





## Centre for New Media

The Centre for New Media is HVL's resource centre for the use of new media in education, scientific research and communication.



## Staff at the Center for New Media



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## Bridgebuilder between technology and dissemination

Advise **Production** Innovation

## Strategic Projects at the centre

## E-learning and digital competence

MediaLab Studio

Digital basic competence for staff

Research dissemination

Mobile applications in teaching and learning

Coordination of HVL Bergen e-learning

## **Projects**

360 walks, VR og AR

Programmable environments

Virtual meetings



## Program

> Presentation (45 min)

DISSEMINATION THROUGH DIFFERENT MEDIA TYPES

- Short break (10 min)
- Historical tour on Campus Kronstad (25 min)

WITH THE GUIDANCE OF "FOTSPOR" - AN APPLICATION MADE BY CENTRE FOR NEW MEDIA

> Short visit at the Centre for new media (10 min)



## We offer different dissemination formats and tools

- > Visualisation
- > Video
- New Media



# Visualisation - Wrapping



## Visualisation

# "Good design encourages a viewer to want to learn more."

Alexander Isley







Visuell identitet / Profilmanual



Studietilbod

Studentliv



Om oss



English



#### Naturleg vis

Framtidsretta utdanningar og campusar som gir gode naturopplevingar. Bli ein av oss!

Sjå studietilbodet vårt

Biblioteket For studentar

Gi karriera di eit løft, og ta vidareutdanning!

Vidareutdanning ved HVL

Har du spørsmål om opptak til HVL?

Slik blir du ein av oss!



#### Fem campusar mellom fjord og fjell

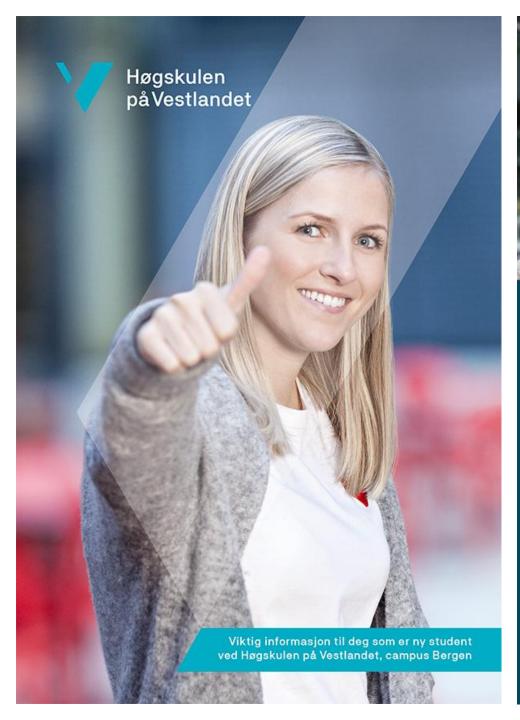
Vi har 16 000 studentar fordelt på campus Bergen, Førde, Haugesund, Sogndal og Stord. Studentmiljøa er aktive og inkluderande, med aktivitetar for ein kvar smak.

Sjå kva som ventar deg!











- > Helse- og sosialfag
- > Idrett, friluftsliv og folkehelse
- > Ingeniør- og maritime fag
- > Lærar- og musikkutdanning
- > Natur- og samfunnsfag
- > Økonomi og leiing







Årsrapport

## Høgskulen på Vestlandet



#### Tittel

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#### Overskrift

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#### Overskrift

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#### Overskrift

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#### Title of the Research Study

Presenters name, Associates and Collaborators

#### Introduction

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#### Aim

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#### Methods

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#### Results

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#### Conclusions

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#### Bibliography

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- 3. Nam sollicitudin, nisi et ultricies maximus, ligula lectus imperdiet odio, sit amet iaculis ipsum elit ut

#### Acknowledgements

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## Visualisation

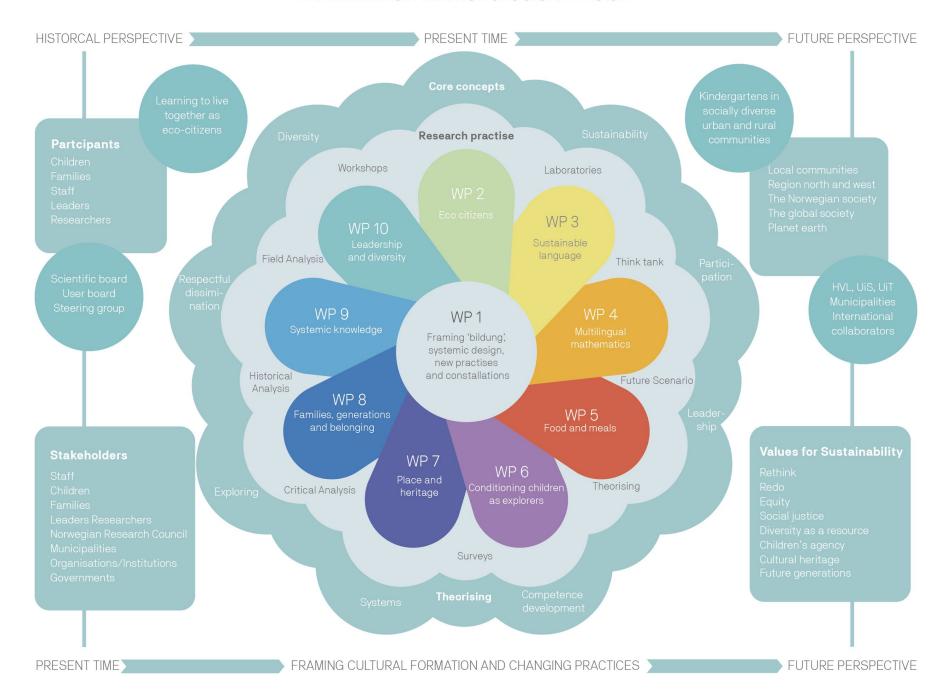
## "Design is thinking made visual."

Saul Bass

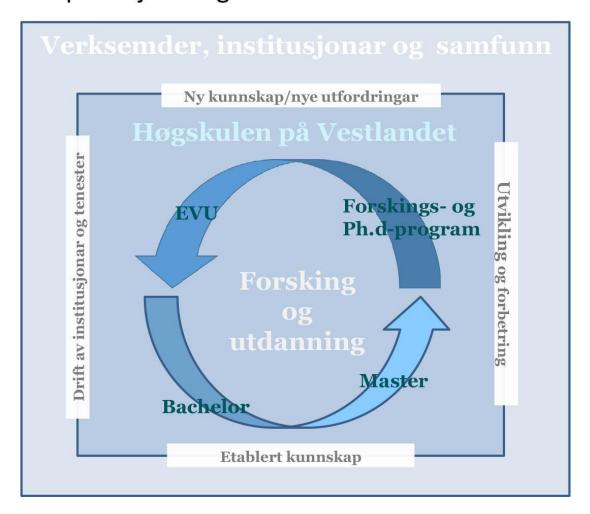


Medel of organization + twee personalio Mogen citizers participants Municipalities reamy to live Diversi for -) wathous local community Children Sustailhability families tearning Nerwegian Screby nethodologi marships researcher 5. WP 2 leaders Wp WP participation medhamedus treld Future Sientifich Planet earth User coord bank Scenario Jas WP labs (Cincenepertens Hearn group ax plewing 30 Novwegian With generation readersh Statisholders diss minedian WP childen confetence developments Farailres 15 weers place Values for Sustainable federas Start Leaders equity Systems Researcher Social justice Nemegra R. Council Children's agency Co-operation /negotiation (cuntres Munici pulitus Organisations/ Intitutions Flaming cultural formation and changing practices Government

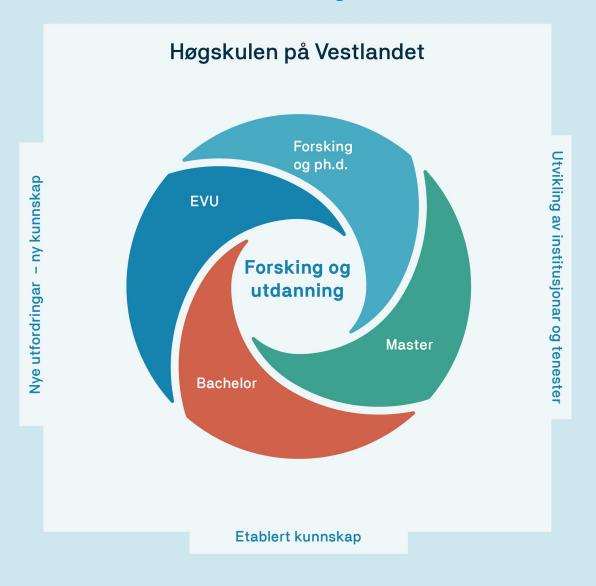
#### THE KINDKNOW METHODOLOGICAL DESIGN



### Det profesjons- og arbeidslivsretta universitetet



## Kultur, samfunn og arbeidsliv



Det profesjons- og arbeidslivsretta universitetet

#### Politikk og demokrati







Demokrati

Monarkiet i Norge

Stortinget







Regjeringen

Valg og politiske partier Quiz

#### Lov og rett









Dom og straff



Quiz

## DigiLab



#### DIGITAL UNDERVISHING

Bruk av AVTV Smartboard PowerPoint Presentasjonsteknikk Praksiseksempel



#### DIGITALT SAMARBEID

Lorem ipsum In convallis eros Donec gravida purus Pellentesque non velit Aliquam quis libero a



#### VIDEO I UNDERVISNING

Bruk av video Embeded i LMS Office Mix Skjermopptak Medielab Strømming Studentrespons i nettforelesninger



#### STUDENTAKTIV **UNDERVISHING**

In convallis eros

#### **AKTUELT**



Sigrun Lindaas Norhagen om

#### IKT og læring i undervisningsfaget

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Øyvind Fosse om

#### Bruk av VR i byggfag

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Ashild Nerhus om

#### Canvas og tilpassing av CSS

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Les flere saker



#### Profesjonsfaglig digital kompetanse

HVL utvikler et nytt videreutdanningskurs/MOOC i PfDK for lærere i samarbeid med HSN. Kurset tilbys høsten 2018 under ordningen «Kompetanse for kvalitet». Lærerutdanningen ved HVL har ansvar for den generiske delen av studiet i samarbeid med SfNM. Vi har i tillegg produsert to promofilmer om PfDK på oppdrag fra Senter for IKT i utdanningen.





#### Sunn kantine – pilotprosjekt

I samarbeid med Nasjonalt senter for mat, helse og fysisk aktivitet har vi produsert en film om pilotprosjektet «Sunn kantine» ved Jåttå vgs.



#### Store drømmer på lille Lynghaug

Denne filmen er produsert på oppdrag fra Vestbo. Filmen dokumenterer en prosess med boligoppgradering i borettslag med fokus på



#### Den gode historien

Hvordan arbeider journalister for å formidle menneskers historier på en god måte? Leo Ajkic og Guri Solberg forteller med utgangspunkt i dokumentarserien «Flukt» og podcasten «Bra damer». Produsert på oppdrag for NDLA.



#### Live Composing and Soundpainting

Live composing and soundpainting at Western

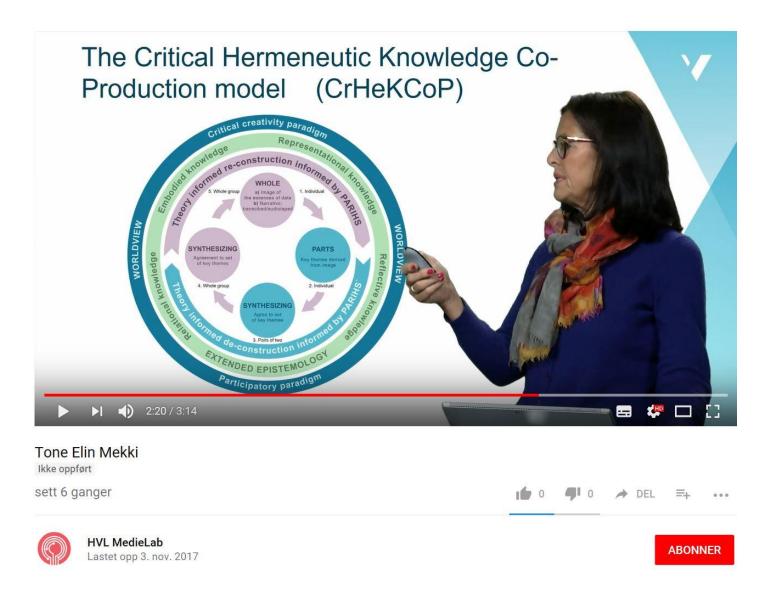
## Centre for New Media- Video Production within a variety of genres

From simple video productions that are completed within a day to others that have relatively long production periods. Important to find the proper genre and formats.

- Studio productions. Medialab
- Reportages
- Educational films
- Procedure films
- Documentaries
- Promotional videos

Sharing culture - some of the films have many views on YouTube and other internal and external educators make use of them. This is voluntary.





https://www.youtube.com/watch?v=bVXXh75Auys&feature=youtu.be

## Research dissemination - testing of different formats.

Collaboration with the Department of Research and External Affairs and the Department of Communication.

Ongoing: Video presentations of research projects by the research scientists themselves - around 1 minute, recorded in the studio.

#### Ongoing ideas:

- Mini documentaries, reportages that follow the research projects over time.
- Video portraits/presentations of research scientists.
- Recorded conversations between researchers in an informal setting.
- The researchers document and film themselves on location and during field work. The Centre for New Media helps in the editing phase.
- Podcasts



1 minute video presentation on Norwegian doctors' sick leave practice.



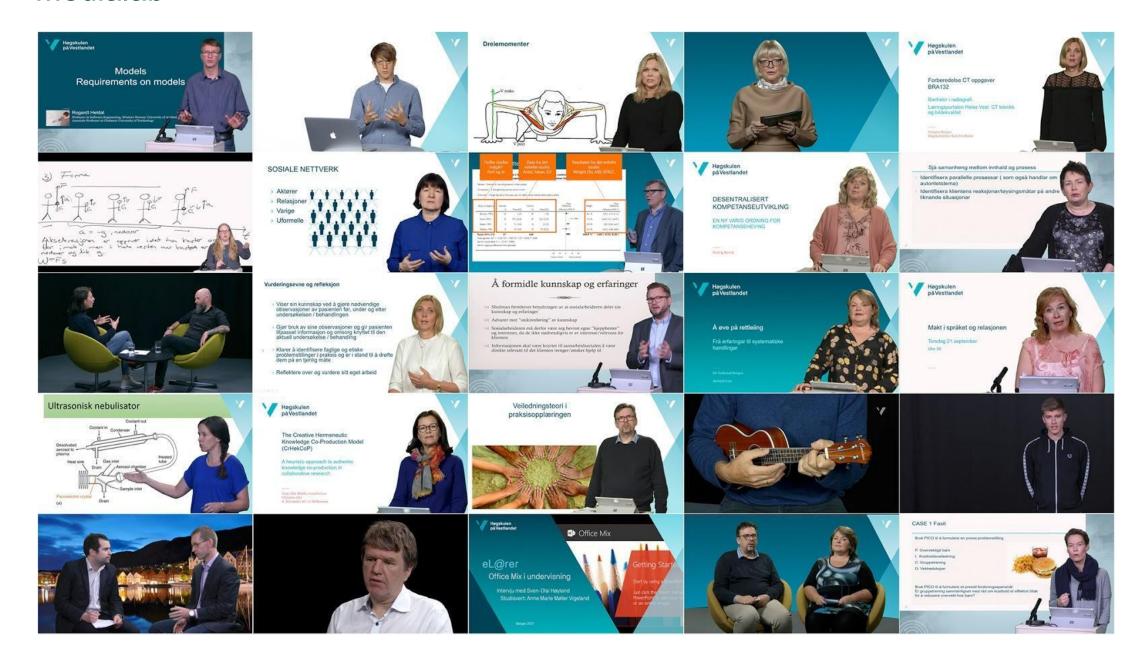
Silje Mæland om Sykefravær

## Research Scientists' Presentations

- Target group: the public, other research scientists, students. Short information about the research project, but can also work as a teaser that leads the viewer to the project website, articles etc.
- Publish on different platforms: YouTube, Project website, Twitter, Facebook.
- Create a science research column on <u>www.hvl.no</u>?
- Conferences and Seminars.



## Medialab



## Medialab

- Low threshold recording service in the studio at the Centre for New Media.
- Videos for presentations, classroom teaching (flipped classroom) etc. A variety of courses and learning resources make use of videoen produced in the Medialab.
- The medialab has a studio host who quality controls the service and assist and guide the users.
- The service gives the users experience in using new dissemination formats and contribute to their digital competence.
- The videos are exported and uploaded to YouTube the same day, available according to the user's preferences: public, private, unlisted, scheduled.
- In 2017 the service had 54 unique users, with an even representation between the faculties.



## > Examples, Short educational films (procedures etc.)

- Usually one day of recording in the studio or on location.
- Examples: nursing, engineering.
  A lot of views, also internationally.





https://www.youtube.com/watch?v=HEzkHq WliKM

## > Example longer educational films

#### Children's motor skills

- Karen Klepsvik at the Faculty of Education, Arts and Sports
- Children's motor skill learning and development at different ages 2 films.
- Production: 2 3 years.
- Started as a film for the sports students, but the films are now used at health stations, at the physiotherapy department, in school nurse education and in kindergartens.
- Broadcast on the education channel of Norway's national broadcaster,
  NRK.

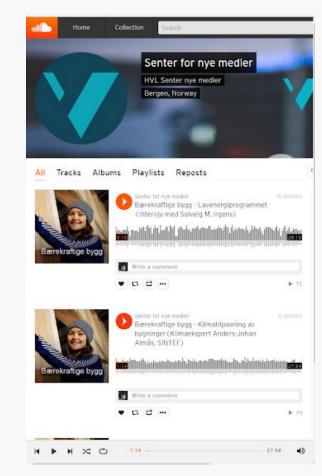


## **Podcast**

#### A podcast is a radioprogram.

The difference between a radio program and podcast is that it is the user who decides when to listen.

- Podcast= Portable on demand + Cast
- Radio= The sender decides when to listen (When the content is available).
- **Podcast =** The receiver decides when to listen



https://soundcloud.com/senter-for-nye-medier/baerekraftige-bygg-klimatilpasning-av-bygningerklimaekspert-anders-johan-almas-sintef

## **Podcast**

#### Who listens to podcasts?

A research in Norway (2017) shows that 25% of the population does not know what a podcast is.

35% of those between the ages of 18 and 30 have listen to a podcast in the last 3 months. (Students)

Between 30-44 years: 30%.

45 - 59 år: 21%.

More then 60 years: 15%.



## **Podcast**

#### When do we listen?

- Most of the podcast listening takes place while on the go.
- Between home and school or home and work (Commuting)
- 9 out of 10 listeners use headphones.
- People traveling are using podcasts to stay up to date in a non productive situation.
- In Norway, we have shut down the FM network.
- In 2017, the national radio station lost almost 9% of its listeners.
- Where did the whey go? What are they listening to now?



Podcasts now integrated into new car-stereos.

## VR



## What is VR?

**Virtual Reality (VR)** is the use of computer technology to create a simulated environment.

VR places the user inside an experience, instead of viewing a screen in front of them.

Users are able to interact with the 3D worlds.



### What is VR?

# 360 photo/video = Virtual Reality technology (but not real VR)

Does not use data-generated reality.

**Recording:** One shot in every direction. 360-degree pictures/video.

**Playback:** Viewed on PC, mobile devices or head-mounted displays. Users can pan around the video by clicking and dragging.

On smartphones, internal sensors such as the gyroscope can also be used to pan the video based on the orientation of the device.









### 360 BEFARING PÅ NYE HARALDSPLASS SYKEHUS

Haraldsplass bygger nytt sykehus som skal stå klar til innflytting i september 2018.

Nybygget erstatter tradisjonelle sykehuskorridorer med åpne fellesarealer og effektiv logistikk .

HØGSKULEN PÅ VESTLANDET - SENTER FOR NYE MEDIER

### 360 walks

#### What is it?

- Virtual inspection / Virtual walk
- Mix of two media:360 picture and sound.
- The picture is taken where you have something to tell
- A voice explains what we see in the picture



360 walk



### 360 walks

### Why?

- Affordable equipment
- Easy to create
- Easy to publish
- Easy to use
- Can be experienced in browser:
  Desktop or smartphone with
  Google Cardboards.



Google Cardboards

## Why VR matters: Presence

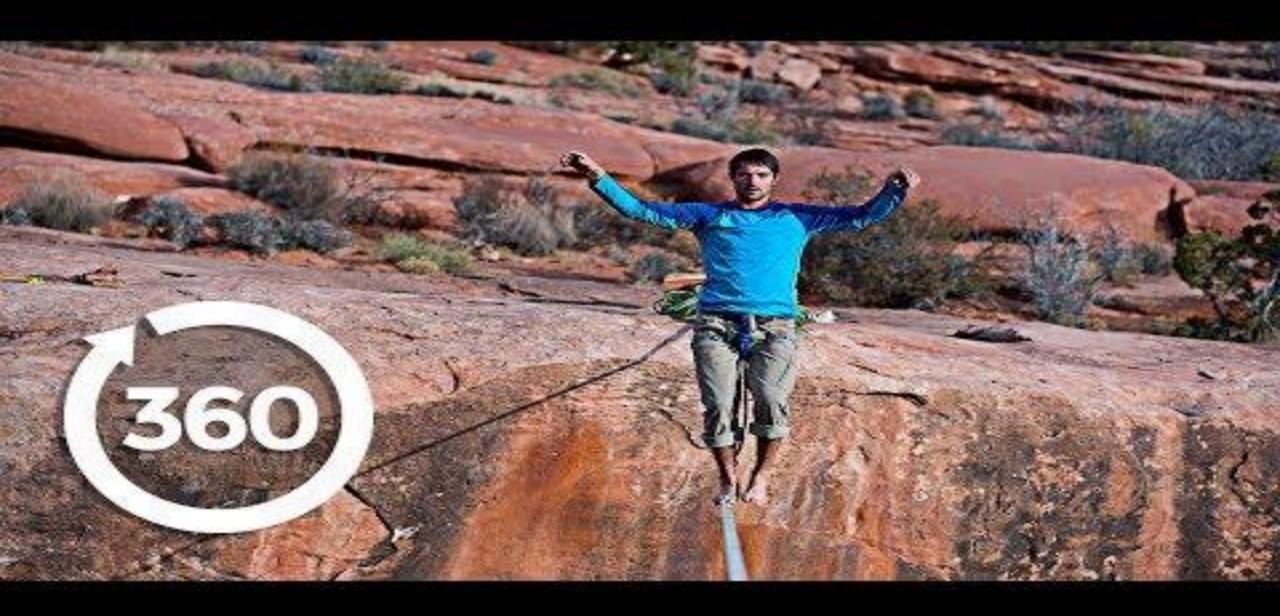
Most forms of media provide a third-person perspective of an experience. When done right, virtual reality helps a user feel like they are really there.

"Presence" is when the brain believes you are in the virtual world!













### How to use 360 in education

#### Virtual walk

We have used 360 as a replacement or preparation for excursion.

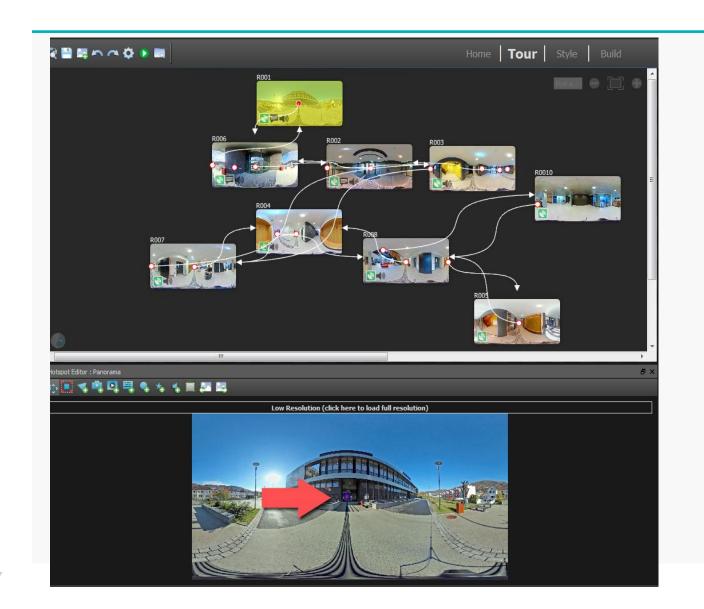
We can take 360 pictures where it is not appropriate or possible to bring students.

For example: Oil rig, a hospital on the other side of the country, a mountain top, on top of a skyscraper, etc.





## Kolor PanoTour: Put together a virtual walk





#### Strategisk område: VR/360 - <a href="http://prosjekt.hib.no/360/">http://prosjekt.hib.no/360/</a>



#### Eksternt finansierte FoU-oppdrag:

Avinor, 360 graders visning Bergen lufthavn

#### 360 VISNING

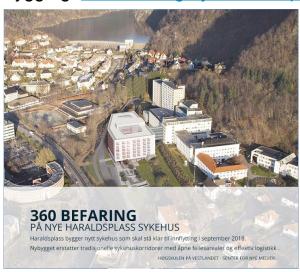
av Bergen lufthavn, Flesland

- Skru på lyd
- Bruk kartfunksjon for å få bedre oversikt (kun på desktop)
- Dra i bildene eller bruk piltaster for å navigere
- Bruk 360 briller for bedre opplevelse

BERGEN LUFTHAVN FLESLAND T3 AVINOR

#### Utdanning AIØ Bergen

Byggfag: 360 befaring nye Haraldsplass sykehus



Data og realfag: masteroppgave, case & veiledning



### What is real VR?

# Virtual reality (VR) is a computer-generated scenario that simulates experience through many senses

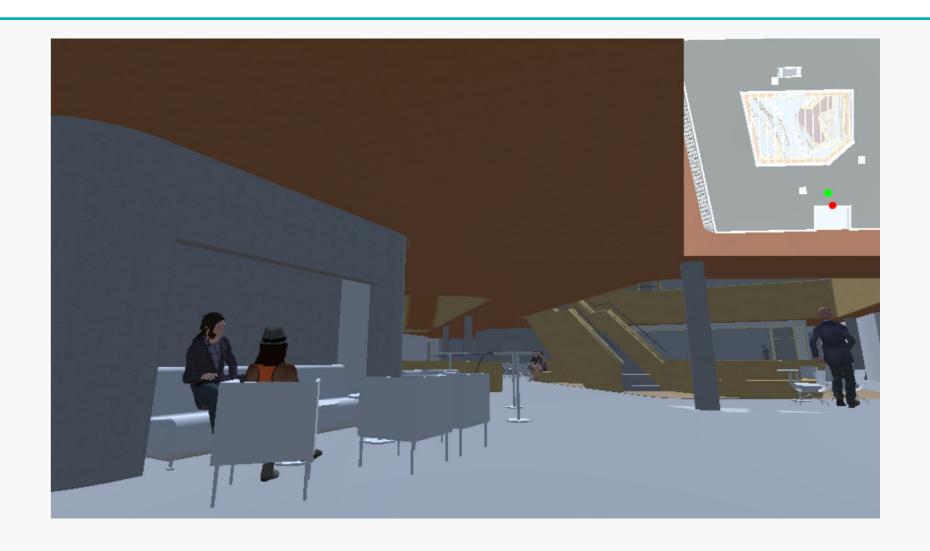
This computer-generated world is transmitted to your eyes through a set of glasses and uses sensors to record your movements.

VR requires powerful computer processors and sensors that measure your movements. Requires expensive VR-equipment like HTC Vive or Oculus Rift.



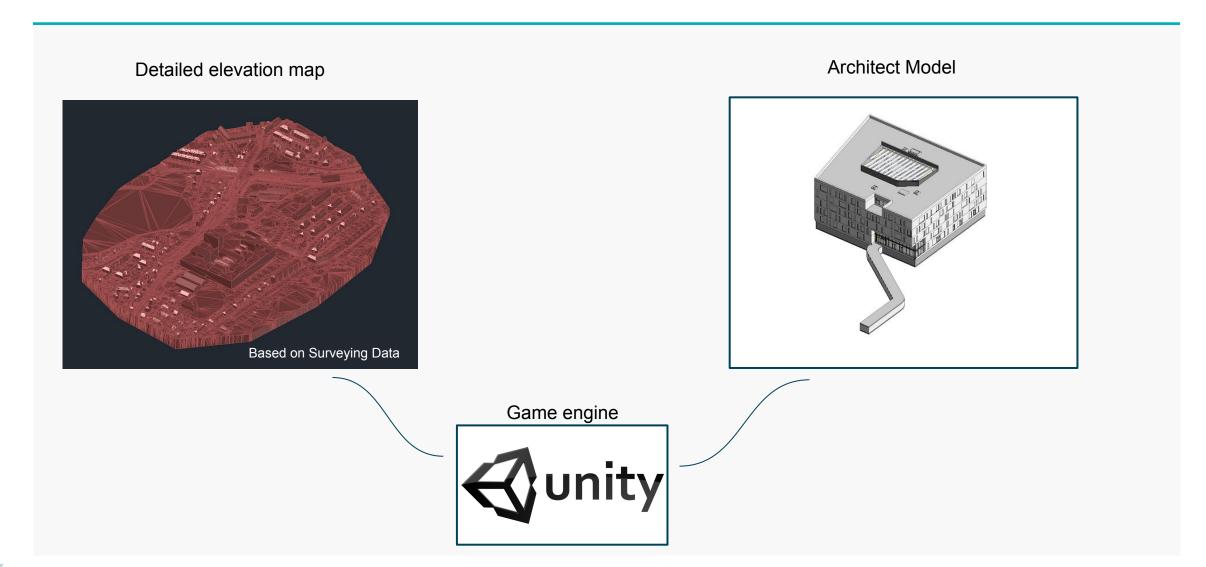


## 3D model of the new campus building



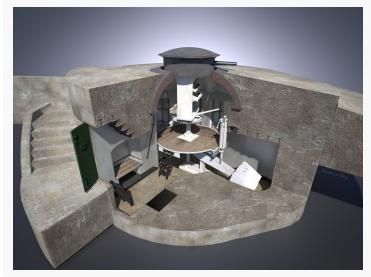


## From an architect model > 3d experience



## Is it possible to recreate a cultural heritage site from WW2?





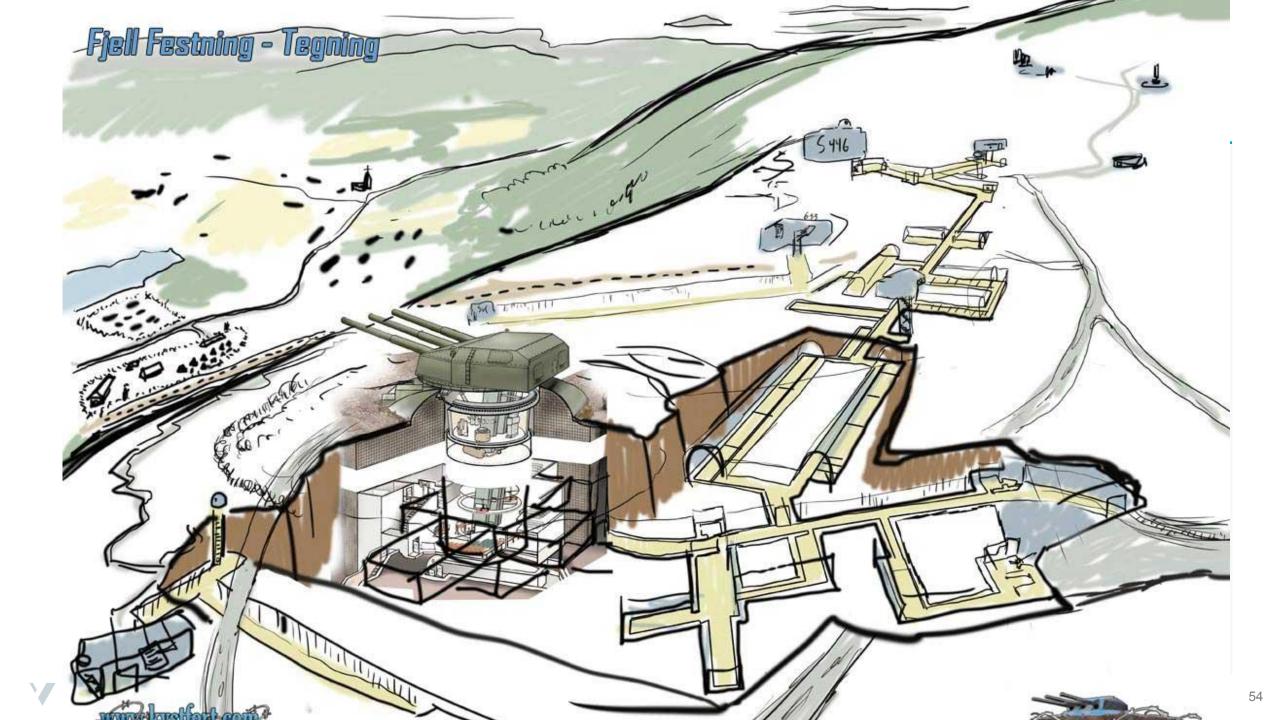




# Fjell festning







## From scanning to 3d experience

Step 1: Drone > pictures



Step 2: Align photos



Step 3: Build a point cloud



Build mesh (3D model)

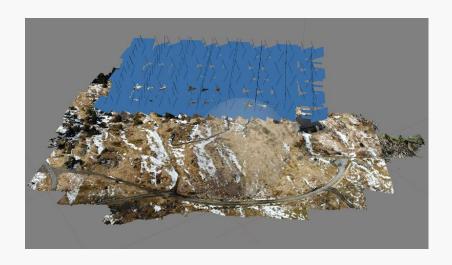




DJI + Pix4D app



Agisoft Photoscan or Pix4D Mapping



Agisoft Photoscan or Pix4D Mapping







## How is real VR?







### Historical tour on Campus Kronstad with the FOTSPOR app

CODE: YP1P





