eLearning Stakeholders and Researchers Summit

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BUILDING E-LEARNING CAPABILITIES AMONG RUSSIAN UNIVERSITIES' ACADEMIC STAFF: CASE OF MASSIVE OPEN ONLINE COURSES

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OUTLINE

- **theoretical analysis: outcomes**
- **research gap, research question & hypothesis**
- **empirical part: methodology & results**
- **theoretical and practical contribution**
- **limitations and further research**

THEORETICAL ANALYSIS: OUTCOMES

PUBLICATIONS

- E-learning capabilities: ability to use up-to-date ICT
  - PowerPoint
  - the Internet, e-mail
  - LMSs, etc.
- **modern students:** Digital Natives*;

  teachers: *risk* to become Digital Immigrants*
- popularity of blended learning

LEGAL ACTS

"course" towards **informatization** and **digitalization** of the Russian Federation

- **online & distant education programs** at higher education institutions
- **"5-100" Project:** compatibility of the Russian higher education

technological literacy & online activity

World Universities Rankings METHODOLOGY

** Prensky (2001)*

RESEARCH GAP

	LITERATURE OBSERVED	LACK OF RESEARCH NOVELTY
unit of analysis	students *(why is IT in education important for them?)*	University teachers *(why do they use IT in their pedagogical practice?)*
empirics in foreign articles	research studies in UAE, New Zealand, US, Croatia, Spain etc.	few research studies on the topic in the Russian Federation
empirics in Russian articles	types of publications: overview, literature review	almost no results based on the primary or secondary domestic data

RESEARCH QUESTION AND HYPOTHESIS

What forces
Russian Universities' academic staff
to develop e-learning capabilities
and implement them into teaching activity?

push 1:

UNIVERSITY ADMINISTRATION

development of e-learning capabilities

(among the Russian Universities' academic staff)

push 2:

INFORMATIZATION & DIGITALIZATION

(desire to develop professionally)

METHODOLOGY (1): RESEARCH BOUNDARIES

ASSUMPTION

MOOCs

E-Learning

RESEARCH BOUNDARIES

1) Coursera
2) NPOO*

MOOCs platforms

& Russian context

* *National Platform "Open Education"*

METHODOLOGY (2)

	EXPLORATORY PART	EXPLANATORY PART
UNIT OF ANALYSIS	Russian University teacher*	Russian University teacher
METHOD & primary data	survey: online questionnaire ***Response rate: 44%***** ***Sample: 72%*** ***Population***: 363 teachers***	semi-structured interviews ***Interviews conducted: 9*** ***Agreed for the interview: 30*** ***Survey responses: 115***
ANALYSIS	quantitative *(SPSS Statistics 22)*	qualitative

** authors/coauthors of MOOC on Coursera and/or NPOO; ** from the sample; *** valid for the survey period*

METHODOLOGY (3): THEORETICAL MODEL

FACTORS (groups of items)		ITEMS
(I) administrative influence		task (f1)
		impact University (f2)
		impact Chair (f3)
		reward (f4)
		integration into global (f5)
(II) professional development	**teachers are also Digital Natives**	innovation required to stay demanded in profession (f6)
		example of colleagues (f7)
		full transfer (f8)
		partial transfer (f9)
		attract students (f10)
	self-ego support	popularization of own research (f11)
		own image (f12)
		innovator status (f13)

RESULTS

Rotated Component Matrix (RCM)*			
	Factors		
	1	2	3
attract students	,694		
partial transfer	,694		
full transfer	,660		
popularization of own research	,607		,467
own image	,542	,499	
task	-,505		,476
innovation required to stay demanded in profession		,709	
example of colleagues		,686	
reward		,664	
integration into global		,549	
innovator status		,516	
impact Chair			,796
impact University			,776

**Rotation converged in 5 iterations; values less than =/- .45 are not extracted*

RESULTS

Rotated Component Matrix (RCM)*

	Factors		
	1	2	3
	,694		
	,694		
	,660		
	,607		,467
	,542	,499	
volunteer activity/task	**,505**		**,476**
innovation required to stay demanded in profession		,709	
example of colleagues		,686	
reward		,664	
integration into global		,549	
innovator status		,516	
			,796
			,776

PROFESSIONAL DEVELOPMENT

UNIVERSITY PUSH

- item in grey: professional development
- items in orange: Universities' interest
- "task" – complex variable;
- task – obligatory action
- **antonym for "task": "volunteer activity"**
- ***stronger association with the first factor***

RESULTS

government policy

RUSSIAN UNIVERSITIES

desire for professional development

RUSSIAN UNIVERSITIES' STAFF

are interested in developing e-learning capabilities

objectives of both sides correspond with each other

RESULTS

teachers' continuous intention
to develop e-learning capabilities: <u>interview sessions</u>

QUITE CLEAR EVIDENCE

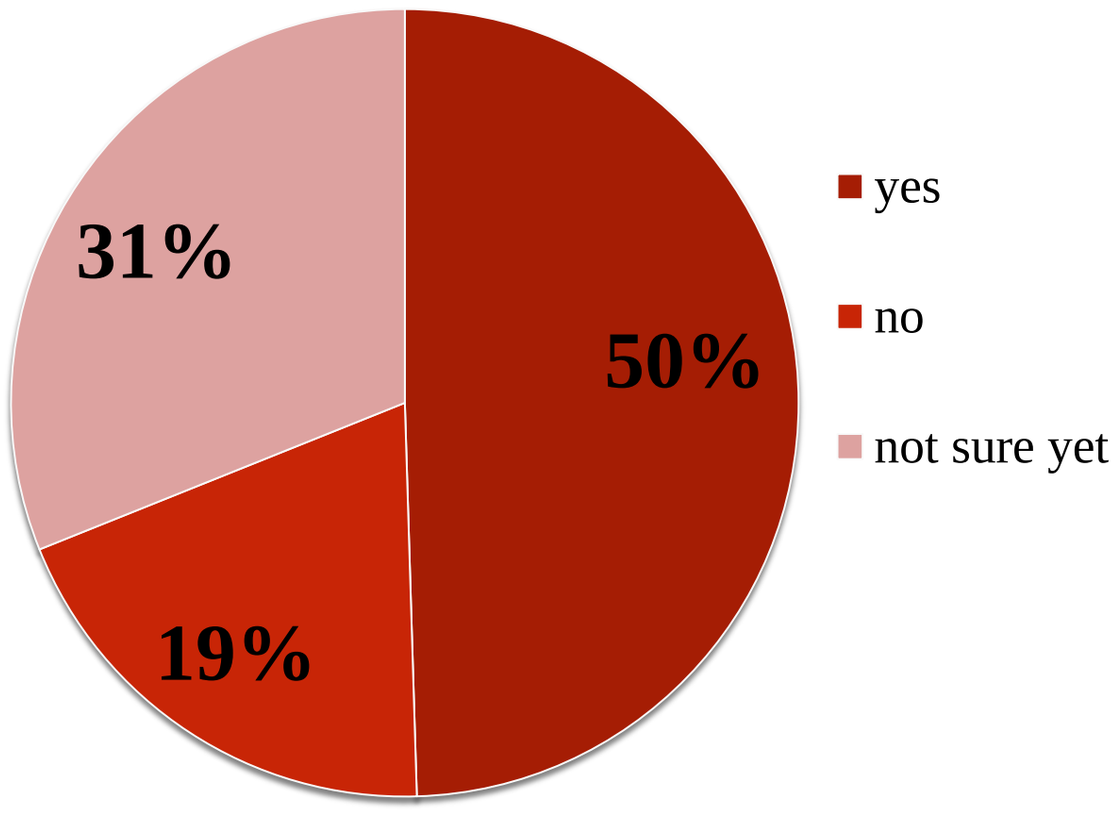
- official "design"

of e-learning activity
(its jurisdictional formation)

  - contracts
  - transparent workloads

- technological support

Are you planning to become an author or a co-author of more online-course(s) within 1-2 years?*



** Survey results*

CONTRIBUTION

THEORETICAL

- University teacher as a unit of analysis
- Russian context
- primary empirical data from the Russian Universities' academics staff

PRACTICAL

FOR ACADEMIC STAFF	<u>evidence and challenge</u>: how necessary it is to keep up with the modern IT trends
FOR UNIVERSITIES ADMINISTRATION	<u>forms of motivation for teachers:</u> ▪ "design" and popularization of e-learning activity; ▪ access to modern technologies
FOR POLICY MAKERS	<u>regulatory function</u>: further policy measures in education

LIMITATIONS

- **research boundaries**
  - geographical restrictions
  - assumption
  - two platforms with MOOCs
  - quite small amount of responses
- **extrapolation limits**
  - respondents from top Russian Universities
  - respondents only from state Universities
- **period of data gathering**

FURTHER PERSPECTIVE RSEARCH

- **e-learning evolution & pedagogical theory**
- **transformations in education and ecosystem approach**
- **comparative study among MOOCs' authors from different countries**
- **MOOCs' certificates: are the employers ready?**

Thank you for your attention!

Back-up slides

POPULATION, SAMPLE & RESPONSE RATE (1)

Novosibirsk State University	NSU
Saint Petersburg University	SPbU
National Research Tomsk State University	TSU
National Research University Higher School of Economics	HSE
Moscow Institute of Physics and Technology	MIPT
Peter the Great St. Petersburg Polytechnic University	SPbPU
National Research Nuclear University	MEPhI
Moscow State University	MSU
National University of Science and Technology MISIS	MISIS
St. Petersburg Research University of Information Technologies, Mechanics and Optics	ITMO
Ural Federal University	UrFU

POPULATION, SAMPLE & RESPONSE RATE (2)

	Number of teachers who started an online course on Coursera and/or NPOO (population)			Number of e-mails that were found (sample)			% from population	Response rate		
University	Coursera	NPOO	total (without double count)	Coursera	NPOO	total (without double count)		Amount	% from sample	% from population
MSU	0	22	20	0	14	14	70%	7	50%	35%
MISIS	0	21	22	0	17	17	77%	6	35%	27%
SPbU	5	16	21	2	16	18	86%	5	28%	24%
HSE	51	25	64	45	23	58	91%	24	41%	38%
MIPT	19	12	27	8	7	14	52%	8	57%	30%
SPbPU	1	50	51	1	41	42	82%	20	48%	39%
UrFU	0	62	62	0	29	29	47%	8	28%	13%
ITMO	0	42	41	0	32	32	78%	12	38%	29%
MEPhI	27	0	26	14	0	14	54%	5	36%	19%
TSU	20	0	20	18	0	18	90%	12	67%	60%
NSU	9	0	9	6	0	6	67%	4	67%	44%
Total			**363**			**262**		**111**		
						72%		**44%**		