

# Feedback Practices in Collaborative Video Editing

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## **Abstract.**

This project focuses on feedback practices in collaborative video editing. Video editing is commonly done collaboratively, but when done in a distributed and asynchronous setting, there are challenges tied to how to give feedback and refer to particular issues and segments of the moving images. This project aims to understand these feedback practices through interviews and observations of video workers, identify implications for design, and conduct design workshops with video editing professionals to prototype solutions for supporting awareness in collaborative video editing.

## Background

Video production has turned from an inherently professional activity into something that an amateur with a cheap phone can perform. The cost of video production dropped dramatically as video cameras have become affordable and mobile (Juhlin et al., 2014). However, video production is a complicated activity which requires certain skills that not all users possess (Engström et al., 2010). Hence, it is an activity which often requires participants of various skills and expertise to collaborate to achieve a common goal.

Video production involves an infrastructure of connected components, devices and pieces, of software (Guribye and Nyre, 2017). The organisation of various parts of the working environment requires the right configuration of people (participants and stakeholders), skills and knowledge (e.g., montage and sound mastering skills), tools and artefacts (Bødker and Klokmoose, 2011).

This project is carried out in collaboration with a Norwegian company Vizrt which produces software and hardware solutions for TV stations and other media companies. One of the latest products of the company, VizStory, is the core of the current project. VizStory is a web-based nonlinear video editing software which aims to provide groups of co-authors with opportunities to work collaboratively. VizStory works similar to other video editing tools: user ingests their raw footage, then loads clips of it into the timeline and manipulates them to produce a final video. A user also can insert graphics generated from pre-made templates, manipulate audio tracks and add subtitles. Unlike most video editing tools, VizStory allows multiple users to work simultaneously on the same project. This project aims to deliver insights into the current practices of collaborative video editing and design ideas which will support effective collaboration.

Video production includes typically three stages: pre-production, production, and post-production. This project's scope is delimited by post-production and video editing, leaving aside various other activities, e.g., sound mastering, filming, screenwriting.

While having participants with varying skills and backgrounds (such as editing, visual storytelling, graphics, domain expertise) might in some ways foster a creative video editing in that it allows for different views and perspectives on the ongoing activity, there might also be problems in communicating and having a shared understanding of the issues at hand.

## Research Question

The initial research question of the project was broad: how teams of co-authors collaborate in creating videos. The very first interviews and some literature research indicated that feedback giving is an essential part of communication between collaborators. As video production often involves participants with different backgrounds, it is often the case that they struggle to communicate their ideas properly.

The concept of awareness (Gutwin and Greenberg, 2002; Schmidt, 2002) will be used as a theoretical framework in the project, especially when discussing how the collaborators give feedback but also when designing features supporting collaboration in video editing software.

The research question in this project is the following: **how awareness and coordination can be supported in collaborative video editing**. In the project, it is divided into sub-questions:

- How collaborators receive and communicate their feedback during the video editing process.
- How feedback practices can be supported in a web-based collaborative video editing tool.

These questions will be addressed in upcoming papers. The first one will focus on understanding collaborative video editing in general and feedback processes in

particular, the second one - on design ideas and features which support collaboration between co-authors. Then, we will re-iterate with design interventions and do field trials with journalists and news agencies that produce video stories.

## Current Work

I conducted eight in-depth semi-structured interviews with ten participants: two interviews with pairs of collaborators and six one-on-one interviews. Each interview lasted from 45 minutes to 2 hours. Seven of the interviewees are video production professionals who work with video on a daily basis. Three are amateurs who did video editing as side projects. During the interviews, participants recalled their recent projects and gave accounts of their collaborative video editing experience. Paired interviews are particularly interesting in the respect that participants who worked in different capacities on the same projects provide different accounts of the same events.

All participants agree on the necessity of collaboration during the video editing, as it requires various skills and competencies, and, in some cases, just a second opinion.

A video project is usually organised by a single person, a producer, who distributes the work between editors, colourists, graphics editors, sound directors, etc. After the shooting process, which is a very complicated process by itself, they gather raw materials and organise them into a data structure of a hard drive. Interviewees have experience with various methods of sharing materials with collaborators: from flash drives to emails and file-sharing services. There is no standard way of sharing big video files or other media. All participants reported that they used free services provided by either third-party companies or their institutions, whichever is suitable for them personally: email (n=10), social media (n=7), instant messaging services (n=6), and file sharing services with social features like Google Docs (n=10).

In general, there are two sources of feedback, which video editors get during the editing process: colleagues/superiors and clients/customers. When working with colleagues, some editors strongly prefer face-to-face communication while others report having face-to-face meetings and discussions occasionally.

Professionals delegate certain tasks and trust their colleagues do their work. Feedback between colleagues is mostly very specific: they refer to certain points in the video and provide detailed constructive comments with timecodes. Timecode refers to a specific time in the timeline of a video editing software and is often accompanied with a frame number making it possible to point out a single frame in the video. Feedback from clients or customers, on the other hand, often lacks specification and can be very hazy. All interviewees who work with clients (n=7) note that they have to educate their customers to provide feedback.

## Future Work and Expected Contribution

Preliminary analysis shows some interesting collaboration patterns of video editing, e.g., the ways producers and editors utilise the available infrastructure of hardware and software tools to produce the video. These patterns will be explored further. One particularly interesting pattern is the employment of the timecode as a universal instrument for navigation and referencing in the video editing process. Regardless of means of communication, it is the core component of communication between co-authors and between producers and customers.

To better understand the interactional organisation of collaborative editing, we intend to conduct observations of the face-to-face collaborative editing process during which an editor works with a customer together in one room on creating a video. With these observations, we hope to unveil detailed social aspects, communicational hiccups and emerging issues which might be overlooked in the interview.

We will also organise a design workshop in which designers and video editors will ideate collaborative features for non-linear editing software. These design ideas will then be evaluated and developed in prototypes for further testing.

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