

# Business models of MOOCs in 2017

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AULA, 2017, Vol. 25, No. 1-2: 48-54

**Abstract:** The main objective of Massive Open Online Courses (MOOCs) is to provide educational content of high quality to a large number of participants via the Internet; to enable the mutual interaction through the providing platform, and to allow those participants to study the course independently in time. The educational content in every MOOC is provided free of charge. The increasing influence of MOOCs within adult education (higher education) brings to this area more educational organizations with different legal statuses and different types of commercial focus. Within the production of MOOCs, other additional services are provided to bring revenue to cover the costs of MOOC to the provider. Existing MOOC platforms are still at an early stage of development. Universities, non-profit organizations, and also business companies all around the world adapt different types of business models to provide MOOCs to the general public. This paper focuses on the existing types of business models of the world's four largest providers of MOOCs in the USA and Europe. Based on the current research about the business models of the worldwide leading MOOC platforms, this paper presents a list of possible revenues from MOOC platforms, along with recommendations for the implementation of the business model of MOOCs in the Czech Republic.

## Introduction

Massive Online Open Courses, or MOOCs, represent a modern concept for online education. The main idea is to allow quality education, free of charge, anytime and for everyone.

MOOCs are offered mainly by universities all around the world, in high quality, and free of charge to a large number of participants via the internet. These participants can choose for themselves the time of their own studies. The MOOC platform, at the same time, allows participants to interact with each other. These massive open online educational services are provided free of charge. However, the creation, provision, and even reselling of MOOCs bring costs which need to be covered. That's why business models of MOOCs have been under discussion for several years. The influence of MOOCs in adult education is growing; new educational and other institutions with different types of financial management are interested in creating, providing, and reselling MOOCs. MOOC providers offer other commercial services associated with courses, use grant options, and use other options to cover the costs.

The model that grows the fastest, as we have seen in recent years on the Internet, is when content is free and you monetize various things connected with it (Hollands, Tirthali 2014). Freemium business models depend on the money that is generated from additional services to be paid for additions to the basic product – the service offered for free (Jansen, Obrist 2017).

Based on recent Business Models of MOOC research, this paper focuses on the possible revenue of MOOC (Massive Open Online Courses) platforms. The aim of this paper is to describe possibilities of revenue from MOOC platforms in the US and Europe, and recommend their implementation in the Czech system of higher education.

## Methods

The final list of possible revenues of MOOC producers in this paper is based on current research in MOOC Business Models. This review study lists the revenues of the four MOOC platforms, the survey includes the US (international – Coursera, Udacity, edX) and European (iversity) platforms. The main focus is on the composition of their revenue, sources of research data are available on the websites of the platforms mentioned above.

Although the implementation of possible business models differs in the US and Europe, these differences bring more challenges for the future MOOC platforms, especially in Europe. Venture capital financing takes place mainly in the US educational system. Public authority funding is rather more common in Europe, either by the government (e.g. by ministries for science and/or education) or by academia itself (Fischer, Dreisiebner., Franken., Ebner, Kopp, Köhler 2017).

The outcome of this study is a list of possible revenues from MOOCs, based on the most common business models for MOOCs in the US and Europe, and recommendations for possible revenues from MOOC platforms in the Czech education system. One of the possible outputs of this study can also be that not all of the income opportunities identified in this paper may be implemented in the Czech education system.

## Fragmentation of the education providing process

More stakeholders, organizations, and individuals can be involved in the process of creating and providing MOOCs. Each stage of the process can be created or provided by a different organization. This leads to variability in MOOC development, and to the fragmentation of the education providing process, it can also bring new ideas for paid additional services, and also help to ensure a sustainable business model.

As an increasing number of stakeholders get involved in the creation of MOOCs, there might be a trend of greater diversification of the services around and beyond the MOOC itself (Fischer, Dreisiebner, Franken, Ebner, Kopp, Köhler 2014). MOOC providers in the USA are experimenting with different sources of income, including proctored exams leading to special certificates and credits, fees for individual tutoring, and selling contact data of successful attendees to enterprises (Jansen, Obrist 2017).

## Business model

The basic concept of creating, transferring, and gaining value in an organization tells us what kind of business model the organization chooses. Al-Debei, El-Haddadeh, and Avison (2008) indicate a business model with the following three values: the value of architecture (organizational infrastructure and technology that moves products, services and information), financial value (total cost of ownership, income) and the value of the external network. A business model is a theoretical concept for commercial companies (Al-Debei, M. Mutaz, Avison 2010). For MOOC providers, it is important to find or create a suitable business model for nonprofits, government, or other types of organization.

## Worldwide providers of MOOCs

Coursera provides a large number of free courses, and holds a partnership with a large number of universities. Most MOOCs are offered individually. Ten educational programs based on connected MOOCs on Coursera are integrated in study programs and academic courses. The earnings structure of Coursera is mainly oriented on other commercial services associated with the courses. Udacity uses a Freemium model. Part of the course content is available free of charge, full access to course materials and certification is based upon a subscription fee. Udacity partners with the Georgia Institute of Technology and AT & T, and focuses on the IT market. The corporate oriented strategy uses MOOCs as the gap between working skills, education, and employment. The revenue streams of Udacity are based on course charges and earnings for its technologies. edX is a non-profit MOOC provider; it was founded and is partially governed by MIT and Harvard. Its vision is to provide open education for everyone, all around the world. Providing the Open edX (open-source for MOOCs) is the world's most important contributor to the development and expansion of MOOCs. iversity integrates MOOCs into academic blended learning in co-operation with universities, and also focuses on chargeable courses.

## Revenue structure of Coursera

The establishment of Coursera was funded by capital investors. The total equity of funding as of May 2017 is USD 146.1 million, in 6 rounds of funding, from 13 investors. The source of revenue from course participants is for the beginning of sale of verified certificates. A further source of income from course participants are the fee-based course options (verified credentials for completion), and the fees to earn grades and assessments. Some courses have the option to pay a fee to join the Signature Track, which includes identity verification, verified certificates, and sharable course records. Another type of earnings is the monthly subscription model for

Specializations, which allows the user to purchase access to all content in a Specialization on a month-by-month or annual basis. These sources of revenue come from the participants of courses. In addition to funding and commercial services associated with the courses, there are other new services that generate profits: the Coursera for Business program (additional revenues from the corporate e-learning market) and the Coursera for Governments & Nonprofits program (skills-based training for constituents in government and NGOs). On the other hand, the company offers financial aid to people who demonstrate a need (Coursera Refugees Program). This information was obtained through a detailed exploration of the service offer on the company's website.

## **Revenue structure of Udacity**

Udacity is funded by venture capital firms, in addition to USD 200,000 of personal money. Further revenue comes from the participants of the courses. This includes Freemium courses and paid self-paced courses. Other earnings come from tuition fees for 3 credit hour courses, and additional proctored 75-minute final exams for a fee of USD 89. Since 2014, a three-year master's degree (called nanodegree) in computer science that can be earned entirely online for USD 7,000 has been offered. The company increased the number of enrolments by offering a refund of 50 % of the total charges for those who successfully complete their course within 12 months. Another source of revenue comes from Corporate Training. Udacity offers talents to hire for free. This information was obtained through a detailed exploration of the service offer on the company's website.

## **Revenue structure of edX**

The largest volume is represented by free courses with chargeable additional services: Verified Certificate, Earn Credit course, or Audit. Another part of the profit brings Paid Professional education, Professional Certificates, XSeries (series of 5 – 7 chargeable courses, USD 49 per course), and the MicroMasters Certificate (credit – eligible, may be applied to accelerate a Master's Degree). edX is empowering research on pedagogy; the platform conducts experiments and exploration of using new tools and techniques for learning. This information was obtained through a detailed exploration of the service offer on the company's website.

## **Revenue structure of iversity**

Iversity funding is based on venture capital; the company has raised more than € 5 million in venture capital. The revenue consists of the sale of verified certificates of free MOOCs, the sale of the Pro – courses with a Statement of Participation. Iversity generates revenue through its Academy, which allows other organizations to sell courses online on this platform. The last

two items belong in the section iversity for Business. This information was obtained through a detailed exploration of the service offer on the company's website.

**Table 1:** Revenue options of MOOC platform start-up

Startup funding	Private investors (venture, equity, personal money) Public investors (foundations, subsidies) Grants
Chargeable additional services associated with free MOOCs	Verified certificates Fee-based course options Verified credentials for completion Fees to earn grades and assessment Identity verification Shareable course records Proctored final exams
Chargeable MOOCs	Monthly subscription model Tuition fees Freemium courses Credit-eligible courses Paid self-paced courses University Degree program (NanoDegree, MicroMaster) Work toward Verified Certificate Courses in series leading to Certificates
MOOCs for Business companies	Corporate e-learning Program for Governments & Nonprofits Corporate Training Professional Education courses Licensing MOOC for internal use at enterprises or universities Recruiting based on tracking students' activities and study results
Other	Contributions from sponsors Advertising revenue Fees for the creation and deployment of MOOCs Link to partner bookstores

Source: Own

## Results

The revenue structure reflects the overall focus of the platform, its specialization on the target group, and its position on the market. All of the platform start-ups were backed by initial capital. The business model of the platforms reflects their market specialization. They gradually add additional products to the basic product package, and extend their reach to other target groups over time. All of the platforms under review currently provide free or partially free MOOCs with additional chargeable services, paid MOOCs, and Business oriented MOOCs for companies, which are able to generate steady income. These revenues are summarized in Table 1.

## Conclusion

The emergence of a new platform should be laid on solid foundations and previous analyses. The establishing of a MOOC platform provider needs a reasonable amount of private capital (equity, venture) or public capital (foundations, grants), which is mainly used for the establishment of the technical infrastructure, partnership with universities, and the market position. The MOOC provider prepares a basic product package according to the desired market position. Those basic products should make a profit (e.g. chargeable verified certificates). Further development and targeting for other customers follow the successful introduction of the core products.

The system of primary, secondary, and higher education in Czech Republic is governed by the Ministry of Education, and funded by public sources. Establishing and linking the MOOC platform to Czech academic education presumes the involvement of the state organizations in the preparation of this platform. Initial sources of funding may therefore come from public finances, such as subsidies from the state budget or EU grants. An important point for the Czech MOOC platform will be the choice of an appropriate market position, the partnership with universities, and the creation of a basic package of products. One of the issues remaining for further discussion is the issue of MOOCs in English and other languages in the Czech platform, and links with global platforms of MOOCs.

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