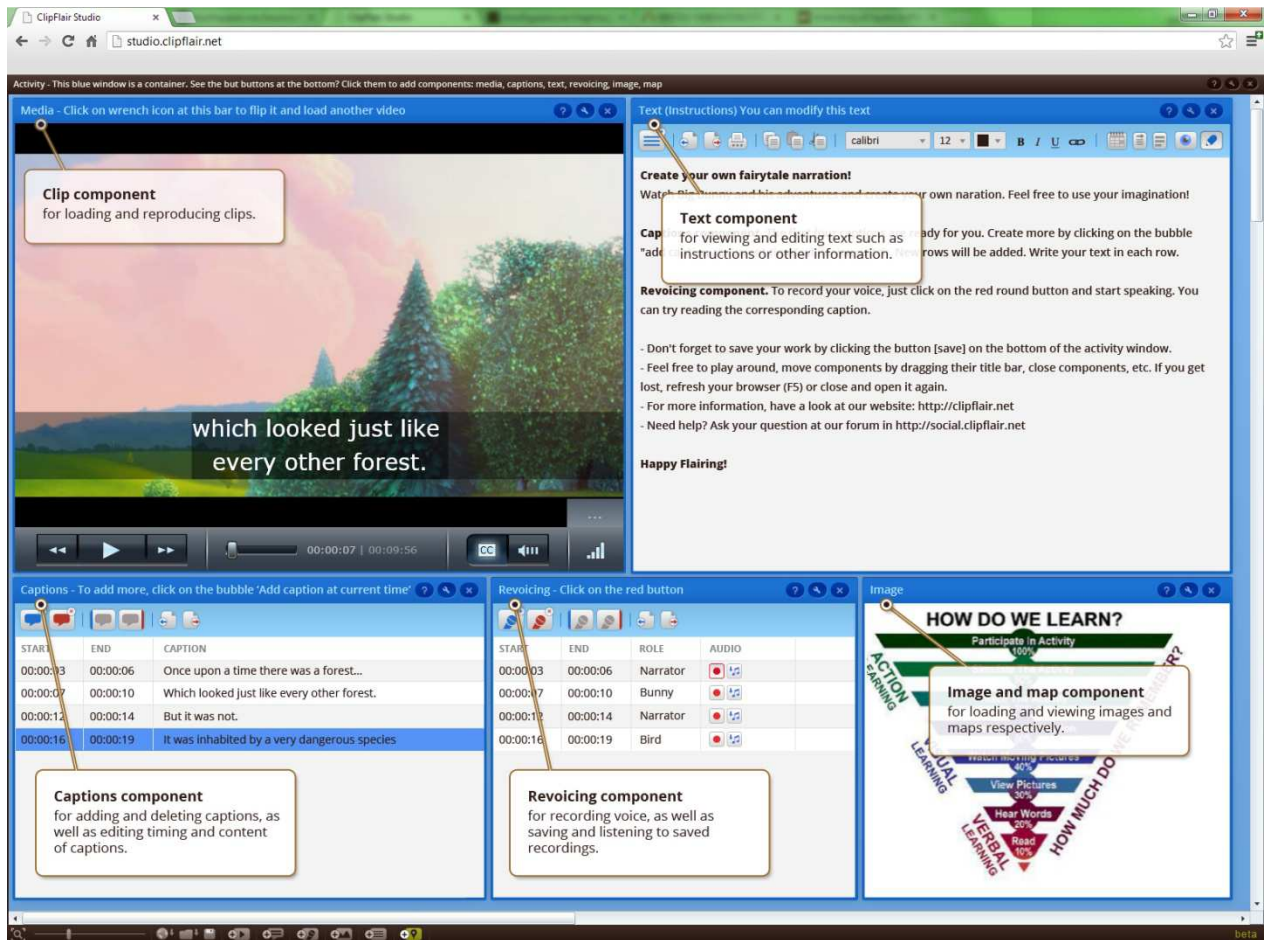


Figure 1: Components in a sample ClipFlair activity

The activity can be saved locally on the user's computer as a .clipflair file. It is a compressed file that contains all the sub-files necessary to load the activity again. The clip itself is not included in the .clipflair file, to avoid creating large files that are difficult to exchange. Instead, only the information on clip source is saved, namely its link in the Clip Gallery.

An activity, after a review process, can be uploaded in the Activity Gallery, where it acquires its own URL like <http://studio.clipflair.net?activity=Tutorial>, where the activity name supplied ("Tutorial" in this example) is one of the activity names listed in the Gallery. This feature makes sharing activities as easy as copying and pasting a URL in a blog post, email, or tweet.

The ClipFlair Studio is launched through the web browser but it is also available as an OOB (Out-Of-Browser) application, installed separately to allow offline use. After a careful technology research phase, the Microsoft Silverlight platform, a slim cross-platform version of Microsoft .NET with web browser integration, was selected to implement the application. It supports IIS Smooth Streaming technology via Silverlight Media Framework, which provides dynamic adaptive video based on server-client connection bandwidth and client CPU capabilities and instantaneous (no buffering) video seeking in time. It also offers hardware-accelerated graphics both for video playback and for drawing of components, as well as custom UI component support and graphics scaling, necessary for implementing a ZUI (Zoomable User Interface) container with hosted floating windows.

#### 4. The ClipFlair Gallery

The Gallery, accessible through <http://gallery.clipflair.net> is the library of reusable resources: activities, clips, texts and images. Activities are available for 15 languages, including Spanish, Arabic, Chinese, Japanese and Russian, but in the long term, the project intends to develop materials that can potentially be used by any FL learner by expanding the community to include any language, level or age.

Given the component-based nature of the ClipFlair Studio, the same material can be mixed differently for different activities in different languages. For example, the same clip may be exploited differently for other levels, or the same set of instructions can be used with different clips.

Each item in the Gallery is accompanied by relevant metadata which facilitates searching and identifying. Activity metadata includes the language to be learned, the language combination, level, estimated time to complete the activity etc. (see Figure 2). Metadata can be used as filters for searching activities.

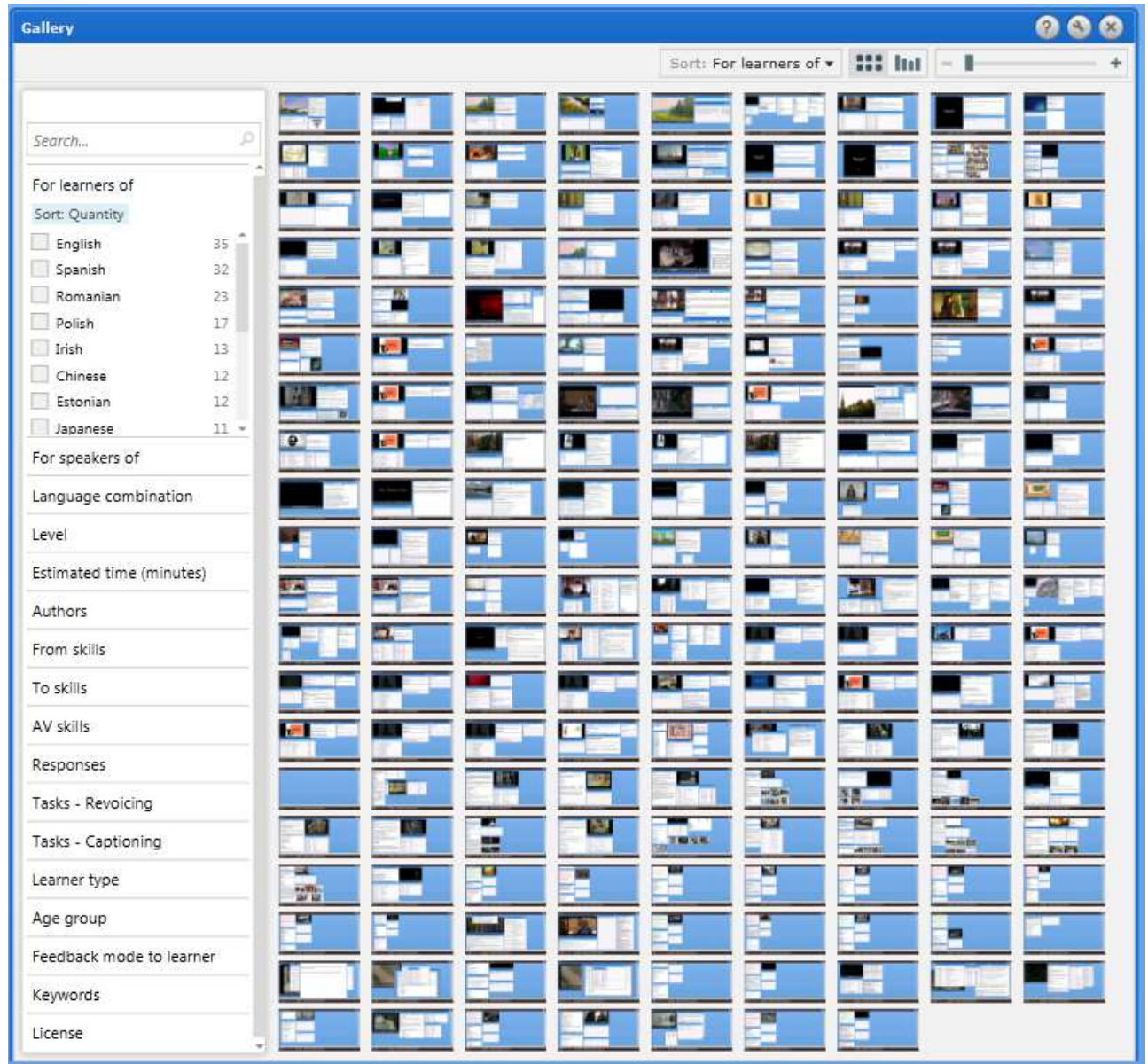


Figure 2: The Activity Gallery and filters

## 5. The ClipFlair Social Network

The network and content management system <http://social.clipflair.net> aims to enable users to:

- form online communities to collaborate, interact and share materials through Groups and Forums
- access revoicing and captioning activities, clips and other resources through the Gallery
- provide feedback to software developers of the web application
- watch and read tutorials on how to use or create activities
- study guidelines for activity creation and evaluation



The Social Network is the heart of the community of users of the ClipFlair Studio, including teachers, learners, activity authors and researchers interested in the field. The consortium consists of ten institutions from eight European countries, with proven experience and competences to undertake the tasks in their field of expertise and to create material for 15 languages. There is a balance between experts in the three fields involved: Language Teaching, Audiovisual Translation and Accessibility, & ICT.

## 6. Plans for the future beyond the project lifetime

Further releases of the ClipFlair Studio and the ClipFlair Social Network will be published, integrating user feedback from the piloting phase in 2013, and the final version of the web platform will be released in April 2014.

Web 2.0 features of the web platform – such as ranking (contributor content gaining visibility when more popular) and token-based rating – will be used by to evaluate the material produced. Pilot use of the activities involves using the activities developed by activity authors and gathering questionnaires to measure usability and other previously established indicators. Users can report issues, bugs and suggestions in the Feedback Forum of the Social Network. The pilot-use results will be used for the final release of the web platform and for fine-tuning the piloted ClipFlair activities.

From the technical point of view, the infrastructure used for the deployment of the application ensures its feasibility, as far as operational requirements and associated costs are concerned, beyond the project lifetime.

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