



# IMPROVING STUDENT LEARNING

BI2020

PILOT CASES  
PEOPLE  
INSIGHTS  
RESULTS



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*Pictures: Torbjørn Brovold, BI Archive and LearningLab Archive.*

# New Ways of Teaching and Learning

The BI2020 project aims at preparing BI for being a preferred provider of business and management education in a digital age. Three possible scenarios for teaching and learning in the future were developed in 2012, as well as an action plan for how to deal with issues related to new ways of teaching, learning and working. The BI2020 report and the action plan was presented to the BI board in 2013.

The BI2020 Pilot program was one of the main actions on the plan. In order to find the best teaching and learning methods for meeting a new higher education landscape in the near future, all faculty members were invited to share their ideas on how students and teachers may benefit from using new technology in their courses in order to enhance learning.

72 pilots have been allocated funding over a three-year period. More than 100 BI faculty members have been involved in describing ideas, testing ideas, - and implementing promising results. The many pilots have given individual insights as well as identified issues regarding e.g. beneficial use of digital technology in large scale teaching, the need of new competence, support systems, and course framework for BI as an institution. The last pilots are expected to be finished by August 2016.

## Educating the best candidates

In order to educate the best candidates, BI needs to train the best facilitators of learning. As our ways of working and communicating are affected by the digital age we live in, so is the way students approach learning. The act of acquiring knowledge and developing skills in our work, and in our education, has changed dramatically over the last 10 years and the rapid development of new digital tools and services challenges our faculty to move the teaching in to a digital age. The BI2020 Pilot program is one of our institutional activities supporting teachers in developing their practices.

*Inge Jan Henjesand, President*



*The Program Committee allocated all pilot funding according to what they considered will bring BI forward.*

*From left: Inger Carin Erikson (Program coordinator), Jon Erik Svendsen (Dean Bachelor), Gillian Warner-Söderholm (Head of department Culture and Communication), Lise Hammergren (Senior vice president), Jens Petter Tøndel (Senior vice president, chair), Anne Swanberg (Head of LearningLab), Janicke Rasmussen (Dean MSc).*

# Teaching Math Without Lecturing

After 7 years of teaching, Njål Foldnes felt the need to renew his methods. He decided on developing instructional videos in his math course at BI Stavanger. By recording the content from his lectures, and thus freeing time from lecturing in the actual classes, he is now able to interact more with the students and have time to help them with difficult issues. Through his new way of teaching, Njål Foldnes is also able to facilitate collaborative learning for his students.

The classes are moved out of the auditoriums and into rooms better fit for the purpose. Here, the students work on assignments - individually, and in groups. Njål may walk around and talk to individual students or with groups, and in this way he gets a closer dialogue with the students helping them with the issues they struggle with. When the course content is available online, the students can watch the instructional videos several times, and at their own speed, and thus catch up on difficult material.

The new way of working with math engages both Njål and his students, and the method also results in better grades. This method of teaching, which is also known as "The Flipped Classroom", has gained widespread interest in education sectors all over the world in the later years, and Njål is continuously seeking to improve and adjust the method to find the best balancing point of student needs and content delivery.



## Did you know?

Flipped classroom is a method where instructions and lectures are done on short thematic videos, freeing up classroom time for interaction and student work. The students are expected to watch the videos as preparation for classroom time.

## Njål's Experiment

In 2012 and 2013, Njål tried flipping the classroom in an unstructured way by giving the students access to all the videos at the beginning of the course and letting them work at their own pace. The students' results did not improve.

He decided to research the method more closely, and in a second study, he randomly assigned his students to either the flipped classroom or the traditional lecture. The activities in class were then structured to follow a plan. One of the methods used to enhance learning was collaborative learning in small groups. A significant increase in performance was found; 12 percentage points for the flipped group (93 students) compared to the lecture group (142 students). The effect was the same for both weak and strong students.

Read more about his experiment: [bit.ly/njål](http://bit.ly/njål)



## Research on our teaching practices

Teaching is about helping students to learn. In order to continuously improve our teaching we need to reflect upon and study the way we facilitate student learning. New technology has opened up for a whole new range of ways in which students can gain knowledge and develop understanding and skills. The BI2020 Pilot program has encouraged faculty to reflect on teaching practices, to bring in new tools, and to report on outcomes in papers, articles and seminars.

*Ulf Henning Olsson, Provost*



# Video: A Learning Resource

During the pilot program period, video has become increasingly important as a learning tool across many courses at BI. The videos serve different learning purposes and for large scale teaching they are important in ensuring high and even quality across large distributed courses. Where some courses have up to 30 parallel classes, videos made available for all students give all students access to the same material and to a variety of teachers.

## Available for 3000 students

One of the first pilots in the program was a first year pilot in business law. Stine Winger Minde and Monica Viken created 24 multiple choice tests which were all introduced through a short video about the subject involved. In addition they created 4 videos, one introduction to the course, one on how to use the tests, one on how to answer law questions, and finally one as preparation for the examination. The videos and tests were made available on itslearning for all 3000 students across all campuses. The feedback from the students showed that they liked the videos and tests, that it had increased their learning, and that the students used the resources as a supplement to the readings and the lectures.



Monica Viken and Stine Winger Minde

## Mastery and increased attendance

Siv Staubo has made 22 videos for a 3rd year Finance course. In the videos, she explains main concepts, calculations and equations. The videos have been published on itslearning each week. Watching and working with the videos have given the students an increased sense of mastery in the course, which has resulted in increased attendance, and an improved learning environment in the lectures.



Siv Staubo

## Better prepared

A team of lecturers at the Department of Communication and Culture, with amongst others Mark Brown, Sian Griffith and Derek Matthews, have used video in the national distributed course Intercultural & Ethical Awareness. They have taped 32 conversations between faculty staff from different cultural backgrounds. The conversations have been made available to all the students in the national course room on itslearning, and has been the input for classrooms discussions. The students say that they come to class better prepared than before.



Mark Brown

## Digital video cases

Caroline Dale Ditlev-Simonsen and Erik Aadland have created digital video cases in their courses. Starting out with a business case, they have created a set of short videos where they have interviewed business leaders about strategic decisions. In class, the students first get to see the introduction video, then discuss and tell what they would choose to do, before they see the next video where the business leader explains what they actually did and why.



Caroline D. Ditlev-Simonsen



Erik Aadland

## Student made videos

Cecilie Asting has involved students in identifying difficult issues in the course Organizational Behaviour and Leadership. The students have created interviews with business profiles in order to illustrate theories and models. Miha Škerlavaj has challenged his master students to be innovation journalists, creating video stories of different aspects of innovation.



Miha Škerlavaj

Cecilie Asting

## Did you know?

It is easy to make your own short videos. You can use your mobile phone or your laptop in your office. BI also has a self-service studio, where you only have to push the record button. More than 50 faculty staff have already used it.

Ask LearningLab for help and inspiration!

# Meeting Students Online

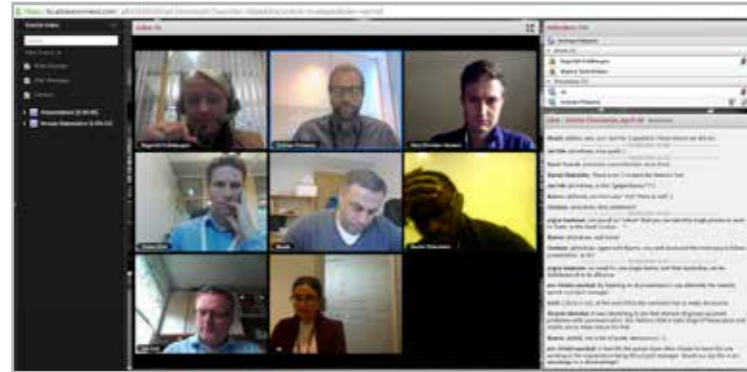
Adobe Connect has been used for webinars at BI for years, but the usage has increased a lot thanks to the pilot program. From only six webinars in 2013, 31 were conducted in 2014, and that number was almost tripled (92) in 2015!

## Group presentations in leadership

Ragnhild Kvålshaugen was the first to try out a concept at the EMBA, in a leadership course with students across the globe at different time zones. The leadership course is process- and discussion oriented, and the webinars had to reflect that. A pedagogical plan was developed to ensure that this would work. The discussions and group work was facilitated in the forum at itslearning in the four days leading up to the actual webinar. During the webinar, the leader of each student discussion group presented the results from their group work. The group members could then comment in the chat.

## Exam preparation webinar

In the bachelor course Strategy I, several lecturers have used Adobe Connect for webinars, including Erik Wilberg, Anna Swärd and Paulina Junni. There have been several reasons for using webinars, and the most popular one is to help students prepare for examinations. The students can submit their questions on the webinar chat and have the lecturer answer. Examination webinars are mandatory elements in all online courses at the Executive Bachelor as of 2016.



## Did you know?

- EMME has since 2012 delivered two courses online where webinars and online send-ins with feedback are the main learning activities.

- A student living in South America did an oral examination at BI through a webinar, with the examiners located in France and Norway respectively.

- A webinar can be an effective tool when political strikes stops transportation. Erik Wilberg and his students could not travel, so a webinar from Erik's home office became the solution. And back in 2010, Tor Aalberg and his students were unable to travel when volcano dust clouds stopped all air-traffic and so he organized a webinar on very short notice.

## What is a webinar?

A webinar means meeting your students at a scheduled time online. You can present slides, show videos, do polls and the students can participate as presenters or through a chat. The webinar can be recorded for the students to watch again.

# When Faculty Resources are Limited

Cecilie Staude is responsible for the course "Social media" - a popular course at all four BI campuses. With scarce faculty resources to teach in this course, her days are not only filled up with lectures but also airport and travelling time.

Fall semester 2015 she therefore organized her teaching in Oslo and Bergen in collaboration with Bergen lecturer Tarjei Heggernes, to give students at both campuses the same lectures at the same time. The lectures were streamed live between the classrooms. The course hours were allocated to a combination of classroom hours and teaching and learning in a Facebook group where short video lectures were used for relevant discussions and problem-based learning related to the final examination paper.

-The idea behind this project is a proven belief that learning to a greater extent can happen regardless of time, place and space, says Cecilie Staude. -The use of stream, video lectures and a digital classroom at Facebook resulted in a higher degree of flexibility, and motivated the students to act as important contributors to increased learning by sharing contributions and thoughts in the comments field. This resulted in more engagement - also between students across campuses.





# Facebook

*Using social media to interact with students is not only an integral part of several pilots – a growing number of lecturers use Facebook or other social media in their courses to facilitate discussion and collaboration among students.*

Among the pilot lecturers is Nina Ronæs. Her main reasons for using Facebook are that it is a way to keep students active between the lectures, and it is an easy way to give information. One of her take-aways is that students tend to be more active online than in class - including those who tend to be quiet in a large class.

Elisabeth Falck from Department of Marketing is also using Facebook to communicate with her students. She is using it for several reasons: To give information, to answer questions, and to share news and articles relevant to the course. She feels that she is more available to the students when they can ask questions on a social media platform, and she can answer their questions on the go. The students also communicate with, and help each other.

- Facebook is a useful communication channel with the students and it is easy to administer. BI's current learning platform is mostly a one-way communication channel and it is not easy for the students to share and participate.

Facebook is more open, and lets everyone share and comment, says Elisabeth.

Nina has similar experiences. However, she also points out that using Facebook as a way to engage the students in between classes is time consuming. It is important to maintain the dynamics:

- A question shouldn't go unanswered for too long, and when students answer among themselves it is important to check in - in case an answer needs a clarification or correction. It is all about keeping the students connected in between lectures.

- In the future, I would like to make the students more active in the Facebook group. Just how active, depends a lot on me as a teacher, and the questions I ask them, says Elisabeth.

Nina may have found a solution. She explains that the most important part is to be clear about the purpose and expectations of the Facebook group. In her classes, the students are also content deliverers:

- The students add links and articles, and they discuss relevant topics. In that way, they provide me as a lecturer with examples other students can relate to, and that I can use in the teaching.



## Did you know?

Each year Master students from University of Oslo choose to have their internship at LearningLab. Two of the students have studied Nina's Facebook group and written their Thesis based on the course. Two new internships are writing about how students use a digital learning space. Ask for the Thesis' in LearningLab.



# Engaged Students? Yes, Please!

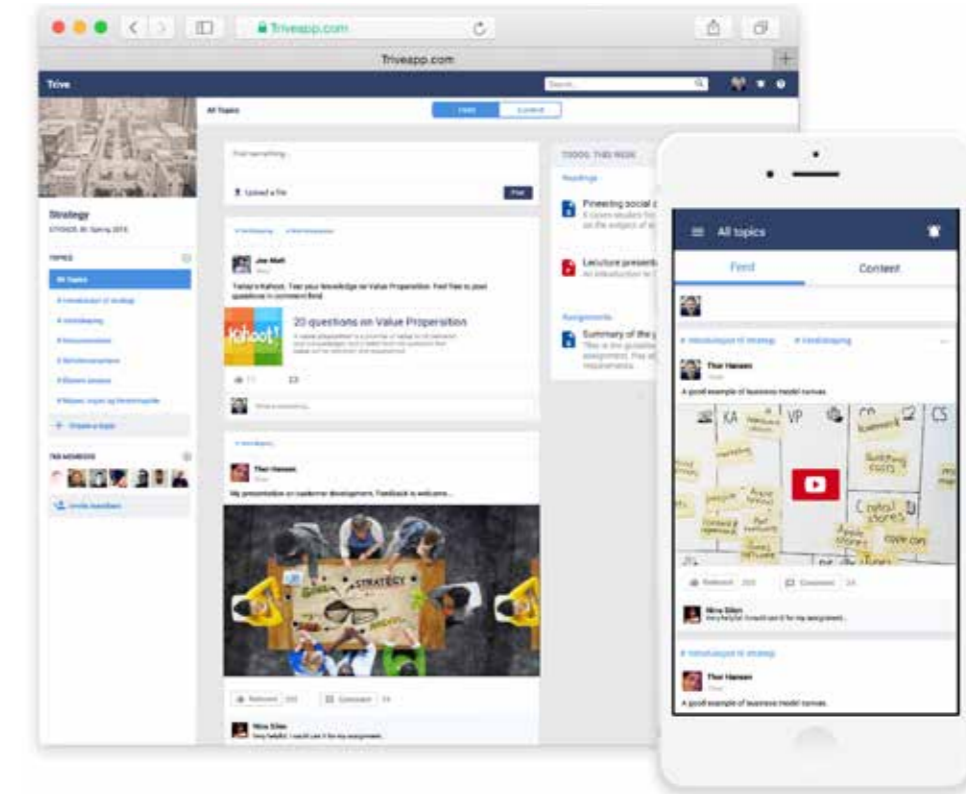
*What if technology aimed at increased student learning? What if technology made teaching easier? What if technology helped students to collaborate and help each other? What if technology reminded students to prepare for class? What if it also made students ask more questions?*

Together with Edtech Foundry, LearningLab has done in-depth interviews with 43 faculty staff and students. 70 faculty staff have answered a survey, and more than 200 students have answered a one-question survey. Semi-structured small talks have been conducted with more than 300 students and the user-patterns of about 600 students on a pilot-platform have been analysed.

The collected data shows that 50 % of the students feel stress related to insufficient time or too big workload. 50 % are frustrated that they don't know what to read/learn/do. 50 % of the students also believed the curriculum to be either too difficult or too large.

On the basis of the findings from BI's faculty and students, Edtech Foundry has developed a new learning platform, called Trive. The first three pilot classes with a total of 600 students were conducted in fall 2015, and the next three with more than 1000 students in spring 2016.

In 2016, the University of Oslo hosts two pilots using Trive. Other Norwegian and international higher education institutions have shown interest and are waiting to be part of the collaboration and development. A ready-to-use platform is expected to be launched in 2017.



## Did you know?

Trive is a "learning feed" inspired by social media applications where participants may easily collaborate, share content and ideas, comment on each other's posts and be active participants in their own learning. Trive is owned by Edtech Foundry.

# Portrait: Erik Wilberg – the Curious Teacher

*Erik Wilberg is not afraid to try out new technology and new ways of teaching and learning in his courses. He is using videos, webinars, Padlet, Kahoot, and is exploring social media. The question is why? According to Erik, we need to adjust to a digital environment that has impact on us in all aspects of life, including teaching.*

- It is no longer possible to work and teach without taking new tools and opportunities into account, says Erik. - The students are used to receive information from many different channels. With the increasing change rate in the business world, we have to include relevant events in our teaching, and relate it to the curriculum quickly. Internet and social media are important sources for this kind of news.

At the same time, the conveyance of knowledge is no longer a one-way street, where the lecturer talks and the students listen. The sharing of knowledge is a two-way communication. The role of the lecturer is changing towards a guide or supervisor role. That makes video and two-way communication aids like for example Padlet important tools in the teaching.

- You are never too old to try something new, says Erik, who thinks it is exciting to keep up with the new opportunities. - And with experience from the media, we know that changes can come quickly and have great impact. A newspaper is no longer what it used to be, ends Erik.



## Did you know?

Erik has used Kahoot in a webinar! Not even Kahoot! had heard about such a creative use.



# Blog – a Tool for Learning and Assessment

*If you want to change the students' focus in your course, try changing the way you assess them. Using blog for both summative assessment and required student work has changed how the students orientate in the digital world and made them take a stand and formulate their own views publically.*

## The individual blogs



June Breivik used blog with a class of executive master students taking a program in school leadership. Each student had to create his or her own blog and make it public. Four articles were part of the assessment, and the students got feedback along the way. The students found it challenging to write in public. However, the student feedback after a frustrating journey showed that they had indeed been learning. "I now see how a blog can be a useful tool for learning and reflection", one student says. Another student reflects on "how the sharing of ideas and knowledge enhances learning". "I now see how I can utilize digital tools in my own teaching", yet another student says.

## The class blog

Sigrid Røyseng has used blog in a course in management of galleries and museums for several semesters. Her students are obliged to write two blog posts and comment on two others during the semester. She has developed sets of criteria for both.

The benefit of the blog are twofold. Sigrid emphasizes that writing your own blog post forces you take a stand and to make your own voice heard, not just repeating what is said by the text book authors. The open blog is public and read by people working in the gallery and museum business, which is a way for the students to get their work acknowledged by potential employers.





# Blending Teaching Methods for Executive Students

*Based on the experiences and outcomes from 16 pilots, the Executive Bachelor unit launched three new teaching concepts using digital technology in a varying degree in 2015. The concepts aim at ensuring both high and consistent quality across all courses in Executive Bachelor. Two pilots in particular were important for the development of the three concepts.*

## Podcasts: Listen and learn

All online courses at BI have study guides to help students learn. In the guide, the lecturer addresses important issues in the course syllabus, and offer context and structure for the students. To increase flexibility for the students, four study guides were published as audio podcasts in 2014. The study guides were published in the course rooms at itslearning. Each study guide has audio files varying between 3 and 10 minutes in length based on the different topics.

The podcasts receive very good response from the students. They are used often, and to date the audio files for the course Bedriften/The Firm has been listened to more than 40.000 times.

Due to the success, additional 16 study guides have been recorded as audio podcasts. The podcasts are published on Podbean - an online service where BI has its own channel - and Learninglab has been equipped with an audio recorder for podcasts.

## Getting started as an online student

A well known challenge in online courses is to engage the students in the course room at itslearning. An international online learning expert, Professor Gilly Salmon, has developed a 5-stage model with suggestions for activities to support new online learners getting warmed up and ready to participate in online learning activities. In a pilot in health management at BI, the online teachers and administration collaborated to develop a BI-model to do just that. The teacher motivated the students to do low-key tasks every other day for two weeks: e.g. presenting themselves online, watching a video from the Library, and sharing useful webpages in health management.

In these two weeks, the online teachers experienced high participation from day one. The feedback from students was positive, they felt they received good support and were motivated to be active participants in the course. The activity on itslearning remained high through the study year, and the administration experienced additional signups for the course.

A simplified version of this model is now standard on all online courses at the Executive Bachelor.



# Three Blended Learning Concepts

## From pilots to implementation

Due to the success of several of the pilots, the Executive Bachelor unit was supported by BI's top management in implementing the results in 2015.

Working together with faculty staff, drawing on experiences from the pilots, previous course evaluations, and research, three different concepts were developed.

The concepts describe what the student can expect, and what is expected from the lecturer. All courses within the Executive Bachelor portfolio are now categorized within one of the three models. This will ensure consistent quality across all courses.

## Online courses

In an online course, all teaching and learning activities are online. You don't need to come to class. If seminars are offered at campus, they should be used for motivation, reflection, study skills and preparation for examinations.

## Blended learning courses

In a blended course you need to come to class - as well as participate in activities online. The class and the online activities are planned to complement each other and are to be aligned.

## Campus based courses

In a class-based course you will need to come to class. Online activities are supplement to other activities, and the online resources are mainly used for preparing for class and for after class reflection.



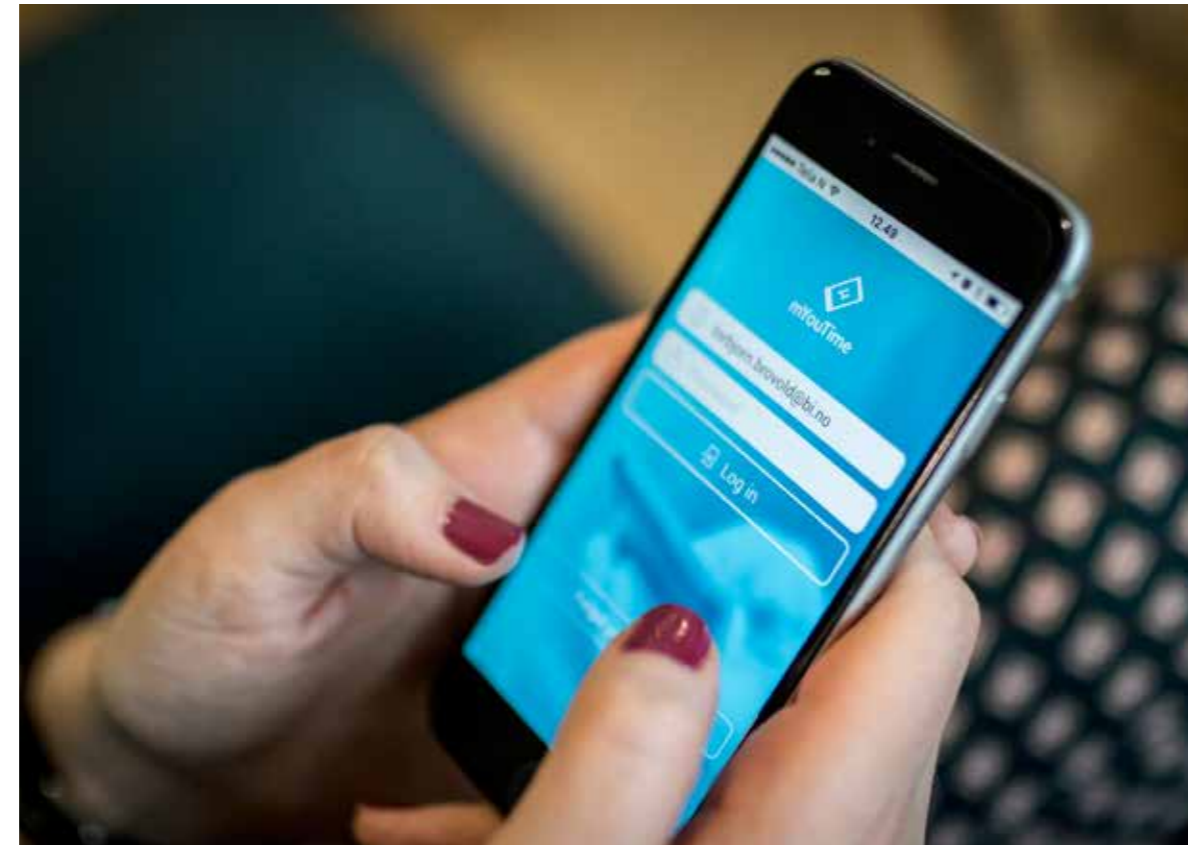
# Learn Mobile – Shop Micro Lectures Just in Time

Two ways of delivering small learning packages to students via the mobile phone has been piloted at BI Banking and Insurance. Micro lectures on mYou-Time is a supplement to class lectures. With the online service Goruu everyone can self-enroll, pay and learn when in need for knowledge.

With mYouTime the lecturer creates a small set of slides with text, photos, videos and a quiz. The set is then distributed to the mobile phones of the enrolled students.

The limitation of space to present the content forces the lecturer to focus on the most important part of the learning object. It also lowers the threshold for part-time students to engage with the content, since they know that it will not take long to go through a new micro lecture online. For the part-time students the micro lectures on the mobile help them access the course content more frequently and makes a bridge between lectures.

With Goruu, BI Banking and Insurance reaches out to a group of people who would otherwise not come to a business school. Small online courses are created and made available on the Goruu portal. Employees in the bank and insurance business may find the knowledge they need for their job. With no delay, they can self-enroll, pay by credit card and learn whenever they need to. The price for the courses can be as little as a few NOK per item, targeting new types of users. Gamification elements keep the participants motivated and makes learning fun.



### Did you know?

Microlearning can be understood as small bits of highly focused learning content that can be processed by anyone in a small amount of time.

# Get Started!



### Did you know?

You can read about all the pilot projects online, visit [bit.ly/BIpilots](http://bit.ly/BIpilots)

### Get started!

Do you want to try any of the ideas or tools that other faculty staff have tried at BI? Please contact LearningLab: 46410010 – choice 3. [LL-support@bi.no](mailto:LL-support@bi.no) or drop-by at the centre in A4i in Nydalen between 9 and 15 on weekdays.

**BI2020**



[bi.edu/bi2020](http://bi.edu/bi2020)