



Cost-Benefit Analysis of MOOC Provision

Sustainability Report for Linnaeus University's MOOC: Fantastic Fiction and where to find it



www.moonliteproject.eu

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2. Introduction



The primary purpose for Linnaeus university to participate in the Moonlite project is twofold: To increase the visibility of MOOC for academic education at the university and to test MOOCs in pilot studies, aiming at a more efficient use of teaching resources. In addition, the collaboration with European partners offers learning opportunities and new ways of thinking online education. The purpose of this tool is to allow for a triple-bottom line cost-benefit analysis to be done on the MOOC: *Fantastic fiction and where to find it* developed at the Department of Film and Literature.

Linnaeus University (LNU) is the fifth largest university in Sweden (UKÄ 2017: 19). Situated in the southern part of Sweden and with a nationwide recruitment area, the development and deployment of online education has been in focus for many years. One of the university's goals, stated in the mission document *A journey into the future. Vision and strategy 2015–2020*, specifically highlights the need for excellent online teaching: “to further develop learning environment and meeting environments, both physical and digital, in order to promote creativity and good pedagogy” (LNU 2015: 10).

LNU take an active lead in the integration of newly arrived migrants (2nd mission). The appointed Integration Network coordinates and offers a variety of support and integration measures. However, online education is not amongst them, because the University's focus is on integrating the migrants into campus education, in order to promote and intensify contact with Swedish society.

Despite the many efforts to create a stimulating environment for online courses, the concept of MOOCs has not prevailed at Linnaeus university nor in other Swedish Universities in general (UKÄ 2016: 6). For LNU, this might have different reasons. When the former Rector Stephen Hwang announced in 2014 that the development of Moocs should be a goal for the near future, it took time to get a ready-made university-wide structure and organization in place to accompany and promote the development. During the project period the MOONLITE team generated a lot of interest in the project, but faced also concerns and a lack of awareness regarding MOOCs as a tool for learning. Significantly there have been institutional barriers like the lack of decision-making boards and that all decision processes take a lot of time.

To date, the University has signed an agreement with Canvas. As a result, the university's first MOOC started in autumn 2017. The following analysis is based on the experience with the course: *Fantastic Fiction and where to find it*.



Measured by the objectives of the MOONLITE- project, with this specific MOOC the university is working in the field of encouraging the use of online learning to widen and improve the university's teaching for registered HEI students (1st mission).

3. Scope

Linnaeus University was established in 2010 by a merger of Växjö University and University of Kalmar. The university offers 180 degree programmes on undergraduate and graduate level and 1,300 single-subject courses. With 2,100 employees and more than 34,000 students the University strives to be a modern place for education with Småland as its base, but open to the entire world.

Mission and Vision

The University is named after Carl Linnaeus, and inspired by this scientist, entrepreneur, and pedagogue, who had his roots in the region Småland and worked internationally through his professional engagement. Challenging educations and prominent research in combination with being a societal driving force and global values are the cornerstones of the LNU's mission. The current strategy document, *A journey into the future. Vision and strategy 2015–2020* highlights four distinguished areas to work with:

- curious, creative, and skilled students and members of staff
- challenging educations with high societal relevance
- prominent scientific and artistic research which will benefit societal development
- commitment to societal challenges, innovations, and sustainable growth

Currently, the vision document is under revision. In ongoing discussions with staff a new vision and strategy document for the next 10 year period (2020-2030) will be in place by end of 2019. If the development of MOOCs will be a field for future investment is uncertain.

The CBA should be applied to a specific MOOC-course, developed by the Department of Film and Literature.

The Department in brief numbers:

- About 580 full-year students
- About 40 employees and 10 artistic consultants



- 6 professors
- 4 doctoral students
- Many courses, especially the online-summer courses attract many students, about 12-15 summer courses
- Students can take their exam in Bachelor- programmes Language, Culture and Communication (Språk, Kultur och Kommunikation) and Culture Leadership (Kulturledarprogrammet)
- ca 40 incoming students per semester, study single courses
- Not many outgoing students, some students from the SKK programme (2-3 per year)

According to an internal report, the strategic purpose of the MOOC: *Fantastic fiction and where to find it* can be linked to several factors (Piltz, Utvärderingsrapport 2018: 6, translation C.L.):

A MOOC

- raise interest and contribute to an international profiling.
- reach students that are difficult to reach otherwise, such as first generation graduates.
- make higher education available to more people; the web-based courses can serve as a kind of entrance point to higher education (UKÄ 2016: 6f).
- inspire and motivate for lifelong learning (UKÄ 2016: 6f).
- reach international students who lack the financial conditions for a traditional university education.
- offer the opportunity to register more students than a traditional campus course.
- potentially attract thousands of students to each course thus creating further attention and strengthening the department's profile and market-creating values.
- contribute to social, cultural and global values.
- open up for sustainable learning overall
- open up for internationalization at home.
- create opportunities for global, national, regional and local dialogues, in combination with opportunities to collaborate between researchers, across



subject boundaries, between universities and over language, national and cultural boundaries; that is, a number of democratic and global values and perspectives.

- contribute to social benefits and collaboration with the rest of society.
- create opportunities for developing digital learning, digital higher education and digital competence (UKÄ 2016: 6-8).

Key projects underway for the next few years

In February 2019 we were informed that Canvas.net will in future only feature MOOCs that are aimed at the professional development of teachers. As a result, the university has no platform available for future MOOCs and we are now looking for a new platform. The department of forestry and wood technology are planning open courses to extend their outreach and engage with professionals in the field. Two open courses are planned and soon ready to launch but the decision from Canvas has meant that a new platform will probably be needed.

A further development in the university's open education portfolio is a number of courses soon to be offered as part of the FOCUS project¹(Interreg South Baltic programme). A selection of short open courses in the fields of coastal tourism and marine biology will be offered by summer 2019 using the platform Eliademy². These courses have been jointly devised by teachers from Linnaeus University and the other four partners in the project (from Denmark, Lithuania and Poland).

All the open courses at LNU have been initiated by teachers and management at departmental level rather than being part of a strategic initiative from the top.

4. Purpose

This review is being undertaken to give a snapshot of the cost-benefit of the MOOC *Fantastic Fiction and where to find it*. It is in the first instance a one-off exercise which will only require reporting our current status in order to gain insights for discussion. In

¹https://lnu.se/globalassets/dokument---gemensamma/universitetsledningens-kansli/verksamhetsplanering/linneuniversitetet_arsredovisning_2017.pdf, p. 26.

²https://lnu.se/globalassets/dokument---gemensamma/universitetsledningens-kansli/verksamhetsplanering/linneuniversitetet_arsredovisning_2017.pdf, p. 18.



a longer perspective this will also be a useful tool for internal management and monitoring purposes.

4.1 Target Groups

LNU provides education, campus and online, to a wide range of students, both national and international. Following the order of the Swedish government, the University also strives for to broaden the recruitment of student and to attract new student groups.

The target group for the MOOC discussed are national and international students. The target group is not limited to a specific student group, everyone with an interest in fantasy literature is welcome to the course.

5. Background

Every change starts with a good idea. The beginnings of the MOOC: *Fantastic Fiction and where to find it* can be traced back to a group of dedicated teachers who are committed to make education accessible to a broad audience.

Thanks to the generous financial support of the Department of Film and Literature for making films, and above all allocating development time for the teachers, this project could be finalized. This group of teachers and the working atmosphere at the department symbolize the University's core values *curiosity, creativity, companionship and utility* in the best sense. Paving the path for MOOCs in Sweden in general and especially being a pioneer in this field for LNU the department took the following considerations into account when planning the MOOC.

One of the goals is new groups of learner getting interest for university studies and to raise awareness of the department's wide range of courses. Hence, well aware of the fact that successful marketing activities are very difficult to measure, this goal was not decisive for the decision to create a MOOC.

Instead, the main goal is social responsibility; making higher education accessible to all interested people, regardless of their social background or affiliation. Lifelong learning and free access to education are among the core tasks for Swedish



universities. The plan for Equal Rights and Opportunities for Students and Employees 2019³ sets out the direction for work at the university.

Furthermore, the Vice-Head of Department Maria Nilson mentions that supporting creative ideas that foster team building and the advancement of digital learning were also decisive in the decision making for developing a MOOC. As a positive side-effect, the development process of the MOOC also improves the quality of other courses, because the teachers' knowledge and enhanced competencies are beneficial for existing courses.

Some basic facts about the MOOC: Fantastic Fiction and where to find it:

- 2 iterations completed, 1 iteration on-going
- 1000 participants (first two iterations), on-going with 700 participants
- The minority of students are LNU students or students from other Swedish Universities. The majority of participants has been international students, with and without academic experience
- Course consists of 5 modules
- A feedback workshop with teachers and staff was held in December 2018.

Timeline for the production process

The planning of the MOOC began in 2015, and in March 2016 the plans were agreed with the Communications Department. From autumn 2016, the teaching team worked on the conception of the course, the first lectures and interviews with authors were filmed. Because of the University did not have a media production team at this time, an external film crew worked with the first films. In 2017, negotiations began with Canvas under the leadership of Dean Anders Åberg, Vice-Dean of Department Maria Nilson and Alastair Creelman, e-learning specialist. In spring 2017 the newly formed media production department received the order to support the Mooc as a pilot project. The communication department financed the films of lectures and other interviews with authors. More meetings between Canvas, the producers and the communication department took place. In September 2017, all course material was uploaded to the course platform. Canvas's own quality assurance accepted the course that was

³<https://lnu.se/globalassets/block---gemensamma/universitetsledningens-kansli/plan-for-lika...2019.pdf>.



launched for the first time in September 2017. Before the second round in spring 2018 additional meetings with the Communication Department took place to improve the marketing. During the production process 15 teachers worked with the MOOC. We can only roughly estimate the costs for course development and teaching, which to date are approximately 200,000 SEK. This does not include the films the communication department sponsored, the extra working hours the teachers shifted from other tasks or their spare time.

In December 2018 a feedback workshop was held with the teacher team, the management of the department, representatives from the communication department and other university stakeholders. The teachers confirmed that working with the MOOC improved their digital and didactic skills. Furthermore, they mentioned that the course development enabled more entrepreneurial approaches. Without given statistic validity the international popularity of the MOOC increased both the visibility of the involved teachers and the department (Piltz 2018: 13).

During the discussion some critical remarks about the production process were mentioned (Piltz 2018: 13):

- the strategic goals of the course need to be clarified
- the course's profile and market-creating values need to be further clarified and made visible
- a larger amount of participants is needed
- insufficient marketing and hence limited impact in press and social media
- Communication Department must be involved in the process at an earlier stage

In general, the participants stated, the MOOC has only caused a limited in-house interest at LNU.

6. Overall Goals

The main goal in launching the Department of Film and Literature's first MOOC was to promote its brand as well as to broaden student recruitment and to attract more international students. The second main goal was to extend knowledge about course development, and by this to learn why participants choose such courses and how to best present course content for a diverse student group.



6.1. *Business Goals*

For the MOOC, *Fantastic Fiction and where to find it* there were no pronounced business goals; except to increase the level of awareness of the institution and thus attract students' interest in other course offerings.

It was not intended to earn money with the course.

6.2. *Financial Goals*

As a public funded educational institution, it is not an objective for the university to earn money from the MOOC. The intention was rather that the MOOC should function as a marketing tool. However, no clearly measurable indicators in terms of x% increased interest and participants in courses, have been defined for the MOOC.

The main difficulty is that teachers are not marketing professionals. Therefore it should not be their task to deal with the course marketing in addition to designing and teaching a course. But since many different parts of the university are responsible for marketing, primarily the Communications Department, but also the faculty and department, and there is neither an overarching strategic communication plan for course and study program marketing or for MOOCs, the work remains with the teachers. This situation without clear areas of responsibility is not satisfactory and the lack of communication is addressed by both the teachers and the communication department (Piltz 2018: 13). Hence, for future projects it would be a better strategy to set up a communication plan with concrete measurable objectives, e.g. number of reached learners, right from the beginning. The Communication Department should be responsible for promptly and appropriately communicating the courses, of course in collaboration with teachers and department.

The number of learners speak for the success of the MOOC from 1000 in the first two iterations the number increased to 700 in the third iteration. Since the University's Communication Department did no further advertising, except for an announcement on the homepage when the first course was starting, listing in the Canvas.net catalogue and word-of-mouth marketing were the only strategies for promoting the course.

6.3. *Social Goals: Promoting Social responsibility*

The Department of Film and Literature offers a wide range of courses, mostly for Swedish students and incoming students. Specifically with the MOOC the Department wanted to achieve the following goals:

- *Students given access to education*



- *Licensing of content: open access*

6.4. Environmental Goals

The department did not explicitly aim for environmental objectives for the MOOC development. However, environmental goals are a present discussion topic and development area at the university. The expansion of online education not only provides a way to address new student groups but also to reduce travel expenses. Therefore, this is included as a target:

- Energy Intensity: reduce travel

7. Management Approach and Activities

7.1. Social Goal

Approach

"Our creative knowledge environment is permeated by global values – internationalisation, equal opportunity, and sustainable development – in research, education, and administration. Linnaeus University promotes an international environment where people from different backgrounds with different experiences can meet, and where all students and members of staff subscribe to the notion of equal opportunity and sustainable development. All our activities are to be carried out in a way that promotes equality of opportunity, economic and social well-being, justice, and a good working environment. Working methods at the university, both internal and external, are to be characterised by respect and democracy"

(Vision and strategy: A creative knowledge environment in the spirit of Linnaeus 2015-2020)

The Swedish Act for Higher education (1992:1443) states in chapter 5 the university's responsibility for sustainability, equality and to widen recruitment, which has been substantiated in LNU's vision document. The university's Executive Office coordinates the recruitment strategically, but it is up to the departments to actively work with student recruitment⁴. The Vice-Chancellor has an overall responsibility for conducting targeted

⁴ <https://lnu.se/globalassets/ny-katalog/plan-for-equal-rights-and-opportunities-2019.pdf>



work aimed at preventing discrimination and the active promotion of equal rights and opportunities. The operational responsibility is divided between deans, administrative directors, heads of department, the University Director, Head Librarian and office heads, according to delegation procedure. The operational responsibility involves planning, implementing and following up the measures in the Plan for Equal Rights and Opportunities, and conducting active preventive and promotional work in accordance with the provisions of the Discrimination Act. The Committee for a Sustainable Future is an advisory body to the Vice-Chancellor in matters concerning equal rights and opportunities. The Coordinator for Equal Rights coordinates and is responsible for documenting active measures as an education provider, and for managing the work with the Plan for Equal Rights and Opportunities.

Several support functions are in place. Students with disabilities can apply for, e.g.,

- Adapted/alternative examination.
- Note taking during lectures.
- Getting a mentor for personal support during your studies.
- Talking books/large-print/braille. It is possible to have course literature recorded as a talking book or produced in large-print or braille. This is done by the Swedish Agency for Accessible Media (MTM).
- Interpreter. In case the students are in need of a sign language or writing interpreter during their studies they are entitled to this.

Every faculty employs study counsellors to assist students in all study-related issues. Curators and medically-trained staff provide help in psycho-social and health issues.

The Communication Department conduct marketing activities for specific courses or study programs.

7.2. Activities

Students given access to education

At the Department of Film and Literature a conscious effort is made to recruit student groups with a diverse socio-economic background. One example are summer courses with popular topics like Game of Thrones or Harry Potter which attract a broader public. The student's feedback answers indicate that this is also the case with the MOOC:

"I can't afford to enroll in an English Literature degree, but I am passionate about Literature. I'm thrilled to be able to take this course for free, it's very empowering"
(participant VT 2018, Piltz 2018: 12)



“I am a fantasy writer myself and this course is helping me to learn more about fantasy literature” (participant VT 2018, Piltz 2018: 30)

“Next year I am going to study a Master’s degree in English Literature, and I intend to do my master dissertation on Young Adult Fantasy Literature, so this course has helped me to contextualize the genre” (participant VT 2018, Piltz 2018: 30)

“I am always eager to learn and this is really good and interesting way to do so” (participant HT2017, Piltz 2018: 26)

In order to get more specific input regarding the question why people choose this course, a questionnaire was conducted in March 2019. Unfortunately, due to the flexible course structure most participants already had finished the course and only 8 out of 700 answered the questions:

8. Questions

8.1. What are your reasons for enrolling in our MOOC?

8 answers

Curiosity, continued learning

To increase my knowledge and a decent exposure to the outside world

It was offered as an option for my GA through a cooperation between my school and yours.

For improving the knowledge and gaining the skill

Interest in the subject. An opportunity the genre in more depth than simply through reading for enjoyment.

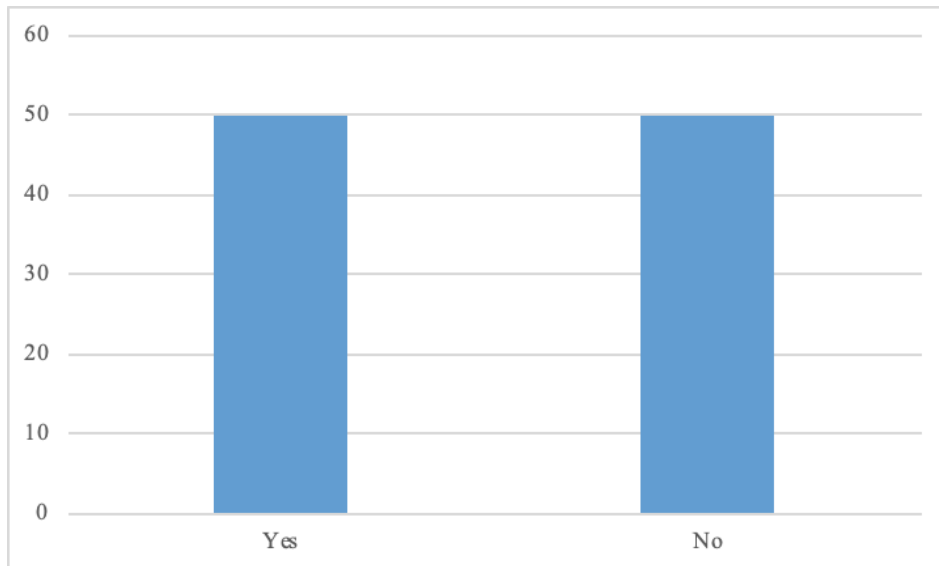
Personal enjoyment. Interested in the field of study.

I wanted to get more from the things I read

I teach English in college, so I like taking literature courses

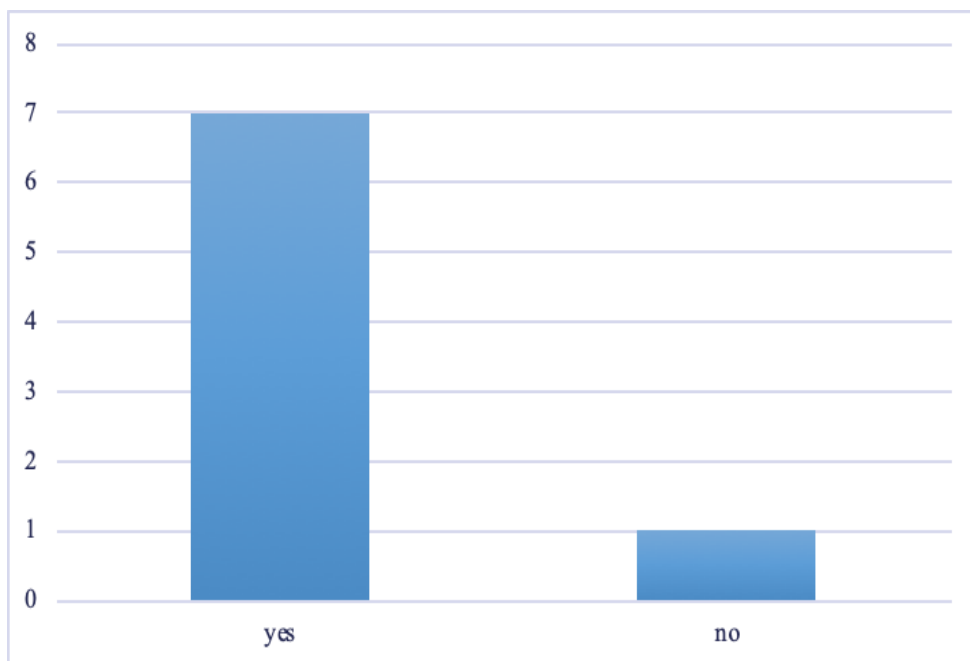
8.2. *Where you live, do all have an equal access to educational opportunities?*

8 answers



8.3. *Regarding educational opportunities, have you had the opportunity to access higher education?*

8 answers





Indicators

- Number of international students
- Number of students from different socio-economic background
- Number of students coming from developing countries, newly industrialized countries and BRIC countries

Licensing of content: open access

During the development of the MOOC, it was ensured that only online scientific articles were selected as course literature. All lectures are available as films and in a text-based format that can be downloaded. All material is cc-licensed according to LNU's regulations (CC BY-SA-NC).

9. Environmental Goals

9.1. Approach

The question of sustainability has been discussed widely over the last years. As an organization Linnaeus University has to work intensively to implement the UN Sustainability Development Goals in the daily work process, to educate students to become conscious and competent citizens and to accompany the development towards sustainability through innovative research. The university is well known for a large number of innovative approaches and study programs e.g. tourism & sustainability, design + change, marine biology, sustainable wood construction. A major contribution is made by the humanities. The world's first UNESCO Chair in Heritage Futures Prof. Cornelius Holtorf works with questions such as how the future is being shaped through cultural and natural heritage legislation and management, the 1972 World Heritage Convention, creative reconstructions of lost heritage, markers about final repositories of nuclear waste, or carefully designed messages sent into outer space.

Another example for commitment to sustainability is the interdisciplinary research group, Transmediating the Anthropocene, which applies methodological frameworks developed in the humanities on questions (how scientific material into transformed into aesthetic products) that are not normally investigated from this point of view. The aim of the project is also to stimulate academic teaching and a close cooperation with schools, educational institutions and local authorities.

According to LNU's vision and strategy documents all students and members of staff are carriers of ideas on sustainable development and all working areas: Challenging



programmes, prominent research, societal driving force, and global values have clear relevance for the university's sustainable development.⁵

On behalf of Vice-Chancellor Peter Aronsson, the Committee for Sustainable Development headed by Pro-Vice-Chancellor Catherine Legrand leads the strategic work. On the strategic level different groups were formed e.g. working with equal rights and opportunities, sustainable development.

The deans of faculties are responsible for planning, implementing and following up their own activities on the basis of the university's common sustainability goals as well as the significant environmental aspects of the business and entering them in the faculty/department's operational plan. A policy for sustainable development (passed 2015) and an action plan (2016-2018, currently under revision) set out the main goals which are divided into eight different areas:

1. Education
2. Research
3. Collaboration
4. Student participation
5. Skills development
6. Travels and transports
7. Use of resources
8. Risk management

These areas reflect both the environmental aspects which have been judged significant in Linnaeus University's environmental report and the ambitions expressed in the policy for sustainable development. Some areas cover a number of sustainability goals while others comprise several sub-areas. The area use of resources, for instance, comprises use of energy for facilities and equipment (heating, cooling, electricity, etc.), garbage disposal and procurement/purchase (according to action plan 2016-2018, page 2-3). The action plan is followed up on annual basis. In 2018 the University has been certified according to the ISO 14001:2015 standard, which means that the university has an environmental management system in place in all faculties: Education and research within arts and humanities, health and life sciences, the social sciences, the natural sciences, technology, and business and economics.⁶

⁵ Självvärdering - hållbar utveckling i utbildningen.pdf; Miljöledningsrapport 2018 Linnéuniversitetet[1].pdf;

⁶ UKÄ Hållbar utveckling Beslut med bilaga.pdf; Extern Revisionsrapport Miljöcertifiering sept 2018.pdf



According to Johan Älvgren, coordinator for the operational work, the certification is an important first step towards a sustainable university. In an interview he mentions that during the accreditation process he met the heads of all institutions to inform, to set up internal work plans and to evaluate the work with the 8 goals. This led to a greater awareness of our responsibility as an university. The observed increased commitment of colleagues and students to environmental issues might be an expression of societal development, but leaves its mark on our daily work which is very positive. Älvgren reports on the diverse continuing in-service-trainings for colleagues, e.g. to become an environmental auditor or the guidelines for sustainable office work and tips for teaching.

Especially important is the course "Learning for sustainable development" (3 ECTS), which has been taught since 2014. The course brings together teachers from all disciplines and provides an introduction and a basic understanding of the topic sustainable development. The course also provides inspiration and tools to integrate sustainable development into teaching in each subject.

Regarding the task of *Minimizing environmental costs* the the goal is to decrease its total carbon dioxide emissions from travel compared with 2015. However, the goal formulation in the action plan is limited to chance /make an impact on the behavior of colleagues, e.g. to choose environmentally friendly online meetings instead of business travel and using train and bicycle for the daily commute to work (*page 7*). Expanding the possibilities for online education is not mentioned as a measure to minimize environmental costs, probably because of the lack of awareness at the time the strategy document was written.

9.1. Activities

- Teachers (3) from Department of Film and Literature participated in the course "Learning for sustainable development" and function now as multipliers.
- The increasing number of online-meetings, using ZOOM as a tool.
- The development of online courses attracting many students also from abroad.
- The development of a MOOC.
- Colleagues make the active choice of using trains for business travel, and flight only if there is no other way.
- The working group *Transmediating the Antropocene* has five members from the department (1 professor, 2 postdoc, 2 doctoral students), representing the institution.
- In 2019, a collaborative work between the Antropocen research group and the Research center for children, literature, language and learning will result in an



anthology aimed at teachers and teacher students dealing with ecocritical issues and those of the Anthropocene. Nine colleagues are part of this project.

- The institution offers specific courses e.g. literature and ecocriticism.

One of the benefits doing a cost-benefit-analysis is to raise awareness of important questions that would otherwise have been overseen because of the staff having become blind to shortcomings in the organisational process.

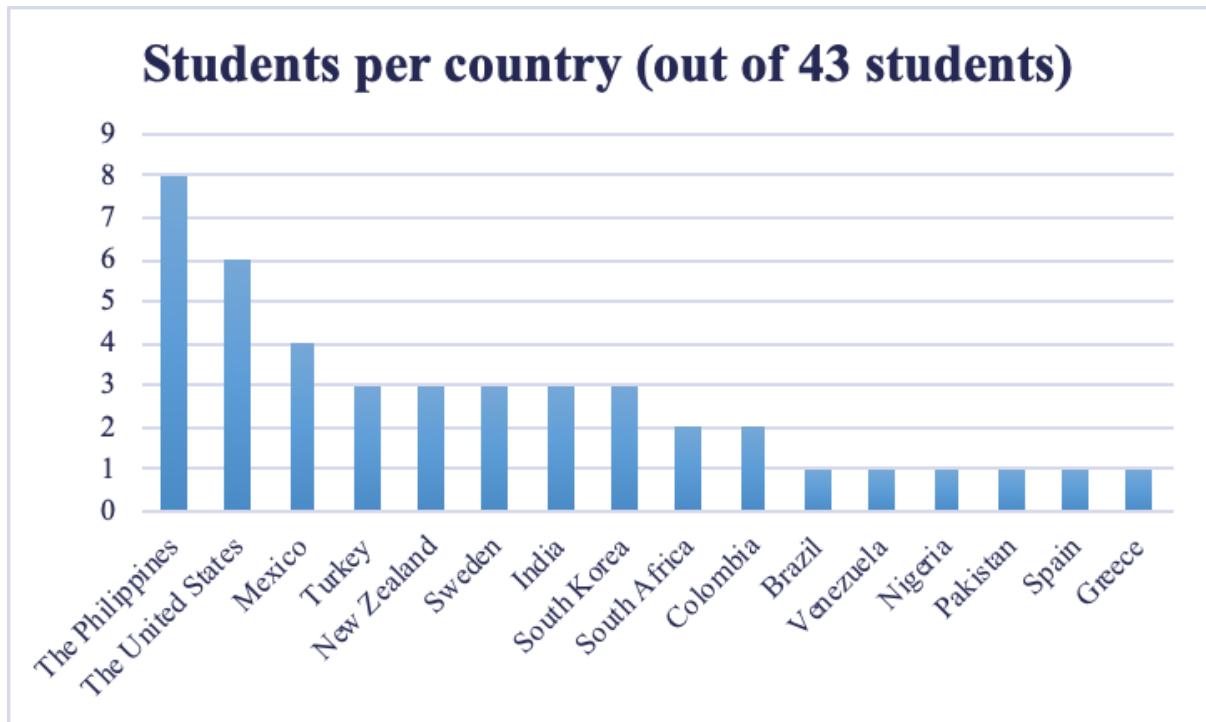
To date the university's travel agency keeps track of the energy/CO₂ emissions by business trips⁷. However, this is only an approximate estimate because not all colleagues use the travel agency's service. According to Environmental report 2018 the university's emission of Co₂ increased due to more business travel, especially long term flight (Miljöledningsrapport 2018).

So far, there is no data related to courses or incoming students. This kind of calculation here, even if it is a rough estimation, has been undertaken for the first time. The measurement process needs to be refined and scaled up to a larger number of students in order to produce statistically relevant statements.

Yet, already this pilot gives an impression of how energy and fossil fuels could be saved effectively promoting online courses instead of physical mobility.

For this pilot we used information about the country of origin of the 700 participants of the ongoing MOOC (start November to May). We found out data for 40 students and estimated carbon footprints from hypothetical flights for this students (economy class, roundtrip).

⁷ Miljöledningsrapport 2018 Linnéuniversitetet.pdf



According to the organization MyClimate the maximum amount of CO₂ a person should produce per year in order to halt the climate change is: 0.600 t CO₂ (co2.myclimate.org). The flight calculator determines the quantity of CO₂ emissions that an aeroplane gives off per passenger for a given flight distance. The calculation is based on average consumption data for typical aeroplanes and the calculation also takes into account whether the passenger flies economy, first class or business. The Swedish students are not included in the calculation.⁸

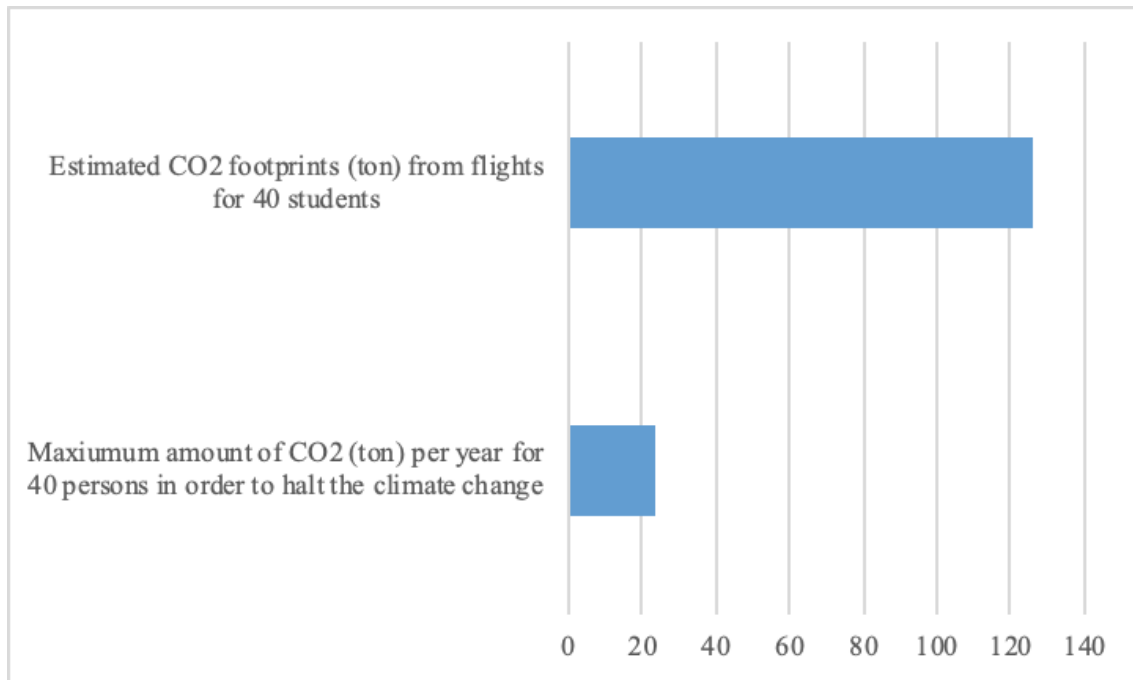
⁸ ICAO. (2014). ICAO Carbon Emissions Calculator Methodology. Available at: www.icao.int[2019-03-21]

Kamb, A., & Larsson, J. (2019). Climate footprint from Swedish residents' air travel. Gothenburg: Chalmers. Available at: <https://research.chalmers.se/publication/508693>[2019-03-21]

MyClimate (2019). Available at: https://co2.myclimate.org/en/offset_further_emissions[2019-03-21]

Country	Flight to Sweden, airport nearby Växjö	Destination	Students	CO ₂ amount in t
Philippines	Copenhagen	19.600	8	30.0
United States	Copenhagen	12.400	6	13.8
Mexico	Copenhagen	19.100	4	14.5
Turkey	Copenhagen	4.000	3	2.4
New Zealand	Copenhagen	35.100	3	22.3
India	Copenhagen	11.700	3	6.5
South Korea	Copenhagen	15.900	3	8.9
South Africa	Copenhagen	20.000	2	7.6
Brazil	Copenhagen	20.800	1	4.0
Venezuela	Copenhagen	17.100	1	3.2
Nigeria	Copenhagen	11.100	1	2.1
Pakistan	Copenhagen	10.300	1	1.9
Spain	Copenhagen	3.500	1	0.712
Greece	Copenhagen	4.300	1	0.852

According to the flight calculation the total emissions from the air-travel of 40 students should have been around 126.4 ton CO₂.



Indicators

- CO2 emission for every MOOC student
- Environmental footprint of each MOOC participant

10. Impact of our MOOCs for Employability & Social Inclusion

The number of students and their places of residence participating in the MOOC *Fantastic Fiction and where to find it*, leads to the conclusion that the recruitment of international students has succeeded. In particular, the number of students from newly industrialized and BRIC countries are indicators of the MOOC's social impact. Furthermore, some participants testify that in their home countries not all students gain equal chances for education. Due to the lack of specific measures it is unclear whether the student's recruitment also has succeeded in attracting more students from different socioeconomic backgrounds. However, the student's feedback (p.15) indicates that this is the case. The MOOC thus contributes both to an individual educational claim and to a professional qualification.

The MOOC provides specific knowledge about fantasy fiction. For the learners, this also means that they train their language skills in English in collaboration with other learners and, because parts of the course content mediate Swedish literature and research, also broaden their intercultural and cultural knowledge. Because the entire course material is open-access and planned with respect to learners with special needs, it also meets the inclusiveness criterion. Working with the CBA has also made us aware that the MOOC has reduced travel costs and has made a positive impact for environmental protection.

Another side effect is that the colleagues became aware of that certain goals, e.g. equal opportunities for education as core values of the university were also considered in the planning of the MOOC. A concrete goal formulation and evaluation were only insufficiently considered and could be improved.

[1]Source: <https://www.e-education.psu.edu/ba850/node/639>

[2]https://www.ku.lt/focus/#about_project

[3]<http://focusproject.eliademy.com>

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This report presents a cost-benefit analysis of Linnaeus University's MOOC: Fantastic Fiction and where to find it, using triple-bottom line reporting to understand the environmental, social and financial impacts of the programme. The report pilots a methodology for such analysis being developed and tested within the framework of the MOONLITE project.

www.moonliteproject.eu

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