



eLearning Stakeholders and Researchers Summit

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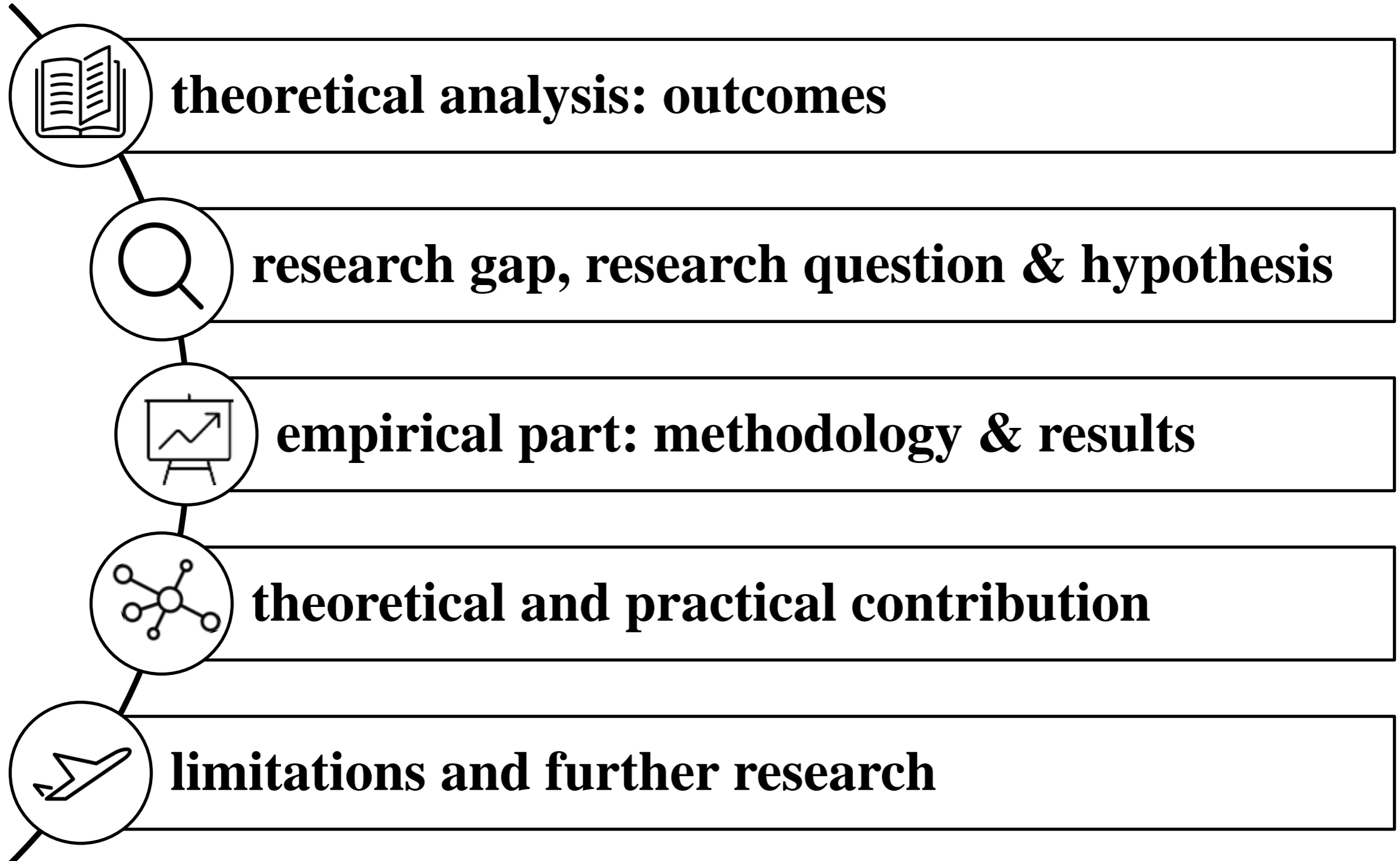
BUILDING E-LEARNING CAPABILITIES AMONG RUSSIAN UNIVERSITIES' ACADEMIC STAFF: CASE OF MASSIVE OPEN ONLINE COURSES

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OUTLINE





THEORETICAL ANALYSIS: OUTCOMES

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**



RESEARCH GAP

	LITERATURE OBSERVED	LACK OF RESEARCH NOVELTY
unit of analysis	students <i>(why is IT in education important for them?)</i>	University teachers <i>(why do they use IT in their pedagogical practice?)</i>
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?**





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 <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><i>Response rate: 44%**</i></p> <p style="text-align: center;"><i>Sample: 72%</i></p> <p style="text-align: center;"><i>Population***: 363 teachers</i></p> </div>	semi-structured interviews <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;"><i>Interviews conducted: 9</i></p> <p style="text-align: center;"><i>Agreed for the interview: 30</i></p> <p style="text-align: center;"><i>Survey responses: 115</i></p> </div>
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

exploratory part

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 $\pm .45$ are not extracted*



RESULTS

exploratory part

Rotated Component Matrix (RCM)*			
	Factors		
	1	2	3
PROFESSIONAL DEVELOPMENT	,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	
UNIVERSITY PUSH			,796
			,776

- 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

exploratory part

**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

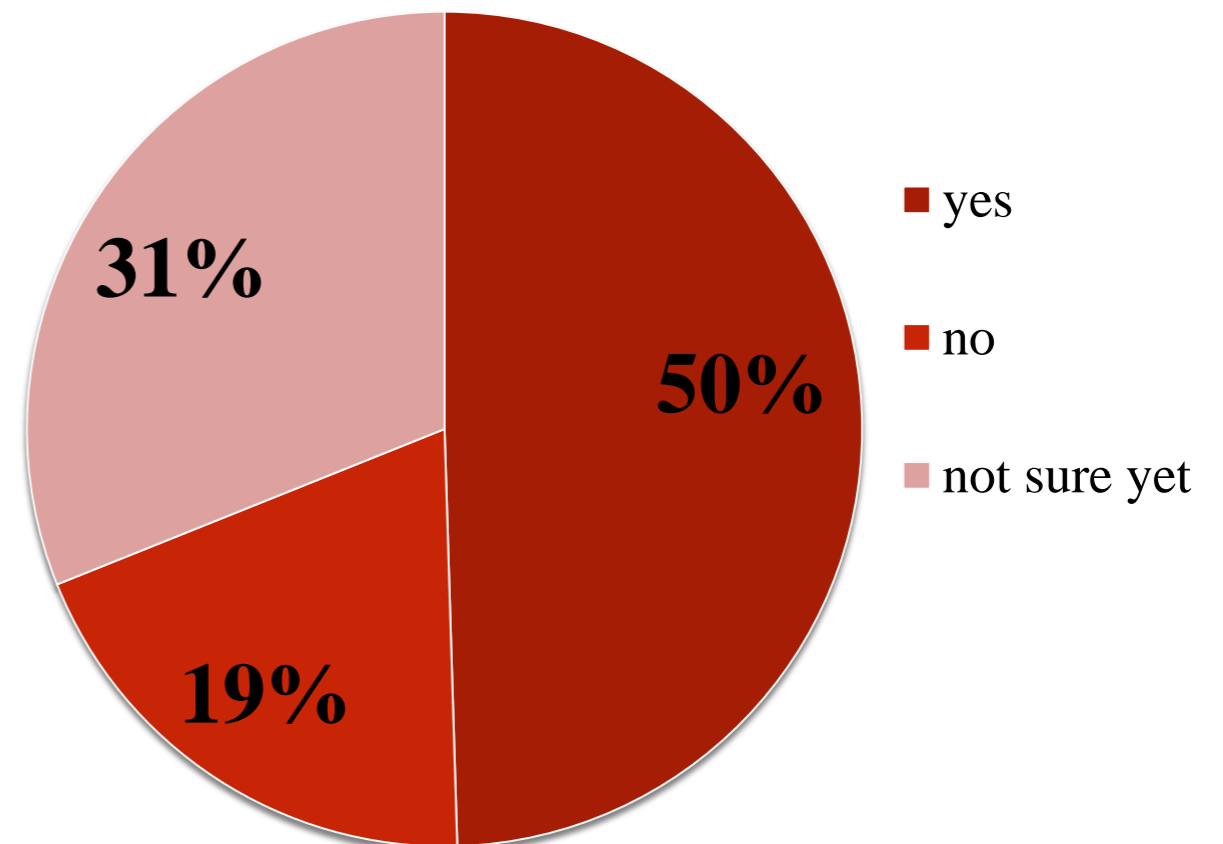
explanatory part

teachers' continuous intention
to develop e-learning capabilities: interview sessions

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

evidence and challenge:
how necessary it is to keep up with the modern IT trends

FOR UNIVERSITIES ADMINISTRATION

- forms of motivation for teachers:
- “design” and popularization of e-learning activity;
 - access to modern technologies

FOR POLICY MAKERS

regulatory function:
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 RESEARCH

- **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)

University	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		
	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%		