INFORMATION TECHNOLOGIES AND THEIR OPPOSITION
AT THE UNIVERSITY: THE CASE OF A RUSSIAN PEDAGOGICAL
UNIVERSITY

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Abstract

The current struggle for the control over education in Russia and worldwide is on the one hand a global trend of reshaping society in accordance with the needs of the global market, on the other – it is a major attempt to shape the future of national education systems and thus the future of national economies.

As globalisation based on neoliberal ideas turns universities into perpetuum idea-generators and innovation factories required for sustainable growth of post-industrial economies, universities acquire an increasing role in the economies largely depending on immaterial production.

The paper is based on a pilot research conducted as a case-study in a Russian university and aimed at identifying the reasons of academics’ opposition to the largely introduced innovations and, consequently, the lost support from the academic society at large and finding ways of winning it back on the basis of negotiations and consensus.

The case of Russia offers a bright illustration of the systemic reforms in the higher education supported by the neoliberal concept of innovation, while the opposition against the trend seems to be traditionally suppressed by the large-scale bureaucratic machine and the low citizen activism.

Keywords: innovations at universities, opposition, neoliberal reforms, implied markers, negative connotations, personal discourse, content analysis.

1 INTRODUCTION

The 21\textsuperscript{st} century proved to be a breakthrough era in every industry and economy of the European countries and beyond, highlighting the three most important resources for future development – human capital, creativity and innovation.

As it is known, the most efficient way to elevate a nation’s quality of life as standard of living, as well as to reduce the gap between the rich and the poor is to increase the national level of education. Basing on that stance, many national governments in Europe and other continents have introduced more or less comprehensive reforms in their national educational systems. The reform in the Russian educational system launched by the Russian authorities twelve years ago has surpassed all expectations with its scale and far reaching consequences.

Prior analysis has identified some discrepancy between the authorities’ plans and today’s situation in Russia, with a deepening gap between the government plans and the fruit they yield at the moment resulting in a gradually lost support of most stakeholders of the national educational system and the system of higher education in particular.

However, the situation with the contradictory Russian educational reforms is not unique – every reform in the history of the mankind was a contradiction between the opinions of its proponents and opponents, the traditional way of ‘doing things’ and new requirements imposed by global changes, the authorities’ strategic vision and the in/ability of executives to implement it. As is known, any system strives for stability, though dynamic changes are the only means that can secure its development and existence at large.

This paper is an attempt to highlight implications of the academics’ global opposition to neoliberal reforms in higher education through clearing up the situation in Russia. As the bureaucratic suppression has driven the academics’ opposition to the level of the implied, the research uses both
the quantitative method of questionnaire and the qualitative method of interview and aims at identifying discourse markers of academics’ implicit averse and opposition to IT-innovations and negative connotations in the respondents’ reactions. The author analyzes academics’ discourse aiming to identify explicit and implicit markers of their conscious and unconscious opposition to IT-innovations in the learning and teaching processes and reveals that the seemingly negative attitudes to innovations hide the interviewed LSPU academics’ overwhelming sense of insecurity and instability of their professional environment.

2 ACADEMICS’ OPPOSITION TO NEOLIBERAL REFORMS IN HIGHER EDUCATION

Neoliberalism contributed a lot to the new understanding of universities’ vision and mission. According to Ollsen & Peters (2005), the universities’ professional culture based on intellectualism and open exchange of opinions was replaced with accentuated performativity reflected in performance indicators, quality assurance and strategic management (Ollsen & Peters 2005).

Neoliberalism is closely connected with both globalization processes and the emerging knowledge economy. Universities are by right treated as flagships of the knowledge economy and thus can develop in close connection with industries and businesses. The new turn in reconsideration of the significance of higher education for the knowledge economy development has prompted recent changes in curricula and teaching methods with a particular stress on the practice-oriented approach, competencies development (including entrepreneurial skills), project management and universities’ economic viability and independence.

Launched as a philosophical approach, neoliberalism has developed into politically loaded discourse reflecting to a large extent the discourse of Western nations.

2.1 Global Trends and Challenges

In Shore’s opinion both in Britain and New Zealand, “the radical rethinking of tertiary education was foreshadowed by government-sponsored reports” (Shore 2006), with the 1989 Education Amendment Act and 1990 Public Finance Act marking the beginning of profound transformations in New Zealand, which primarily challenged universities with commercialization and ‘new management practices of audits and benchmarking’ (ibid.), massification of higher education and introduction of student loan mechanisms and commercialization of universities' activities and calculation of universities’ success.

The impact of neoliberalism in the field of higher education did not prove to be purely positive. According to Pekkola (2009), academic freedoms were much repressed and student movements across the world are engaged in strive for democratisation of universities (Pekkola 2009). The undemocratic nature of the recent neoliberal reforms is evident despite “persistent attempts by the elites’ to masquerade the passive adaptation of global neoliberal policies” (ibid.).

Centeno & Cohen (2011) state that “any concerns about the negative side of neoliberal reforms were erased with the emergence of the information technology and international investment booms that started in the early 1990s” (Centeno & Cohen 2011). But their assertion seems to be quite debatable. Thus, Quiggin (1999) believes that information technologies have contributed to the increasing inequality of employees and their wages and finally in the increasing unemployment for both unskilled and skillful workers (Quiggin 1999) both in European countries and Australia.

Besides, the information technologies largely introduced into academia’s practice, serve the goal to ease their life only partly – the still more important goal is to use information technologies for further commercialization of universities’ activities, with most information technologies used as money-earning tools including the money saved thanks to information technologies used to substitute live lectures (recorded lectures are more and more widely offered for ‘distance learning’ instead of at least several contact lessons with real teachers.

2.2 Russian Academics’ Opposition to Introduction of IT-Innovations

The inner environment and working atmosphere in some Russian universities is characterised with tensions and contradictions, which influence detrimentally the universities functioning and development.
The academics’ adverse attitudes can be partly accounted for their negative perception of any changes introduced into the universities’ inner environment. Introduction of information technologies into the education processes generates some academics’ negative reactions resulting in their reluctance to apply IT-innovations and thus, their poorer preparedness to teaching activities under the new circumstances.

Solution of the arising problems requires comprehensive analysis of the reasons causing hampered introduction of IT-innovations, as well as research of the academics’ attitudes to innovative teaching methods and the use of IT in teaching. To identify the true reasons of the academics’ opposition, it is important to understand what they really think about the introduced technologies and the developing information environment.

As employees are not always willing or even able to formulate the true reasons of their opposing attitudes, it is worth analysing the ill-formulated or even unspoken when discussing the situation of the University’s changing environment and identifying explicit and implicit markers of conscious and unconscious opposition to the introduced information technologies. The results of such research can be applied to tactics elaboration aimed at solving the problem of academics’ opposition to IT-innovations and increasing the quality level of the students’ generic and professional competencies.

2.2.1 Research Design

The research at the core of this paper is based on a case study of Lipetsk State Pedagogical University (LSPU) located in Central Russia and analysed between 2015 and 2016. The pilot research aims at building a reliable solid image of how one Russian university manages to engage its employees in the reconstruction of its inner environment within the timeframe of intensified neoliberal educational reforms fulfilled in Russia. To reach the set goal, the author developed a case study which set out to demonstrate how LSPU academics react to the undergoing reforms implicitly with their explicit reluctance to get involved in supporting or applying the IT innovations introduced in the university’s inner environment.

The research applied a qualitative approach basing on questionnaire responses of 106 academics along with interviews of 5 leading representatives of LSPU’s academia. In total 47 hours / 12 days were devoted to the research on site – in Lipetsk State Pedagogical University between 2014 and 2016.

The analysis involves the survey research data collected and particularly, draws on data received from five interviews with leadings academics/scholars representing the five institutes of LSPU, two interviews with representatives of the ‘technical sciences’, two interviews with representatives of humanities and one – with a representative of ‘arts’.

2.2.2 Research Methodology

The applied methodology includes the quantitative method of survey research and the qualitative method of interview and aims at identifying the explicit and implicit markers of academics’ opposition to introduction of IT-innovations into the education processes and revealing the core reasons generating such opposition, both conscious and unconscious.

The undertaken research combines a sociological study based on a questionnaire with 15 both open and closed questions (with offered responses to choose from) and a psycholinguistic study based on a discourse analysis of the texts produced by the interviewed, involving analysis of words and phrases connoting with negation, reluctance and opposition, as well as their syntax and pragmatics.

The research questions include but are not limited to –

1. What percentage of academics opposes the introduction of IT-innovations?
2. Can the type of opposition be identified basing on the discourse analysis?
3. What types of opposition are most typical for LSPU’s academia?
4. What model of academics’ opposition can be built basing on the discourse analysis?

Research tasks encompass the following –

- elaboration of the research concept,
- sampling,
- determining an interview target group,
elaboration of the survey questionnaire basing on the scenario analysis,
elaboration of the interview scenario and questions,
organisation of the survey research and interviewing,
analysis of the collected data,
concluding and elaboration of recommendations based on the analysis results.

2.2.3 Sample and Procedure

Sampling included two types –
1 simple random sampling based on a case study (the situation in Lipetsk State Pedagogical University) with a questionnaire containing both open questions and multiple choice questions.
2 target sampling (target group – academics opposing IT introduction in the education processes):
   a) survey based on a questionnaire;
   b) interviewing of a pool of respondents according to a fixed scenario with open questions.

2.2.4 Respondents and Interviewees

The academics and researchers participating in the survey returned 139 questionnaires, with only 106 of them usable for analysis.

89.2% of the respondents have higher pedagogical education, 10.38% – have a different kind of higher education.

2.2.5 Analysis and Results

The analysis of the survey research has produced the following results (selected questions and response analysis is provided below).

A majority of the respondents gave positive replies to the question “What is your attitude to using IT in the pedagogical university” – “fully support” made 59.43%, with 16.04% of the respondents expressed their attitude with “5” and just 1.89% of the participants expressed their attitude close to negative (see the diagram below).

The question provoking a direct response “Do you think IT should be used in a contemporary pedagogical university?” produced the following results: “yes” – 94.34%, “no” – 0%, “hard to say” – 5.66%.
The analysis of the responses to the question “Which contemporary IT are used in your university” reveal the fact that that is mostly email (85.85%), e-library catalogue (75.47%), IT-educational environment (74.53%). It was quite unexpected that only 69.81% used the Internet at work. The overall results are given below in the table and diagram:

<table>
<thead>
<tr>
<th>Information technologies</th>
<th>Number of respondents</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>91</td>
<td>85.85%</td>
</tr>
<tr>
<td>E-library catalogue</td>
<td>80</td>
<td>75.47%</td>
</tr>
<tr>
<td>IT-educational environment</td>
<td>79</td>
<td>74.53%</td>
</tr>
<tr>
<td>World wide web (Internet)</td>
<td>74</td>
<td>69.81%</td>
</tr>
<tr>
<td>Test system of computer control</td>
<td>70</td>
<td>66.04%</td>
</tr>
<tr>
<td>E-textbooks</td>
<td>63</td>
<td>59.43%</td>
</tr>
<tr>
<td>Local intranet</td>
<td>63</td>
<td>59.43%</td>
</tr>
<tr>
<td>Social media</td>
<td>55</td>
<td>51.89%</td>
</tr>
<tr>
<td>Teaching programmes</td>
<td>45</td>
<td>42.45%</td>
</tr>
<tr>
<td>Databases</td>
<td>44</td>
<td>41.51%</td>
</tr>
<tr>
<td>Multimedia system</td>
<td>30</td>
<td>28.30%</td>
</tr>
<tr>
<td>E-announcement board</td>
<td>20</td>
<td>18.87%</td>
</tr>
<tr>
<td>E-laboratory practicing</td>
<td>15</td>
<td>14.15%</td>
</tr>
<tr>
<td>E-learning platform of LMS or Moodle type</td>
<td>13</td>
<td>12.26%</td>
</tr>
<tr>
<td>Teleconferencing</td>
<td>12</td>
<td>11.32%</td>
</tr>
<tr>
<td>Training complex (computer models and simulators)</td>
<td>9</td>
<td>8.49%</td>
</tr>
<tr>
<td>Voice Email</td>
<td>3</td>
<td>2.83%</td>
</tr>
<tr>
<td>Computer aided design system</td>
<td>3</td>
<td>2.83%</td>
</tr>
<tr>
<td>Desktop e-printing works</td>
<td>3</td>
<td>2.83%</td>
</tr>
<tr>
<td>Automated management system for research</td>
<td>2</td>
<td>1.89%</td>
</tr>
<tr>
<td>Automated management system</td>
<td>2</td>
<td>1.89%</td>
</tr>
<tr>
<td>Expert system</td>
<td>1</td>
<td>0.94%</td>
</tr>
</tbody>
</table>

**Question 7** – “Do you use ITs in teaching? (Choose one variant)” has produced highly stratified responses:

1.89% – I don’t use IT at all; 9.43% – use very seldom; 32.08 – use seldom; 29.25% – use often; 4.72% – use very often; 22.64% – use permanently.
**Question 8** – “Estimate the effectiveness of IT application in the teaching / learning process in the criteria below along the scale from 1 (completely disagree) to 7 (fully agree)” has yielded the following results:

(a) availability of the learning materials

(b) students’ knowledge systematization

(c) development of the students’ creative thinking

(d) stimulation of the students’ self-education and self-development

(e) removal of the students’ psychological inertia
Question 9 – “Indicate burning problems in using IT in education processes” helped to reveal real obstacles on the way to seamless integration of information technologies into the teaching and learning processes.

A majority of the respondents (62.26%) turned out to be dissatisfied with the quality level of audio- and video-equipment, choosing the response “No technical equipment.”

The second place (52.83%) belongs to the response “No necessary software,” 28.30% − “No access to the Internet,” 9.43% − “No access to the intranet,” 33.02% of the respondents referred to the “Lack of time”, 12.26% − “Misleading navigation,” 22.64% − “Lack of information available,” 24.53% admitted experiencing “Lack of knowledge.” And one respondent only gave the reply “No problem.”

The results of the analysis confirm the fact that both the University’s technical equipment and software has degraded morally and physically, which has a negative impact on both the academics’ attitude to using IT in teaching and the quality of education at large.

Basing on the survey results, three types of opposition have been identified –

- **implicit**: habitual reference to the lack of time;
- **passive**: lack of education: “if I were taught or provided with an opportunity because I cannot do it my self,”
- **explicit**: avoids IT purposefully considering them harmful for his/her professional activity and education processes at large.

Below is a pilot model reflecting the types of opposition in the analysed opposition discourse.
3 RECOMMENDATIONS

The overall recommendations worked out as a result of the pilot research include advice to apply the systems approach and develop a strategic vision as fundamentals for developing the University’s sustainable inner environment securing the LSPU’s strengthening its position of a viable, sustainable prominent Russian and European university.

3.1 To Education Authorities

Basing on the preliminary conclusion that the identified markers of implicit opposition have not proved the Russian academics’ opposition to the introduction of IT-innovations but rather their overwhelming sense of insecurity and uncertainty of their prospects in employment, tomorrow’s standard of living and personal and professional life sustainability.

Returning to the concept of human capital, it can be recommended to correctly set the priorities for the University's and each Institute’s strategic development, which is impossible without staff of highly professional, loyal and well-connected lecturers and researchers.
The notion of high professionalism does not only imply a tertiary diploma and high grades supported with high qualification received through research and with research degrees and professional (re)training, it also presumes consistent ability for continuing professional development (lifelong learning), strive for professional development and inner requirement to create and disseminate new knowledge and form and develop students’ generic and professional competencies in order to improve their professional capabilities and their potential contribution to the development of the Russian economy.

The concept of employees’ loyalty is well defined in MBA Brief Concept Definitions: it is “the extent to which the personnel are faithful to the organization, having feelings of bonding, inclusion, care, responsibility and devotion towards it. It can also be described as the extent to which there is a general willingness among employees to make an investment or personal sacrifice for the good of the organization” (MBA Brief 2016). When university employees feel insecure because their chiefs keep telling that they can be easily substituted by younger and/or more prominent lecturers and researchers, they cannot feel secure thus cannot be loyal to their employers. On the other hand, psychologically, younger employees forced or tempted to substitute their older and seemingly less prominent colleagues, cannot feel 100% secure themselves and thus, subconsciously cannot be truly loyal to the employers who in this situation cannot be considered trustworthy.

Under well-connectedness we mean a scope of both communication and other professional features and the result of using them to establish good relationships with colleagues, students and the University administrators in order to get integrated into the academic and research environment and start largely contributing to its development and improvement.

For the strategic purpose of the University’s sustainable development, it is highly important to support the employees’ increasing professionalism, loyalty and well-connectedness. The results received in the pilot research indicate the possibility to gradually decrease the academics’ opposition, which didn’t prove to be their opposition to IT-innovations but rather their reaction to the lack of insecurity and stability in their professional and personal lives.

3.2 To University Administrators

While working out recommendations for LSPU’s administrators, it is worth attracting their attention to the fact that unlike that of the universities of Moscow and St. Petersburg, LSPU’s access to highly qualified human resources (and primarily teachers) is quite limited due to a number of objective reasons. So, it is even more important for LSPU’s administrators to understand the high value of the human capital they possess and contribute to its sustainable development with all possible means. Besides, the recommendations to LSPU’s administrators can include the following –

- a particular attention should be paid to modernization of the University’s information & education environment and the classrooms available;
- a reliable access to the Internet should be granted in all the University buildings – both in classrooms and teacher rooms;
- a need to buy the whole scope of licensed software required for high quality teaching and learning processes;
- a need for professional training for those teachers willing to learn how to use the University’s information & education environment;
- an importance of interdisciplinary relations and a need to form reliable and long-term interaction between the programmers and teachers of humanities in the process of IT introduction.

3.3 To Academics

The importance of the combination of the three components discussed above should be understood be every academic and researcher. In the situation of the University’s developing inner environment, they should recognise the need for their personal and professional contribution to the University’s sustainability and successful development. The level of professional security does not completely depend on the behaviour of decision-makers. It also depends on the academics’ and researchers’ strive for self-development, which is sure to gradually raise the level of their professionalism and self-esteem, as well as their competitiveness inside the University they are currently employed in and on the national educational and research market.
Overwhelming dissatisfaction is a serious psychological problem that has to be tackled and solved as it elevates the stress level and decreases the quality of life – both professional and personal. It can be solved to a large extent by means of the handy tool, integral for every academic's professional personality – self-development.

4 CONCLUSION AND DISCUSSION

The findings of the research are not numerous but they include the typology of opposition motives, a scope of implicit markers of conscious and unconscious opposition to largely perceived by employers as opposition to IT-innovations.

The qualitative interviews have deepened the research and provided an insight in the academics’ opinions of the situation they experience at work, revealing their true attitudes to the University’s inner environment and their interaction with it.

The results of the work also include recommendations developed for academics, university administrators (department level) and education authorities (top managers at the institutional and national levels). The recommendations, if followed, are capable of improving the University’s inner environment in the aspects of its systemic sustainability and viability, and gradually, LSPU’s improved interaction with the outer environment resulting in its increased competitiveness.

Though the complexity and multidimensional significance of the theme limits the validity of the analysis conducted in the paper but offers a solid ground for further research.

The research and its analysis have resulted in recommendations primarily intended for the administration and employees of the Department of Science and Innovations of Lipetsk State Pedagogical University but they are similarly applicable in other universities in Russia and beyond. The recommendations can be used as fundamentals to develop tactics of tackling with academics’ opposition to introduction of IT-innovations in Russian and other universities worldwide.

REFERENCES


