Chained Animation: Thoughts on Collaborative Forms of Filmmaking in Education

In this paper, we discuss experimental forms of collaborative filmmaking in education and introduce the didactic concept of Chained Animation. Animation filmmaking is usually teamwork; the production pipelines are traditionally linear and hierarchically structured, separated into direction (or artistic direction) and production teams. By contrast, Chained Animations are non-linear and are based on a large group of animators, working together at various levels. This concept is particularly well-suited to education, as it integrates all participants equally, from the idea phase all the way through to its realization. In addition to teaching basic animation principles, this experimental form of education goes beyond the common methods of practicing those principles. The educational concepts for Chained Animations follow different strategies and range from professional workflows to experimental playful forms. First, we examine participatory art practices; then we discuss experimental forms of collaboration in animation and education using examples from art, film, and science. Based on three case studies—HOME (AT 2016), UTOPIA NOW (AT 2017), and DRAFT ONE (AT 2018)—undertaken at the University of Applied Sciences Upper Austria Hagenberg Campus, this paper examines different experimental approaches, challenges, and findings, as well as presenting guidelines for chained animation in education.

Keywords: Chained Animation, Collaborative Conception, Participatory Art, Collaborative Art Practices, Crowdsourcing.

Introduction

Animated films are usually produced in different ways depending on their scope, technology, and budget. On the one hand, animated films are produced in large teams, divided into different sub-areas such as animation, storyboarding, or sound design. On the other hand, independent, mostly artistic productions are produced by individuals or small teams that handle a variety of tasks (Furniss 2007: 30). Accordingly, educational institutions usually pursue either professional specializations or artistic approaches. Furthermore, students learn professional workflows and techniques and usually produce animated films in teams, divided into various areas such as camera, direction, editing, or sound. Many educational institutions, especially film schools, offer special tracks or programs in these areas, and professional collaboration is an integral part of practical courses. These collaborative forms are traditionally linear and hierarchically structured, usually broken into direction (or artistic/creative direction) and production teams.

Digitization is blurring the boundaries between the departments of filmmaking and the work processes are increasingly running in parallel. Non-
linear production workflows not only change the processes, but also the way ideas, stories, and concepts are developed. Alex McDowell, production designer and founder of the World Building Institute, argues that conception, storytelling, and development are significantly influenced by a dynamic interaction of different departments (McDowell 2017). According to McDowell, production design is a holistic interactive process and worldbuilding in films is a model for future film production and for a collaborative conception of worlds and stories (McDowell 2017): “The designer has to absorb the wor(l)ds that surround him or her and transmute them into a multi-dimensional experience. This is an alchemical process that results in spatial storytelling; a combination of magical thinking (imagination) and science (the technological tools). This is a non-empirical process that is defined by the formula 1+1=3.” However, even before the digitization of film experimental forms of collaborative conception and production of animated movies were common in both art practice and education.

This article addresses various experimental, collaborative forms of animation production that take place off the beaten path in educational institutions. It also introduces the concept of Chained Animations. This method of filmmaking is characterized by several key elements: the coexistence of artistic freedom with a strict set of rules, a sense of identification and common vision, distinctive communication strategies, and flexible structures. All participants are directors, producing individual parts that are linked together into a mutual film. In contrast to established methods of film production, all participants are equally involved in the creative process and overall concept as well as in the production. In these collaborative animations, students are not only responsible for parts of the film. All team members are equally involved in the conception, direction, and production. This method encourages diversity and experimental approaches. Moreover, collaborative approaches enable large-scale projects and foster intrinsic motivation of all participants.

The concepts for Chained Animations follow different strategies and range from professional workflows to experimental playful forms. The first section of this paper will examine collaborative art practice, while the second section will discuss experimental forms of collaboration in animation based on examples from art, film, and science. We will look at three case studies—HOME (AT 2016), UTOPIA NOW (AT 2017) and DRAFT ONE (AT 2018)—produced at the University of Applied Sciences, Upper Austria, Department of Digital Media, using them as a basis for discussing different experimental approaches, challenges, and findings, and for presenting guidelines for Chained Animation in education.

Collaborative and Participatory Practice within Art

Collaborative artistic practice can generally be understood as various processes of working together within the arts, including all forms of art, curatorial practice, and art research, across different cultures and artistic
mediums such as visual art, sound, design, or story development (Barbour et al. 2016: 51). This practice focuses on collaboration between artists but also includes engagement of public participation. The latter process is commonly known as “participatory art” (Milevska 2006), and includes participatory theatre or public art, as well as, in a broader sense, all forms of interactive art (Ascott 2003, Grau 2004). Brown et al. (2011: 16–19) distinguish between different aspects of participatory art practice in the museum context and propose the framework Audience Involvement Spectrum. This spectrum ranges from receptive to artistic participatory and shows five overlapping levels of participation. The first two levels – “spectating” and “enhanced engagement” – are outside the realm of participatory art practice. Brown et al. specify the following three levels of artistic participation:

Crowdsourcing (1) means that the audience is invited to contribute to an artistic product but is not involved in the artistic process. A well-known example in animation would be the open film projects of the Blender Foundation1. In co-creation (2) the audience is directly involved in an artistic experience and actively contributes to it. In the final stage Audience-as-Artist (3) the audience essentially takes control of the artistic experience. The focus shifts from the product to the creation process. The artistic experience is curated, guided, and usually precisely organized, but the outcome is open and depends on the actions of the participants. The last stage is especially relevant for further analysis as all participants take over the artistic and creative direction.

According to Silke Feldhoff, participatory projects are characterized by play, communication, intervention, experimental design, appropriation, edutainment, and infotainment, as well as politically or socially motivated activism (2016: 8). For artistic projects, Manuela Naveau identifies the additional elements of playing with instructions for an open outcome, and playing around with the principles of chaos and coincidence (2017: 257–61). In addition, Naveau distinguishes a classical principle of participation (knowingly, voluntarily), appropriation (unknowingly, involuntarily), deception (voluntarily, unknowingly) and, instrumentalization (involuntarily, unknowingly) (2017: 256). Feldhoff and Naveau cite various case studies of participatory art, including Marcel Duchamps, Readymade malheureux, or Unhappy Readymade, 1919, an early example of playing with instructions for action with open output. The basic idea is an instruction manual for a work of art: Duchamps wrote a letter to his sister Suzanne in which he described all the steps of production in detail. At the same time, László Moholy-Nagy developed a similar method with the so-called telephone pictures (1922). Moholy-Nagy gave instructions over the telephone to an employee of a sign factory. In both cases, an early form of crowdsourcing can be identified. Further “instruction drawings” or “artist’s instruction” followed. The artist is literally detached from the artwork, the

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1The Blender Foundation is an independent, non-profit organization with the goal of providing a free open-source 3D production pipeline to enable so-called open projects, including 3D animated short films (open movies) and games (open games): [URL: https://www.blender.org/foundation/]. Last access: 11/30/2020.
output is open and strongly dependent on the noise between transmitter and receiver. A stronger form of participation in the sense of active involvement in the creative/artistic process can be found in the playful methods of “cadavre exquis,” developed and frequently used in Surrealism. With this method, images or texts are created by several people passing the artifacts to one another for further processing. Depending on the rules, the subsequent artists may be aware of only the last part or of the whole work up to that point. This collaborative playful method can be located on the Audience Involvement Spectrum somewhere between co-creation and audience-as-artist, depending on the instructions. In summary, the following building blocks can be identified as central components of participatory art practice: Play with instructions for action, communication (language, letter, telephone, etc.), experiment with an open outcome, and play with the principles of chaos, regulations and coincidence.

Experimental Forms of Collaborative Animation Filmmaking

This section explores experimental forms of collaborative animation filmmaking, in particular different variations of Chained Animations. In contrast to established production pipelines, many or even all participants in these collaborative processes slip into the role of the director, much as in anthology film. In general, experimental forms of collaborative filmmaking can be found in various genres of feature and short film, including experimental film, media art, or fan film. These filmmaking processes are often based on participatory art practices and range from a short production time, like Animation Jams, to productions that take several months or even years. The examples analyzed here come from media art, film, and education. Selected animated anthology films, experimental short films, and crowdsourcing projects will serve to illustrate essential characteristics of Chained Animation.

Animated Anthology Films

An anthology film is a film, usually a feature-length compilation, consisting of several short films by one or more directors, often on an overarching common theme (Wulff 2016). The genre is also known as Omnibus Film or Portmanteau Film (Horak/von Harpen 2012). In the field of animated-film distribution, a collection of short films is often called package film – but in this case, the individual films do not need to be connected. One of the first films of this genre is the animated film FANTASIA (US 1940), the third feature film by Walt Disney Studios (Horak/von Harpen 2012), directed by Algar and Samuel Armstrong. This animated anthology film is a series of eight visualizations of classical music based on the concept of the Silly Symphonies, from abstract moving images inspired by Oskar Fischinger to well-known Disney cartoon animations. A current example of an animated anthology film is WINTER DAYS (JP 2003), a Japanese animated film organized and initiated by Kihachirō Kawamoto. The film consists of different individual parts, produced by several
well-known animation directors. The short film *Winter Days* is based on the poem of the same name by Matsuo Bashō (1864), a prime example of a so-called Renku, a Japanese form of collaborative linked verse poetry. The animation follows this concept: 35 different animated-film directors from all over the world were invited to visualize one of the 36 verses, including well-known directors such as Yuri Norstein and Raoul Servais. Each individual part was to be at least 30 seconds. All films were made simultaneously and were linked together without any further adjustments. The feature film is characterized by a variety of approaches, animation techniques, and aesthetics including cut-out, puppet animation, computer animation, 2D and 3D animation, paint-on-glass, pin screen, cartoon or animated Japanese paintings. A similar variety of styles and techniques can be seen in the anthology film *Fear(s) of the Dark* (FR 2007), which consists of five animated black-and-white short films on the theme of fear. A group of Swiss animation film directors used a similar approach for the animated film *50:50* (2018). On the occasion of the 50th anniversary of Groupement Suisse du Film d’Animation more than 100 people – various directors, animators, and sound designers – worked together. Separated into 16 teams, they produced a film consisting of 15 short films over a period of two years, from January 2017 to October 2018. The individual parts were embedded in a story framework spanning a narrative arc from the beginning to the end of the film. In addition to text or a common theme, music can also serve as the underlying thread, as seen in *Happiness Machine* (EU 2019). At this initiative by the Austrian chamber orchestra “Klangforum Wien,” ten female animators and ten female music composers from all over Europe worked together on a project to create short films on the theme of the welfare economy. The result is an anthology film consisting of ten films by twenty artists. All the films discuss alternative economics in their own way; one follows another without any formal transitions between the individual parts.

Experimental collaborative forms of filmmaking can also be found in the genre of animated series, such as the animated streaming television series *Love, Death & Robots* (US 2019). The series consists of 18 episodes produced by different studios (Blur Studio, Platige Image, Digic Pictures, etc.) and directors (Tim Miller, Robert Valley, etc.). All episodes are stand-alone short films and show a dystopian or utopian future scenario on the topics named in the title.

**Animated Short Film**

In contrast to feature-length films, short films are often considered to be more dynamic, innovative and, above all, experimental (Kremski 2005, AG Kurzfilm 2006: 5–6). Therefore, this genre is more open to experimental forms of collaboration. Furthermore, short films are more relevant in education, and as illustrated above, shorts usually serve as the basis for anthology films. In general, an important basic requirement for all forms of collaboration is a straightforward and direct exchange of data and information. Digitalization has
made collaboration much easier; teamwork can now take place all over the world. Before the digital shift in animation, collaboration was quite challenging. As a first example of collaborative analog animation in education, two projects carried out at the Studio for Experimental Animation at the University of Applied Arts Vienna will be examined. The studio was established by Professor Maria Lassnig and Hubert Sielecki in the early 80s and is well known for various Austrian experimental animations. The first collaborative animation is *1X1 DES GLÜCKLICHEN LEBENS* (AT 1987). The 40-minute animated film consists of individual parts, produced by 16 students on the theme of subjective perceptions of everyday life. All shorts were produced at the same time and were finally linked together to form a single film (see Figure 1).

*Figure 1.* Stills from the animated film *1X1 DES GLÜCKLICHEN LEBENS*, directed by 16 participants.  

For the follow-up project *LIFE SHOW* (AT 1989–1990), more than 28 filmmakers worked for 14 months on a film (see Bruckner 2011: 124–126). In this case, a team of four directors initially created an overall concept as a starting point for all participants. A shared animation studio was established to foster collaboration between all participants. Both films are characterized by a common theme, the use of different techniques and aesthetics. Each participant directed a part of the film and artistic freedom was not only permitted but welcomed.

Computer animation offers new forms of collaborative processes, as a further example at the University of Applied Arts Vienna illustrates. The so-called *KETTEN-ANIMATION* (Engl. Chain-animation, AT 1993) was produced by 45 Austrian artists. Based on the principle of cadavre exquis, the artists worked together according to the following rules: The first artist was given an image on a floppy disk. This image was the starting point for an animation sequence of up to two minutes. Each artist had to finish the work in one week; afterwards, the last image was given to another person on a floppy disk. After exactly 45 weeks, a 21-minute computer animation was created.
The narrative computer-animated short film ANIMATION TAG ATTACK (DK, DE, US, GB, NV, IL 2012) was also created according to the principle of cadavre exquis, but with different rules. In contrast to the above example, the basis for the next artist is the entire pre-created work. Based on the current status of the film, each animator could decide how the story would continue. All participants had four weeks to produce a film of at least five seconds. The clip was uploaded to the blog and the next in line continued the film. The result of the experiment is a ten-minute animation, a diverse mix of techniques, styles, and narrative strategies: “This movie is a celebration of the art of collaboration and of creative process” (Bach 2013).

Significantly shorter production times and more intensive exchange between the involved artists can be observed in so-called animation jams. Such jam sessions are organized worldwide at universities, animation festivals, or conferences. Usually, different teams produce animations on the same subjects, in some cases, the goal is a joined project. For instance, at the conference Les E.magiens, Valenciennes, 45 students from various countries were invited for a jam session entitled “Animation Chainée” (Engl. “linked animation”). One of these projects is ANIMATION CHAINÉE: LA PISCINE (FR 2008), a short film consisting of 15 animations of exactly ten seconds each, produced by 45 students on three days on the topic of swimming pools. All teams worked side by side during the festival and the film was presented at the closing event. Working at the same time at the same place enables a vivid collaboration. The participants can give feedback to each other and discuss production steps, like the order of the shorts or transitions between the individual parts. The editing of all short films and the sound design were carried out during the production.

Crowdsourced Animation

Crowdsourcing in filmmaking is generally understood as outsourcing different parts of a project to a large volume of people, usually organized online. In the context of art, based on Brown at al. (2011), the participants are not involved in the artistic or creative process. ELEPHANTS DREAM (NL 2006) might be one of the first animated films using crowdsourcing principles in a broader sense. ELEPHANTS DREAM is the first so-called open movie produced by the Blender Foundation. The Foundation’s goal is to organize community-driven “open projects,” using the free and open-source 3D computer graphics software Blender. The software has been developed by many volunteer programmers since the end of the 1990s. Today, a total of 13 open movies have been released, and in many cases, new features of the software have been introduced for the first time in such movies.

Crowdsourced animated films in the narrower sense include “fan films,” which are produced by many fans based on a specific film or a film genre. One very successful online project produced the fan films STAR WARS UNCUT (US 2010), a remake of STAR WARS: EPISODE IV – A NEW HOPE (US 1977) and the follow-up project THE EMPIRE STRIKES BACK UNCUT (US 2013), a remake of STAR WARS: EPISODE V – THE EMPIRE STRIKES BACK (US 1980). The first is a
mash-up of live-action and animated films totaling 766 15-second film snippets. The sequel consists of 480 different scenes. A similar collaborative approach was taken in the crowdsourced art project THE JOHNNY CASH PROJECT (US 2010), an homage to the singer, songwriter, and musician who died in 2003. Launched in 2010, this project invites fans from around the world to create individual images from a music video compiled from archive footage of the song Ain’t No Grave (original recording: 1953). The project website provides a drawing tool with limited functions (grayscale, limited brush selection, etc.). Visitors to the website are invited to choose a single frame from the music video and create a new frame with the tool provided for the animation. Over time, various versions of every frame have been submitted. The result was an animated music video based on the principle of rotoscoping, including several variants for each individual frame. Various versions of the music video can be watched on the online project page. Individual presets such as “abstract frames” or “highest rated frames” are available, but it is also possible to create a unique new film by assembling frames from the huge database. Animator Bill Plympton followed a similar approach based on his multi-award-winning short film GUARD DOG (US 2005). In 2010 he invited filmmakers from all over the world to recreate his work. The short film was broken down in various sequences of 5 to 10 seconds. A few months later, the film GUARD DOG GLOBAL JAM (US 2011) was released, produced by 75 animators.

This analysis shows that Chained Animations are quite diverse in terms of form, aesthetics, method, and technique and can be found in feature films, but are more common in short films. The production time varies from a short period (animation jam) to several years. The starting point for collaborative animations can be a common topic, a video or animation, a piece of music, or even a technique or software. As demonstrated, there are similar characteristics to participatory art practices such as playing with instructions, dynamic communication and structure, experiments with open outcomes, playing with coincidences). Based on these findings, the following section will introduce three case studies that offer different didactic concepts for Chained Animations in education.

**Chained Animations in Education: HOME, UTOPIA NOW and DRAFT ONE**

Between 2016 and 2018 we developed, organized, and initiated three Chained Animation projects in the course “Analog Animation” at the University of Applied Sciences Upper Austria, Hagenberg Campus, Department of Digital Media. For each course, we chose different approaches and distinct requirements. All projects consisted of a fairly large number of participants (45–51) who worked on their concepts while attending a theoretical class and receiving professional coaching in production, editing, direction, and sound design. All of these departments were distributed among the students and only used to the necessary extent. Various topics were offered to the whole group and the students also offered some topics of their own. Final decisions were made democratically and broadly discussed, either
in person during classes, or online on specially created social media channels or communication tools. Decision-making tools and communication channels varied depending on the needs of each project. Theoretical classes, literature, or inspirational reference materials were adopted accordingly. After this stage, each team or group worked on the storyboards which were again discussed and feedbacked in small groups or with all class members, then modified to fit the overall concept of the Chained Animation. The priorities were to avoid redundant similarities, find common themes and/or discover links across the narration. A head of communication was needed to keep the process well organized; this role was taken on by the lecturers or by a student volunteer. Either way, final decisions were always made by the students themselves. Interestingly, this was often done immediately before the beginning of the production or even “on the table” where concepts and materials were already finalized and ready for animation. At all times, the production process happened in presence of at least one lecturer to guarantee technical and theoretical support during the two days in the studios. Hence this kind of “last-minute” decision making had several benefits for the students: they were able to experience the effects of “trial and error” on a practical level and were challenged to handle limitations within the boundaries of their materials of choice, which gave them valuable insights into real-life production processes.

**Figure 2.** Stills from **HOME** (left to right): title sequence (hybrid technique of hand-drawn and live-action footage), montage of Light Painting and liquids, subsequent scene with paper houses (objects) and a still of the final scene using sand

**Source:** University of Applied Sciences Upper Austria, Hagenberg Campus, 2016.

**HOME** (AT 2016) (see Figure 2) is an animated poem about the different meanings of the term “home,” contextualizing the refugee movement sparked by the Syrian war in 2015. Twelve teams with three to four members each, resulting in a total of 48 students, created associative images based on semantically corresponding verses of the poem. Timing and pacing were largely provided by the voice-over, although the final length of the individual
clips remained open to provide enough scope for creativity in editing. The overall concept and details went through several iterations leading to final storyboards, with all members of the class included in the decision-making process. In addition to physical meetings and brainstorming, digital communication tools provided a seamless flow in planning and research. The text template and the pre-existing voice-over encouraged the students to interpret the poem freely and associatively, creating a common ground for freedom of artistic development. The distribution of the poem’s verses proved to be of great advantage, as it gave each group a clear framework for the beginning and end of their visual narrative. It set the timing and pacing without placing too many limits on freedom in production. On the contrary, the limitations helped to maintain a clear overview of production and resulted in a fairly high degree of motivation. Moreover, the broad differences in technical or design skills were balanced out by a strong team spirit and a sense of identification with the project itself.

Figure 3. Stills from UTOPIA NOW created by 45 students (left to right): title sequence, 3D puzzle of a globe with vegetables, mesh of lamps on moss and twigs, and a world map made of coffee on a wooden plate with points connected by yarn (sand and objects)

Source: University of Applied Sciences Upper Austria, Hagenberg Campus 2017.

The second case study, UTOPIA NOW (AT 2017), is an animated dialogue of two thinkers striving for a vision of a “better tomorrow” (see Figure 3). Twelve teams consisting of 45 students created animated short clips on the overall theme of utopia in collaboration with the artist Samuel Bunn, who gave a theoretical introduction as a starting point for research. Again, storyboard meetings were held in groups or individually, maintaining the concept that final decision-making is up to the whole class using democratic voting. There was one big difference with regard to the prior project, HOME: the conscious absence of an audio layer or voice-over. Regardless of the final editing or order
of the clips, the concepts were created freely and involved sketching a voice-over template to inspire the final wording of the dialogue. Therefore, it can be considered a significant didactic characteristic that, despite an overall given theme, no restrictions whatsoever were imposed by the lecturers. This led to a high degree of freedom in concept and production but also entailed an increased feeling of insecurity among the students, as they had to trust in final editing and direction to create the final narrative in post-production. Nevertheless, post-production gained importance and creativity as “half” of the concept was dependent on the outcome of the production and vice-versa.

Figure 4. Within two days all the student groups (3–4 people) implemented their concepts for the Chained Animation DRAFT ONE in the animation studios. It was only in post-production that the sequences were assembled for voice recording, sound design, and final editing.

For the third Chained Animation DRAFT ONE (AT 2018) (see Figure 4), we chose a self-reflexive approach to illustrate the creation process itself using one of the most profound MacGuffins of all-time, the “bouncing ball.” 51 students were divided into twelve teams and asked to develop scenes that comment on different aspects of filmmaking. The common theme to connect those scenes was the object of the bouncing ball, which is a popular example for illustrating various characteristics in animation and movement such as weight and material properties. In addition, different production departments such as sound design, editing, and direction were being distributed and managed by the students, while video conferencing and web-based team messaging tools allowed decentralized communication and a constant exchange of ideas and modifications to the script. Once again, several iterations of the concept and storyboards offered a common base for continuous development. The whole class was involved in broad discussions and democratic decision-making. One of the biggest challenges in the collaborative process this time was to find the joining elements between the scenes of the Chained Animation while
maintaining the overall structure. In the end, the chronological order of the individual steps of the production pipeline was chosen as a basis for the narrative and proved to be a highly suitable approach. It should be emphasized that we were only able to settle on this approach during the active process of discussion within the whole class. Intensive editing therefore took place during the whole process, including production days. The audio commentary layer was also produced by the student teams and recorded at the in-house audio studio by a volunteering group handling the sound department. Resultant overlapping elements in narration or visuals were created directly in the exchange between the teams and were not restricted by the lecturers. In comparison to the prior case studies, the work’s chronology was arrived at cumulatively during development and production, making frequent use of discussion and voting. Subsequent discoveries during the animation process influenced the script intensively, which tightened up the narrative and provided a balanced outcome of individual approaches to the theme. After two weeks, when the last production session was over, the sound design department worked in conjunction with the editing team to finalize the film on location at the university. Interestingly, the opening scene was animated during the sound-design phase, as a very last step to top off the narrative.

Discussion

Collaborative animations are very versatile in form, aesthetics, and techniques. Some are long, like anthology films or series, but the most common formats are experimental short films, audiovisual experiments, or associative storytelling. Chained Animations are generally collaborative formats where several scenes of different lengths by different directors are brought together. Development and production are a group effort; individual parts are continuously recoordinated to form a final consistent piece. Text, music, or an overall theme are widely used to establish a common base in advance. Collaborative practices such as cadavre exquis or artist’s instructions can be considered comparable methods in the art world. Rules for form and content, and production requirements with limitations on time and technique, vary from project to project. Also, production can take anywhere from a few days (animation jam) to several years (anthology and crowdsourced film). Asynchronous workflows in communication and production are to be expected, while collaborative production on location is an exception. The Chained Animation method is suitable for professionals, amateurs, and students from any background, and has equivalents in other art forms such as poetry, music, or media art. Analysis of the case studies presented here shows a few important factors that influence collaborative animating or artistic work (see Table 1). Different topics and group dynamics have particular advantages and disadvantages, as the following table based on the three case studies illustrates:
Table 1. Comparison of the case studies HOME, UTOPIA NOW and DRAFT ONE

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<tr>
<td>JOINING</td>
<td>Voice Over (Poem)</td>
<td>Semantic Theme</td>
<td>Object and theme</td>
</tr>
<tr>
<td>EDITING</td>
<td>Predefined (Voice Over)</td>
<td>Fully in post production</td>
<td>Influenced by production</td>
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<tr>
<td>MOTIVATION</td>
<td>High: current topic</td>
<td>Average: socio-political</td>
<td>Average: Autonomou theme can be abstract</td>
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<tr>
<td>RULES</td>
<td>Strict: Predefined length, but visual freedom</td>
<td>Average: conceptual freedom in interchange with departments</td>
<td>Very free: overall theme gives big scope for creativity</td>
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<tr>
<td>STRUCTURE</td>
<td>Lecturers: direction and sound; Students: editing and post</td>
<td>poststabilized after production by artist</td>
<td>Departments for direction, co-direction, editing &amp; sound</td>
</tr>
<tr>
<td>PROCEDURE</td>
<td>Common research, strict rules</td>
<td>Independent conception, socio-critical topic</td>
<td>Departments establish security</td>
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<tr>
<td>CONCLUSION</td>
<td>Strongly influenced by lecturer</td>
<td>Common vision suffers due to limited time for research</td>
<td>Critical identification due to abstract topic</td>
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a) Rules and Security

In many respects, it can be observed that a stricter set of rules or templates increases the level of security for the entire group. Once this security is in place, the danger of fatigue or discouragement diminishes. There is increasing scope for technical and visual experiments. On the other hand, a more open set of rules maximizes conceptual freedom, demands skills in that area, and requires a higher degree of group-oriented thinking on an abstract level. If these two approaches were to be regarded as diametrically opposed poles of didactic framing, the three experiments mentioned above would allow us to observe different degrees of freedom in each side. On the one hand, if the chronology of the film was already predefined in preproduction, there was less freedom in postproduction and vice versa. Furthermore, the instructors are initially unaware of any existing conceptual, technical, and creative talents or previous knowledge on the part of students. It takes time to get to know the participants, which means that the qualities mentioned can only be addressed at a late stage or only partially. This circumstance requires an additional group characteristic in collaborative productions, namely interpersonal compatibility or general teamwork ability. Group projects strengthen these on a social and organizational level, and it can be assumed that these basic conditions have a positive effect on the overall process. It is also assumed that the established rules and regulations and the security they create have a significant effect on identification (as discussed below) and may be regarded as the foundation for successful collaboration.

b) Identification and Common Vision

An equally significant factor for the “felt” success of a Chained Animation is the group-internal identification with the topic to be worked on. For
example, the issue of the migration wave in HOME generated widespread identification and thus a strong sense of motivation that benefitted the entire dynamic. The prospect of presenting a socially valuable topic to a broader public by submitting the work to festivals was also a contributing factor. Consequently, UTOPIA NOW emulated this approach, although the shared vision was not as clear, since the term had to be defined and researched in the early stages. The final form of the interlinked short film was also not decided until the end of the development phase, since site-specific, museum-like forms were also up for debate. DRAFT ONE eschewed socio-political approaches and demanded creative thinking within the framework of the animated film itself. This self-reflexive approach required more advanced knowledge in theory and history and challenged the participants’ conceptual skills more than the previous experiments. Thus, the subject matter was sometimes perceived as abstract and difficult. The comparative values point in a clear direction: motivation and group dynamics can vary significantly depending on previous knowledge or the apparent relevance of the topic (prominent political or social topics are highly motivating). It is also important to consider the cultural or social background of the participants.

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c) \textit{Communication and Structure}
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Like rules, the communication system and the structure of the production pipeline also create security and encourage the formation of a common vision and strong group motivation. With this in mind, it proved essential to divide the production teams into groups of no more than two to four members, each of whom worked in parallel on two defined production days. These working conditions offered space for detailed discussions and conceptual strategies, which were generally absent from the larger discussions. Also, frank discussion at the animation table (before and during the production), feasibility studies, and coaching in each phase created a feeling of togetherness and equal status, which was mostly accepted and appreciated. This constructive climate mitigated weaknesses where they existed and offered freedom and relaxation where skills were already flourishing.

Structurally, the three experiments differed significantly, and each one had different qualities. HOME benefited from the strict guidelines and clear direction of the coaching, whereas DRAFT ONE offered less security at the beginning, but more freedom in the overall process to approach a topic intellectually and promote artistic individuality. Asserting the same degree of freedom in concept and implementation, DRAFT ONE had an expansive structure of individual departments managed by the students themselves. Only a designated co-director served as a mediator between coaches and production teams.
Conclusions

In summary, it can be concluded that the use of low-threshold animation techniques (here Stop-Motion) balanced out any differences in prior technical knowledge, almost automatically mitigated the effect of weaknesses, and strengthened the group structure in many ways. Digital natives of the current generation of students can playfully apply what they have learned digitally. The set time frame challenges them to improvise and organize themselves in larger groups or react to spontaneous changes. Flexibility manifests itself as an interplay between chaos and structure, a dynamic that encourages experimentation, promotes synergies and team spirit, and may serve as a laboratory for future practice. On top of this, the idea of creating a Chained Animation was preferred to individual assignments offered by the lecturers and was perceived as a welcome break from the usual educational routine. The important elements of identification and motivation were subject to the overarching nature of the collaboration, regardless of the chosen theme.

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References


Media References

1. DES GLÜCKLICHEN LEBENS (AT 1987, Concept/Organisation: ASIFA AUSTRIA, University of Applied Arts Vienna, Prof. Maria Lassning and Hubert Sielecki, Direction: 16 Students).
5. ELEPHANTS DREAM (NL 2006, Direction: Bassam Kurdali, Screen play: Pepijn Zwanenberg, Production: Ton Roosendaal).


STAR WARS: EPISODE IV – A NEW (US 1977, Direction: George Lucas).


