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Random Access Montage. How Online Access Has Changed Amateur Video Editing

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Abstract. Digital technology has often been discussed in relation to how it changed either the production or the reception of audiovisual cultures. This paper will consider a combination of both as a crucial part in understanding strategies of inter- and transmedial amateur creativity. Based on an experimental ethnography of the online video subgenre/ subculture "YouTubePoop," the paper will elaborate on the connection between the individual experience and the creation of digital media. The loose collective of independent amateurs behind the YouTubePoop videos makes use of already existing audiovisual material ranging from television shows to videos of other YouTube users. The re-created remixes and mashups are characterized by their random selection of original material and their nonsensical humour. Hence, the rapid montage of this heterogeneous content is just as much part of the intensified aesthetic expressiveness as are the applied special effects available in the digital video editing software. Both aspects highlight the strong interdependence of the rapid accessibility of online content and digital technology and the new aesthetic expressions they are fostering. The paper will show how the experience and navigation of digital interfaces (editing software, media players, or homepages) affect the design and practice of these video-remixes. This will open the discussion about intertextual strategies of media appropriation to an aesthetic and praxeological analysis of media interaction.

Keywords: Amateur culture, montage and video editing, online video, YouTubePoop, software studies.

How Does Digital Technology Affect Cultural Production?

Intermediality is a central aesthetic feature of new media technologies. This article is based on a technological understanding of intermediality as an active fusion of diverse media dispositives and diverse media content. Over the last two decades, the remixing of visual and audiovisual content developed from a time-consuming, mainly artistic practice to a source of popular entertainment for those remixing and for those watching and sharing these videos on online video platforms. The increasing digitization of audiovisual entertainment and the ongoing technological improvement in the processing of audiovisual content were keys to this development. This shift towards the digital is accompanied by an even more effective shift from offline content to online content – from hard drives to clouds, from DVDs to Netflix. Particularly with regard to new modes of cultural production, online "art platforms" (Goriunova 2012) like YouTube served on one side as extensive collections of original videos from other media (television, cinema, etc.) and on the other side as a public display of their appropriation by variably professionalized users. Due to its easily circumvented copyright protection, YouTube has facilitated both the uploading of user-generated content and – more importantly – the acquisition of audiovisual content by means of free third-party software. But how can we theoretically and empirically link these technological shifts to the new aesthetics and new modes of production that they enabled?

The more areas of media culture are affected by digitization, the more digitality - not to mention virtuality - proves to be an insufficient concept to grasp particular aesthetic changes. Victoria Vesna offers a heuristic model to approach this challenge. The "database aesthetics" (Vesna 2007) serves her as a metaphorical concept to understand the ways in which big amounts of data relate to their visual representation. Instead of focusing on the visualization of quantitative big data, I argue that the notion of the database and its effects on aesthetics need to be taken particularly seriously when dealing with non-quantifiable audiovisual content and its re-arrangement. So we need to ask how the aesthetics of audiovisual content changes once it is part of a digital database. This can either be the case when a video file is stored in the folder structure of a hard drive or when a video is embedded in the graphic user interface of streaming platforms or of editing software. Ultimately, applying the database paradigm to online videos allows us to grasp the aesthetic relation between different technological elements (storage, display, transmission) and the user's constant and random access to them that shapes the emerging digital culture.

This takes us back to Lev Manovich's attempts at defining the language of new media for which he suggested five different features: numeric representation of information in binary code, modularity of data access, automation of multiple steps of procedure, variability, transcoding (Manovich 2002, 49). In particular, the process of "transcoding" is crucial to answer the question of how digital technology has affected and still affects cultural production. Manovich describes transcoding

as a translational process from a "computer layer" to a "cultural layer." "That is, we may expect that the computer layer will affect the cultural layer. The ways in which computer models the world, represents data and allows us to operate on it; the key operations behind all computer programs (such as search, match, sort, filter); the conventions of HCI – in short, what can be called computer's ontology, epistemology and pragmatics – influence the cultural layer of new media: its organization, its emerging genres, its contents" (Manovich 2002, 64).

The implications of this transcoding can be seen in different degrees of complexity. A simple example of how the database aesthetics enforces itself onto the visual surface of an online video can be found in many popular YouTube videos. Since the media platform functions as a competitive and increasingly commercially oriented space, every subscription and every view count for the producer's popularity – and for Google's advertisement plan. The technological solution for this hunt for subscribing YouTube users is simple: below every online video there is a small "subscribe" button. So it is striking to see how this "computer layer" surrounding the video is transposed to the "cultural layer" of the video itself. In the same way as this "subscribe" button is included in some videos [Fig. 1], other videos tend to use split screen windows to refer to other videos by the same user.

Certainly, there are more complex examples of how the design of videos is affected by the "computer layer." One such fundamental transcoding process is the effect digitization has on the quality of online videos, namely their resolution, duration, and complexity. Of course, this downside of digitization has continuously disappeared with the arrival of new high-resolution video formats. A quantitative account of the evolving online moving image formats will give better insights into this shift in the capacity of image processing and in the average download rate [Fig. 2].¹ If we have a look at the drastic increase of downloadable Megabytes per second and the equivalent increase in RAM (Random Access Memory) we have to acknowledge that these two factors have fundamentally altered the possibilities of audiovisual appropriation: on one side the availability of source material and its easy accessibility; on the other side the internal working memory of computers that allow us not only to display these digital videos but also modify them more and more fluently. In order to give an impression of what this tentative and taking the immensely varying download rate from country to country into account - manipulative diagram means for the complexity of a digital visual culture it

¹ The diagrams are based on Moore's Law for the prediction of computer capability (60% annual growth) and Nielsen's Law for the prediction of internet bandwidth (50% annual growth), and balanced by empirical updates by Nielsen 1998 and McCallum 2013.

needs to be related to some milestones on the way to YouTube now, in 2014: it was not until 1994 that you could display a looping GIF on the Netscape Explorer. In 1996, Macromedia's Flash Editor revolutionized the possibilities of digital amateur animation and its web-wide spread by means of the .swf format. In 2002, Macromedia had already been bought by Adobe and Adobe Flash Player 6 at last supported the playback of converted videos on any imaginable homepage. It was this easy-to-handle format that eventually led to the raise and success of YouTube as a central platform for sharing videos. And if we make yet another jump to the year 2013 when we're smoothly streaming YouTube videos in High Definition, it is hard to ignore that some things have changed fundamentally in professional and amateur media practice. However plausible this diagram may look, it does not tell more than the fact that technological change did have an effect on cultural production. To find out more about these aspects we have to dig deeper into what Manovich called the "computer's pragmatics."

A third example of how technological change affects cultural production is the main object of investigation that I called "Random Access Montage" in the title of this article. The rapid increase of both computer capacities and the internet bandwidth over the last years indeed allowed for a new style of video editing. It can be characterized by a high degree of improvisation and the seemingly endless resources of audiovisual material available to the amateur editor. The remix genre of YouTubePoop videos serves as a great example for this.

Randomizing Participatory Culture: the Case of YouTubePoop

Despite their vulgarizing self-description, YouTubePoop videos (in the following YTPs) can be described as a really traditional kind of popular appropriation of culture. Whereas John Fiske described the obscene mocking of commercial songs as a kind of empowerment within cultural hierarchies (Fiske 2011, 318), these plays on words are nowadays accompanied or entirely replaced by intense ludic interactions with audiovisual content. These interactions manifest themselves in an expressive and crude aesthetics of the resulting videos that mark the core characteristics of the genre: the rapid editing, the heterogeneous imagery, and a sense of humor that is varying from scatology to absurdism. The creators of YouTubePoops (in the following YTPers) often disrupt not only the structure of sentences but also the visual surface of the source material by means of rapid and random editing and the extensive use of special effects. This aggressive nature

of YTP repeatedly caused an outrage by other YouTube users who were trying to ban YTP videos completely from the online platform or at least express their own repulsion. Reactions like this usually resulted in a euphoric counter movement by the YouTubePoop community who starts to remix those very reactions.

It is this combination of high-level media literacy and the smack of counter culture that make this genre so appealing for scholars of the humanities and the studies of popular culture. This cultural bias in the academic discussion of hybrid media aesthetics is best illustrated by an important incident within the American YTP community. When the American literature scholar David Bailey addressed all YTPers in 2010 by means of a short lecture series on YouTube the academic interest in intermediality (Eugster 2015) and the popular interest in intermediality as a kind of technological appropriation clashed. His main interest in YTP videos was their high linguistic and visual complexity that point to a high degree of media literacy. In his video lecture, he refers to two different dimensions of media literacy: on one side he is talking about the technological literacy in the handling of video editing software; on the other side he is talking about a cultural literacy, which he ascribes to the complex re-arrangement of narratives in those videos. To explain the cultural relevance of literacy he goes back to the role of vernacular language in medieval Christianity and to the experimental nature of T. S. Eliot's Wasteland. In one comment to his video lecture "Remix Culture and the History of Art," a user expresses his irritation about this parallelization of contemporary media practices with the history of art and culture: "It's really not anything special, it's just basic audio and video editing. There is NOTHING about it that has to do with 'literature' or 'religion' or any mass amount of education to make. It's a hobby no deeper meaning, it's just a bunch of stupid video's a bunch of teenager's make with pirated software, and seriously it's not like we read books or anything. I don't think this is going to go anywhere, especially in the direction you're putting it. It really doesn't make sense to me" (Bailey 2010).

The emphasis on the randomness of this digital phenomenon is striking. It seems to be the very absence of any "deeper meaning" that makes the practice of random access montage so attractive. In a similar discussion on a Germanspeaking community forum, a user brings his motivation for the editing of videos down to three reasons: "I am doing poops resp. videos simply because I am bored, because I want to cram a stupid idea (or my dreams) into a video or because I want to irritate other YouTube users. Who needs all this metacrap?" (YouTubeKacke.de 2011.) All modes of motivation refer to an immense spontaneity and ephemerality that mark the production of the videos. But how does this influence the way original videos are selected and the ways they are being edited by amateur users?

In the research for my master's thesis, I was conducting non-standardized vide interviews with four different Swiss YouTube users (vV0rtex, timmy41, fettesco, ZitronenSindSauer) who all engaged in YTP in one form or another. All of them ascribed the initial motivation for creating a YTP to a tiny peculiarity of an online video that they were watching by chance. Fettesco referred the somehow odd gesture of a TV show host to illustrate how such a peculiarity made him want to remix the video. On a more general level, vV0rtex described the selection of source material and applied effects: "You know that you like this material. But then you start thinking: how about adding this other clip to it or how about adding that effect to it?" Both responses show how the quick access to audiovisual content online functions as a catalyst or enabler for users' creative engagement. But this is only the beginning of a complex process behind most videos. A major part of the editing is decided by the wide variety of improvisations that are made possible by digital video editing.

What Happened on the Eve of YouTube?

In his contribution to Joshua Green's and Jean Burgess's YouTube: Online Video and Participatory Culture, Henry Jenkins refers to other forms of media participation that dominated the pre-digital popular culture to answer the question: what happened before YouTube? This historical account was essential to contain the often naive and blind enthusiasm about the Web 2.0 as an unprecedented media historical shift. However, it does not offer a lot of information about the practices and media historical/biographical continuities behind amateur production. In order to fully answer to this question, we might need to focus our attention on the genuinely digital media practices that directly preceded YouTube in the late 1990ies and early 2000s. For a full understanding of online videos and their implications for the future development of amateur cultures we need to rephrase the question and ask what happened right before the international breakthrough of YouTube. Instead of focusing on prior community based ways of media participation, I would argue that the decade before YouTube was central for users' continuous familiarization with database aesthetics. In general, this meant getting used to interfaces, interactions, and intermediality.

In the course of the conducted media ethnography, I arranged a meeting with the two most active users of my sample (vV0rtex and timmy41). During this participant

observation they demonstrated all stages of editing such a video in front of their desktop computer. This allowed for new ways of talking about the aesthetics of remix videos and opened up new media historical contexts – from their own perspective. During the participant observation with timmy41 and vV0rtex, they referred to a kind of software tool that is typical for this familiarization. When they were watching a potential remix source together, timmy41 suddenly came up with the idea to add some random sounds to one particular scene. It was by far not the first suggestion of what they could do with the video; however, it was his particular association with an application that struck me: "Let's add some sounds – you know, like with that F1 soundboard tool." The program they were referring to was a simple tool from 2002 that allowed them to play any sound sample they wanted by pushing one of the keyboard's function buttons. This tool disassembles linear media content – like television quotes or computer game sounds – and literally modularizes the media content on a range from F1 to F12. Thereby, the linear media content of other media enters the realm of the database.

Thinking of zapping through television channels and flipping through collected magazines, this idea of modularity would miss the point if it was restricted to digital media and not regarded in its proper intermediality. Uncovering this context of digital media was one of the main reasons for interviewing the users from a media biographical perspective. So I was not surprised when two different users mentioned similar television shows that highly relied on the playback of random clips of other TV stations as precursors of YouTube. Fettesco even assumed the video clips from the TV show "TV Total" to be the first online video he has ever seen on YouTube. Those short clips of approximately five seconds were all framed by a stylized screen and could be controlled by Stefan Raab the host of the show - by simply pressing one of the buttons in front of him. At the latest from 2002, this control over a wide collection of funny clips was not restricted to Stefan Raab anymore. On the official homepage of the television station, a small application allowed every viewer of the show and user of the homepage to take Raab's place and replay the same video clips in Real Player at any time and in any order they wanted. The imitation of this modularized intermediality probably reached its peak with a Flash application that let any user replay sound samples by pushing the separate buttons on the interface. By mimicking the buttons on the the desk of the show's host [Fig. 3] it perfectly visualized the database structure of those modularized clips.

Another – user-generated – example puts even stronger emphasis on the database aesthetics of this random access to modularized content. In 2001, a

Swiss talk show on the topic of youth violence reached broad popularity among German-speaking teenagers. The famous sentences and short clips of the show spread through the Internet in the following months - and gained cult status in a way that a few years later would be referred to as "viral." Due to the low internet connectivity, it was mostly small sound samples that spread like this. This restriction to short extracts and their diverse modes of digital embedding in homepages and small web applications may have even reinforced their popularity. One such program was created by a Zürich based class of application developers. The small Flash application that bears strong resemblance to the "TV Total Nippelboard" relied even more strictly on a grid of separate buttons that invited any interested user to freely combine the sound samples behind them [Fig. 4]. Programs like this relocated television's linear stream of audiovisual content to a two-dimensional interface. This visual restructuring of audiovisual content marks another key shift towards a distinct language of new media: "Therefore, if cinema sampled time but still preserved its linear ordering (subsequent moments of time become subsequent frames), new media abandons this "human-centered" representation altogether - in order to put represented time fully under human control. Time is mapped onto two-dimensional space, where it can be managed, analyzed and manipulated more easily" (Manovich 2001, 67).

With reference to digital cinema, Manovich concludes that – despite all possibilities of random access – this has not led to a clear cultural preference of the database over the narrative. But what happens when we include the human interaction back into this allegedly non-human-centered representation? The given examples clearly contradict this continuous preference for the narrative and instead put popular database aesthetics into the centre of attention. If we apply this argument to the random access montage of YTPs, we get a clearer picture of what they are about. Instead of contrasting the linear original material, the remix videos seem to be adjusting to this tendency of modularization – and expose them as such.

There is a simple example to show how this seemingly non-human twodimensional representation of audiovisual content is appropriated by human actors. Many YTP producers willingly understate the amount of work they put into a video – but at the same time they ascribe a central role to the process of editing. Many forum posts and videos on YouTube make this evident as they celebrate the YTPs in their making and show off with their complexity [Fig. 5]. This self-documentation of a media practice somewhat problematizes the notion that this two-dimensional mapping of a video abandons a "'humancentered' representation." After all, it is not only the technological and structural background of a remix video that is represented via print screen of the graphic user interface that finds its way into public – but also the aesthetic experience of user's creative engagement. So basically we are dealing with the same database structure as in Fig. 3 and Fig. 4 although you cannot simply replay the separated clips but re-assemble and re-modularize them on different layers.

Figure 5 shows the editing plan of the YTP music video (YTPMV) "Dewey under a heavy dose of binaural beats" which has been taken down from YouTube for copyright infringement. Two characters from the sitcom Malcolm in the Middle have been cut out and are flipping horizontally against an abstract background. It is visible in the timeline of the project that the snippets of the video layer are coupled with the snippets of the audio layer. This fidelity to the original audio-visual content is crucial for the synesthetic effect of many YTPMVs. In the second interview, vV0rtex described this procedure as some kind of an auxiliary structure. According to him, the use of so called box visuals - a picture inside a picture - makes the remix of various sources more comprehensible to the viewer. Considering the abstract and non-narrative nature of those music videos, comprehensibility mainly relates to the structure and the 'workmanship' behind the video. This is very characteristic of this kind of community based digital "cinéma des copains" - the aesthetic idiosyncrasies that lead to the production of those videos are thus often the same that are at work during the reception and appreciation of the videos. This reciprocity of media production and reception cannot be understood without a closer look at the user's perspective.

New Media Praxeology: Tracking Traces of Media Navigation

Different users edit videos differently. This is one of the first things that became evident after half an hour of the participant observation of two YTP producers. When vV0rtex was editing a Swiss TV commercial that I suggested for editing, the first thing he did was to split the sentences into barely noticeable small snippets. He continued by copying and pasting them and varying the pitch of the audio of every single snippet in order to create some kind of stuttering melody. He exemplified that he has absolutely no idea of how the result will look or sound like because he was just editing along the shape of the audio layer. So in order to get to the desired result, he randomly edited the clip in the abstract two-dimensional space of the graphic user interface of the software. Interestingly, timmy41 hereon described his own working style in contrast to this abstract procedure. He has "to look at the video for about 10'000 times" before he dares to dissect a video. The juxtaposition of these two approaches to video editing comprises the latitude in which varying modes of improvisation, and varying dependence on technological determinacy define the aesthetic outcome.

In the collaborative editing of a different video, they showed me a third way of remixing a video. As they were not happy about the possibilities to distort the source video I suggested, they were looking for a more versatile source with more movement and less talking. They were brainstorming for ideas and browsing through the database of YouTube until they eventually found an episode of Mr. Bean that seemed like a useful source video to both of them. After watching through parts of it and considering it as a sufficiently funny and multifaceted source, they downloaded the video file by means of third-party software. It was not until they had imported the video to the video editing software that they were watching through the whole video from its beginning. It turned out that the editing software offered a much more complex navigation through the video than did the YouTube player. Every time Rowan Atkinson did a sweeping movement they reversed the motion in the preview window for one or two seconds by pushing a shortcut on the keyboard. With these kinds of instantaneous effects, they started to explore the whole clip by editing it. In the end, plenty of modifications have been made before they haven't even watched through the first half of the video. When I asked ZitronenSindSauer about this improvisational style of editing he described his way of editing as a mixture of both approaches: "Usually, I first listen and watch through the whole video before I start editing. But sometimes I also navigate through the video [moves back and forth with his fist] and then you can see where which effect would fit. Even if you speed up the video, you can find out what sounds funny with this procedure. It's a matter of trial and error – and listening closely."

This kind of navigation within the timeline is reminiscent of the scratching technique when vinyl records are moved back and forth. Similarly, there is a certain gap between this performative act of playing the video back and forth – during the explorative phase of editing – and the reversing effect that will eventually be added to the video. This tension between situational pleasure and the shaping of a certain editing style proves to be highly productive within the creation process. During the participant observation, it was very characteristic of this kind of improvisation that the decisions were made somewhere between comments like "We totally have to reverse this!" and moderating self-control as in "There must not be too much reversing..." Even the use of more complex effects is commented this way. When

the stage magician in the Mr. Bean episode conjures up a pair of keys out of Mr. Bean's pocket, timmy41 comes up with the idea that they could replace the keys with Mr. Bean's body [Fig. 6]. The absurd iconography of this classic mise-enabîme instantaneously reminds them of a befriended YTPer and they tell me that he would most certainly do something similar at this point of the video.

Naturally, this interdependence of commenting, discussing, and editing is largely conditioned by my presence as a researcher. The more they were helping each other and the more they started to refer to remix videos of other users, the more their own aesthetic demands came to the fore. The distinction between two different kinds of modifications prevailed through all the interviews and was affirmed in my own observations. The first kind of modifications is a combination of different basic editing features like cutting, colour balancing, super-impositions, and changes in playback speed that go from slow-motion distortions to reversing of single shots. The elaborate trick of Mr. Bean pulling himself out of his pocket would rather belong to this kind whereas the second kind of modification embraces a wide range of special effects that require more computational power than most basic editing tools. They are symptomatic for what Lev Manovich calls the automatization of digital media. Most of those distortions modify each frame of selected video clip according some customizable rules. The swirl effect [Fig. 7] is a good example for this since they added it to the video for the sole reason that "this effect was still missing."

The described style of editing can be understood as a clear trace of what Henry Jenkins describes as "the migratory behavior of media audiences who will go almost anywhere in search of the kinds of entertainment experiences they want" (Jenkins 2006, 2). Isn't this randomization of content selection and the spontaneous modification the logical consequence of Geert Lovink's declaration that "we no longer watch films or TV; [but] we watch databases" (Lovink 2009, 9)? Instead of flipping through a collection of magazines or zapping through all the channels on television, we navigate through databases. One of the fundamental differences to those analogue practices, however, is that the implicit and explicit participation (Schäfer 2009, 16) on online platforms increase the publicity of such phenomena. Hence, the accustomed - almost naturalized - navigation through online and offline databases (computer layer) visibly and audibly influences the aesthetics of the videos in question (cultural layer) by the rapid changes from one visual attraction to another. Most of the interviewed users make no secret of the randomness and simplicity of most of their videos. After all, they are well aware that their editing is just a way to get most entertainment out of freely available content, pirated software, and their device's computational capacity.

So the intermediality we are dealing with in those videos is situated between technological possibilities and their individual appropriation. Both aspects define each another: on one hand there is not a single technology that does not envision its very use, and appropriation on the other hand is a complex process of independence and dependence, innovation and repetition that makes use of every aspect of technology for individual cultural production.

Moving Towards Designed Appropriation

In order to answer the opening question we need to make another step back in the history of digital amateur culture. How online access has changed amateur video editing depends largely on how amateur editors appropriated nonlinear digital video editing as a source of entertainment before YouTube. Considering that media convergence works on multiple levels, we obviously need to look back from two different angles: video remixing as convergence of different content and video remixing as convergence of different technologies.

In their case study, Erik Blankinship and Esara Pilapa developed and tested in the early 2000s a computer program called talkTV. This software offered its users a database of short clips of the TV series Star Trek and allows them to reassemble the spoken lines to new narratives. The experimental outline of this research project is so intriguing because the probands were asked to report on their experience of editing the videos. Those results proved talkTV to be a stimulating experience beyond the smaller circle of Star Trek fans among the test subjects: "All the participants stated that they enjoyed their experiences. Commonalities between three participant's responses highlight three aspects of the talkTV experience which participants found to be 'fun.' The technical possibilities facilitated by the software, the experience of actual editing process and the end product are all aspects of what made talkTV enjoyable" (Blankinship/Esara 2003, 260).

Providing easier access to otherwise technologically and legally restricted audiovisual content opened up the potential of digital video editing as a source of popular entertainment. And most strikingly, the pleasure about the actual result of such media practice is just one out of three aspects. Instead of focusing merely on the new possibilities of participation provided by the Web 2.0, we have to assume that the publishing of the final product is just the tip of the ice berg. Even though the loneliest YouTube channels with less than ten views could be interpreted as a defeat of web 2.0, we might just as well turn the table and enquire about the development in digital amateur cultures from a consumer's perspective. If we look at the visions of amateur video cultures in the 1990ies, we can clearly see that the utopia of media self-empowerment was by far not the same as the web 2.0 illusion that amateurs could overcome the economically driven media system. In 1994, a trailer for the early digital video editing equipment Video Toaster 4000 promoted a vision of amateur cultures becoming independent of network television by creating one's own content and editing the content of others. The promotional video shows a set of TV screens floating by with a dialogue of two conspiratorial voices in the off: "In an average week, the networks bring you six made for TV movies - Dull! [...] Thirty five hours of infomercials - Insane! Forty four hours of soap opera -Very dull! [...] Now it's payback time. What do you mean? You see, there are only three of them. You mean the networks? Yes, the old style networks, and they are fading away. But there are thirty Million of us, every one of us with a camcorder and a VCR. But now we have got a new weapon against blablabla-vision. What's the new weapon? It's new software. It's new hardware. It's the next generation of the most successful video tool of all time. A whole new Video Toaster? It will be the end of bla bla bla television: The Video Toaster 4000" (Newtek 1994).

This emphatic annunciation of a new era of entertainment is followed by a rather random montage of all the new and exciting superimposition and transition effects that are enabled by the promoted software. So the central aspect that is enabled by this technology is a more vivid audiovisual culture that is clearly distinct from traditional mass media. Both examples – the Video Toaster 4000 as well as talkTV – bring tendencies to the fore that the developing computational and internet technologies enforced and reinforced over the years. This continuity is critical for an understanding of the ways in which amateur cultures will develop in the future. Despite the tendencies towards a homogenization of online content by the big digital players like Google and Facebook, there will always be an off-site amateur culture of editing and creating a culture of its own. The hype of web 2.0 as an emancipatory project – which gives everybody the possibility to be seen or heard – might be easily revoked, but the ways in which technology was facilitated over the past decades cannot be undone.

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List of Figures

Figure 1. Screenshot of YouTube video with internal button. RayWilliamJohnson. YOUTUBE FAMOUS! 09. 11. 2012. *https://www.youtube.com/watch?v=V92YrL7hNHA*. Last accessed 31. 03. 2014.



Figure 2. Diagram of relative evolution of RAM and internet bandwidth according to Moore's and Nielsen's Law.



Figure 3. Screenshot of Nippelboard application. *http://www.chip.de/ downloads/TV-Total-Nippelboard_15458971.html*. Last accessed 31. 03. 2014.



Figure 4. Screenshot of Osman Soundboard application. *http://www.sauhuufe. ch.* Last accessed 31. 03. 2014.

Adobe Flash Player 9					
Datei Ansicht Steuerung Hilfe					
Osman Soundboard					
Ja sicher	Ja 1	Ja 2	Ja 3	Ja 4	Nei
Mann	Oder?	Wo?	Weisch?	Verstahsch?	Eh?
Du bisch en Idiot	Du bisch doch dumm im Kopf	Ey bisch du blöd im Kopf?	Gang doch weg Mann ey	Du bis doch ruhig Mann	Das isch normal Mann
Da Herz Mann	Es isch egal ob eine 2 Meter	Darum weiss ich was schlegle isch	Das spilt doch kei Rolle	Hützutag gaht das nöd Mann	Das isch doch normal
Ich han Ehre ich han Stolz	Ich han Ehre	Ey hesch du kei Gfühl?	Findsch du das nöd guet?	Gang go abneh und hock ab	Ich mache nüt
ich red nöd zvil	Ja das isch easy	Im WC vor de Tür	Mann du mit dine Wort	Mini Fründin	Mir sind zwüschet dine Bei
Hesch du es Problem mit mir7	Hesch Problem oder so?	Was machsch du Mann?	Was machsch du?	Was Usländer Mann?	Wenn er über Familie fluecht
Wenn ich dir eine haue	Wenn mich eine aluegt	Wie provoziere?	Wieso nôd strite Mann?	Wo schaffsch, im Alperock?	© Scatterbraine

Figure 5. Screenshot of video project by vV0rtex. YouTubeKacke.de. *Postet* Bilder von euren YTPs, an denen ihr gerade rumwerkt 10. 01. 2010. http://www. youtubekacke.de/viewtopic.php?f=1&t=1234. Last accessed 31. 03. 2014.



Figure 6. Masking effect in Sony Vegas. Screenshot of participant observation with vV0rtex and timmy41.



Figure 7. Swirl effect in Sony Vegas. Screenshot of participant observation with vV0rtex and timmy41.

