



Национальный исследовательский университет «Высшая школа экономики»
Программа дисциплины «Исследование пользовательских инноваций»
для направления 38.04.02 «Менеджмент» и «Управление в сфере науки, технологии и инноваций», подготовки магистра

**Федеральное государственное автономное образовательное учреждение
высшего образования
"Национальный исследовательский университет
"Высшая школа экономики"**

Институт статистических исследований и экономики знаний

**Рабочая программа дисциплины
«Исследование пользовательских инноваций»**

для направления 38.04.02 «Менеджмент» подготовки магистра

Авторы программы:

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Настоящая программа не может быть использована другими подразделениями университета и другими вузами без разрешения подразделения-разработчика программы

STUDIES IN USER INNOVATION

1. Introductory note

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General Description of the Course:

The course is delivered to master students of The National Research University – Higher School of Economics/HSE in one module. The course length is 114 academic hours of which 32 hours are classroom hours for lectures and seminars and 82 hours are devoted to self-study.

Assessment is based on current work and written task. Academic control includes participation in discussions (seminars) and one short essay. The course contains five core topics, which are mutually exclusive but collectively exhaustive to cover the subject.

Pre-requisites: Formative reading

Course Objective

Inspired by original ideas of Eric von Hippel that individuals, professional and amateur communities as well as small firms are likely to play crucial role in adoption and developing new products and services, researchers try to find more cases to enrich this theoretical framework. The idea of the course is to discuss the role of users in generation and dissemination of innovations using findings from empirical studies in order to develop better analytical tools for deeper analysis of the phenomenon. The course is designed for master students who want to learn more about the phenomenon and suggests theoretical overview of the recent studies in the area combined with practical sessions to develop skills for analysis of role and engagement of users in innovation development.

Course language: English

Abstract

The development of user-driven innovation has been conceptualized by academic research now for quite some time arguing for an idea that users may show remarkable levels of sophistication in adopting or creating new products. This phenomenon has ever since triggered the interest of scholars. Active individuals who are ahead of the market and could be engaged in co-creation of certain goods and services together with firms since then are considered as one of the driving forces of innovation as well as firms aiming at problem solving that innovate mostly for themselves. Recent contributions enthusiastically have long moved beyond the original demographic studies of user innovation and discuss how users can be motivated and their creative potential be harvested, which tools can be used for successful implementation of innovation, what is the role of amateur or hobbyist communities in innovation generation, etc.

The course welcomes all those interested in social studies of innovation, science, technology and innovation studies.

Lectures are organised in order to clarify major concepts and categories used in user innovation studies and integrates current knowledge in innovation development and diffusion. Seminars will follow lectures. They are aimed at sharing participant's reflections on the approaches introduced in the literature and developing analytical and practical skills required to discuss at highly professional level topics aroused during the course.

Training Objectives:

- Understanding of the importance and connectedness of user-driven innovation for economic and social development.
- Clarification of basic concepts used in literature to describe user-driven innovation as economic and social phenomenon.
- Reflection on key tensions that appear in scientific papers standing for different approaches to conceptualisation and analysis of issues related to innovation development and diffusion and engagement of users.

Target audience: Master students with an interest in social functioning and development of innovations.

2. Thematic Plan

a) Lectures

Topic	Total	Lectures	Seminars	Self-study
Innovation by users and lead users	22	4	2	16
Innovation Communities and Community Economics	22	4	2	16
Innovation toolkits	22	4	2	16
Innovation Policy, Innovation Measurement	22	4	2	16
Research methods and practical issues	26	4	4	18
	114	20	12	82

b) Seminars

Seminars consist of practical sessions and moderated discussions that will provide students with indispensable skills for social analysis of user-innovation.

During seminars students will discuss particular cases of user engagement in innovation development and problems introduced in the papers included to the essential reading list for each lecture (marked as basic literature). Students are welcome to undertake a broader optional reading that may assist in building up stronger argumentation and help greatly both in writing an essay. Questions for discussion will be announced in advance therefore all participant are expected to get prepared for the seminar.

3. Time Plan

The course covers two modules, starting in September 2018 and lasting until mid-October 2018.

4. Basic Literature

- Baldwin, C., Hienerth, C., & von Hippel, E. (2006). How user innovations become commercial products: A theoretical investigation and case study. *Research Policy*, 35(9), 1291–1313.
- Churchill, J., von Hippel, E., & Sonnack, M. (2009). *Lead user project handbook: A practical guide for lead user project teams*.
- Gambardella, A., Raasch, C., & von Hippel, E. (2016). The user innovation paradigm: impacts on markets and welfare. *Management Science*, 63(5), 1450-1468.
- von Hippel, E. (2001). Perspective: User Toolkits for Innovation. *Journal of Product Innovation Management*, 18 (4), 247–257.
- von Hippel, E. (2005). *Democratizing innovation*. MIT Press, Cambridge, MA.
- von Hippel, E. (2010). Open User Innovation. In *Handbook of the Economics of Innovation*. Vol. 1, 411–427. Elsevier.
- von Hippel, E. (2017). *Free Innovation*. MIT Press, Cambridge, MA.

5. Education Control Forms

Essay (E): During the course students will be asked to write one short essay of around 3000-5000 words developing a particular topic covered by the course.

Colloquium (C): Participation in group discussions at which students deliver addresses on a topic or on related topics and then answer questions relating to them.

The overall course grade (10-point scale) is calculated as a sum of

$$G = 0.7 E + 0.3C$$

The overall course grade G (10-point scale) includes results achieved by students in their written essay (E) and colloquium (C); it is rounded up to an integer number of points.

Summary Table: Correspondence of ten-point to five-point system's marks

Ten-point scale [10]
10 – brilliant
9 – excellent
8 – nearly excellent
7 – very good
6 – good
5 – quite satisfactory
4 – satisfactory
3 – bad
2 – very bad
1 – unsatisfactory

Lateness penalties

If there is good reason for not meeting a coursework deadline, a student may request an extension from one of the course organisers (for extensions of up to five working days). Extension requests

should normally be made before the deadline. A good reason is illness, or serious personal circumstances, but not pressure of work or poor time management. The course organiser must support the request in writing (email), and extensions over five working days may require supporting evidence. If you think you will need a longer extension, or your reasons are particularly complicated or of a personal nature, you should discuss the matter with the Academic supervisor and Coordinator of your Master's program.

There are formal procedures for requesting an extension and penalties for late submission. The penalty will be a reduction of two marks per working day (i.e. excluding weekends) for up to five days. For work handed in more than five days late a mark of zero will be recorded.

6. Programme Contents

1. Innovation by users and lead users

Role of individuals and households in innovation development. A manufacture-centered paradigm and the consumer-centered paradigm and their integration. Mere users and lead users Differences between individuals who successfully carry out innovation projects in the household sector and those who do not. Factors to increase the amount of successful innovation.

Recommended literature:

Stock, R. M., Oliveira, P., & von Hippel, E. (2015). Impacts of Hedonic and Utilitarian User Motives on the Innovativeness of User-Developed Solutions. *Journal of Product Innovation Management*, 32(3), 389-403.

Stock, R. M., von Hippel, E., & Gillert, N. L. (2016). Impacts of personality traits on consumer innovation success. *Research Policy*, 45(4), 757-769.

Von Hippel, E. (1976). The dominant role of users in the scientific instrument innovation process. *Research policy*, 5(3), 212-239.

Von Hippel, E. (1978). Successful industrial products from customer ideas. *The Journal of Marketing*, 39-49.

Von Hippel, E. (1986). Lead users: a source of novel product concepts. *Management science*, 32(7), 791-805.

2. Innovation Communities and Community Economics

Efficiency of innovation development by product users and product producers. Collaborative innovation and innovation communities and their role in altering economic landscape. User communities. User communities and peer-to-peer innovation diffusion. Sharing economy. Do it yourself (DIY), open-source software and other community-based movements.

Recommended literature:

Baldwin, C., Hienerth, C., & von Hippel, E. (2006). How user innovations become commercial products: A theoretical investigation and case study. *Research Policy*, 35(9), 1291-1313.

Franke, N., & Shah, S. (2003). How communities support innovative activities: an exploration of assistance and sharing among end-users. *Research policy*, 32(1), 157-178.

- Füller, J., Matzler, K., & Hoppe, M. (2008). Brand community members as a source of innovation. *Journal of Product Innovation Management*, 25(6), 608-619.
- Füller, J., Schroll, R., & von Hippel, E. (2013). User generated brands and their contribution to the diffusion of user innovations. *Research Policy*, 42(6-7), 1197-1209.
- Hienerth, C., Von Hippel, E., & Jensen, M. B. (2014). User community vs. producer innovation development efficiency: A first empirical study. *Research policy*, 43(1), 190-201.
- Hyysalo, S., & Usenyuk, S. (2015). The user dominated technology era: Dynamics of dispersed peer-innovation. *Research Policy*, 44(3), 560–576.
- Von Hippel, E. (2001). Learning from open-source software. *MIT Sloan management review*, 42(4), 82-86.

3. *Innovation toolkits*

Practical applications and ways to organize and support user-driven innovation. Guidance for users to ensure innovation design and for producers to elaborate integrated circuits to the development of customized products.

Recommended literature:

- Franke, N., & Piller, F. T. (2003). Key research issues in user interaction with user toolkits in a mass customisation system. *International Journal of Technology Management*, 26(5-6), 578-599.
- Franke, N., & Von Hippel, E. (2003). Satisfying heterogeneous user needs via innovation toolkits: the case of Apache security software. *Research policy*, 32(7), 1199-1215.
- von Hippel, E. (2001). Perspective: User Toolkits for Innovation. *Journal of Product Innovation Management*, 18 (4), 247–257.
- Von Hippel, E., & Katz, R. (2002). Shifting innovation to users via toolkits. *Management science*, 48(7), 821-833.

4. *Innovation Policy, Innovation Measurement*

Measurement of user innovation and the transfer of user innovations to producers within and beyond existing statistical frameworks. National surveys on user-driven innovation. Innovation policies and practices needed to support innovation by individual and corporate users.

Recommended literature:

- De Jong, J. P., & von Hippel, E. A. (2009). Measuring user innovation in Dutch high tech SMEs: Frequency, nature and transfer to producers.
- De Jong, J. P., von Hippel, E., Gault, F., Kuusisto, J., & Raasch, C. (2015). Market failure in the diffusion of consumer-developed innovations: Patterns in Finland. *Research Policy*, 44(10), 1856-1865.
- Fursov K., Thurner T. (2016) Making It Work! – A Study of User-Innovation in Russia, *Science and Public Policy*.
- Gault, F. (2012). User innovation and the market. *Science and Public Policy*, 39(1), 118-128.

- Gault, F., & von Hippel, E. A. (2009). The prevalence of user innovation and free innovation transfers: Implications for statistical indicators and innovation policy.
- Kim, Y. (2015). Consumer user innovation in Korea: an international comparison and policy implications. *Asian Journal of Technology Innovation*, 23(1), 69-86.
- von Hippel, E., & Jin, C. (2008). The major shift towards user-centred innovation: Implications for China's innovation policymaking. *Journal of Knowledge-based Innovation in China*, 1(1), 16-27.

5. Research methods and practical issues

Research tools to study user innovation. New methods for dividing up tasks, for experimenting in parallel, and for identifying rare individuals who might have something important to contribute. Practical guide for lead user project teams and its applications.

Recommended literature:

- Churchill, J., von Hippel, E., & Sonnack, M. (2009). *Lead user project handbook: A practical guide for lead user project teams*.
- Ebel, P.; Bretschneider, U. & Leimeister, J.-M. (Hrsg.) (2013): *The Lead User Method for SME - a Guidebook for Practitioners and Facilitators*. Erscheinungsjahr/Year: 2013. Verlag/Publisher: Chair for Information Systems, Kassel University, Kassel, Germany.
- von Hippel, E., Franke, N., & Prügl, R. (2006). Efficient identification of leading-edge expertise: screening vs. pyramiding. In *Technology Management for the Global Future, 2006*. PICMET 2006 (Vol. 2, pp. 884-897). IEEE.
- Von Hippel, E., Franke, N., & Prüg, R. (2009). Pyramiding: Efficient search for rare subjects. *Research Policy*, 38(9), 1397-1406.