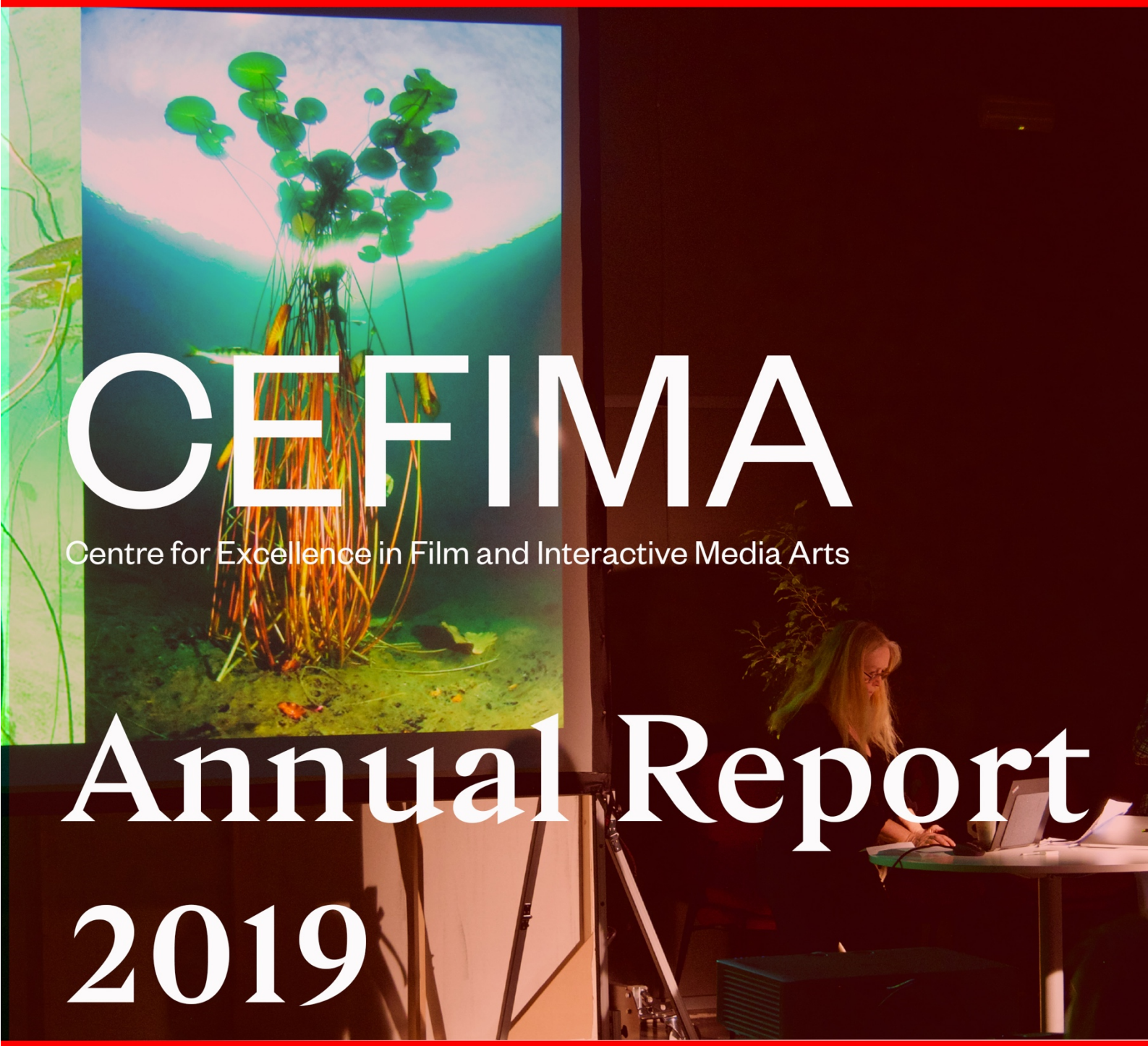
THE
NORWEGIAN
FILM SCHOOL



CEFIMA

Centre for Excellence in Film and Interactive Media Arts

Annual Report 2019

CENTRE FOR
EXCELLENCE
IN EDUCATION

Høgskolen
i Innlandet

Centre for Excellence in Film an Interactive Media Arts
CEFIMA Annual Report, 2019 (published March 1st, 2020)

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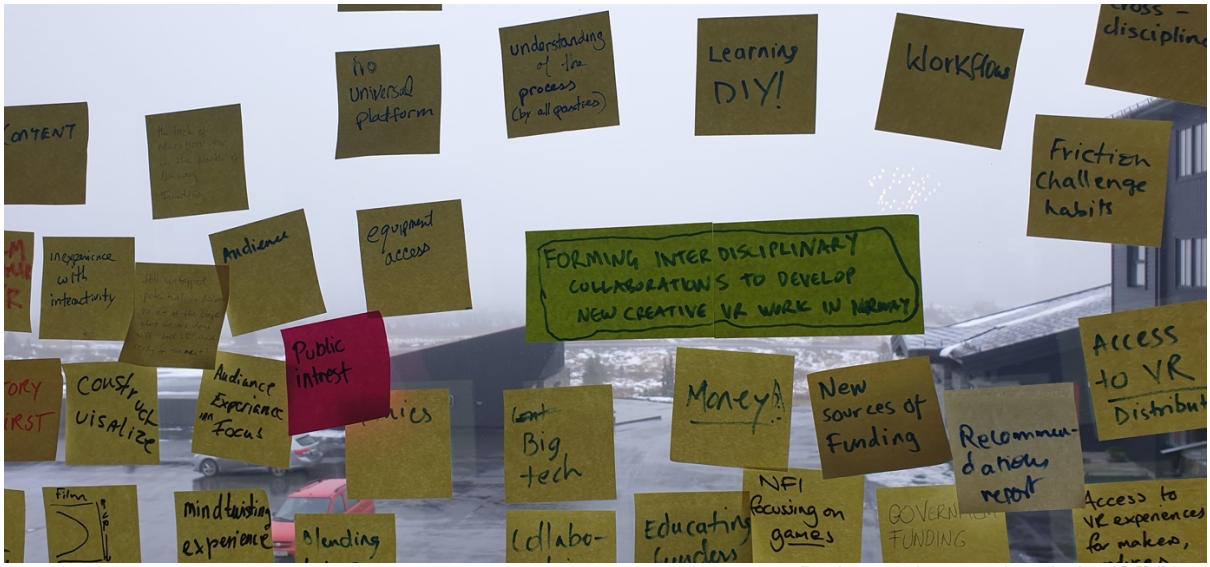
Abstract

In 2019, CEFIMA began to show some expected results. Most of these were in the broad area “artistic research-based education”, as the 3rd cycle group of Artistic Research Fellows reached a critical mass and their projects matured to the point where they began to influence the rest of the Norwegian Film School. This also showed in the sophistication of the artistic research projects undertaken by MFA students and also by some BFA students.

The 3rd cycle Fellows have also been key in CEFIMAs dissemination strategy this past year, as they have travelled extensively to present their work and CEFIMA. In addition, they have been regular presenters at the monthly venue *Artistic Research Café*, which has established the Norwegian Film School and CEFIMA as the leaders in experimentation and innovation in film and media arts in Norway.



Brainstorming session during Off-Piste

A core value and strength of the Norwegian Film School over the years has been student involvement in setting parameters and measurables for their own progress. This has made student involvement in other areas such as strategic development and curriculum development come quite naturally, despite the fact that NFS students report spending much more time than average on their studies.

All these factors come together to reinforce the central vision of CEFIMA: innovation and development in NFS’ studies and curricula. This was visible in the highly successful *Off-Piste* VR Lab and is also laying the groundwork for an extensive programme of short courses and professional development workshops planned to begin in 2020.

Introduction

Vision for CEFIMA

The Abstract for the original CEFIMA application states,

> *The vision for CEFIMA is innovation in Norwegian Film Schools (NFS) present teaching and learning programmes in filmmaking to fully incorporate digital technology and interactivity as a means of artistic expression. Digital technology has long been adopted in all phases of film and television production, but artists are just now beginning to explore its full potential. The challenge is to prepare students to exploit the new technologies for telling meaningful stories that help us understand both intellectually and emotionally an increasingly complex world. The core of CEFIMA actions will be students' tests and exercises using new digital media in the creation of innovative storytelling. To this we bring the unique teaching and learning practice in cinematic storytelling developed at NFS over the last 20 years, recognized for its responsiveness to the changing demands of society and a rapidly evolving industry.*

At the time this was written, in May 2016, the idea of interactive film and television on a commercial scale was far-fetched, Virtual Reality was still at the novelty stage, and the use of game engines for real-time professional film production was nowhere near being realized, although the early signs of a technological revolution were visible. At the same time some of the developments that have caused international industry disruption, such as the spread of online distribution platforms and content creators Netflix, HBO and the like were becoming established.

The start of the CEFIMA coincided with several other changes at the institution, where NFS changed Deans and the parent institution for NFS, Lillehammer University College, amalgamated with Hedmark University of Applied Sciences to become Inland Norway University of Applied Sciences from January 1st, 2017. This was reported in the first Annual Report for 2017, sent to NOKUT at the start of 2018. A consequence of these external factors was a delay in settling on the organisation of the Centre, but over the past 18 months the focus has been on creating an organisation that is tightly integrated with the rest of the Norwegian Film School, in order to enable good cohesion between CEFIMA activities and findings and the NFS community as a whole.

The trends that were visible or emerging 2016 have become standards now, at the beginning of 2020. Streaming platforms for content distribution have become ubiquitous, and even cinema has felt the effects of Netflix.[1] Furthermore, the technologies used in internet streaming and mobile platforms have enabled testing of interactive storytelling, such as HBOs *Mosaic*[2] and Netflix' *Black Mirror: Bandersnatch*[3], at a scale previously impossible and for an audience who would otherwise not have been exposed to it.

This demonstrates the importance of exposing NFS students and staff to the possibilities of these technologies. The world of cinema and television had — despite developments in production technologies — remained relatively unchanged for many decades. Now,

however, the professional world students are being prepared for encompasses new and hybrid possibilities that did not exist 5 years ago.

In this context, the vision for CEFIMA has held up well. The students at all three cycles have been exploring digital technology and interactivity as means of artistic expression. As one would expect, these experiments are being led by PhD-level artistic researchers and MFA students, and involve BFA students to varying degrees. At the same time, the NFS approach to student involvement ensures that ideas and experiments also come from the 1st and 2nd cycle students, and the results of these experiments feed back into the curriculum, the school community, and the broader professional environment.

From a VFX-Cinematography-Production Design Workshop at the BFA

Looking forward to the continuation for this first period, the continued focus on applying the Norwegian Film Schools tradition of pedagogic development and didactic innovation to the exploration of new technological possibilities for artistic expression and artistic research will be the driving vision for CEFIMA.

Main Achievements 2019

In keeping with one of the stated aims of the Centres for Excellence in Education initiative, of strengthening research and development-based education, artistic research has been a key element of CEFIMA from the beginning. In 2019, the artistic research group had become established as a central part of the Norwegian Film School community through the growth of the 3rd cycle research group. It was therefore possible to begin to look beyond the AR Fellows and to both begin to integrate the results of the artistic

research into the curriculum, and to expand formalised artistic research activities into the MFA and BFA as well. This is now well underway at all levels.

Dissemination and outreach are another key element both for the CoEE initiative, and for CEFIMA as well. The most concrete initiative has been the monthly Artistic Research Café, but there have also been other activities. The sections on the Artistic Research Fellows show the researchers have had extensive national and international outreach, especially Nadja Lipsyc and Elin Festøy. In addition, the ongoing Facebook group has proved very effective at building international awareness and community around CEFIMA. Key collaborators, such as external supervisors for the AR Fellows, have come from that group.

Key milestones for CEFIMA in 2018 were the launch of the revised MFA programme and the "Lone Wolves Stick Together" experiment at the BFA. The effects of this work has primarily come to light through student-initiated projects, as described in the section on Artistic Research. The primary CEFIMA-led curriculum development at NFS in 2019 has been the groundwork for establishing a PhD in Artistic Research. This work was preliminarily approved by the INU Board of Directors at their meeting December 17th, 2019 and continues into 2020.

2019 also saw the start of short courses and R&D activities for artistic and professional development aimed at industry and professional artists. The two most high-profile examples of this were the very successful *Off-Piste* VR Lab, which garnered both national and international attention as well as leading to concrete VR prototypes, and the Virtual Production development project, which has built on cutting-edge technological developments to create an experiment that will have direct relevance both for NFS educational programmes and the Scandinavian film industry.

Finally, the first group of teachers studying film school pedagogy completed the course in June 2019. Seven NFS teaching staff, from both BFA and MFA completed it, and were awarded 15 ects in Film School Pedagogy from Inland Norway University of Applied Sciences. The next cohort is planned to start fall 2020, and parallel courses will be offered in Norwegian and English.

Results compared to the application and plans

«If we knew where our endeavours would take us, we wouldn't need CEFIMA»

— from the CEFIMA application supplementary information, August 15th, 2016

In 2016, the importance of new platforms for storytelling and distribution were just beginning to be become visible. Today we see that VR and other XR formats are maturing and becoming established both as a viable emerging art form and as tools being used by filmmakers and game designers around the world. From a filmmakers perspective, this is especially exciting as international film festivals, such as La Biennale di Venezia[4], CPH:DOX[5], Sundance[6], and many others are including XR sessions in their programmes and promoting the explorations into these storytelling and artistic formats.

These developments have mirrored the developments within CEFIMA, as the projects driven forward by the Artistic Research Fellows, and MFA and BFA students explore a wide variety of immersive and interactive formats, both using XR technology and other audio-visual platforms. These projects have included both artistic projects created by the students, as well as explorations of national and international developments through research and travel – all are explained in more detail below.

This Annual Report will refer primarily to the document *CEFIMA Strategic Plan 2018-20*, published in the spring of 2018 and, in addition to being sent in to NOKUT, was disseminated through the Norwegian Film School website[7] and the CEFIMA Facebook community[8]. In addition, the Report will follow up the main plan points outlined in the Annual Report for 2018.

Artistic Research

Fine Arts education is based on artistic research[9] the same way academic and scientific education is based on academic and scientific research. In Norway,

> Artistic Research covers artistic processes that lead to a publicly available artistic work. An explicit reflection around the development and presentation of the work can also be included.[10]

At the Norwegian Film School, the primary difference between artistic practice and artistic research is the critical reflection on the process and methods applied in the creation of the work and their relationship to the final outcome.

The most visible and plentiful examples of Artistic Research projects are the research fellows in the Norwegian Artistic Research Fellowship Programme. There are, however, several other examples of both original and applied artistic research being conducted by CEFIMA and NFS staff and students, and they are described below.

Artistic Research Fellows

The primary funding supplied to CEFIMA by Inland Norway University of Applied Sciences (INU) has been in the form of PhD-positions. These have been used to hire international candidates for 3rd cycle Artistic Research Fellowship positions in the Norwegian Artistic Research Fellowship Programme[11].

As of December 31st, 2019, there are 5 AR Fellows at NFS hired through this funding.

1. Nadja Lipsyc (started September 11th, 2017)
2. Cecilie Levy (started November 1st, 2017)
3. Elin Festøy (started October 15th, 2018)
4. Bendik Stang (started October 15th, 2018)
5. Dalia Alkury (started December 1st, 2019)

Another AR Fellow, Frederick Howard, also started in the fall of 2017, but his funding is not directly tied to CEFIMA. In late 2019, CEFIMA was allocated two further positions by INU, and these were advertised in January 2020 with an application deadline of March 9th.

The AR Fellows have been the catalyst for the development of an Artistic Research group at NFS/CEFIMA. In 2019, a Head of Artistic Research Fellows was hired, Christian Fonnesbech, and he has, together with Professor Maureen Thomas (who heads the AR project *Queens Game*) instituted a monthly gathering where the fellows meet to discuss both their own projects and issued related to artistic research at the Norwegian Film School.

Enriching the broader NFS community is a key for the success of this AR group. The past year has seen an increased focus on integration between the Fellows and the educational programmes at NFS. Nadja Lipsyc and Cecilie Levy have both extended their fellowships to 4-year positions with a 25% teaching requirement. They have taught and led workshops at both BFA and MFA level, bringing their knowledge and expertise into the film school community at large. Elin Festøy was the originator of CEFIMAs first large-scale professional development course, *Off-Piste*, and Bendik Stang (and Frederick Howard) taught modules for the MFA students.

The AR Fellows have also been a catalyst for increasing the intentional presence of CEFIMA and NFS. Selecting projects that are cutting edge and pushing the boundaries of the art form has meant bringing in leading international artists as supervisors, and the current supervisor group includes individuals from Australia, Canada, the Netherlands, UK, and the US.

All the Artistic Research Fellows have attended the Norwegian Artistic Research School[12] run by Diku, which provides 20 of the 30 mandatory ects for a PhD in Artistic Research in Norway. At the present, however, Film is the only art form in Norway without a formal PhD possibility, and so CEFIMA is leading the work at NFS to establish such a PhD. This work began in 2019 and is expected to be completed in the third quarter of 2020.

In order to support this growth, NFS will need to draw on further funding through CEFIMA for the next five years (2022 through 2026), after which it is hoped that external funding will be established on the basis of the profile and reputation the

enhanced School and Research Group will have built. Developing a Post-Graduate School (MFA and Doctoral) will not only continue to raise the standard of education and vocational training offered, feeding back into all levels of NFS, as proposed in the original CEFIMA plan, but will also give the School a lead in Scandinavia and much of Europe, where post-graduate and particularly doctoral-level studies are not common in specialist practice-based teaching and learning in film, television and interactive media arts.

The AR Fellows are also a key component of CEFIMAs dissemination strategy, and the sections below give a brief introduction to each researchers' work and their national and international dissemination activities in 2019.

NADJA LIPSYC — LONE WOLVES STICK TOGETHER

Lone Wolves Stick Together is a hybrid experience mixing VR with Live Action Role Playing. The user will experience a mix of live actors, sets and immersive rendered VR. The journey is freely inspired by Tarkovsky's movie Stalker (1979) and stages an expedition that goes through a mysterious zone, towards the «Chamber»; the one place in which one's most intimate desires will be realised.

In the story, the Chamber is a metaphor for VR – which is very similar to an «experience machine» as described by Robert Nozick, capable of replacing our harsh reality with a virtual paradise, in keeping with our most secret desires.

Nadja Lipsyc presenting Lone Wolves Stick Together at world congress of film schools in Moscow

International focus

The project is being produced by Makropol in Copenhagen. A 3-day workshop has just been completed, resulting in a demo and in the first funding application, now sent to the Danish Film Institute.

International perspective

Mixing VR with live action in a non-linear, theatrical installation is exactly the sort of thing that festivals such as Venice Film Festival are showcasing. In addition, Nadja's drawing inspiration from Tarkovsky speaks directly to the cinematic traditions of both the Venice and Cannes festivals. In summary: the artistic potential of the project is excellent and potentially ground-breaking.

List of venues & publications

- Lone Wolves Stick Together has been organized 12 times, as a physical LARP[13], an immersive show, and a guided visit. Lillehammer, Norway
- Designer, Performer: Performance during the pervasive event Home Planet of the Oslo Architecture Triennale, co-design of the chamber event «Welcome Home»
- Presentation at Isea 2019 – Lux Aeterna, Gwangju, South Korea
- Talk and peer-reviewed article: «Storydiving, techniques for engaging 360 narratives.» See p.574: http://www.isea-archives.org/docs/2019/ISEA2019_Proceedings.pdf
- Presentation at CILECT 2019 – International congress of film schools. Moscow, Russia «Lone Wolves Stick Together: a case study in experimental storytelling.»
- Presentation at the first State of the LARP conference. Oslo, Norway «LARP and VR, opportunities and risks»
- In-VR presentation at the CEFIMAs Artistic Research Café Interactive storytelling edition. Oslo, Norway. «Lone Wolves Stick Together: methods for 360 first person narratives»
- Presentation to the board of Inland Norway University of Applied Sciences, as well as to the INU Department of Game Development.
- Attendance at various Nordic games and VR events: the Nordic Game 2019 conference (Malmo, Sweden), the Blackbox Sessions Malmo, CEFIMAs Off-Piste Lab inspirational day (Lillehammer), the VR Nordic Forum (Hamar).
- The project has just been accepted for presentation at Communities and Commonalities in Stockholm as well as at the ELIA Biennial Conference, both in the fall of 2020.

CECILIE LEVY — FINDING FRIDA

The project is a 10-20 minute animated/rendered VR piece, based on the true story of Cecilie's great-great grandmother, Frida Hansen, who was married to a titan of commerce. Due to mismanagement of the company, Frida's family lost everything, but Frida discovered the artist within her and supported her family while becoming an internationally renowned tapestry artist.

International focus

The funding process is aiming for an international co-production.

International perspective

The project tells a uniquely Norwegian story with a universal appeal – in a new format. It aims directly for International Festivals such as the Venice Film Festival's VR programme.

Cecilie Levy presenting at Artistic Research Café

List of venues & publications

- Attended Split XR Summit. https://splitx.co/summit/
- Went to the Annecy Animation Festival to see VR content that was previously exhibited at Tribeca. https://www.annecy.org/home
- Nederlandse Film Festival, interactive . https://www.filmfestival.nl/en/collection/nff-interactive-expo-1/
- IDFA DocLab 2019. https://www.idfa.nl/en/info/visit-idfa-doclab. Also attended the Interactive conference. https://www.idfa.nl/en/shows/4205fe9f-1a2f-479e-97d8-79594f19ae85/doclab-interactive-conference#tickets
- Presented at Women in VR at the Science Park, Oslo University. http://www.vroslo.no/women-in-vr-august-2019
- And during Forskiningdagene in Lillehammer. https://www.forskningsdagene.no/arrangementer/t-6089

ELIN FESTØY — NUMB

Elin Festøy's project, Numb, is intended as a work of art, diving deeply into how VR can engage audiences both emotionally and morally. Under development, it can currently be described as an abstract emotional journey that confronts the user with uncomfortable experiences of objectification and being ostracised. It is intended as a

10-20 minute rendered VR piece that measures the user's emotional response and uses it for both navigation and other purposes.

International focus

Elin Festøy won the BAFTA in 2019 as best «Game Beyond Entertainment», which has allowed her to build an extensive international network, both artistically and research-wise.

Elin Festøy presenting at Artistic Research Café

International perspective

Elin is very goal oriented and her goal is an Academic career with international scope. Her aim is to launch Numb on one or more festivals – and to disseminate her research and critical reflection through an international book as well as through speeches at conferences. As she is leveraging her BAFTA win very effectively, there is little doubt that she will succeed in this.

List of venues & publications

Conferences and Meetings Attended

- 25.10.18; Nordic VR Forum; Hamar
- 17.-20.11.18; IDFA Interactive 2018; Amsterdam
- 15.01.19; VR seminar at TIFF 2019; Tromsø
- 21.-22.01-19; PocketGamer and PCGamer Connect; London
- 10.02.19; VR Next and VR roundtable discussion, Berlinale 2019; Berlin
- 26.-27.02.19; VR, Art and Technology-conference at CPH:DOX, and the conference's VR Cinema; Copenhagen

- 09.05.19; NKUL, Norwegian Conference on digital education; Trondheim, Norway
- 13.-15.05.19; Animex 2019, Teeside University; Middlesbourg, UK
- 22.-24.05.19; Nordic Game; Malmö, Sweden
- 18.06-20.06-19; Games For Change; New York, USA
- 10.07-12.07-19; Serious Play; Montreal, Canada
- 11.09-12.09-19; Women in Games Europe; London, UK

Papers, Seminars, Posters, Exhibitions, and Other Presentations

- 29.10.18; Presentation of «Numb»; The Norwegian Film School - Artistic Research Café
- 5.11 and 6.11; Participating in NOKUT and DIKUs evaluation of the CEFIMA centre after one year, presenting project and discussing how competence of centre can disseminate into education and fiml business; NFS, Lillehammer
- 6.12.18; Lecture on "Storytelling in VR", 45 min.; At "Bransjedagene 2018", Hosted by Østnorsk Filmsenter
- 17.01.19; Held workshop on non-fiction, interactive storytelling; At Tromsø International Film Festival 2019 (TIFF)
- 25.03.19; Presenting immersive journalism and VR documentary; The Norwegian Film School, Artistic Research Café
- 14.05.19; Talk at Animex 2019, Teeside University; Middlesborough, UK
- 07.06.19; Talk at Regidagen 2019, Norwegian Film Institute; Norwegian Film Institute, Oslo, Norway
- 19.06.19; Talk at Games For Change 2019; New York, USA
- 12.07.19; Talk at Serious Play 19, University of Montreal; Montreal, Canada
- 27.02.19; Presentation at Women in VR / VR Oslo; Oslo, Norway
- 10.09.19; Keynote at Women In Games 2019, European conference.; London, UK
- 15.10.19; Presentation at the TVR inspiration day for Off-Piste VR lab; Lillehammer, Norway

BENDIK STANG — EARTHLOCK

Earthlock *is an AI-driven narrative experience in an open world computer game. The research project is to dissect narratives into cultural elements, actors, data and other states , that will allow for a form of narrative blueprint that can be applied, when the right requirements are being fulfilled, in a completely non-deterministic environment.*

International focus

The final experience will be launched on the global games market across a variety of platforms, financed by international investors and presented at international games festivals. It is born global.

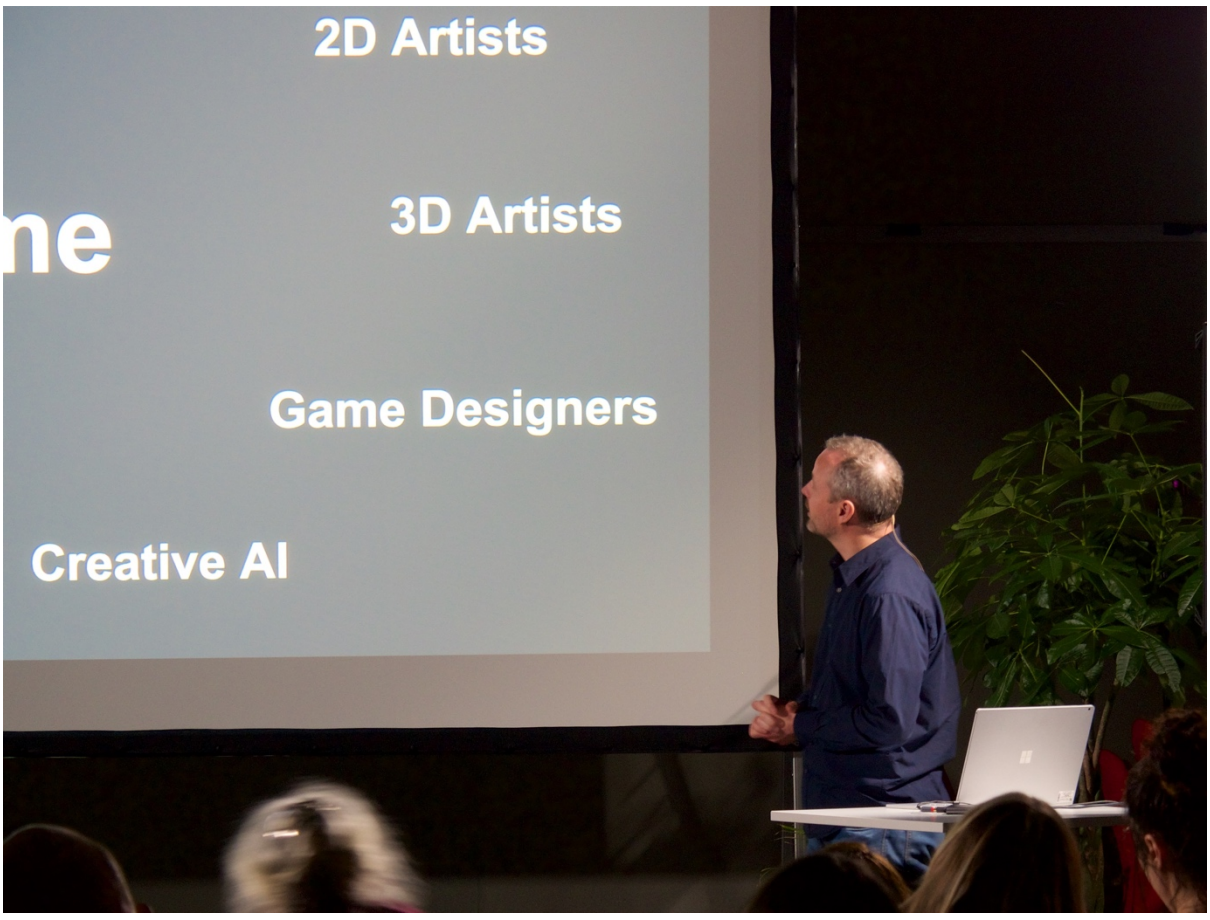
International perspective

Being able to generate myth- and folklore-based story experiences within an unpredictable, open world computer game is cutting edge on a global scale. There are a wide variety of potential applications for art, entertainment and education. The first step, mapping «*narrative blueprints for use in non-deterministic environments*» is a concrete project in its own right, that can also become useful beyond this project.

The potential for research dissemination is considerable across games conferences and publications. Bendik's project lies at the cutting edge of global games design and creativity – a place where globally known game auteurs are fighting to be ahead.

List of venues & publications 2019

- Artistic Research Café in Oslo (March 25)
- Unreal Fest in Prague (April 10-12)
- Nordic Game Conference in Malmø (May 22-24)
- Norwegian Game Conference at Klækken (June 17-18)
- Develop: Brighton Conference in Brighton (July 9-11)
- Gamescom in Cologne (August 20-23)
- Artistic Research Forum at Lillehammer (September 23-24)
- Epic Winter Conference at Marrakesh (December 4-6)
- Epic Presents in London (December 10)



Bendik Stang presenting at Artistic Research Café

DALIA ALKURY — THE RETURN

The project introduces a hypothetical world where Palestinians have achieved the right to return to their homeland. Through an unexpected and shocking decision made by the state of Israel, millions of Palestinians that have been refugees for generations are finally able to exercise their legal right of return and move back to their ancestor's homes. Both Israelis and Palestinians are now to be equally represented in the government.

The experience is told from a first-person point of view. You are the main character and you are living in Europe. Following the unprecedented news, you get a phone call from your family back in a refugee camp in Jordan that brings flashbacks from your childhood living in the camp. You realize how important it was for your family that you never forget where you came from. While watching news reports of the scenes of exhilaration and festivities among the diaspora, you decide to drop everything and join this momentous time in modern Middle East history.

Dalia Alkury has just begun her project, and it will be further developed and refined in the first quarter of 2020. Already her project shows great potential for being used with the MFA programmes and for contributing to an exciting development in European documentary.

Faculty Artistic Research projects

Much of the artistic research done by NFS faculty is through their continued connection to the professional film community in Norway and Scandinavia. They are all on fixed-term («åremål»), part-time contracts with NFS, and as such maintain an activity in the industry.

CEFIMA, however, does provide an environment for more formalised projects. This is done both through facilitating applications to the Norwegian Artistic Research Programme (NARP) as well as supporting and initiating other relevant projects.

QUEENS GAME

Queens Game is being developed at the Centre for Excellence in Film & Interactive Media Arts (CEFIMA), Norwegian Film School, in 2 stages – [1] a pilot-demonstrator/prototype 3D Navigable Storygame (with Snow Castle Games, Oslo) and [2] a prototype Augmented/ Mixed Reality Experience of Akershus Castle, Oslo (with Expology, Oslo)

The Queens Game *goal is to devise new poetics and aesthetics for storytelling using games technology inspired by medieval modes. This is being realised by creating an explorable experience of the young life of Princess Margrete of Denmark/Norway at Akershus in the fourteenth century, in parallel with a fantasy version of the life of a princess taken from contemporary medieval romances of King Arthur which are still popular today. Employing medieval aesthetics and modes of expression to represent medieval characters as they represented themselves offers a way to extend and deepen existing game art.*

Queens Game received funding from NARP in 2018. While originally planned as a 2-year project, it has been extended to 3 years in order to enable the project creator, professor Maureen Thomas, to become closer integrated into the artistic research group at CEFIMA/NFS. Professor Thomas has been supervisor to one of the AR Fellows (Elin Festøy) and has also led the monthly discussion forum with the research fellows.

The *Queens Game* project has also been introduced to the MFA students, and one of them has been working on the project through a practicum at Snow Castle Games.

VIRTUAL PRODUCTION

One of the major developments in the international industry in 2019 was the development of so-called «real time» tools that can be used in high-end film production. Several companies have been working on this and one of the current industry leaders is Epic Games with their Unreal Engine Virtual Production initiative.[14] At the international trade fair SIGGRAPH 2019, Epic revealed their in-camera real-time VFX.[15]

In the fall of 2019, CEFIMA engaged Associate Professor Troels Linde to run a virtual production project along with Creative Technologist Rafal Hanzl and Professor Kjell Vassdal. Linde was already a part of the MFA faculty, ensuring the project is solidly rooted in the MFA. While more in the realm of applied research than artistic research, the project nonetheless will have significant applications for the development of the curricula at both BFA and MFA, in addition to being very relevant for the Norwegian industry.

Planning and preparation began in November 2019, and the preliminary tests are scheduled to be completed by Easter, 2020. These preliminary tests will form the basis for both finding a commercial partner as well as applying for European research funding.

Linde's engagement with CEFIMA is a 50% position for the duration of the project and he is also developing further research projects which will lead to funding applications sent to various agencies such as Erasmus, Creative Europe, Horizon Europe, and the Norwegian Research Council.

Student-initiated projects

The foundation of the Norwegian Film Schools pedagogy is experiential and project-based learning. All activities at the school are based on giving the students first-hand experience in their field, and to ensure this experience contributes to their development as emerging artists and future professionals within the fields of film, television drama, and media arts.

In December 2017, NOKUT announced a call for student-initiated projects, and this proved to be a successful endeavour for CEFIMA within the NFS community. Giving financial support to student-initiated projects and workshops has allowed for a measure of innovation and engagement it would be difficult to achieve through other means.

As a result, CEFIMA has continued to provide financial incentives for student projects, in order to encourage the continued development of projects that push the boundaries of traditional film, both from the production and artistic innovation standpoints. In 2019, this meant support for a variety of projects and activities at both MFA and BFA levels, as described below.

MFA PROJECTS

In 2017-18, experiences from CEFIMA were a key component in the revision of the MFA programme, and the 2nd cohort began their studies in the fall term 2018. One of the results of the revision was an increased focus on the individual specialization projects the students complete in their 2nd and 3rd terms. The cohorts were encouraged to explore

new forms of expression and storytelling within the broader field of film and media arts, and CEFIMA offered stipends of NOK 25-000,- for students pushing the boundaries of artistic expression using new technologies and/or methods of production.

Three students applied for these stipends and all were approved. All three were part of the Audio-visual Design specialisation[16]; two working primarily with animation and computer-generated imagery and the third working with sound.

One of the conditions for receiving this stipend was that the students would present their findings and results to an audience, both of their peers and a more general audience at one of the regular Artistic Research Cafés.

The projects were as follows:

1. Gina Thorstensen — Interactive VR exploration

This project was a test and study of techniques and technologies Gina intended to apply to her final MFA project, which is due in May 2020. In this project, she explored means of engaging audience interaction in a VR installation. A key aspect of this was working with 3D character animation to create a virtual character for the audience to engage with.

Since the specialization project is directly related to her final MFA production, Gina will present once both are completed at the end of her term 4. This is scheduled for the Artistic Research Café on April 27th.

2. Wenche Hellekås — Realtime Animation in Unreal Engine

Like Gina, Wenche used her specialization project to experiment with techniques and technologies she was planning to use in her final MFA production. In this case, the project was about testing the potential of using a real-time game engine technology, Unreal Engine, in the creation of an animated film.

Unreal has long been one of the primary tools used for animation in computer games, but has only recently become a viable option for high-end film production, as witnessed in the «Virtual Production» project described above. Testing the application of this technology for animated film has broad application both for animation artists and the industry.

As with Gina, since the specialization project is directly related to her final MFA production, Wenche will present once both are completed at the end of her term 4. This is scheduled for the Artistic Research Café on April 27th.

3. Pedro Sapatilla Hagen — Immersive Audio and Ambisonics

The emergence of immersive and 360° formats has in many ways revitalised and promoted the artistic potential of sound design in audio-visual storytelling. Both in virtual and physical environments, audio is a key component for creating successful, immersive stories.

Pedro applied to the MFA Audio-visual design specialization with a focus on sound design, used his individual specialization project to design and create a dome for working with sound design in 3 dimensions, freed from the traditional sound room. The size of the dome creates some logistical challenges, but the construction leads to an unparalleled ability to design for 3D immersive environments.

Pedro Hagen and his immersive 360 dome

The Artistic Research Café on March 30th has a special focus on audio, and Pedro is one of the presenters at this event.

BFA PROJECTS

One of the first major initiatives for CEFIMA in 2017 was to announce support for the personal specialization projects among the BFA students, and one project — the Goldfish Theory, an interactive, VR narrative — was completed with this support and premiered the summer of 2018. That project demonstrated the potential for students wishing to explore emerging forms of artistic expression using the skills and artistry they have developed through their education at NFS.

Using CEFIMA resources to enable students to complete these sorts of experiments continues to be a key strategic element in the Centre strategy. As the BFA programme only accepts new students every second year, the stipends are only relevant every second year as well, and 2019 was the next opportunity for students to apply. A number of students expressed interest, but in the end two applications were received and both given support.

Especially interesting this year is that both projects use the tools and skills of filmmaking to create physical installations intended for a gallery or similar venue. Given that one of CEFIMAs prime goals was to expand the scope of the NFS educational programme and inspire students to find new ways to apply their artistry and skills, this is very gratifying to see.

1. Signe Krab Nymann and Frederik Lehmann Mikkelsen — The Organism

In 2018, Artistic Research Fellow Nadja Lipsyc had conducted an extensive workshop with BFA students connected to her «Lone Wolves Stick Together» project.[17] The

realisation of that project involved pairs of production designers and sound designers collaborating on the creation of the environments.

Signe and Frederik were one of those pairs and found the creative collaboration so inspiring and satisfying that they applied to complete their personal specialization project together. While collaborations are common in these specializations, this is the first time a production designer and sound designer are collaborating in this way.

«The Organism» is a physical installation — a room — where the students explore the interplay of a physical environment and sound to create an emotional response in the audience. Their aim is to construct a space where audience members explore a narrative through interaction with the environment. This will test the limits of their abilities in both production design and sound design.

The project will lead to an exhibition in Lillehammer in connection with their final exams in Lillehammer in June 2020.

2. Saga Staermose Thiberg — Love Shy

«Love Shy» is a unique exploration, using the tools and methods of production design to create a work that attempts to explore and illuminate the online culture of so-called «incels». Saga has been researching incel culture online, in an effort to understand what motivates their collective hatred for women. She will use this research to create a physical installation combining constructed elements with animation and sound.

From the Love Shy Mood Boards

In order to realise the project as a full installation, Saga is working with an external animator and a sound designer from her cohort — the same sound designer she collaborated with on «Lone Wolves Stick Together». The project is being realised as part of her final exam, and the final installation will be ready for viewing in Lillehammer in June 2020.

External projects

In early 2019, CEFIMA announced stipends of up to NOK 200.000,- for projects originating from practicing artists and industry professionals working with projects bringing together cinema, interactivity, new technologies, immersive environment, or other forms of innovation. The call for applications was sent out widely through channels like the Norwegian Film Institute, the Directors' Guild, the Producers Association, and various online platforms.

A key requirement for receiving one of these stipends was a willingness to allow CEFIMA and the Norwegian Film School to follow the projects closely and use the learning from them to enrich the NFS curricula. In addition, the recipients would commit themselves to hosting a case study based on the project.

The stipends were directed at developing projects, not final production. One reason for this was the fact that projects that fall outside the traditional film and games fields had (and still have, though it's changing) a difficult time finding funding in the Norwegian funding system for audio-visual art and culture. The intent was to enable the creation of prototypes that could be used to show funders the artistic and audience potential of emerging forms of storytelling.

Fifteen applications were received by the deadline March 29th. Three were chosen for support, based on the recommendation of internal and external readers. These projects were:

1. Makropol — *Kaspar*

An experiment involving the creation an artificial intelligence (AI) to edit film according to parameters a user can adjust dynamically.

Kaspar presentation at Artistic Research Café

2. Emanuel Nordrum — *Lytteren*

The creation of a real-time, interactive narrative where the player/audience is placed in the role of a police surveillance operative monitoring live feeds in a crisis situation and must decide what is true/false/useful and what to share with the officers out in the field.

3. Alibier, Kim Baumann Larsen, Rikke Janssen — *Oslo.olsO*

A project to develop a two-player interactive VR science fiction story set in both a future Oslo drowned by rising sea levels and on a distant, arid planet.

All three projects are being monitored closely, and will present at an Artistic Research Café in 2020 (*Kaspar* presented in January[18], *Lytteren* in February, while *Oslo.olsO* is scheduled for May).

Artistic Research Café

NFS has long been in a dialogue with the Norwegian Film Institute (NFI) about formalising a collaboration, and in 2018 this came to fruition through a collaboration between CEFIMA and the NFIs development and training office NFI:LAB. The inaugural initiative was the Artistic Research Café, a monthly series of talks and presentations aimed at giving the broader film and games communities an opportunity to gain insight into the work being done in these media under the umbrella of artistic research. The first event was in October 2019, and it continued as a monthly event on the last Monday of the month through 2019.

Most of the events were held at the NFS location in Oslo, Myrens Verksted, Sandakerveien 24C. They were all in the time period 1400-1700, and open to the public free of charge.

The events held in 2019 were:

- January: *Future Creative Leadership* — a presentation and panel discussion led by AR Fellow Frederick Howard springing from his project «Creating the Creatives». Howard is a film and television producer and is exploring the changing role of the «creator», as it is evolving in episodic television drama. For this event, he presented his own project and early findings, moderated a debate / panel discussion between a select group of Norwegian TV writers and producers, and invited guests to explore the role of what it means to be a «creator».
- February: *Order in Chaos* — editor Niels Pagh Andersen presented the results of his NARP/Diku-funded artistic research project. Through his work on several internationally acclaimed documentaries, such as *Act of Killing*, *Human Flow*, *3 Rooms of Melancholia*, and *Look of Silence*. At the event, Andersen spoke about the development of contemporary documentary, the director-editor relationship, and showed both extensive clips from two of the films and interviews he did with his directors. The event was moderated by Danish editor Thomas Kragh and took place at Filmens Hus in downtown Oslo.
- March: *Emerging Storytelling Formats* — this was a presentation of a variety of projects in non-traditional audio-visual storytelling at CEFIMA/NFS. The projects presented were by Maureen Thomas, Elin Festøy, Nadja Lipsyc, Cecily Levy, and Bendik Stang. The event was moderated by Ellen Lyse Einarsen, CTO

From Artistic Research Café, November 2019

of Expology, and concluded with a panel discussion between Einarsen and the presenters.

- April: *The Contemporary Film Image* — cinematographer and artistic researcher Cecilie Semec presented her work through the Artistic Research Fellowship Programme. The focus was on her collaboration with director Dag Johan Haugerud on the hour-long dramatic film *Lyset fra Sjokoladefabrikken*. At the time the film was not completed, but it has since had its debut at the Tromsø International Film Festival, January 2020.

Following the April event, the Café was put on hiatus for the summer.

- August: *VR as Medium for Narrative Storytelling and Artistic Expression* — since CEFIMA had announced the VR storytelling lab *Off-Piste*, this Café featured presentations from invited professionals in Norway, Kim Baumann Larsen and Kristian Mosvold, showing their VR work. The event was moderated by Viken Film Centre director Cecilie Stranger-Thorsen and concluded with a panel discussion featuring Larsen, Mosvold, and NFS MFA-student Wenche Hellekås.

In September, NFS hosted the Diku event Artistic Research Forum and so there was no Café. In October, the date coincided with a special event where the Norwegian film industry gathered for a discussion on the future of NFI.

- November: *Cross-discipline Collaboration in VR* — in October, CEFIMA had organised *Off-Piste VR Lab*, featuring 24 participants from around Norway, 6 international mentors led by Crossover Labs from the UK, and funded by NFI, Hedmark fylkeskommune, Oppland fylkeskommune, Viken Film Centre, Easter Norway Film Commission, and VR Innlandet. The November Café featured presentation of the work done and prototypes developed through the Lab. In addition, a new national organisation that was conceived at *Off-Piste*, Norwegian Interactive Storytellers, was announced and launched.[19]

In the second half of 2019, the Norwegian Film Institute went through a major internal reorganisation and one of the consequences of that was that NFI:LAB was closed. This leaves the Café without formal support from NFI for the time being, but NFS and NFI leadership are in a dialogue to continue future collaboration. This dialogue will likely be completed by the summer, 2020, and in the meantime the Artistic Research Café continues with events planned through May 2020.

With after-hours socialising often continuing into the evening, the Artistic Research Cafés are beginning to build a community around NFS, where those interested in the media innovation are getting to know each other.

Pedagogic Development

While Artistic Research provides the more visible and outward-facing results from CEFIMA, all activities are planned with a focus on their ultimate impact on the development of the Norwegian Film School's curriculum and pedagogy. This development takes many forms and is the focus of this section.

The pedagogic development is visible primarily under two main headings: 1) courses and workshops planned by CEFIMA for both internal (to NFS) and external participants and 2) impact on the development of the BFA, MFA, and, ultimately, the PhD programmes.

In addition to this, there have been several initiatives that come from students, that are both directly and indirectly related to development.

Courses and Workshops.

A key aim for the Norwegian Film School is to utilise the results from CEFIMA to plan and create both internal courses for staff and students and professional development courses aimed at industry and the professional arts field. Ultimately, the intent is to establish a broad portfolio of courses aimed at the film, television, and games industries in Norway, as well as professional artists looking to expand their ability to push the boundaries of their fields.

«THE ARTIST AS FILM SCHOOL TEACHER»

This course was also reported in the Annual Report for 2018. It is a formal course in film school pedagogy, approved by the INU Education Committee and giving 15 ects upon successful completion; as such it provides the formal requirement for pedagogy training for higher education faculty. The course aims at giving professional filmmakers and artists teaching in higher education a solid basis and toolkit for using their professional experience as the starting point for educating emerging artists at BFA and MFA level.

The first cohort began in November 2018, and 7 teachers at NFS completed the course in June 2019. One of these, Associate Professor Carl Svensson, Head of Sound at the BFA, who had also been involved in an earlier pilot with other Nordic film schools, built on this experience to also represent NFS in the INU Pedagogy Group. Svensson will also be involved in running the course for future participants.

The Artist as Film School Teacher course will be evaluated in the spring of 2020, with an aim to offering it a second time starting in the fall, 2020.

Since formalised pedagogy training became mandatory for all teaching and research positions in Norwegian higher education from September 2019, the NFS/CEFIMA offering has garnered significant interest with other faculties at INU. In fall, 2019, CEFIMA initiated a dialogue with members of the Faculty for Audio-visual Media and Creative Technology (AMEK[20]) with the intention of offering an English language version of the pedagogy course for members of the teaching staff at their Department of Game Development — The Game School. This department has a large number of foreign faculty, who would benefit greatly from an English-language offering aimed specifically at professionals from a media arts related industry.

This collaboration with AMEK has the additional benefit of increasing CEFIMAs institutional reach beyond the Norwegian Film School.

OFF-PISTE

Virtual reality has garnered significant attention the past few years, as has been documented in earlier CEFIMA Annual Reports, as well as the *Strategic Plan 2018-20*. Not only are several Artistic Research Fellows working in one capacity or another on VR projects, but there is also significant interest in the professional industry and among NFS BFA and MFA students. It is also apparent, however, that many VR projects fall

outside the scope of traditional sources of cultural and arts funding, primarily as the art form is so new and the decision makers have little or no experience with it.

Early in 2019, AR Fellow Elin Festøy, along with CEFIMA leadership, initiated a plan for an intensive VR workshop, aimed at both increasing artists' skill at working with VR and at creating an increased awareness of the medium among producers and funding agencies. The Norwegian Film Institute, through NFI:LAB were early and enthusiastic backers.

Fredrik Graver introducing Off-Piste

Festøy brought Crossover Labs[21] into the project, and they developed both the content and used their leading international reputation to bring expert mentors to the project[22]. Hedmark county quickly became the primary funder, and Oppland county, Eastern Norway Film Commission, Viken Film Centre, and VR Inland Norway (VRINN) all provided additional funding.[23]

Off-Piste was advertised broadly throughout Norway, and applications were encouraged from all art forms as VR is becoming perhaps the most vibrant medium for transdisciplinary experimentation in the arts. In the final selection of 24 participants, there were representatives from nearly all art forms in Norway, with the exception of dance.

The Lab began with a public presentation at a 300-seat auditorium at INUs Lillehammer campus on October 15th. The participants and mentors then spent 7 intensive days, from Oct. 16th to 22nd inclusive, working at Pellestova Mountain Hotel outside Lillehammer, before the prototypes were presented at Nordic VR Forum in Hamar on October 24th.

This initiative was, by all measures, a considerable success. The participants worked in groups of 4, each supported by a mentor and a games programmer, and developed a total of 6 prototypes showcasing a variety of artistic styles and approaches to the medium. Two of these prototypes were picked up by commercial producers shortly after and a number of the participants went together to establish the interest group «Norwegian Interactive Storytellers».[24]

CEFIMA is in dialogue with Crossover Labs and Innlandet county to repeat *Off-Piste* in October 2020.

WRITING AND CREATING FOR VR AND INTERACTIVE MEDIA SHORT COURSES

Writing for 360°, hybrid, and interactive media requires different ways of structuring stories than for traditional, time-based linear formats such as film and television drama.

The Norwegian Film School has, almost since the school began, had short workshops in interactive writing but the emergence of new interactive and immersive platforms has created a greater need for instruction geared towards these formats — especially at the MFA and PhD levels.

Examples of these sorts of courses are the «VR Writers Room» and «Cross-media Writing and Design» workshops held for the Artistic Researchers and MFA students by Christy Dena[25], as well as workshops in visual writing held for groups of students at MFA and BFA level by Cecilie Levy.

Another, more extensive, example was the «Deaf Music Palace» workshop and exercise held at the MFA by Nadja Lipsyc. This workshop grew out of the experiments Lipsyc was doing with her artistic research project and the methods she was developing for working with a concept she calls environmental design.

In the course, MFA students in the Audio-visual design specialization (Animation, Composition, Sound Design) developed a narrative, spatial and sound-based XR experience based on the project Deaf Music Palace — an exploration of the mental techniques Beethoven used to compose music after becoming deaf. The students were also challenged to create a collective definition of the experience as part of the course.

The learning outcomes were set as:

- To learn and use collaborative creation processes/developing collaborative artistry
- To create a horizontal collaboration between sound and digital art.
- To learn about the “user/player” experience
- To explore techniques for digital environmental design
- To make technical decisions based on a common creative vision
- To think about the aesthetics of “space”
- To think about the aesthetics of “objects”

— and the workshop took place in the MFA term 2, spring 2019.

PLANNING FOR THE FUTURE

As mentioned above, one of the aims of CEFIMA is to enable the Norwegian Film School to build up a portfolio of course and workshops aimed at the industry and broader arts community within film and media arts. In 2019, NFS enlisted the help of the INU Centre for Lifelong Learning (SELL)[26] to begin planning these courses.

The intent is to create a portfolio of courses in collaboration with SELL, AMEK, and NFI that cover a broad range of both for-credit and professional development courses. Since NFS has a fine arts approach to film and media arts narratives, while AMEK has a broad portfolio of programmes aimed at professions within current affairs, lifestyle, and live event television, as well as games and computer animation, such a joint venture will cover virtually all aspects of moving image media.

By the end of 2019, SELL and NFS agreed that SELL will finance a 50% position for an individual to research the specific industry needs by talking to the various stakeholders in Norway. This will lead to a report focussing on the needs for skills training and artistic development, and the initial offerings are tentatively planned for the fall of 2020.

Student Engagement

At the end of 2017, NOKUT — who at the time owned the Centres for Excellence in Education initiative — offered the existing Centres small stipends aimed at encouraging student engagement. While it took some time for NFS students to grasp what was being offered, by the end of 2018 this became a popular initiative (as reported in the Annual Report for 2018).

In 2019, students continued to take control of different aspects of their education. Some of this has been described above, in the chapter on Artistic Research in the MFA and BFA programmes.

One of the primary activities students initiated in 2019 were research trips.

The Producing class at the BFA applied for and were given support to travel to Oslo and Copenhagen in order to research and compare the Norwegian and Danish programmes aimed at supporting emerging filmmakers who have completed their education and beginning professional careers. This research, which showed the Danish agencies seem to have a more cohesive policy towards supporting emerging talent, led to an extensive chronicle in the Norwegian film industry trade magazine *Rush Print*.[27] This piece led to a debate on the approach to developing new talent.

Also at the BFA, the Visual Effects Design class applied for and were granted travel funding to attend one of the largest technology conferences in the world, SIGGRAPH North America[28] in July. The students wrote and delivered an extensive report on their finding, focussing especially on technologies related to motion capture, real-time effects, and VR.

The final research trip sponsored was the MFA students with a producing specialisation travelling to the RISE conference[29] in Hong Kong, also in the summer of 2019. RISE is Asia's largest technology / tech start-up conference. It is produced by the team behind Web Summit and Collision — two of the largest and fastest-growing tech conferences in the world and is in direct alignment with the WebSummit conference. In 2019 leaders from some of the world's biggest companies and most exciting startups came to Hong Kong to share stories.

RISE attendance was motivated by the research background it delivered and its relevance to the MFA focus on «Film & New Formats». In this perspective the conference was efficient, effective and inspiring for all attendees.

RISE did not offer unexpected information or profound realisations but the opportunity to gather, compare and analyse information from multiple sources made RISE efficient for all attendees. It was also highly effective because it enabled informed and warranted conclusions and opinions, which helped the attendees evaluate their research goals. In that, it was also inspiring because it reinforced or confronted the attendees' assumptions and

MFA students

proved that attendees individual research focuses were relevant in the front-end context of RISE.

A final development in 2019 is much less tangible but has perhaps a greater transformational potential than other activities. The new cohort of students at BFA, kull 12, that started in August 2019, are showing they are perhaps the most engaged cohort yet in terms of taking an active role in the development of the school and the curriculum. Two students from this cohort attended the Diku network meeting for the Centres for Excellence in October. Both returned to Lillehammer with a greater appreciation for the strengths and weaknesses of the NFS programme and a willingness to engage their fellow students in strategic discussions about the future of the school.

Coincidental to this, the growth of the Artistic Research Fellow community due to CEFIMA has led to a need for NFS to have an overall, comprehensive strategy for artistic research at the school. In addition, the fact that NFS students come from across Scandinavia means they are very aware of the changes taking place at other Scandinavian film schools. They have therefore taken steps to interject themselves into the strategic discussions to a much greater extent than would have been possible through ordinary forms of representation in formal bodies at NFS.

One step the students took was to request they be «given» a day in the NFS timetable early in their semester 2. This day was scheduled for January 27th, and the students planned the content and structure of this «Vision Day» themselves. They have subsequently requested a second day, shortly before the summer break.

It remains to be seen what the tangible outcome of this is, but as NFS is entering a strategic planning process, the students will be more involved in this work than at prior junctures.

Development of BFA, MFA, and PhD programmes

Development of the educational programmes at NFS is the heart and soul of CEFIMA, and all the activities reported above should, in one way or another, contribute to this development.

All of the activities listed above have a direct or indirect impact on these aims. The Artistic Research Fellows have collectively contributed to innovation and experimentation in the BFA and MFA programmes already and plans for the future — which will be developed below — will further integrate these experiments.

In 2017, the Norwegian Ministry of Education announced the Norwegian Artistic Research Fellowship Programme, which provided 3rd cycle training for the fine arts in Norway, would be replaced by formal PhDs in Artistic Research based at the institutions with fine arts programmes. This PhD was formalised in January 2018, and by the start of 2019, the National Academy of the Arts (KHiO), the National Academy of Music (NMH), the Faculty of Art, Music and Design at the University of Bergen (KMD at UiB), and the Norwegian University of Science and Technology (NTNU) had all established PhDs in Artistic Research.

With this change in the 3rd cycle for the arts, the only art form left without a PhD was film and media arts. And, given that a PhD in Norway requires a certain volume to be considered viable, NFS and the broader film community risked losing the possibility of 3rd cycle education in film in Norway. As a result, the Rector of Inland Norway

University of Applied Sciences and the Dean of NFS had a dialogue with the Ministry of Education, which led to NFS / INU being given a temporary dispensation from the volume requirements.

NFS has also had ongoing discussions with other Nordic film schools regarding the potential for a joint Nordic PhD. This is an attractive possibility for several of the schools. Building an international joint degree will take some time, but the initial efforts will focus on creating a Nordic PhD School for film and media arts, where 3rd cycle candidates from the region can take a significant portion of their mandatory credits.

Like NFS, the film school at Stockholm University of the Arts has a high proportion of candidates exploring the artistic potential of new technologies and platforms. Many of the projects CEFIMA has completed will therefore lay the groundwork for a section of the common courses in a Nordic PhD School.

Organisation of CEFIMA

NFS is by far the smallest faculty at INU, with approximately 50 staff and faculty — most in part-time positions — and a student body that varies between approximately 70 to approximately 120 in alternate years. It has been a point to ensure CEFIMA is tightly integrated into the structure of the Norwegian Film School at all levels.

After the NOKUT-organized site visit in November 2018, it was pointed out that the Centre was perhaps too dependent on the Head of Centre, Fredrik Graver, ensuring progress in all aspects. Several steps were taken through 2019 to address this.

First of all, the positions of Creative Technologist and Line Producer were posted. These positions were intended to address two key aspects for CEFIMA: the connection between emerging technology and artistic development, and the need for the Artistic Research Fellows (and others) to have practical support in the execution of their artistic projects. Both positions were filled in the first quarter of 2019.

In addition, the administration of CEFIMA was diversified, with the Centre Administrator, Janicke Vibe, taking a more active role in the daily administration and internal communication of CEFIMA. This included monthly staff meetings and assignment of tasks necessary for regular progress.

The first half of 2019 was also spent reorganising budgets in such a way as to allow for additional staff to ensure the proper functioning of CEFIMA, and this led to the posting of positions as Head of Artistic Research Fellows and Strategic Project Manager. These two positions were filled from October 1st (Head of AR Fellows) and January 1st, 2020 (Strategic Project Manager). In addition, Associate Professor of Producing at the MFA, Troels Linde, was engaged in a 50% temporary position to run the Virtual Production project, and to develop a strategy for funding applications for various projects for Creative Europe and Horizon Europe.

The staffing situation is continually evaluated. The steering group will review and evaluate how it is working in early fall, 2020.

Staffing

As of January 1st, 2020, the staffing situation at CEFIMA is stable. The list below shows the various positions planned and filled, and the percentages indicated are the

percentages allocated to their work at CEFIMA, as several individuals also have positions at NFS at large.

STEERING GROUP

NFS Dean	—	Karin Julsrud
Head of Centre	—	Fredrik Graver
Strategic Project Manager	—	Darshika Karunahara (50%)
Head of NFS Artistic Research	—	Christian Fonnesbech
Student 1	—	job posted Winter 2020
Student 2	—	job posted Winter 2020

ADMINISTRATION

Administrator	—	Janicke Vibe (60%)
Coordinator	—	Charlotte Midtbø (50%)
Finance & accounting	—	Ann Iren Bratt (30%)

FACULTY AND STAFF

Project Lead	—	Troels Linde (50%)
Cinematographer	—	Kjell Vassdal (30%)
Creative Technologist	—	Rafal Hanzl (50%)
Line Producer	—	Ingrid Nordby (50% — on sick leave)

ARTISTIC RESEARCH GROUP

Artistic Researcher	—	Maureen Thomas
Artistic Research Fellow	—	Nadja Lipsyc
Artistic Research Fellow	—	Cecilie Levy
Artistic Research Fellow	—	Elin Festøy
Artistic Research Fellow	—	Bendik Stang
Artistic Research Fellow	—	Dalia Alkury

* 2 more positions approved for 2020 and were posted with an application deadline of March 9th, 2020 and a planned start date in the final quarter of the year. Also, in 2019 three applications for Artistic Research funding were sent to the Norwegian Artistic Research Programme (NARP) at Diku. Response on these applications is expected in mid-March 2020.

Administrative Challenges

The size of NFS and the tight integration of CEFIMA into the faculty are a strength in most situations but can create some vulnerabilities in certain situations. In 2019, these vulnerabilities did lead to some setbacks.

First of all, Ingrid Nordby was hired as Line Producer from January 2019 and came to the position after successfully supporting the production of *Lone Wolves Stick Together* in the fall of 2018. Unfortunate circumstances, however, led to her needing to take sick leave which ended up lasting the entirety of 2019. This did have a direct impact on the support for the Artistic Research Fellows' projects in the first half of 2019.

Furthermore, the Head of Studies for the NFS BFA programmes resigned his position effective June. Head of CEFIMA, Fredrik Graver, took on the responsibilities from

August 1st, and is continuing to do so as the position is yet to be filled. This situation could continue until the summer, although the position has been posted with an application deadline of March 9th.

Finally, the Head of Administration at NFS went on a lengthy sick leave in the fall, 2019, and from December her position is being temporarily filled by CEFIMA Administrator Janicke Vibe. This situation may end up becoming permanent and will then lead to the need to hire a new administrator.

During these staffing shortfalls, the focus has been on ensuring the activities reported for 2019 could be completed in a satisfactory way, but the cost has been that some planned activities such as,

- establishing formalised international partnerships with European and North American educational institutions,
- writing and sending applications to Diku, NordPlus, Erasmus, etc.,
- planning and initiating internal dissemination activities, and
- planning an international conference

have all been postponed.

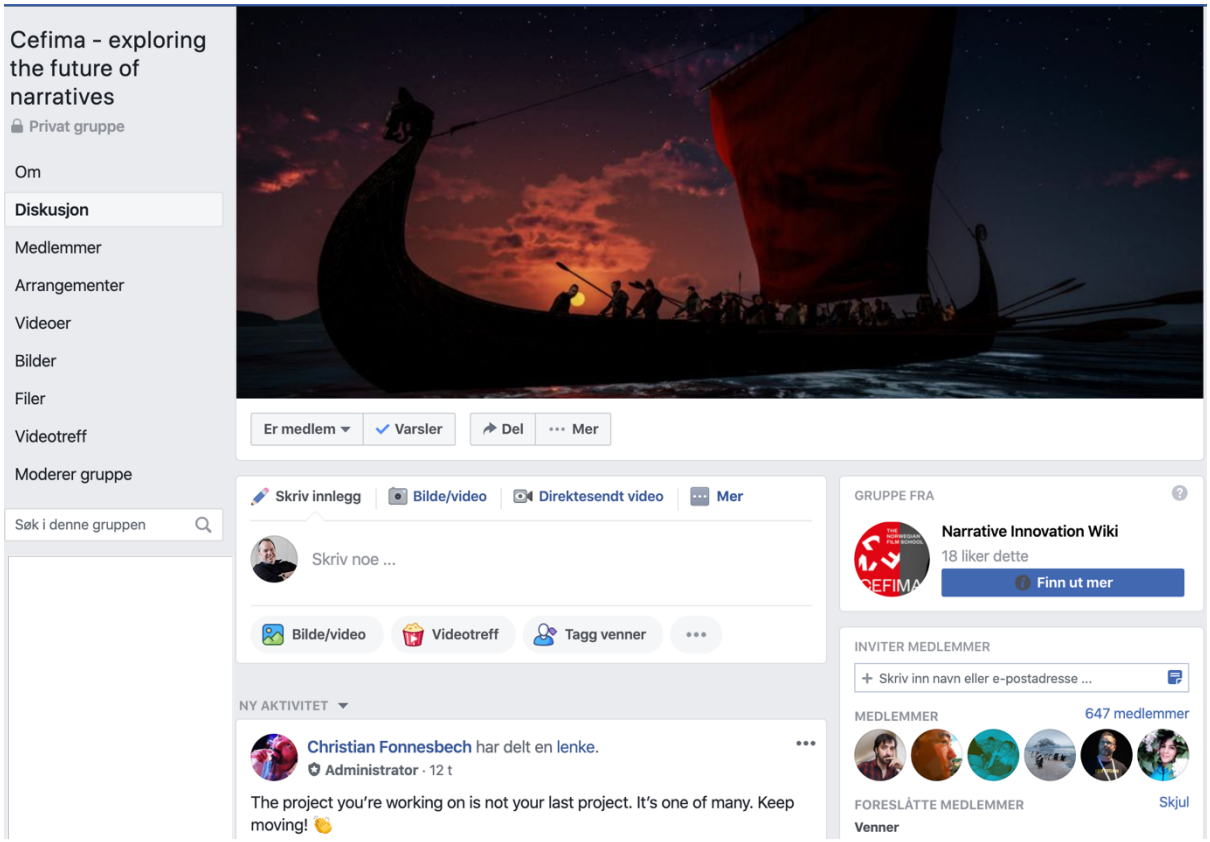
However, with the new Head of Artistic Research Fellows and Strategic Project Manager both being hired and in place for the end of 2019, the organisation is now more robust at the strategic leadership level, and there is every reason to believe it will be less vulnerable through 2020.

Dissemination and Public Outreach

As has previously been highlighted, the majority of CEFIMA activities have a dissemination component. The Artistic Research Fellows are active nationally and internationally, as has been documented above. Their presentations and international contacts are a key component in CEFIMAs expansion internationally. The Artistic Research Café is another example of dissemination, where CEFIMA invites the Norwegian industry and public to witness the activities at NFS and to participate in a dialogue on the development of the media arts sector in Norway.

One of the first outreach activities CEFIMA engaged in was the establishment of the Facebook group. This very active global network is now approaching 650 members and counts artists, craftspersons, academics and other practitioners from VR, Filmmaking, game development and Immersive theatre. It fulfils the purpose of building a strong international network while also communicating CEFIMA activities and findings worldwide. It is also crucial to the development of the online resource, CEFIMA Wiki at https://cefima.org/wiki/Main_Page, where terms and resources are gathered from emerging practice and from all over the Internet. The network and Wiki have already been invaluable in recruiting both applicants and supervisors from all over the world. Since this group is now so established and active, it is tempting to take it for granted.

The final piece of the dissemination puzzle is also beginning to emerge. The Department of Game Development at AMEK / INU is becoming more aware of CEFIMAs influence on pedagogy and the exploration of media arts technology. They are interested in both the *Off-Piste* lab and the proposed English-language pedagogy course. This will ensure the reach of CEFIMA within the institution becomes more apparent in 2020. In addition, one



CEFIMA Facebook group homepage Feb 27th, 2020

of the action points in the INU Quality Report for 2019 is that CEFIMA will participate in internal seminars on the relationship between learning outcomes and forms of evaluation. While the exact timing and form of these seminars are yet to be determined, they should begin in the school year 2020-21.

Aims of the SFU initiative:

Student-active Learning Methods

Many of the activities related above are about artistic research and development, and how they can be tied closer to the educational programmes. The fact that INUs primary financial contribution to CEFIMA has come in the form of fully funded PhD-positions has ensured a rapid growth in artistic research activities at NFS and enabled both faculty and students to benefit from these activities.

One unexpected consequence came with the development of a draft of an Artistic Research Strategic Plan, presented to the NFS advisory board during the fall, 2019. As mentioned above, the students from kull 12 found that this draft strategic plan inspired them to want to engage with the strategic development of the school as a whole. It is expected this will dominate NFS discussions through 2020.

In addition, the support CEFIMA gives to both MFA and BFA student-initiated projects is popular among the student body. The knowledge that there is both financial and logistical support for experimental and innovative projects ensures a level of activity among the students. Given the small size of NFS and the close professional relationships between students, staff, and faculty, this drive towards experimentation has an effect on the entire school.

From the Lone Wolves Stick Together set "Nostalgia", by BFA students from Production Design and Sound.

The Norwegian Film School is a highly competitive school for admissions, with an average of 10 applicants per spot across the board for the BFA. Most students who successfully gain admission have some prior experience with filmmaking and often have studied before. They are highly motivated and sure of what they want, making them very engaged in their education. This, combined with the small size and tight-knit community at NFS, ensures a constant dialogue between students and the school leadership.

Some years ago, NFS developed questionnaires that are filled out by students after their various workshops, modules, master classes, production exercises, etc. These questionnaires allow faculty and school leadership to closely monitor the development of a group of students and to see whether or not planned classes are having the intended learning outcomes. Recently, students have challenged the formulations on these questionnaires, and reformulating them with greater student input will likely be an important project for 2020.

Integrated Models and Learning Outcomes

This has long been a strength of the Norwegian Film School. The school method is built on a constant feedback loop between teaching staff and student, with the aim of ensuring the students know how they are doing at all times, ensuring that the faculty and Heads of Studies can adjust the curriculum to meet the needs of the current group of students, and giving the students a greater influence over the learning outcomes for each module and exercise.

An important tool in production exercises has been the «statement of intent», where students look at the parameters and constraints for the exercise and, within those boundaries, design their own learning outcomes for the exercise. Since filmmaking is a collaborative art form, this means that students must both look at their own development and place their work and contribution in relation to the other member of their film team.

All production exercises are viewed and discussed in plenary sessions consisting of the entire cohort and their teachers and mentors. The basis for discussions and feedback are the statements of intent — this ensures the students are given feedback on the areas of their work that they have been focussing on - it also structures discussions so as to avoid opinions on «good» and «bad» or «like» and «dislike», which are known pitfalls when evaluating in giving feedback on art.

Plan for 2020

Many of the activities from 2019 will come to fruition in 2020. Now that CEFIMA has been in operation 3 years, several activities from earlier years are also starting to show a lasting effect on the existing curricula.

The primary plans for 2020 are as follows:

- Revise the 3rd semester for the current BFA cohort to incorporate the most important outcomes from the «Lone Wolves Stick Together» project that took place in the 3rd semester of the previous cohort. This revision will be complete by mid-March and will enable NFS to incorporate non-traditional hierarchies and working methods with principles of environmental design and world building and apply them to a studio-based production.
- Complete the hiring of students, and, through their involvement, stimulate further student-initiated projects and curriculum adjustments. This will be achieved both through engaging the students in strategic planning for CEFIMA and NFS, as well as providing incentives for student-led artistic research projects and workshops/courses as part of their education.
- Plan new PhD in Artistic Research in Film and Media Art and send for approval by September 2020.[30]
- Build on *Off-Piste* and other short courses to establish a portfolio of professional and artistic development courses, in collaboration with NFI, AMEK, and other relevant parties. These will both include professional and artistic development courses and workshops aimed at the established film and television industries, as well as offering opportunities for exploration and innovation in content development, aesthetics, creative producing, and marketing of new and emerging platforms and formats.
- Revise and relaunch course in film school pedagogy fall 2020 – this time both in Norwegian and English. A further plan is to investigate ways of making all or part of this course on-line and distributed, in order to enable distribution beyond INU and to the broader Norwegian and international film and fine arts education communities.
- Establish new venues for dissemination of experiments and results, beyond Artistic Research Café. These can include podcasts and videos published via established NFS channels, web-based publications such as the NFS and INU websites, trade magazines such as *Rush Print*, etc., the SFU news publication, the European Research Catalogue for artistic research, and more.
- Integrate new artistic researchers into the NFS community.
- Formalise international partnerships, building on the ongoing relationships established throughout the past 3 years.
- Encourage and stimulate faculty artistic and applied research applications to national (NARP, Norwegian Research Council, Innovation Norway) and international (NordPlus, Erasmus, Horizon, Creative Europe) funding agencies.

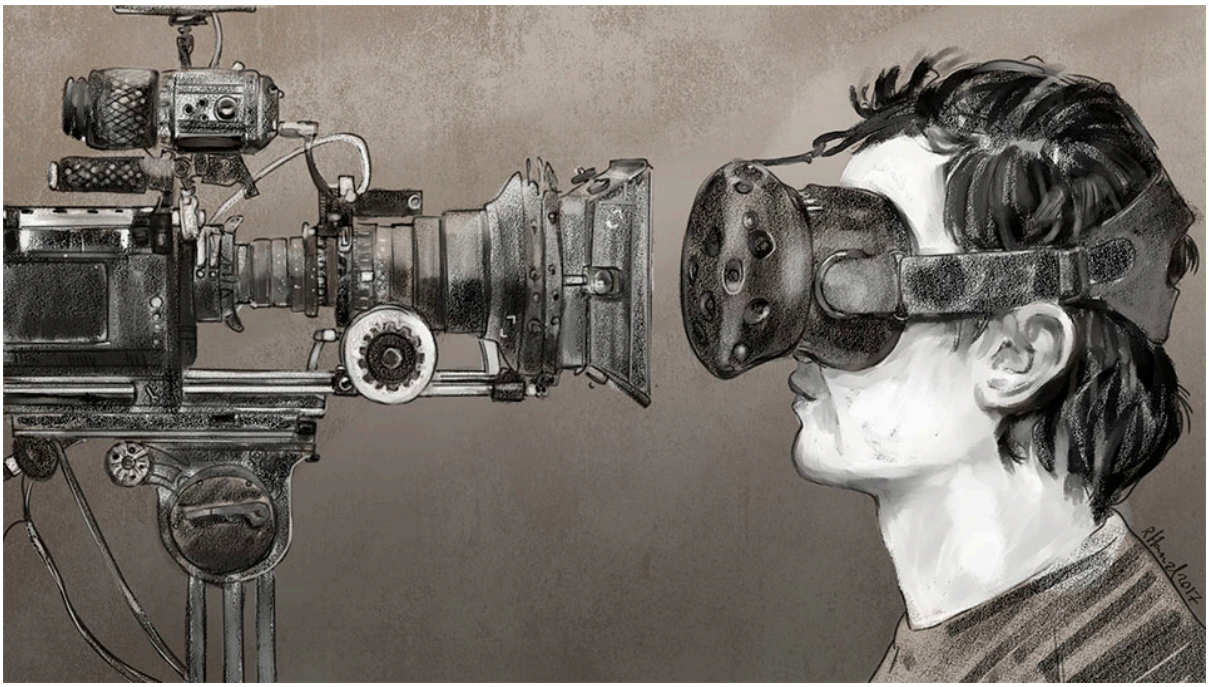
This final point is a key for the further development and eventual sustainability of CEFIMA. As of the middle of 2019 and reaching into 2020, three projects aimed at European funding opportunities have been initiated. One, targeting Creative Europe,

one ERASMUS+, and the third exploring the potential to establish a Horizon 2020/ Horizon Europe bid.

The Creative Europe bid focus on: “Bridging Audio-visual (TV and streaming) with a Cultural Industry (Theatre) in an innovative way by employing methods and tech. from Games, Social media and Digital Distribution / Sales” — and as an effect of this, the project aims to demonstrate an end product that combines three types of contemporary entertainment.

The ERASMUS+ bid focuses on: “Providing training methodology, learning resources, and training in the field of virtual production for students and professionals in the field of Film and TV production”. The project aims to establish — and share with relevant creative industries — a state of the arts virtual set facility. This project has successfully conducted an early “proof of concept test” funded by CEFIMA and hosted at the MFA facilities in Oslo.

The Horizon2020 bid is still under consideration. If it moves forward, it will focus on “Using Big Data and AI for strengthening the circulation and business for small scale producers and niche movies by incorporating audiences in the distribution value chain”. The foundation of this project extends from previous CEFIMA AI research projects but is intended for collaboration with the Norwegian production company White Rabbit and will specifically be based on their concept for peer-to-peer distribution.



Cinema meets VR illustration by Rafal Hanzl

Finally, the main focus for the first half of 2020 is to apply for and achieve a renewal of CEFIMA for another 5 years. This will allow the time for the projects have been initiated in the past years to become established, and eventually to have a life beyond the lifetime of the Centre. The process of planning for five more years will include starting activities in 2020 that will have an impact in the second five-year period.

End notes

[1] In 2017, Netflix entered two films to the venerable Cannes Film Festival, only to be banned from entering in 2018; see https://www.hollywoodreporter.com/news/cannes-artistic-director-banning-netflix-competition-why-he-allowed-streaming-movies-last-year-1096800. In 2019. the Netflix original *Roma* was nominated for an Academy Award, see https://observer.com/2018/11/netflix-roma-alfonso-cuaron-oscars-2019-nominations-predictions/.

[2] See https://www.cnet.com/news/hbo-steven-soderbergh-mosaic-app/.

[3] See https://www.cnet.com/news/interactive-black-mirror-bandersnatch-is-here-to-add-to-a-twisted-2018/.

[4] see https://www.labiennale.org/en/cinema/2019/venice-vr

[5] see https://cphdox.dk/en/programme/kunsthal-charlottenborg/interactive/

[6] see https://www.theverge.com/2020/2/7/21125284/sundance-best-vr-ar-film-festival-new-frontier-2020

[7] see https://www.filmskolen.no/en/prosjekter/cefima-1/stratplan-2018-20

[8] see https://www.facebook.com/groups/986526221489560/permalink/1109286932546821/

[9] The Norwegian expression, «kunstnerisk utviklingsarbeid», has some distinctly different connotations than the English expression Artistic Research. A more correct translation would be «artistic development work». A key factor in the Norwegian context is the focus on the artistic work and the artistic processes and methods that led to the creation of the work. While there are variances in the traditions between different art forms in Norway, in general the focus of artistic research is on the development of the art form in a broader professional context rather than expanding knowledge about the art form in an institutional context.

[10] From the report «Vekt på kunstnerisk uviklingsarbeid» published by Universities Norway (UHR) in 2007. Quoted from «Forskning og utviklingsarbeid innen fagområdet kunst», a report by the National Council for Artistic Research, 2015, p. 10 (translation by the author).

[11] The Norwegian Artistic Research Fellowship Programme, now a part of Diku (https://diku.no/en/Media/Files/diku.no/programmer/pku/forskerskolen/study-plan-for-the-norwegian-artistic-research-programme-2019), began in 2003 as the 3rd Cycle alternative for the fine arts in Norway. While the programme is being phased out after the national Ministry of Education allowed the establishment of PhD programmes in Artistic Research in 2018, those institutions that do not yet have PhD programmes still have candidates in the NARP Fellowship Programme.

[12] see https://diku.no/en/programmes/norwegian-artistic-research-school

[13] LARP is an acronym for «Live Action Role Play», a form of experiential and immersive theatre where the audience are participants in the performance according to defined rules and characters.

[14] Epic has invested heavily in creating software that is capable of handling production quality material. See https://www.unrealengine.com/en-US/programs/virtual-production for the range of tools and demonstrations of their Virtual Production initiatives.

[15] see https://www.unrealengine.com/en-US/spotlights/unreal-engine-in-camera-vfx-a-behind-the-scenes-look

[16] The MFA programme at NFS is organized as a single master's programme that has 5 areas of specialization: directing fiction, directing documentary, writing, producing, and audio-visual design (renamed visual design for cohort 3, which starts fall 2020). Students apply to the MFA but indicate their specialization as part of their application. The focus of the programme is innovation and artistic experimentation within serial formats and new platforms for distribution. The individual specialization project is worth 30 ects, out of a total of 120 for the MFA.

[17] «Lone Wolves Stick Together» was a key part of the CEFIMA annual report for 2018. The project has subsequently been presented in many connections, and a video presentation of it can be seen here: https://vimeo.com/364038407.

[18] The presentation of *Kaspar* can be seen at https://www.youtube.com/watch?v=TbViRQyzQn8

[19] The presentations from *Off-Piste* can be seen at https://www.youtube.com/watch?v=wTMnfxQx6K0&list=PLGL5qjNHNCW9PUzYCHUq1Ay1_duqV1EYH&index=2

[20] See https://eng.inn.no/about-inn-university/faculties/faculty-of-audiovisual-media-and-creative-technologies for more information.

[21] Crossover Labs are immersive media specialists based in the UK. Over the past few years, they have built up a leading international reputation for their projects and labs and have hosted events all over Europe and as far away as Australia. See http://www.xolabs.co.uk/about/ for more information.

[22] The description of *Off-Piste* and the mentor biographies are at https://offpistelab.com/

[23] The city of Hamar in Hedmark county (since January 1st, 2020 a part of the amalgamated Innlandet county) has become established as perhaps Norways leading centre for VR in education and industrial applications. VRINN has, along with private and public partners, established a Nordic VR Forum event every October. Furthermore, Oppland county (now also amalgamated into Innlandet county) har long been working to build a film industry. As a result, *Off-Piste* was created to build on both these strengths, and planned to coincide with the Nordic VR Forum, where the prototypes from the lab were presented in the venue and during the storytelling sessions.

[24] From their Facebook page: Norske interaktive fortellere (Norwegian interactive storytellers) is an organization for production companies and freelancers that work with immersive and interactive storytelling in Norway. The organization works for a better understanding of immersive and interactive storytelling as cultural expressions and better conditions for the production of engaging interactive storytelling in Norway. Its members work with different interactive technologies and expressions, from purely physical to fully digital storytelling. The love for creative expression and meaningful experiences unite us all.

The FB group can be found at https://www.facebook.com/groups/455487218423819/about/. While CEFIMA is not directly involved in the formation or running of the group, it is an example of the impact CEFIMA activities have on the broader professional community in Norway.

[25] Christy Dena is an internationally acclaimed Australian games and interactive experiences designer, educator, and transmedia scholar; see https://www.christydena.com/research_/. She supervises both Nadja Lipsyc and Cecilie Levy.

[26] See https://eng.inn.no/about-inn-university/organization/administration/centre-for-lifelong-learning for a brief introduction to SELL.

[27] Read the article at https://rushprint.no/2019/10/hvor-er-strategien-for-talentutvikling-i-norsk-filmbransje/ (Norwegian only). This article garnered a published support for the *Rush Print* editor, at https://rushprint.no/2019/10/det-finnes-ingen-klar-strategi/, an op-ed from the head of Mediefabrikken (https://rushprint.no/2019/10/ja-hva-er-det-egentlig-vi-snakker-om-nar-vi-snakker-om-talentutvikling/), and a response from the Norwegian Film Institute (https://rushprint.no/2019/10/ja-vi-trenger-en-strategi-for-talentutvikling/) and became part of a national debate on the development of talent in the Norwegian film and television industries.

[28] SIGGRAPH grew out of a small gathering of professionals and artists working with computer graphics and imagery, and today organises two international conferences per year, one in North America and one in Asia.

«These events are the world's largest, most influential annual conferences on the theory and practice of computer graphics and interactive techniques, inspiring progress through education, excellence, and interaction. They share four fundamental goals:

- Premier status as measured by community loyalty, contributor quality, external recognition, and competitor response.
- Leading edge as recognized by discipline experts and the industry at large.
- Effectiveness of education, interaction, and excellence as measured by contributor, committee, and community satisfaction and involvement.
- Sustainable continuity as measured by volunteer commitment, community interest, and financial self-sufficiency.»

See https://www.siggraph.org/about/ for information about SIGGRAPH.

[29] See https://riseconf.com/.

[30] INU has applied to NOKUT for full University status, and, if approved, will be able to accredit such a PhD themselves. The application is currently for review, and a final decision is expected at the NOKUT board meeting in June. Should the application not be successful, a PhD will have to be sent to NOKUT for accreditation, and the annual deadline is November 1st.