

with history majors. Nevertheless, I do understand that the former have every right to worry about each and every percent they get because that might later become the crucial factor that would decide whether they are admitted to Harvard or other prestigious university or not. This is just a downside of the ultimately healthy quest for top education, leadership and success. Does it mean, though, that liberal arts, which are quite specific, could be transformed into something different, definite and clear-cut, with some simple evaluation criteria? Would, for example, asking the students to name ten 17th-century Flemish artists in 30 seconds be a valid test? Perhaps. Yet the idea is to teach them to distinguish between etching and lithography, between painting and drawing, between blue-black and coal-black, and to be able to discuss art in a well-reasoned and coherent way. This is not an equation at all.

In any case, I hope that HSE and NES continue trying to bring up if not the Renaissance-style uomo universale but at least a broad-minded future elite that is capable of tolerating alternative opinions and points of view.

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Who Takes HSE Courses on Coursera? The Differences between Economics, Humanities and Math-Intensive Courses

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The rapid expansion of massive online open courses (MOOCs) has raised a number of questions about this new phenomenon. One of them is: what is MOOCs audience like? While there are some studies on who uses MOOCs, there is very little discussion whether the participants of MOOCs are a homogeneous body or rather a highly differentiated group. According to the classics B. Clark and T. Becher, higher education system includes a set of worlds defined by institutional and disciplinary differences. Since MOOCs participants don't necessarily belong to any institution, an institutional ground for differentiation doesn't seem to be relevant. But a disciplinary one might still be in place. Then one of the reasons to think that there are "small worlds" within the world of MOOCs users is the extreme disciplinary diversity of online courses available. Institutional research office at Higher School of Economics (HSE) has carried out a range of online surveys involving the students enrolled at HSE Coursera courses, and has compared the participants of the courses on economics, social sciences & humanities, and on math & data analysis.

We have collected data about the audience of 17 courses that took place in 2014–2015. A questionnaire was sent to each person who had signed up for any of these courses. We have received 43,151 responses. All the courses were divided into three groups: 1) economics, 2) social sciences/humanities, and 3) math-intensive courses. The first group (N=16,548, 38% of the sample) included: Institutional Economics, Financial Markets and Institutions, Industrial Organization, Microeconomics Principles, Fundamentals of Corporate Finance, Microeconomics and Public Economics. Comparative Politics, History and Theory of Media, Economics for Non-economists, Philosophy of Culture, History of Economic Thought, and Understanding Russians were matched to the second group (N=14,594, 34% of the sample). "Math-intensive" courses (N=12,009, 28% of the sample) are represented by Linear Algebra, Game Theory, Econometrics, and Core Concepts in Data analysis. We compared the audiences of these three groups with regard to their socio-demographic and educational background, and their motivation to participate in the course.

According to our data, male and female MOOCs participants tend to have different preferences. Not unexpectedly, math courses have a much larger share of males than females, while the social sciences/humanities group is more female. With 57% of male audience, economics is closer to math. Thus, the patterns of subject choice on Coursera in terms of gender differentials seem to be pretty similar to those observed at traditional higher education institutions where humanities normally attract more girls and math-intensive majors get more boys.

Table 1

	Economics	Social Sciences/ Humanities	Math/Data Science
Male	57%	45%	62%
Female	43%	55%	38%

As for age, the math-intensive courses audience is the oldest among the three groups with an average age of 30.74. Those who choose economics are the youngest – 29.45 years old. The humanities group is slightly younger than the math group – 30.66 years old. Math students also have the highest age range within their group (the group with the highest standard deviation).

The biggest share of HSE Coursera students are from Russia. However, the percentage of foreign participants varies depending on the language of the course (with a bigger share of international participants joining courses taught in English) and on the disciplinary group. The highest percentage of foreign students among the courses taught in Russian is observed in economics — 36%. The share of non-Russian students in humanities and math-intensive courses is smaller — 30% and 29% respectively. Similar findings are valid for English-language courses. The most popular HSE course taught in English among foreign students was Public Economics with 97% of the participants coming from outside Russia, the second most popular — Understanding Russians with about 86%.

One possible explanation is related to the university's name and brand. We suppose that some part of Coursera audience has very limited information about universities. If so, then the factor of name, which in our case is very disciplinary-oriented, can play a crucial role in the process of choosing a course.

There are no significant differences across groups in terms of the students' occupation status. The only interesting observation is that those enrolled in social sciences/humanities courses are more likely to have no regular occupation (neither work nor study): 11% versus 7% in other groups.

We have also compared the three sets of students by the type of their motivation to take MOOCs. Bearing in mind the distinction between intrinsic and extrinsic motivation, we have analyzed the responses to the question about the reasons for choosing this or that course. To figure out the motivation type, we have identified two clusters of reasons. The first one is characterized by the prevalence of extrinsic motivation. That means that a course is chosen with a purpose related to some external reinforcement, such as getting credentials, desire to communicate with other participants, wish to listen to a particular professor, etc. The second cluster includes the reasons that deal more or less with personal interest in a subject.

Math-intensive and humanities courses differ significantly from economics course by the type of student motivation (Table 2). While economics courses have more of those who start with an extrinsic motivation, i.e., with the idea to benefit from the course in this or that way, math-intensive and humanities courses have a relatively high percentage of students who have applied simply out of personal interest in the subject.

Numerous studies on the role of motivation in the traditional (offline) learning process show that motivation type is an important factor of student engagement. The question whether it is the same in MOOCs needs further research and is important for understanding the reasons why people drop out, particularly in economics, where the share of participants with intrinsic motivation is relatively low.

Table 2

	Economics	Social Sciences/ Humanities	Math/Data Science
Extrinsic motivation	60%	54%	52%
Intrinsic motivation	40%	46%	48%

To sum up, HSE audience on Coursera is not homogeneous. It varies considerably across disciplines by gender and type of motivation for enrolment. Moreover, there are slight differences in terms of age and country of origin. However, part of these differences seems to be the same as those observed in offline education. We believe that, no matter whether online or offline, females are still under-represented in math-intensive courses, while economics attracts a lot of students who choose this subject not only out of personal interest.

If so, there is an intriguing question: why are the patterns of choosing a discipline (or a course) so similar? Given the fact that there are fewer boundaries online than offline, and that almost anyone can join any online course at Coursera, one could have expected that course selection would be different and that offline patterns of choosing a discipline would be eroded. Yet, according to our observations, gender patterns are robust enough to be valid in online education too. One also could have thought that Coursera attracts more people who are just interested in learning something new but we see that in case of economics, there is a big share of those who are willing to get some credentials, although for now Coursera certificates aren't recognized as widely as university diplomas. A possible explanation is that the perception of different disciplines that is common offline persists even when it comes to online education.

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