

HUMANITIES AND SOCIAL SCIENCES LATVIA

Volume 20, Issue 2
(Summer–Autumn 2012)

University of Latvia

CONTENTS

From the Editor	3
<i>Agnese Cimdiņa</i> The Embeddedness of Rural Life: The Case of Latvia	4
<i>Ieva Raubiško</i> Invisible Work in the Latvian Countryside	18
<i>Aleksejs Busarovs</i> Peculiarities of Crowdsourcing Taxation in Latvia	52
<i>Svetlana Jesiļevska</i> Innovation in a Knowledge-based Economy and Latvia's Innovative Performance	67
<i>Inese Lūsēna-Ezera, Kristīne Bārdule</i> Use of Information and Communication Technologies in Teaching Process in Primary Schools	85
<i>Ligita Landzmane</i> Using Supervision for Solving Human Problems During Periods of Crises	102
Erratum to: Humanities and Social Sciences Latvia Volume 20, Issue 1 (Winter–Spring 2012), p. 68	114
The Authors	115

FROM THE EDITOR

Dear Reader,

This is the second (and last) issue for 2012 and we expect to be able to publish the next issue in spring 2013.

In this issue we have articles covering the fields of anthropology, economics, management, psychology and education. The authors are both PhD students and established academics.

We hope you enjoy this issue and are looking forward to the next issue in spring 2013.

Best wishes

Viesturs Pauls Karnups
General Editor

THE EMBEDDEDNESS OF RURAL LIFE: THE CASE OF LATVIA¹

Agnese Cimdiņa

PhD

Abstract

This article challenges the understanding of good rural life as based on profitable and efficient economic activity. Empirical examples will indicate that economic development guidelines set out to modernise rural areas and enhance an efficient agricultural productivity have to deal with complex relationships embedded in local socio-cultural contexts. The author's observations of agricultural activities challenge the rational (in terms of economic efficiency), instrumental understanding of farming. The study of small holders' agro-activities is based on fieldwork in organic farms in the Latvian region of Vidzeme in 2010 and 2011. All together 40 farms were visited, some for shorter, others for longer periods. The cases show that the guidelines and programmes for economic development that pursue modernisation of the country-side and fostering of productivity, as well as the introduction of common EU standards in production are often faced with complex relations embedded in local socio-cultural environment that do not correspond to the development initiatives suggested from above.

Keywords: embeddedness, farming, beer, bathhouse, culture, economy, development, Latvia.

Introduction

Latvia's political discourse manifests a perception of good farming as closely tied to successful agricultural production. Success is being measured by the size of agricultural land, position in the market, efficiency in production and monetary profit. The National Rural Development Strategic Plan of Latvia for 2007–2013² communicates that a significant disadvantage for agriculture is its fragmented production structure.

¹ This article is based on research that has been carried at the University of Latvia in the framework of the project "Changing Development Strategies and Cultural Spaces of Latvia's Rural Inhabitants" financed by the European Social Fund. Project Nr.2009/0222/1DP/1.1.1.2.0/09/APIA/VIAA/087

² Zemkopības ministrija (2006), "Latvijas lauku attīstības valsts stratēģijas plāns 2007–2013". www.zm.gov.lv/doc_upl/ZMPL_080606.doc (10.10.2012.)

Ranked according to economic scale, 83.9% of farms³ are considered very small landholdings mainly producing for their own consumption⁴. In many of them, farming is more of a lifestyle or an alternative in the absence of other jobs than an intensive production mode. Due to the assumption that they neither do business nor produce for the market, small farms are regarded as an obstacle to the successful development of rural economies and an unpromising occupation without a future⁵. To remedy this situation, attempts to improve the economic welfare of inefficient subsistence farms through promoting growth, economic efficiency and re-profiling, enhancing farmers' knowledge, skills, and ability to adapt to other occupations, and developing market-oriented economic units have been set as priorities of agricultural development in Latvia⁶.

This article invites one to explore the subjective perception of good farming practice among small holders in Latvia under the current post-economic crisis conditions. The author takes the concept of embeddedness as a conceptual umbrella to approach the study of agro-activities. The concept concerns the integration of the economy into broader sociocultural systems.

Relations where agro-activities are embedded have culturally construed meanings. That allows one to presume that the analyses of small holder farming should be based on the culturally construed values, social links and the connotations they involve and that the rationality of economic activities should be defined in a way that is broader than the criteria dictated by the market economy and economic effectiveness. Such viable agro-activities as for instance home beer brewing, rural bathhouse (in Latvian *pirts*) services and organic farming are among the practices at a Latvian farmstead that fall out of the relevance of the market economy logic. These practices are not primarily guided by economic efficiency, but rather by culturally construed awareness of one's own identity and that of others, of a sense of place, of certain values, of the social and natural environment, of continuity, and all amounting to a certain vision of a good life.

³ The estimated amount of small farms in Latvia is about 79,000, of medium-sized farms – approximately 5,000, states Tamuleviča in the article: Tamuleviča, Dž. (2012), "Straujuma: Latvijā Arvien par Daudz Mazo Saimniecību." *Diena*. 15.03.2012. <http://www.diena.lv/bizness/razosana/straujuma-latvija-arvien-par-daudz-mazo-saimniecibu-13936982> (28.06.2012.)

⁴ Zemkopības ministrija (2006), "Latvijas lauku attīstības valsts stratēģijas plāns 2007–2013". www.zm.gov.lv/doc_upl/ZMPI_080606.doc (10.10.2012.)

⁵ Cimdiņa, A., (Forthcoming), The Unnoticed Entrepreneurship and Innovation in Latvia's Rural Economy, in *Journal of Baltic Studies*.

⁶ Zemkopības ministrija (2006), "Latvijas lauku attīstības valsts stratēģijas plāns 2007–2013." www.zm.gov.lv/doc_upl/ZMPI_080606.doc (10.10.2012.)

Home beer brewing

Taken from the point of view of profitability, there is no sense in brewing beer at home. The beer brewing technology is time-consuming and complicated. Preparations for it take almost a year. Barley must be grown, harvested, dried, sprouted, malted, and the process from putting malt into water till the end product of beer takes around a month. When beer is fully brewed, it should ripen ten days in the keg. The farmer does not include the time and resources invested in this process in his calculation as far as it is not for profit that he grows barley and hops, and brews beer from them. Beer is being brewed in small holder farms every year for the traditional Midsummer night's festivity (in Latvian *Jāņi*) or special family celebrations.

At the farm where the author did her fieldwork, the beer is brewed as follows: malt is filled into a sack so as to leave space for filling up. The sack is steeped in a pond for 24 hours. After that, the sack needs to be shaken in order not to let the grain fill up so much that the water cannot pass through and to prevent the presence of residual air in the sack. The next step is to let the sack lie next to the pond for 36 hours. Meanwhile, the first sprouts already appear in the sack. Then the malt is put on a clay floor and spread in a span-thick layer. The malt must not be either too wet or too dry – it needs to be such that the grain does not wilt. The malt is covered with sack-cloth; however, the cloth must not be stifling, for the malt can also get choked. The malt must be kept in a cool place, at a cellar temperature. And then must be let grow. The longer it grows, the better and more even it will be. Growth lasts for some three or four days, and then the malt is put out to dry, for example, on the plank-bed in the bathhouse. If the weather is fine and the sunshine is hot, drying can take place also in the sun – the malt dries as quickly as hay. As soon as the malt is dry it must be milled. And then follows mashing, which is a continuous process that lasts for some 12 hours. Heated stones are put into the mash of the beer – this is how the beer becomes much milder. Usually it is of a honey colour. But the colour depends on the grain and various lunar phases.

During Midsummer festivities every farmer, especially if he is named *Jānis*, can expect dozens of uninvited guests coming to his farmstead singing and asking for beer and every host's duty then is to serve his guests beer. The author was told a story about a farmer *Jānis* who had grown old and was too weak to brew the beer himself. The very thought that the guests would come and he would not have beer to give them, made him commit suicide on the eve of Midsummer night. This farmer had been famous for brewing a particularly flavoured and clear beer that he used to serve in glass bowls in order to appreciate not only the taste, but

also to see how the beer foams and sparkles. The story runs that on their journey from one farm to another folks had gathered in a rather big crowd and all together had moved to this farmstead knowing that beer in this place is particularly tasty. This was more a joy for the heart than for the stomach, which can be proved with the song that is sung in this region: *I'd rather if my pigs devoured my malt...Than see that my beer goes without songs.* The idea of a Midsummer night without a homemade beer was too unbearable for the old farmer to endure. He did not have a beer to serve his guests, thus he hung himself in his beer cellar while Midsummer guests had gathered singing in his yard.

The bathhouse

Just like beer brewing the rural bathhouse ritual in Latvia is a process in which investment exceeds profit⁷Over the past five centuries a bathhouse in Latvia was used as a multifunctional structure:

*where all the members of the household took a bath; a place for medical treatment where various ailments were healed and, even as late as in the 19th century, many new citizens saw daylight for the first time; a drying facility where meat and sausages were smoked and grain, flax or germinated malt; a place where different household chores were performed; a dwelling for farmhands, crafts folk, other landless people and those incapacitated.*⁸

The rural bathhouse traditions in Latvia have historically existed outside the market sphere. The rural bathhouse rather belonged to the moral sphere of mutuality where action and exchange are based on specific cultural traditions and close mutual relations. However, today when there are no jobs in Latvia's rural areas, farms go bankrupt, rural residents migrate away from their communities, and hundreds of villages are struck off the record because not a single residence address has been left on the register⁹, a number of resourceful farm owners have developed in their farmsteads bathhouse services. These farms provide paid bathhouse

⁷ Cimdiņa, A. and Raubisko, I. (2012), *Cilvēks un Darbs Latvijas Laukos: Sociālantropoloģisks Skatījums* [Life and Work in the Latvian Countryside: An Anthropological Approach]. Rīga: Zinātne.

⁸ Cimermanis, S., (1991), Mūsu tautas svētnīca – pirts, in *Dabas un vēstures kalendārs 1992. gadam*. Rīga: Zinātne. pp. 236–255

⁹ During the year, 284 villages were struck off the register in Latvia. Diena.lv. 19.04.2012. <http://www.diena.lv/latvija/gada-laika-latvija-likvideti-284-ciemi-13942801>; http://www.tm.gov.lv/lv/jaunumi/pi_info.html?news_id=4150 (05.06.2012.)

services mainly for broken down, stressed-out, and exhausted middle-aged city dwellers.¹⁰

A bathhouse has always been an integral part of Latvian farmstead – a place where not only the body, but also the soul is rendered clean and white. Nowadays a rural bathhouse is mostly perceived as a place which helps one to dispose of all negative emotions, to purify and recharge oneself.¹¹ A bathhouse accommodates a stove with a round pile of stones on top. The ideal temperature should be 60–70°C. Just like in ancient times also nowadays in the bathhouse hot water is ladled onto hot rocks to produce vapour and moisturise the air. The hot and humid air is rendered fragrant by the herb whisks. The bathhouse master “whisk” his/her clients – beating gently their hot and perspiring bodies with whisks made of the leafy branches of various trees. The bathhouse master devises whisks from various plants and branches, different for each person he is going to attend to. Before going to the forest to cut plants for the whisks, bathhouse master¹² purifies himself through meditations, taking a wash, donning a clean white shirt, so then when branches are cut and bound into whisks, undesirable energies would not attach. Whisks are divided into those carrying male or female energy, the purifying ones, and those that bring strength and protection. Each of those has its meaning and impact. The impact of a whisk has its invisible energy component; therefore, anybody who uses whisks should respect them and know what their effect might be. To amass a decent store of whisks that would last the whole year through, they must be prepared in the summer. The most popular are those from birch, oak, linden, and juniper twigs, but true bathhouse masters add a number of different plants to the whisks they use for healing, for aroma, and for energy.

The bathhouse ritual necessarily involves a sudden cooling off: a cold pond or even a hole in the ice can serve the purpose. The bathhouse masters value the contrast between hot and cold as a powerful effect that exercises blood vessels, toughens the body and makes skin supple.

The entire bath house procedure is a sequence of aromas and bodily sensations – smells, touches, energies – which help to free the mind¹³.

¹⁰ Cimdīņa, A., (Forthcoming), The Unnoticed Entrepreneurship and Innovation in Latvia's Rural Economy, in *Journal of Baltic Studies*.

¹¹ *ibid*

¹² Such a practice was observed in a bathhouse farm where the author conducted long term fieldwork in 2010 and 2011.

¹³ For a more profound description of a rural bathhouse ritual see chapter 3. in Cimdīņa, A. and Raubisko, I. (2012), *Cilvēks un Darbs Latvijas Laukos: Sociālintropoloģisks Skatījums* [Life and Work in the Latvian Countryside: an Anthropological Approach]. Rīga: Zinātne.

Only when the client has been cleansed in terms of energy, he/she can be “refilled” with a new energy. The bathhouse master formulates this in the following way:

As a result of a well-balanced bathhouse ritual a person can achieve a complete relaxation, beyond the limits of the reasoning, which is the skill behind all meditation. When the mind is passive, internal silence sets in; all emotions come to a standstill, only elation, the joy of being remains. Then you are who you are; the doors to your inner depths open up, and healing, self-regulation and self-adjustment take place.

Even in the bathhouses that nowadays provide paid bathhouse services the ritual procedures do not seem to be focused on the bottom line: a bathhouse master gives a free whisking to a close friend, he does not take stock of working hours invested in heating the bathhouse and procuring firewood and the various whisks. The small, modest rural timber bathhouse has the atmosphere of unsophistication, calm and rural artlessness and the material world in the bathhouse contains seemingly simple and folklorised natural and spiritual elements: cones, stones, various whisks of herbs and twigs, honey, salt, folklore deities, etc.¹⁴ The non-commercialised environment, cosy and simple hospitality are the values appreciated at the rural bathhouse.

Neither building a bathhouse, nor heating and whisking, nor the significance and uses of whisks and all the ritual elements of a bathhouse can be analysed in terms of profit making. Rather the aspects that allow experiencing the bathhouse as a sanctuary for soul and spirit are central for those who practice bathhouse services. A hostess of a bathhouse in Vidzeme claims that in no way would she advertise her bathhouse because of the sanctity of the place – profiteering is not her goal:

Can my work be calculated in terms of money at all? – cutting the whisks, drying, fumigating the bath, heating it, revering the pixie of the bathhouse, bathing, as well as from the point of view of energy – refining and empowering – in all this much more is given than taken. Neither the skills of the bathhouse master nor the time invested in the ritual nor the result achieved in the bathhouse can be expressed in monetary terms.

¹⁴ Cimdiņa, A. (Forthcoming), The Unnoticed Entrepreneurship and Innovation in Latvia’s Rural Economy, in *Journal of Baltic Studies*.

Embeddedness

From these cases one can see that the social world, as Bourdieu¹⁵ points out, is entirely present in every economic action. A social approach to economic practices is not a novelty, of course. In 1940s, it was actualised by Polanyi¹⁶, who by introducing the concept of *embeddedness* asserted that in modern capitalism the economy is *embedded* in the institution of the marketplace. But in the economic systems of other cultures the economy is embedded in other social institutions and operates on different principles from the market. As Wilk and Cligget¹⁷ state, in some cultures the economy may be part of kinship relations, whereas in other places religious institutions may organise the economy. Polanyi observes that economies that are not built around market principles are not focused on the logic of individual choice, which is the basis of modern Western economic science. To study these other societies we need other principles, he states, and these will depend on how the substantive economy of making a living is organised in each place; in contrast, the modern market economy, in which all things are disembedded from their social conditions of production, is best understood through formal economics¹⁸. According to Lie¹⁹, Polanyi remains one of the most cogent critics of neoclassical economics.

Four decades later, after Polanyi, Granovetter²⁰ achieved the actualisation of the embeddedness concept in sociology. Referring to Polanyi's division between embedded and disembedded economies, Granovetter asserts that the level of embeddedness of economic behaviour is lower in nonmarket societies than is claimed by both substantivists and development theorists, and that it has changed less with "modernisation" than they believe; but he also argues that this level has always been and continues to be more substantial than is allowed for by formalists and economists. Granovetter points out that in non-market economies there is more instrumental action than anthropologists recognise, whereas in market economies there is more embedded material action than economists concede.

¹⁵ Bourdieu, P., (2005), *The social structures of the economy*. Cambridge, Malden: Polity Press.

¹⁶ Polanyi, K., ([1944] 1957), *The great transformation: The political and economic origins of our time*. Boston: Beacon Press by arrangement with Rinehart.

¹⁷ Wilk, R. R., & Cligget, L. C., (2007), *Economies and cultures: Foundations of economic anthropology*. USA: Westview Press.

¹⁸ Gudeman, S., (2001), *The anthropology of economy: Community, market, and culture*. UK: Blackwell Publishing.

¹⁹ Lie, J., (1991), Embedding Polanyi's market society, in *Sociological Perspectives* 34 (2) (Summer): pp. 219–235.

²⁰ Granovetter, M., (1985), Economic action and social structure: The problem of embeddedness, in *American Journal of Sociology* 91 (3) (November): pp. 481–510.

Rural development policies in Latvia seem to be designed in such a manner as if economy would be an area increasingly separated and differentiated from social life and where transactions depend on rational calculations of individual benefits rather than on socio-cultural and kin considerations. Political initiatives for economic development in rural areas seem to echo the assumptions of economic theory, namely, that the explanation of human action is to be found in “rational and persistent pursuit of self-interest”²¹ and profit.

Much as the approaches of economists in the studies of economic life, the development initiatives from above seem to ignore the significance of culture in the patterns of economic behaviour and the circumstances that shape human life. Small holder organic farms in Latvia are often seen as backward, inefficient and unproductive. It’s being stated that their number should be decreased and that they should be restructured to intensive large scale farms, which would then be a driving force for rural development²². However, such initiatives more often than not, contradict with the small holders’ perception of a good and meaningful life.

Where shall the Latvian brown cows go?

After graduating a professional college, a farmer’s daughter from Vidzeme struggled between two options: to stay in the country-side where there are no jobs or to leave. There was no desire to stay; nevertheless she felt it was impossible to leave all that the previous generations had created. She admits:

It is a mighty force that attracts, it is impossible to give any sensible explanation – you feel obliged to your farmstead, you cannot simply leave it.

She made a decision to stay and became an organic small holder, like her parents, however, her perception of good farming practice turned out to be rather contradictory to those dictated by State regulations. She said:

With the accession to EU and all the bureaucracy it involved, farmers with two or three cows disappeared... Even with 10 cows a farm is counted as very small nowadays, and it is debated whether such farms are needed at all, for they are not economically efficient, so they say.

²¹ Buckley, P. J., (1998), *International business: Economics and anthropology, theory and method*. UK: Macmillan Press.

²² Cimdiņa, A., (Forthcoming), The Unnoticed Entrepreneurship and Innovation in Latvia’s Rural Economy, in *Journal of Baltic Studies*.

We have completely got lost with the regulations of the EU. No one recognises there our specific features, all of us are thrown under one standard, and modernisation projects encourage one to manage agriculture in such a way that no one has ever managed farming in Latvia... the person who cultivates Californian earthworms is paid more than he who has cattle for milk production. They say these are the new chances for Latvian countryside.

And then there was this modernisation project with turning cows for milk into wild cows for meat. We were advised to lead our cows for milk into woods and leave them there! The wild cows were not brought from abroad; a wild bull was let to our cows to produce wild cows. Mainly a few representatives of the stock were introduced – selected bulls. And in winter when temperature is minus 35 degrees and snow is up to one's armpits, many of our brown cows fell. If you have a heart in your breast you cannot calmly watch it – to take the cows to the wood and leave them there and know what tortures they experience there since no one milks them there and calf cannot suck and everything gets inflamed there. The cow does not become a cow of woods all of a sudden. That is how all the business of cattle breeding for meat started. And they call it the perspective of new chances! And we are reprimanded for not thinking rationally. They say we should look for alternative models of farming. I would never do that to my cows. Although cattle breeding for milk require a lot of resources I would not be ready to pass over to cattle breeding for meat in such a way.

It is obvious from this story that economic life is constituted not only by calculation of profitability and social relations, but also by cultural meanings, perceptions and value layers. The story narrated by the peasant women reflect that to a large extent the organisation of economy takes place beyond the market logic through political mechanisms and standards, and that these relations create added value to the produce in a way that differs from market relations, demand is also created artificially, as in the case with Californian earthworms. The story creates doubts about the correctness of the assumption that the market would determine what is good and what is bad²³, and that the market models one's behaviour as much as possible in compliance with a purely competitive market. That allows one to think that he or she cannot evaluate the practices of farming according to their competitiveness in the market alone. An economy can be organised in several ways, and the turnover of specific products is

²³ Koponen, T. M., (2002), Commodities in action: Measuring embeddedness and imposing values, in *Sociological Review* 50 (4): pp. 543–369.

not the sole reason that explains why economic activities are or are not performed.

How much room for culture?

The assumption that social relations shape economic behaviour has provided social scientists with a useful platform for questioning the individualistic and profit-rationality oriented analyses of neoclassical economics, and for elaborating an alternative approach to the study of the economy. However, up to now in the studies of embeddedness of economy, little space has been devoted to the aspect that anthropologists call “culture”²⁴; everything there is rather a social structure, groups and institutions rather than symbols, meanings and habits²⁵. It does not take into adequate consideration the process through which an economic system becomes embedded and it limits itself to explaining the social dimension of an economic system in the form of networks.

To acknowledge the fact that embeddedness has a deep effect on economic practices is one thing, but quite another thing is to identify the linkages, ideologies, strategies, activities and outcomes that reflect this embeddedness. Characteristic example of network-oriented embeddedness in Latvia’s small holder farms reflects various exchange practices. While not producing for market many smallholders live with nearly no monetary means and thus are dependent on viable social networks to meet their basic needs. I quote a smallholder revealing the typical exchange pattern in her neighbourhood:

Peter helps us to bring in hay; my husband in turn helps him with the combine harvester. Milk comes from Jānis’s farm. I make cheese and cream myself and Jānis always gets some of it. When Ieva needs to go somewhere, we give her a lift, she has no money, but she gives us duck eggs. If somebody places an order for goat cheese, I go to Anna to get goat’s milk. She is happy to take vegetables from me. Should I need buckwheat, I go to visit my distant relatives. That is the way we manage here.

We can refer to this exchange logic as “embeddedness” because ongoing social ties shape actors’ expectations and opportunities in ways that differ from the economic logic of market behaviour. But if widening

²⁴ Wilk, R. R. & Cligget, L. C., (2007), *Economies and cultures: Foundations of economic anthropology*. USA: Westview Press.

²⁵ Sonnino, R., (2007), Embeddedness in action: Saffron and the making of the local in Southern Tuscany, in *Agriculture and Human Values* 24: pp. 61–74.

the embeddedness approach, by encompassing in economic decisions alongside with the social aspects also cultural, political, cognitive and ideological structures; a deeper insight in the meanings attached to agro-activities and manifestations of embeddedness can be revealed. For example, how farmers' motivation turns away from pursuing economic interest choosing instead care for the cattle and surrounding environment, as well as the enrichment of mutual relations through trust and reciprocity within the community.

A cultural approach to embeddedness of agro-activities would rather focus on the moral meanings of work, trade, obligations, trust, the character of entrepreneur's innovative capabilities, values and so on. Economic practices in such an approach become symbolic reflections of the cultural order and of the sense of right and wrong that people adhere to within a cultural order²⁶.

Many small and medium size farmsteads are not primarily market-oriented in their production and resist the dictates of bureaucratically regulated farming standards which, according to the opinion of many farmers, do not comply with the local environment.

Peasant's lifeworld

The cases of home beer brewing, bathhouses and organic farmers directly raises questions of how social values shape economic action; how the institutional and cultural underpinnings construct values and beliefs that shape economic life and what reasons actors have for participating in production, distribution and consumption. Why do they produce what they do not sell in the market? Why is production maintained in places not fit for business? How do locality, relations with nature and animals, kinship and other social institutions interact and help to explain the models of services, goods or exchange and ritual attitudes within a given society? And how do farmers respond to top-down changes that are imposed on behalf of economic development? What specific models of action are they generating? What constitutes a good life in small holder farms?

We see that much of the "making" or instituting of the economy happens outside the market²⁷ and that relationships impose value upon goods differently than do market relations. Social values that add "economic value" to goods are not uniform, but highly contextual. By focusing on

²⁶ Wilk, R. R., & Cligget, L. C., (2007), *Economies and cultures: Foundations of economic anthropology*. USA: Westview Press.

²⁷ Koponen, T. M., (2002), Commodities in action: Measuring embeddedness and imposing values. *Sociological Review* 50 (4): pp. 543–369.

what is produced, and in which places, anthropologists like Appadurai²⁸ and Kopytoff²⁹ suggest that production is not only material, but also a cultural and cognitive process, culturally marked as creating certain kind of things. Farmers in the cases of beer brewing, organic farming and bathhouse services encode their produce with significance, and value thus is not a component of economic life, but an aspect of sociocultural life.

It is culturally constructed convictions and beliefs rather than economic efficiency that in many organic farms constitutes the perception of good life and motivates actors to choose one or another kind of practice or strategy. The story of an organic farmer from Vidzeme precisely demonstrates this opinion. He tries to preserve the diversity of nature. The average acreage of his fields is about one hectare. His household is growing different crops – buckwheat, summer wheat, rye, barley, oats, vetch. And they have a vegetable garden and every year all this is grown in a different place in order not to overcrop the soil. The farmer says:

Farmers are taught at school that a definite amount of mineral fertilisers is needed to produce a given amount of products, in order to produce efficiently. I work absolutely with no mineral fertilising, without any chemicals. We do not focus on money making. We are working for ourselves, for nature, for our self-sufficiency, we do not regret that by such farming we cannot earn a lot of money.

There is a small pond in the vicinity of each field. There abide a frog, a toad, a lizard, dragonflies and all kind of bugs. And Colorado beetles do not multiply in our fields. They have natural enemies from water, from the forest or from the living fields nearby and those do not let them multiply. Where crop dusting is practiced, not only the beetles, but also their natural enemies perish. When natural processes are active, everything thrives.

Fish heron visit our pond and tries to catch some fish. According to the Regulations of Europe, it would be appropriate to place some repellents there or may be even hunt them; however, if the fields are cultivated in such a way that the lapwing can nest there, it follows you along the furrows and picks up the beetles, and guarding its fledglings in the nest, drives the heron away from the pond. If your tractor is equipped with a plough or cultivator the lapwing

²⁸ Appadurai, A., (1986), Introduction to *The social life of things: Commodities in cultural perspective*, by A. Appadurai. Cambridge: Cambridge University Press.

²⁹ Kopytoff, I., (1986), The cultural biography of things: Commoditization as process, in Appadurai, A. (ed), *The social life of things: Commodities in cultural perspective*, Cambridge: Cambridge University Press, pp. 64–95.

will let you approach its nest up to two meters! You can carefully pass around the small nest and the bird continues to hatch there. The more species there coexist, the less invasive can one kind of species become.

Our ancients have wisely known how to use all that. But see, you will not find it written in books. And why can't we defend those values and the wisdom of nature? Because large scale cannot be produced in such a way and it does not pay off. At the State level, it is very often declared – that Latvian farmers are not enterprising enough. On the one hand, it is right to say that we work in an old-fashioned manner, but we are self-sufficient and we provide ourselves with all we need by organically clean farming. However, the regulations are so bureaucratic that a man cannot work to the best of his conscience.

It is very important to cultivate land so that it is visibly enjoyable. While cutting timber I take care that birds would be able to nest there. And it is relaxing to watch what birds have arrived and how they live. That is my free time and I derive from it so much satisfaction. Seven generations of ours have cultivated this land and loved it. That binds me to this place. Nature attracts, landscape – and what makes it most interesting is the fact that the diversity of landscape and nature can be combined with production, life-style and survival, and the place is not deserted, after you the place is not empty. This is what I call a good life.

Conclusion

What can we conclude from these cases?

Economic effectiveness is not the basis of a good life in many rural areas (and small-holder farms in particular) and therefore would not work as a driving force of economic development in small and medium sized farms that comprise around 85% of agricultural farms in Latvia.

The farmers do not make constant calculations of each step, they take up practical strategies or act according to common sense, a notion of what is fair and what the situation prompts. They also tend to rely on inherited practices. The actions of smallholders are not determined by cost effectiveness also because they have a limited capacity to assess different correlations and to make precise calculations.³⁰ To forecast the number of rainy days and to decide the optimal proportion of arable land to be reserved for sowing grain, or in order to say how many pest,

³⁰ Henrich, J., (2002), Decision making, cultural transmission and adaptation in economic anthropology, in Ensminger, J. (ed), *Theory in economic anthropology*, Walnut Creek: Alta Mira Press, pp. 251–296.

namely, Colorado beetles the lapwings eats per season or how much time and resources are spent for beer-brewing or bathhouse ritual – long-term studies would have to be carried out with precise counting and measuring techniques. But in these processes, cost and benefit assessment seldom becomes a part.

These practices exist not as the result of profiteering, but as the result of social succession and the perception of a meaningful life. These agro-activities cannot be subordinated to market models as much as market logic and economic efficiency do not predominate in these practices. These practices cannot be separated from the values and perceptions. Culturally construed notions of meaningful farming are present in each economic strategy reviewed in this article.

Latvia's rural regions are governed within the frameworks of programmes and strategies, which propose as their strategic goal the growth of the regional economy and enhancement of development. An immense institutional network is established (from international organisations down to inland development agencies), which has to ensure a smooth functioning of services and define the space of development³¹, where macroeconomic policy, integrated rural development, modernisation of agriculture and restructuring of smallholder farms are included.

However, the guidelines for modernisation of agriculture and promotion of productivity do not address the issues as a complex set of relations embedded in the local socio-cultural environment. Most probably the success of the rural development programmes, initiated from above, will depend not so much on the political guidelines, but on the understanding of local populations as to what makes farming a sensible and meaningful activity. Thus, in order to understand small holder economies and their transforming possibilities, it is essential to understand their socio-cultural foundation.

³¹ Escobar, A., (1992), *Imagining a Post-development era? Critical thought, development and social movements*, in *Social Text*, No. 31/32, *Third World and Post-Colonial Issues*, Duke University Press, pp. 20–56.

INVISIBLE WORK IN THE LATVIAN COUNTRYSIDE¹

Ieva Raubiško

DPhil (Oxon)

Abstract

This article focuses on rural people who “don’t work”. It invites the reader to take a deeper look at the idea of work, by seeing beyond the accepted definition of work as a purely wage-earning activity. It carefully examines the rural unemployed, here termed the rural proletariat, as a social group in Latvia by looking at their circumstances in a broader socio-historical context. By applying this approach, it reveals the links between class differences, social inequality and alcoholism. It also shows that many of those who “don’t work” are, in fact, working. They perform “invisible work”, that is, engage in activities that sustain their existence. However, these activities that often amount to hard physical labour can’t be measured or evaluated according to the criteria of productive wage labour under the capitalist system of production.

The article first surveys the predominating definition of work that is broadly accepted by Western industrial society together with alternative treatments of work suggested by social anthropologists in recent decades. The theoretical analysis of work is supplemented with extensive empirical case studies from rural Latvia and socio-historical context, paying particular attention to the labour experience of rural people during the Soviet period, alcoholism, and the recent social support programmes implemented by local municipalities. It shows that the so-called *simtlatnieku* or “hundred-lats” beneficiary programme serves as a kind of substitute to the *kolkhoz* labour-model. The article then offers a discussion of work as a Latvian virtue, claiming that this partially depleted ideal can be applied neither to the work performed by rural proletariat, nor to the work carried out by smallholders.

The article demonstrates that within Latvian society three different and at times contradictory conceptions of work exist simultaneously: (1) work as a universal guarantee of status and income; (2) work as the basis for the image of the industrious

¹ The article was written as part of the research project “Changing development strategies and cultural spaces of Latvia’s rural inhabitants” Nr. 2009/0222/1DP/1.1.1.2.0/09/APIA/VIAA/087, financed by the European Social Fund and carried out under the auspices of the Faculty of Humanities of the University of Latvia. The discussion is based on long-term fieldwork in the period from 2010–2012, which involved participant observation as well as in-depth interviews with more than 60 rural inhabitants of different ages and social statuses.

I am grateful to Ieva Vītola and Anna Reynolds for their help in preparing the article.

peasant sanctified by Latvian literature, and (3) work as the productive labour demanded by the free market.

By way of conclusion the article suggests that the invisible work plays a key role in sustaining life in the countryside.

Keywords: work, social support programmes, invisible work, rural unemployed, Latvia

Introduction

This article is about rural people who “don’t work”. It is about people often referred to as lazy and unenterprising layabouts who have lost the habit of working and become used to “lying on sofas”; people who constantly avoid employment, preferring instead to live on social benefits and, quite frequently, alcohol (see, e.g. Brauna 2011, Brila 2012, Grīnvalde-Iruka 2012, Misiņa 2012). However, the inverted commas in “don’t work” are intentional. This article invites the reader to take a deeper look at the idea of *work*, to see beyond the accepted definition of work as a purely wage-earning activity and to examine carefully the characterisation of *the unemployed* as a social group in Latvia by looking at their circumstances in a broader socio-historical context. By applying this approach, the links between contributing factors are revealed, such as class differences, social inequality and alcoholism. It also turns out that many of those who “don’t work” are, in fact, working. They engage in activities that sustain their existence. However, these activities can’t be measured or evaluated according to the criteria of *productive wage labour* under the capitalist system of production. For the purpose of this analysis the term “invisible work” seems more appropriate.

This article will survey the predominating definition of work that is broadly accepted by Western industrial society together with alternative treatments of work suggested by social anthropologists in recent decades. The theoretical analysis of work will be supplemented with extensive empirical case studies from rural Latvia and socio-historical context, paying particular attention to the labour experience of rural people during the Soviet period, alcoholism, and the recent social support programmes implemented by local municipalities. It will be shown that the so-called *simtlatnieku* or “hundred-lats” beneficiary programme serves as a kind of substitute to the *kolkhoz* labour-model. The article concludes with a discussion of work as a Latvian virtue, showing that this partially depleted ideal can be applied neither to the work performed by rural proletariat, nor to the work carried out by smallholders. We will see that within Latvian society three contradictory conceptions of work exist simultaneously: (1) work as a universal guarantee of status and income;

(2) work as the basis for the image of the industrious peasant sanctified by Latvian literature, and (3) work as the productive labour demanded by the free market. By way of conclusion we will suggest that the invisible work plays a key role in sustaining life in the countryside.

Depending on the way we interpret and define work, we either see or do not see people working. In a broad sense, work is one of the pre-conditions of the mankind's existence and one of the basic institutions of society; it exerts a decisive influence on numerous social processes. Human life in any community largely depends on the way in which work is conceptualised and the manner in which it is organised (Applebaum 1992: ix). What, then, do we consider work in modern Western societies, including Latvia?

What is work? An economic perspective

One of the essential characteristics of Western societies is the general use of a narrow definition of work including only wage labour or a productive activity valued by the profit it brings. This concept evolved in tandem with the development of capitalist economy and was consolidated during the industrial age (Ehmer 2001, Zimmerman 2001). However, emerging signs of this system of thought were noticeable long before wide-scale industrial production had taken root. Adam Smith, the Scottish Enlightenment thinker, is regarded as the founder of this system of thought. He laid out these ideas in his treatise on political economy *An Inquiry into the Nature and Causes of the Wealth of Nations*. Smith pointed out a direct relationship between labour and the value of commodities:

The value of any commodity [...] to the person who possesses it, and who means not to use or consume it himself, but to exchange it for other commodities, is equal to the quantity of labour which it enables him to purchase or command. Labour, therefore, is the real measure of the exchangeable value of all commodities. (Smith 1904 [1776]: 1.5.1.)

Almost a century later when industrialisation was in full swing in Great Britain, Germany, France, and America, Karl Marx carried out a detailed analysis and critique of the capitalist mode of production in his voluminous monograph *Das Kapital* where he investigated the relationship between labour and value. In some sense Marx was promoting Smith's definition of labour as a purposeful process during which man achieves the changes in nature he envisaged beforehand (Marx 2010 [1973]: 157–158). Marx suggested a complex “law of value” proposing three labour-related values: use-value, value (or “substance of value”), and exchange-value. The use-value of a commodity was its appropriateness for usage or consumption for the purposes why it was produced; the exchange-value was the value

that the labour product in the form of a commodity acquired at the market; at the same time, the very substance of value was the labour invested in the commodity measured by the labour time required to produce it (Ibid, 47–86, Firth 1979: 177–182).

Marx stressed that labour power (*Arbeitskraft* in German)² as a saleable commodity provides the capitalist with an opportunity to profit from the surplus value produced by the labourer. Marx described in minute detail the process by which labour as a free and legally correct option becomes a legally abstract and statistically codified category that is alienated from the labourer. It is this type of impersonal labour, measured in time and money, which is the very cornerstone of capitalism (Biernacki 1995, quoted by Zimmermann 2001: 16562).

The Marxist critique exerted a significant influence on governmental policies used in various countries and on the conceptualisation of labour in the social sciences. Work, or more precisely wage labour, was paired with its opposite, non-work or unemployment. Furthermore, employment and unemployment, which is regulated by legislation within the standardised economy of a state system, became linked with social and political rights and obligations, for instance tax payments and social guarantees (Zimmermann 2001: 16562). Both in capitalist and in socialist industrial societies, wage labour became the main model for social relations and the source of social status; it was the “entrance ticket” to the political community of the state (Ibid: 16563).

A similar understanding of labour has evolved in Latvian society. Since the fall of the Soviet Union and the rapid changeover to a neoliberal market system, one of the main indicators for the health of the national economy has become employment/unemployment statistics. National development – including development in rural areas – is measured using these indicators together with statistics for GDP (gross domestic product) growth per capita and productivity (i.e., the utility of resources used in production – land and other raw materials, various technologies, buildings, labour).³

It is as if the numbers speak for themselves. Out of 1.03 million economically active Latvian inhabitants aged 15–74, 16.2% were

² Marx defined labour power or labour-capacity as the total aggregate of physical and intellectual abilities that the body and personality of a living person embrace and that are put into practice every time a labourer produces some use-value (Marx 2010 [1973]: 149).

³ As has been shown in other publications, development that is primarily oriented toward economic growth does not automatically guarantee an improvement in the standard of living for the greater part of society, especially in rural communities (Cimdīņa, Raubiško 2012a, 2012b).

unemployed in 2011 (CSP 2012). In the first two quarters of 2012, the number of people seeking employment did not change (Ibid). At the end of September 2012, the proportion of registered unemployed individuals in the region of Kurzeme was 11.6%, in Zemgale – 12.1%, in Vidzeme – 13%, and in Latgale 21.6% (NVA 2012).⁴

The primary employment in rural Latvia in 2011 remained in the agriculture, forestry, and fishery sectors employing 25% of inhabitants. 16.7% of the rural workforce was employed in the industry and energy sector, and 13.8% were employed in the service sector (including commerce, food/catering, hotels/tourism etc.) (LVAEI 2012: 7).

According to specialists at the Latvian State Institute of Agrarian Economics (*Latvijas Valsts agrārās ekonomikas institūts*), only slightly more than half of the number of hours worked in agriculture were in the commercial sector⁵, but paid work made up only slightly more than one third of all hours worked (SUDAT 2011, quoted in LVAEI: 7). The remaining paid (and, as we shall see, not formally paid) work took place “outside of business” in existing subsistence farms. In 2010, large agricultural crop and dairy livestock farms paid, on average, 90% of their workforce, and vegetable, pig, and poultry farms paid 80% of their workforce, but small dairy farms on average paid only 3% of their workforce. The remainder of the work was done using unpaid family labour. The 2010 agricultural statistics show that an average agricultural labourer was employed only

⁴ Two separate unemployment indicators are cited here: *work seekers* as used by the Central Statistical Bureau (Centrālās statistikas pārvalde or CSP), and the narrower category *registered unemployed*, which is used by the State Employment Agency (Nodarbinātības valsts aģentūra or NVA). In accordance with definitions used by the International Labour Organization and member states of the European Union, employment seekers are people between the ages of 15–74 who may or may not be registered with the State Employment Agency, who have actively looked for work during the preceding four weeks and would be willing to start work within the next two weeks. Those who count as unemployed are people of working age (from 15–62 years old) who have registered with the State Employment Agency and who have been assigned status as unemployed. Unlike unemployment statistics that are registered monthly, the number of people seeking employment in the various regions of Latvia is estimated once annually. In 2011 the number of people looking for work in the regions of Kurzeme was 15.1% of the workforce, in Zemgale – 18.5%, in Vidzeme – 12.7%, and in Latgale – 18.7%.

⁵ Commercially oriented farms are those, which have a standard output (the value produced by the crop from one hectare of agricultural land or one farm animal in one year after prices are determined for each region) that exceeds 4000 EUR annually (LVAEI 2012: 12).

part-time, but agricultural productivity in agribusiness⁶ was 6.5 times below average for the Latvian economy (LVAEI 2012: 7–15).

The low level of labour productivity⁷ in the Latvian economy is a much discussed problem⁸. Experts and policy makers argue that increasing productivity with state-of-the-art technology and raising the qualifications of employees are the main instruments for improving the economy. Increased productivity will raise corporate income levels and improve competitiveness, which in turn will ensure economic development and the wellbeing of the community in general (Krasnopjorovs 2011, LVAEI 2012: 20). While analysts emphasise the need to strike a balance between productivity and salary levels, public discussions revolve around two conflicting viewpoints: one group links low productivity with a lack of competence and willingness to work, while others believe that the missing factor is appropriate remuneration (see, for example, the debates in the Latvian Internet portal *Apollo* – Apollo 2012).

However, neither statistics, nor debates adequately reflect the lives and work of the people who are the central focus of this article. This group might be considered the contemporary “rural proletariat”. Some of them have registered themselves as unemployed and work in the so-called *simtlatnieku* or “100 Lats” beneficiary programme (temporary paid community service labour) or they receive the guaranteed minimum income (GMI) benefit⁹ and/or other social benefits. Some work illegally in

⁶ Here productivity is defined as the added value produced per annual work unit (AWU). One AWU corresponds to the work performed by one person on an agricultural holding (including temporarily employed) during one year, which consists of 1840 agricultural work hours (LVAEI 2012: 9).

⁷ Generally defined as the goods or services produced by a single employee during a given time period.

⁸ In 2011, productivity per capita in Latvia was only 62.7% of the average for the European Union, but productivity per hour was 53.1% (Eurostat 2012 a, 2012b).

⁹ The GMI benefit is calculated by adding together the guaranteed minimum income level for each family member (currently 40 LVL per adult, 45 LVL per child) and subtracting total family income (the following are not considered income: child care allowance, childbirth allowance, funeral allowance, any additional allowance for twins or multiple children born at a single time to one mother, the first 50 LVL of a parental allowance, additional allowances for children with disabilities, care allowance for a disabled child, allowance for a disabled person who requires care, allowance for a child with celiac disease, allowance for the compensation of transportation expenses for the handicapped, vocational training scholarships for the unemployed, or any allowances for additional training or requalification, as well as informal education during the training period). GMI benefit decisions are made by social service workers at the local level who sign cooperation agreements with benefit recipients. Such agreements might include retaining unemployment status, participation in local community service projects, medical treatment and other specifications. (<http://www.lm.gov.lv/text/1516>).

agribusinesses, mostly on farms. Some don't have any official employment or status, but maintain regular activities that help them to ensure their own survival. They grow fruits and vegetables, harvest food from forests, rivers, and lakes, and receive other goods or sometimes money through barter for their work. These people are united by the fact that their activities only partially fall within the national statistical framework; the work they do tends to remain unnoticed and often is not considered work at all.

Even if their activities are considered work¹⁰, it is not seen as necessary or useful work that enhances the productivity of the nation. We will return to these people shortly, but first we need to establish a broader understanding of the concept of work which allows for this “invisible work” to become visible.

Alternative perspectives on labour

In the 1960s and 70s the definition of work in the social sciences was transformed. As a result of a general turn towards agency/activity/practice in contrast to the previously dominant social system/structure, social scientists began also to look beyond the predominant definition of work as wage labour. By shifting attention from the idea of work as a status to work as an activity or practice, researchers began to take notice of kinds of work that did not fall within the strictly defined economic production sector e.g., a woman's work at home, volunteer work. They also looked at the social interactions taking place within work environments and at the significance that the workers themselves assigned to various types of work in specific contexts.

To begin with, anthropologists looked at work done in non-industrial, non-capitalist communities among hunters and gathers, gardeners, animal herders, nomads, farmers etc. Gradually they began to analyse the capitalist features entering into these environments, as well as work in Western industrial and post-industrial societies, including post-socialist countries.

¹⁰ In accordance with the internationally determined survey methodology used by the Central Statistical Bureau, all inhabitants who do some kind of work for pay in money or some other kind of compensation during the week of the survey, even for an hour, are considered employed. Part-time, seasonal, and short-term workers are also considered employed, as well as family members who work without compensation in family businesses or family farms (or fisheries) are also considered to be employed. Also, people who are not usually economically active, but who do some kind of work – for example a pensioner who works as a baby sitter, school children who hand out leaflets, or a homemaker, who teaches private lessons – are considered to be employed (in an excerpt from personal communication with Zaiga Priedīte, Head of the Employment Statistics division at the Central Statistical Bureau on 24.10.2012). Notably, housewives are in general considered to be unemployed.

Some 20th century research was done using the cultural ecology method, which places the main emphasis on the interrelationships of people and the natural world through the use of various instruments and the use of technology in diversified farming practices (e.g., Lee 1979, Sahlins 1972, Netting 1993). The so-called peasant economies research has been just as important since the middle of the 20th century (e.g., Dalton 1971, Mintz 1973, Roseberry 1978, Wolf 1957, 1966). Starting in the 1970s, when the Society for the Anthropology of Work was founded in the United States, a great deal of attention was paid to work done in industrial environments. Marxist theory was central to this body of research whether or not one was in agreement with it. Social scientists borrowed ideas from Marx, opposed his ideas, or offered various interpretations of his work (e.g. Applebaum 1981, Burawoy 1985, Gamst 1980, Nash 1981). The conceptualization of work as a life model rooted in a specific socio-cultural environment was a parallel area of research (Gamst 1995, Godelier 1986, Procoli 2004, Wallman 1979). Even so, anthropologists retained their interest in work as process/activity intrinsic to the formation of personal identity (Corsin-Jimenez 2003). Finally, the change from socialist to capitalist economies and the restructuring of the concept of work and the work practices was a timely theme in research that examined the drastic social changes in post-socialist societies, especially in rural territories (Abrahams 1996, Buchowski 2003, Caplan 2007, Hann 2003, Jancius 2006, Leonard, Kaneff 2002, Petrick, Weingarten 2004, Read, Thelen 2007, Rudd 2006).

In this diverse body of anthropological research work was revealed as a complex reality where the main aspects of living are dynamically interconnected. Work resists classification as a strictly economic, political, or social phenomenon, but rather should be seen as a form of living that is created through the interface of various economic, political and social factors. To approach work anthropologically means to pay attention to the socio-historical context of work organisation and work relations, as well as the ideological meanings of work, including common-sense definitions and individual interpretations. It also means to accept that work has no universal definition: some societies, as anthropologists have shown us, do not separate work from other spheres of life and may not even have a specific term for “work”.¹¹

Even if work is separated from other fields of activity as it is in Western societies, meanings of work are not constant: they change along with the transformation of social institutions over longer periods of time. Yet,

¹¹ That is why French anthropologist Maurice Godelier called for a comprehensive study of “work and its representations across time and across cultures”, involving not only anthropologists, but also historians, linguists, and technologists (Godelier 1980: 1).

as anthropologist Cato Wadel has reminded us, “work” not only reflects the social change; it also helps to sustain vital social institutions, such as family, community, democracy without which society (here modern industrial society) could not exist (Wadel 1979). Critical of the dominating economic view of work which focuses strictly on the creation of economic value in the market and thus allows for limited observations, Wadel urged social scientists to widen the definition of work so as to include the “hidden work”. The latter, according to Wadel, comprises all kinds of effort invested into maintaining institutions and values that cannot be measured in economic terms but are nevertheless essential for social life to continue. Among examples of such work are the seemingly trivial activities of visiting one’s neighbours, giving a helping hand or simply listening to the worries of others, which help to sustain the community (Ibid.: 374), or engaging in informal communication within the formal (work) organisations (Ibid.: 373), or “hidden” effort required of citizens to participate in the political processes of a democracy (Ibid. 375–376)

Following Wadel’s call for a wider definition of work from a social, not strictly economic standpoint, which embraces the “hidden work” that sustains social life in general, here I would like to descend to a lower level of abstraction and concentrate on the invisible physical work, which allows many people in the Latvian countryside to sustain their lives. This kind of work is made invisible by the ideological preference for productive wage labour as a means to create added value.

The invisibility is structurally determined, meaning that the invisible is excluded from the field of visibility by virtue of the rules that structure this field (Althusser 1997 [1968]). To use the example provided by Louis Althusser, a stable scientific theory will not allow for seeing new objects and problems, as the main task of theory as a structured and demarcated field is to prevent any novelties (Althusser 1997 [1968]: 21–22). Building on Althusser, political scientist Yves Winter contends:

To see is to encounter objects in a field of visibility, a field that is constituted through a series of political, cultural, and scientific procedures that determine what objects and problems are intelligible. The invisible, then, is not just a generic oversight but marks that which is foreclosed (Winter 2012: 198).

The excluded or invisible work in Latvian society can thus be seen as a product of concrete political and cultural modes and a power relationship whereby those who don’t hold a paid job are morally inferior due to their falling out of the community of labourers and producers. The economic view of work here blends with the folk concept, according to which a paid job is a qualification of a grown, mature person (Daniels 1987) and

a prerequisite for a participation in a moral community (Wadel 1979). The folk understanding of work here reinforces the narrow economic definition and delineates the field of visibility leaving almost no possibility for the invisible “objects” break into the closed structure of visibility and become seen. Just like housewives, volunteers and performers of “emotion work” (for example, flight attendants) in the United States during the 1980s (Daniels 1987), the unemployed, benefit recipients and “100 lats” workers in Latvia are pushed in the field of invisibility where they work but “don’t work”, as their work holds no material or symbolic value. It is to these people stigmatized as “layabouts and alcoholics” that I turn next.

Invisible work

Alma’s¹² story

A small rural district in Kurzeme. Alma is a 58-year-old woman, who currently works as a milker at one of the big local dairy farms. Every morning at 5 o’clock she goes to the farm where she and her colleague (one of the owners of the farm) are in charge of 100 cows and 20 calves. In the summertime, after milking the cows are let out to pasture and then milked again at three o’clock in the afternoon. Between milkings the farm must be cleaned, the milk containers washed, the cow feed replenished, and the water pipes regulated so that the cows have enough to drink. In the winter, when the cows stay at the farm there is even more work to do – on top of the milking, the feeding, and the watering, the cows’ udders must be very carefully cleaned and the manure must be dealt with. Once a week, when Alma has her day off, her 20-year-old daughter Annija comes to work in her place. Neither Alma nor Annija work legally – they are not officially employed and instead get their pay “in hand” or “in the envelope”. The farm owners pay honestly and regularly. Alma earns about 170 LVL per month. The owners say they pay all of their employees illegally because officially paying taxes for them would mean that their salaries would be much smaller. “The stick has two ends,” says the owner.

Alma stays in a little house not far from the farm with a relative of the owners that they have allotted to her. They came up with this solution so that Alma would not have to walk several kilometres from the village centre where she has an apartment in one of the two-storey buildings built during the Soviet period. Like many of the other townspeople, Alma

¹² The names of all of the interlocutors have been changed here in order to protect their privacy. No civil parishes have been named for the same reason, but the rural districts or regions where the informants reside have been indicated.

bought her apartment with privatisation certificates during the 1990s. The farmer's wife offered to let her stay in the main house with the family, but Alma wasn't comfortable with that. The small simple house is Alma's kingdom, the place where she feels free. When she moved in she cleaned the entire house from top to bottom and washed the grease from wooden floorboards, but she wasn't able to get them as white as she had hoped. Alma has also managed to make herself a kitchen garden. That is where Alma spends her "second shift" when she returns from the farm. She cleans the rooms, prepares food, and then goes to work in the garden. Alma and her housemate have planted such a large potato patch that they can scarcely manage to weed it. They have both early and late potatoes, onions, cabbage, strawberries, and cucumbers and tomatoes in the plastic greenhouse. The garden harvest – especially the potatoes – provides them with food for the entire winter. Alma gives some of her harvest to her children, to her daughter in particular, who as a three-year-old son, Kalvis, with her boyfriend. To better manage her debts and her livelihood, Alma borrowed some money to buy a bull and a calf. She keeps them in the farmer's stable close by¹³. The owners also allow her to cut hay for her animals, but she has to buy additional feed flour for the calf. Alma would also like to keep a cow and a sow, but doesn't think her health will allow it.

Alma has a serious brain disorder that presents as dizziness, strong migraine, loss of consciousness, and other symptoms. Her doctor has said that she may not overexert herself or hold down a job. "I'm not allowed to do heavy work, in fact, any work. I feel myself that I can't do it. I'm not even allowed to tell anyone [that I am working]. But how else will I manage?" Alma asks rhetorically. The GMI benefits that Alma receives due to her low-income status and the free medicine and hospital visits that are included in her benefits still do not cover her medical costs. She has to cover transportation expenses to and from the hospital in Liepāja, some examinations must be paid for separately, and she has to pay out of pocket for certain medicines, for pain relievers, and IV treatments. The pain is indescribable, says Alma. The debts she has accumulated over the past years for medicine and doctor's visits have a prominent place in her budget and are among the reasons Alma can't afford to work any less than she does. She can't afford to take two days a week off from the farm.

Another important payment, one that Alma has almost paid off, is the land tax debt accrued for the three hectares of land in another rural district in Kurzeme that she inherited from her mother. Alma got the land, but not the house. The house belongs to her brother, whose family moved away

¹³ During field work in 2010–2012, we discovered that in Lower Kurzeme the local word for barn (*kūts*) is stable or stall (*stallis*).

long ago. The building is in bad repair and Alma's 35-year-old son, Andis, lives there now. Alma feels bitter that she isn't able to tend the territory for various reasons: "I had planted plum trees and cherry trees there, well everything growing there, including the flower garden. Everything was weeded! I don't like to talk about it. It was like a real home. I worked myself hard, but at least everything was blooming. Now [...] only the front is kept."

Alma's *oma*, her mother's mother, used to live there. She was a poor farmer's daughter who married into a wealthy farming family. Alma remembers how she lived with her own mother and five brothers and sisters in the bathhouse not far from *oma's* house. There was no stove and sometimes the children woke up in a snowdrift. Alma's father did not live with his family, he only showed up occasionally. Later her mother had a boyfriend.

At first Alma studied to be a house painter. She lived in Liepāja for a few years during her youth, and then she moved in with her mother, who lived in a small village not far from Liepāja. That is where Alma got to know her first husband. She followed her husband for a while as he worked in Soviet farms around Latvia. They lived together in Bauska for a while. Eventually Alma divorced him and took her two very small children (her sons, now aged 35 and 33) and moved back in with her mother, who was living in a different civil parish near Liepāja, the place where Alma is still living today. Since then Alma has been raising her children by herself.

Just like her mother, Alma became a milker and a pig-tender at one of the Soviet farms near Liepāja. Alma was good at her job. At the height of her powers she was responsible for 20 cows – first-calf heifers¹⁴. Alma remembers with pride that she managed to milk them, tame them, and accustom them to the milking machines and the milking process in general. Alma was also one of the best pig-tenders and for several quarters in a row her sows produced the greatest number of piglets. This caused jealousy among her rivals. "It's a shame about those farms," says Alma, remembering the *kolkhoz* times. "[Those were] good times, truly. We got good advances and had our own animals. [...] Cows, geese, I had a sow." Like many Soviet workers, Alma had a small kitchen garden, grew vegetables, and privately kept several animals. This allowed her to provide for three children. Alma's daughter was born during her second marriage,

¹⁴ First-calf heifers (*pirmpienes*) are cows that are calving for the first time. It is difficult to accustom these cows to milking machines. They tend to rest, to fall to the ground, and to kick the machines with their hooves. First-calf heifers must be "broken in" in the same way that horses must be accustomed to the saddle.

which unravelled after ten years of living together. Alma's second husband was a heavy drinker for many years and hung himself in the end.

Even so Alma was unable to save up enough money to buy some goods as easily as the Soviet bosses, the brigadiers and the agronomists: "There were some who saved thousands. You needed to save, but I'm no good at that. [...] They took milk from the farm, carried it home, fed their animals, and then gave the milk to the processing plants. I couldn't. My cow was pregnant. I couldn't take a litre of milk from the farm and bring it to my daughter. Well, I couldn't. I never learned how to steal. [...] I thought it was better to earn a living honestly."

Alma talks about the private houses that were built during the late Soviet period: "[The bosses] built such houses for their children. They didn't have to go to their barns over ground. They built in underground passages. They must still be there. [...] the [bosses'] children live there now." Some houses remain unfinished. "When the Russian times were over, they stopped building, because there was nothing left to steal," says Alma. She repeatedly emphasises that only "bosses" built houses, they helped each other out: "Only the powerful people helped each other, that's how it was. The little black worker had only his pitchfork [to work with]. [...] Did any milkmaid ever own a car? – Not one. Only powerful men drove and changed their cars. The rest of us could work from morning until night."

But Alma is proud that despite her poor beginnings and the unfavourable family circumstances, which have shaped her entire life, she has survived and managed to care for her children: "No one helped me raise my children. I have never had any complaints about my work or any bad marks on my work record. If I were some sort of lush... [...] Well, sometimes people like that were called out to the supervisor and lost their jobs. There was none of that, only appreciation. A drunk couldn't do it."

Still, she admits that she used to drink every once in a while. Alma's mother also had a drinking problem. She died in a serious car accident that took place when both Alma's mother and the driver of the car had been drunk. From her words it is clear that Alma wishes the drinking in her family and among her friends had not had such a great impact on her life, on her own health, and on the lives of her children. Both of Alma's sons have golden hands and do piecework and seasonal jobs to survive. And Alma admits they both drink.

Her daughter Annija doesn't use alcohol. She lives together with her boyfriend and raises her three-year-old son. Alongside her work at the farm she also had a "100 Lats" position in the civil parish for a while. Annija's schooling ended when she completed the 8th grade. Now she plans on finishing 9th grade at night school soon because she has heard that those

who don't have a primary school education might have trouble receiving social benefits.

In addition to dealing with her health problems and her debts, one of Alma's main priorities is helping her daughter and grandson, whose family lacks harmony and a decent existence according to Alma. One could say that Alma continues to do what she did when she was a young woman. She works "on several fronts" and takes care of her now grown children. Alma doesn't want riches, but she would like a quieter life with less worry and hard work. Her opinion about her circumstances is tinged with a certain sense of fatalism: "Well, everything is already set; it has been like this from the beginning. It [life] all is full [of difficulties] [...] you can't stop it anymore."

But even so, Alma has her mind set on paying off her debts and getting on. She will continue to work and to "move", which is how Alma describes her activities apart from her illegal job on the farm. Once a diligent reader, she can't handle sitting in front of the television with her newspaper for too long.

Alma's story reveals long years full of work. She continues to work now too, although she is not officially employed and receives the GMI benefit as an unemployed person. The invisibility of Alma's work is twofold. Firstly, she has been hired informally and receives pay "in the envelope", without any taxes being paid. This job has not been registered in the state statistical system,¹⁵ although Alma can still be seen as a producer of added value: employed within shadow economics, she produces milk which is made into foodstuffs sold in the market. The unofficial salary combined with the GMI benefits helps Alma to cover the costs of medical treatment for which social benefits alone would not be enough.

Alma's second "job" is even less visible. It is the work she does at home and in her kitchen garden securing most of the food she needs for herself and also some for her daughter and grandson.

At a first glance, Alma would seem to be the victim of her previous harmful life and probably unwise choices, a person who is now dependent on state benefits. Yet a closer look at Alma reveals a hard worker, who has found a way to lead a life despite unfavourable – and often structural, not individually defined – circumstances she has found herself in.

Vilnis' and Ritma's family in Latgale seems to successfully deal with similar problems.

¹⁵ The State Employment Agency lists Alma as an unemployed person, which has allowed her to secure the low-income status in her civil parish and get the GMI benefits. However, according to the definition used by the Central Statistical Bureau, Alma should still be considered as employed (see Footnote 4 and Footnote 10).

Vilnis' and Ritma's story

A rural district in Rēzekne, Latgale. We meet Vilnis (29 years old), Ritma (25 years old), and their children – three-year-old Varis and ten month old Mudīte – for the first time in the stadium in the village centre where they have come for a walk. Vilnis has just finished work for the civil parish in the local “100 Lats” programme. He works as custodian of the stadium. Ritma doesn't work because she has a serious illness – epilepsy. Her seizures have been lasting for up to two weeks lately and, when they occur; Ritma needs to be in the hospital, either in Riga or in Daugavpils. Little Varis also has a health problem. One of his lungs is not fully developed so he has serious difficulties with asthma. He used to have to take an oxygen tank with him everywhere, but now he just uses an oxygen machine when necessary. Varis also occasionally needs to spend time in the hospital in Rīga or Daugavpils.

Because of the health problems his wife and son are dealing with, Vilnis is unable to work a full time job in Rēzekne or some other place that is far from home. He has to be ready to run to his family whenever they need him and that can't be predicted ahead of time. It wouldn't be worth it economically for the whole family to move to the city. Five years ago Vilnis and Ritma tried living in Rēzekne, but living expenses were much greater than in the countryside and they went into debt. Vilnis lost his job as a cashier at Rimi¹⁶, and then he was dismissed from his informal position as a guard. His employer didn't keep his promise to pay out salary earned when Vilnis turned in his guard uniform. Based on their experience living in Rēzekne and going for medical treatments in Rīga neither Vilnis nor Ritma want to live in the city. “It's boring. There is nothing to do. Maybe fix a stool in the evening, that's all,” says Vilnis.

Vilnis has enough work here in the village. He still has two months of work in the “100 Lats” programme, but he can earn extra money doing various kinds of piecework – he mows hay, cuts wood, digs potatoes etc. Vilnis is in high demand as a pieceworker and has had the same employers for some time now. He has enough work during the spring, summer, and fall seasons, but winters are usually not busy at all. He won't go into the forest to log because the local forest owner only pays seven lats a day, which is too little for such difficult work. Vilnis gets five or six lats a day for chopping wood. Vilnis is also helping his friends, whose main line of work is transporting petrol and other goods from Russia, to install a sawmill in an old pig farm. When it is ready, Vilnis will work there, too. But it will be hard to find other workers. People don't want to work and

¹⁶ A chain of grocery stores in Latvia.

complain that the pay is too little. A good quality sawmill worker can earn between 150–250 lats in a month.

Vilnis and Ritma do a lot of work on their little house. They were given use of the house in exchange for the caretaking they do for the owner. She is a local woman who moved to Rīga long ago. They spend most of their time in their three kitchen gardens. That is where Vilnis and Ritma grow most of what they eat: potatoes (which take up 1500m² by themselves) and root vegetables, and cucumbers and tomatoes in small cold frame greenhouses. A local man helps them plough up their gardens. They can their vegetables for the winter and make jam and compotes, which they store in the cellar. During our visit we can see that this year's harvesting and canning is almost finished. The firewood is neatly stacked in the shed for the winter and there are a great deal of potatoes, apples, canned vegetables, and jars of compote in the cellar.

When it comes to groceries, Vilnis and Ritma usually only spend money on cream, the occasional litre of milk, and oil. Their income comes from Vilnis "100 Lats" benefits and the salary he receives for doing odd jobs, as well as Vilnis' and Ritma's disabled persons' benefits. Ritma gets almost all of her medicine for free. She only has to buy one kind of medicine that costs her seven lats per package.

Vilnis sometimes gives money to his brother, who uses it to buy alcohol. He usually pays Vilnis back once he gets his GMI benefits. For a while he worked in the "100 Lats" programme, but later he was barred from it¹⁷. Vilnis brother drinks despite the fact that his father died in his arms from drink, and despite his own health problems. He gets money to buy the local homebrew by picking up jobs at a local farm. The woman there tends to hire help for cheap.

Vilnis used to drink a lot with his brother. The boys started drinking with their parents when Vilnis was in his last year at elementary school, and once they had started, they drank more and more. He drank less when he moved to a different rural district to study at the technical college there, but then his brother joined him and they both drank heavily. The army saved Vilnis. He spent a year there and wasn't permitted to touch a drop because he had to guard the munitions warehouse. Since that time Vilnis doesn't drink, only a glass or so during the holidays.

¹⁷ In Rēzekne district "100 Lats" workers who miss work because of drinking get a warning and are asked to make up their hours. If the problem continues, if they systematically don't show up for work and refuse to cooperate with the municipal authorities, they can be barred from the programme. These people can also lose their unemployed status and their GMI benefits. Unemployed status can be renewed at the State Employment Agency three months after it has been revoked.

Holidays are very important in Vilnis and Ritma's family. The young parents don't pass up any of the social events arranged in their civil parish and celebrate holidays at home as well. The family celebrates names' days and birthdays, Christmas, Easter, and Midsummer. They prepare a feast that always includes *rosols* (salad made from meat/sausage, potatoes and pickles) and egg salad with cheese, and they enjoy trying recipes for other delicacies such as carrot cake with walnuts.

Despite their health problems and their meagre means, Vilnis and Ritma seem full of resolve. They view their situation pragmatically and conclude, "You have to live with what you have". Like Alma, Vilnis and Ritma could be looked at as people cared for by the state, due to their status as benefit recipients and "100 Lats" workers. Yet such a perspective would gloss over their energetic attitude and active life position and the considerable amount of work they perform outside the officially guaranteed "100 Lats" employment. Like Alma, Vilnis and Ritma are engaged in two additional types of work. One is piecework done by Vilnis for money or in-kind payments at different farms, both subsistence and commercial. The other is Vilnis' and Ritma's constant work at home and in their three kitchen gardens, which allows them to continue a somewhat stable family life. This visibly-invisible work may be even more important than work that brings money, because it creates and sustains a sense of home and family, a sense of safety and continuity despite the daily hardship Vilnis and Ritma encounter.

But let us now turn to a different theme that has been raised both in Alma's story and in Vilnis and Ritma's story and is an acute social problem in many civil parishes – alcoholism and its effects on work.

Alcoholics, layabouts, and the "100 Lats" beneficiary programme as guaranteed employment

There is a great deal of unemployment in the countryside, but paradoxically there are no decent workers – this assertion has become a truism. Opinions about layabouts, or *loderi*, and alcoholics abound. People are often strict, dismissive, and condemning, occasionally accepting and resigned. Farmers and entrepreneurs, civil parish employees, urbanites with country properties, politicians at various levels of government – everyone has an opinion.

Admitting that employment/unemployment in the countryside cannot be separated from the alcoholism¹⁸ that exists there, I will make a start at viewing these two interacting factors within a broader socio-historical context. I will examine the assertion that “many people just drink and don’t work” by taking a closer look at the “unemployed alcoholics” – at how they live and work or don’t work in the present circumstances.

If we look more closely at the rural proletariat we see that it is made up of people who used to work in the *sovkhozes*, factories or other industrial enterprises during Soviet times. Even though I don’t have accurate statistics, stories told by country people who lived through the Soviet period tell us that for at least some of these people – especially today’s unemployed men who have not yet reached retirement age – alcoholism was already a problem during that time and that there is a visible succession in the pattern of alcohol use.

As the head of social service in a rural district in Kurzeme emphasises:

We didn't start living today. All of this has existed since that start of Soviet period, since the kolkhoz times. We know these people; they were all somewhat dependent back then. Only then they all worked – drunk or sober. What they were like isn't important; they used to be able to live their lives that way. Now it is no longer possible. Firstly, there is little work and secondly, who wants a drunkard? Times have changed. But they do try [to work and survive].

The words of the social worker are confirmed by another local government worker from the same civil parish, who once worked as a mechanic at the local *sovkhoz*:

¹⁸ Qualitative data acquired during fieldwork done for the study “*Savs kaktiņš, savs stūrītis zemes* – Development Strategies and Cultural Changes in Rural Latvia” during 2010–2012 support the tendencies that have been uncovered in earlier studies. For example, in 2006 the Regional Study on Socio-psychological Portraits of the Unemployed (“*Reģionālajos pētījumos par bezdarbnieku sociālpsiholoģisko portretu*”) established that on average every fourth unemployed person in Latvia has a medium or high risk of alcohol dependence, and every seventh has a medium or high risk of dependence on narcotics. The study states that the risk of dependency is greater among unemployed men (the addiction risk group comprises 38% men and 15% women in total), especially men aged 55–64 (about 70% of the men in the risk category were in this age group), as well as men aged 44–55 (more than 50%). The risk of dependency is also significant (22%) among men up to age 44. The study also concludes that risk of dependency is closely related the professional status of the unemployed. Risk of alcohol dependency applies to more than half of unemployed men who have not received any sort of certified professional qualification with the last five years and almost half of those who don’t plan on working in the near future (Hazans 2006: 60–64).

Of course a large number of kolkhoz workers would disappear, lie down or go look for a bottle when the boss wasn't on their case all the time. [...] Whoever didn't want to work would creep into the bushes; now he sits at home and drinks beer while he has the money. And when the money runs out he collects his welfare, which is one thing he can't be refused.

People from the Rēzekne district share similar experiences. As one of the present day farmers says: "Of course not everybody worked at the *sovkhoz*. There were those who just hung around the workshops. I remember it myself. I worked there."

Such unwilling workers had to be "herded" by the brigadiers and driven to work. A one-time veterinarian, Lauma, characterises this process:

[W]hen the sovkhoz and kolkhoz system existed, if people sat on their asses, the agriculturists would go [and urge people to work]: now please, go to work. Please, the beets need weeding, the manure needs scraping. Now no one goes around and says, "Please go to work".

Vitolds, once a *kolkhoz* machine-operator, now a small dairy farm owner, recalls:

When we had the sovkhoz, kolkhoz system people were simply used to the fact they there would always be guaranteed jobs. You don't want to work here, go to Rēzekne, go wherever. [...] You could always find a job in your speciality. It was guaranteed. Just try NOT to work at the sovkhoz. The sub-district manager would take you by the collar and drag you to work. [...] You drive to your job, work, collect your pay. Maybe people were used to it that way, which is why it's harder for them now. [...] [Now] everyone has to think [about] everything themselves.

The massive reduction in jobs and the attendant lack of income, instability and unpredictability caused by the drastic social change during the 1990s encouraged many to start or to continue to seek solace in drinking. Alcohol use in Latvia had risen significantly since the 1960s. By the early 1980s it had reached 11 litres per capita absolute alcohol consumption per year (Leifman, Henrichson 2000, Trapenciēre et al. 2000). According to various sources, alcohol consumption during the 1990s remained somewhere between 5 and 10 litres per capita (see e.g., *Narkoloģijas centrs* 2000, Tisenkopfs 1999). However, several researchers claim that actual alcohol consumption was greater than shown by statistics. For example, it has been estimated that in 1993 alcohol consumption was more than three times higher than the officially recorded 6,4 litres per capita, reaching a level of 20 litres per capita consumed annually (Strazdiņš et. al. 1995: 32; see also Muižnieks 1996 for data from 1995).

Alcohol related deaths rose from 3.1 cases per 100 000 inhabitants in 1981 to 10.1 cases in 1993, reaching a record level of 16.5 cases per 100 000 in 1994 (Vasaraudze 1996). According to data from the Narcology Centre, alcohol related deaths were at 9.6 cases per 100 000 in 1999, but deaths caused by cirrhosis of the liver were at 13.1 (*Narkoloģijas centrs* 2000: 12).

The response to adverse social change by people from the Rēzekne district likewise often manifested itself in the use of alcohol, especially among men. As one of the leading social service workers in the district remarks, in the early 1990s there were “plenty” of men who had lost their jobs and could no longer provide for their families, especially if they lived more than 10 or 20 kilometres from Rēzekne. “A lot of men solved their problems through drinking,” she says. She adds that “people here don’t consider alcoholism an illness”. In circumstances where there is little chance of finding paid employment, one might characterise the mood and attitude of the drinkers as “Well, what [else] can I do?”

Vitolds explains that many long-standing *kolkhoz* workers started to drink because they couldn’t bear the fact that the collective resources that they had carefully accumulated and tended were being squandered:

They were sovkhos bosses, mechanics, engineers [...] they were the ones who had been the driving force of the kolkhoz. It was [important] for them to earn that rouble and reinvest it so that the kolkhoz would get richer. If he was an engineer or a mechanic, he guarded the machines and made sure that that new car or tractor came from the factory. And then, when they started to give it all away left and right. [...] just let it all go [...] not privatised, but stolen, broken. A lot of people couldn’t bear it. Those with weaker nervous systems hung themselves or simply drank themselves to death.

Lauma emphasises, that overall drinking increased because people had suddenly lost their safety and stability, or, as Lauma puts it, their “hope for the future”:

People can’t simply restructure the experiences that they had then [during the Soviet period]. Daily life was different – you went to work in the morning and you knew [what to expect]. Now you have no idea what tomorrow will bring. And for some people [...] well, it’s an escape. Drink a gram, as the boys say, and things get easier.

Irēna, a small landholder, is one of those local women whose menfolk are seriously drinking at the moment. She explains that alcoholism didn’t only affect the men:

Earlier everyone had to work. [...] They [the workers] were controlled, they were kept in hand. But as soon as they were let loose, they became a herd of sheep going every which way [...] And a lot of women drank themselves to ruin as well. [...] Two of my female classmates have already died. They also drank [...] It depends on the person. [It depends] on their will power.

Irēna explains that her husband was offered a job as a long distance driver, but: “He can’t. As soon as he gets his first pay check, he spends it all on alcohol. That takes him three days. And so who will want you then?”

It is clear that because of various circumstances it has been impossible for some of the former *kolkhoz* and factory workers to adjust to a new way of life in the free market economy – an economy in which paid employment is not guaranteed, but must be obtained through struggle, by proving one’s skills and ability to work. As Marx would say, these people are unable or unwilling to sell their work as a commodity. It should be emphasised though that this is not simply due to personal characteristics, but has often come about due to broader structural conditions independent of the workers themselves.

In this situation the “100 Lats” beneficiary programmes¹⁹, which were created with the goal of reducing the consequences of the recent financial crisis in the labour market, serve as a kind of replacement for the previously guaranteed and stable work provided by the *kolkhoz* system. Just as in a Soviet farm, the “100 Lats” programme guarantees wage labour and, just as in a Soviet farm, the work done in the “100 Lats” programme may not be important for the worker himself. Work is often done without hurry and without much concern for quality. However, research done in the countryside shows that some of the workers do their assigned jobs honestly, with concern for the outcome. The main difference between work in a *kolkhoz* and work in the “100 Lats” programme is that in the later payment is not dependent on *how well* the work is done, nor on *how*

¹⁹ This refers to two European Social Fund measures that co-finance certain projects. First is Work Practice Measure for the Acquisition and Maintenance of Job Skills in Municipalities (“Darba praktizēšanas pasākumu nodrošināšana pašvaldībās darba iemaņu iegūšanai un uzturēšanai”), which lasted from September 2009 to December 2011. Within the framework of this project, unemployed individuals could participate in community work that required only little qualifications or physical labour and that was beneficial to the local community. Initially such workers would receive a 100 LVL stipend, but from July 2011 the amount was reduced to 80 LVL. Second is the project Paid Temporary Community Service (“Algotie pagaidu sabiedriskie darbi”) which began in January 2012. As a part of this project, individuals who are registered as unemployed can participate in similar community service work for up to 4 months receiving a stipend of 100 LVL and a 10 LVL deposit into their unemployed person’s pension insurance.

much work has been completed. As we shall see, it is precisely the lack of connection between the compensation and the quality and productivity of work that reduces the motivation of the “100 Lats” workers to work. This makes the programme familiar and attractive in terms of form (similar to the *kolkhoz*), but not in terms of content.

The “100 Lats” beneficiary programme gets very mixed reviews from those who implement the programme (municipal government employees), from the regularly employed, and from those who employ others. Some work leaders deny the usefulness of the programme, calling it a “total waste of money”, while others express their regard for the opportunity to “activate” the unemployed and do some local clean-up work with their help. Local employers (mostly farmers) express the viewpoint that the “100 Lats” programme has degraded the unemployed even further, has disaccustomed them from working and from the process of looking for work. For example, a farmwoman from the Rēzekne district called the “100 Lats” programme “a subsidy for alcoholics to continue drinking”. At the same time, she admitted that for some of the “100 Lats” workers, such as the former postmistress of the parish, who worked as a custodian in the programme, the money they can earn provides significant relief and helps them survive. The custodian didn’t throw her stipend away on the bottle; she kept a cow and tended to her garden.

But even more important than listening to the opinions of various people who are not involved in the programme – which belong to the afore-mentioned invisibility and stigmatisation mode – is to ascertain the opinions of the “100 Lats” workers themselves about their life and their work. Let us therefore turn our attention to two more “100 Lats” beneficiaries from two different civil parishes in the Rēzekne district.

Fifty year old Vanda started working in the “100 Lats” programme after her husband, Leonīds, had completed his allotted time there. Only one member of a family can work in the programme at a time. Earlier, during the Soviet period, Vanda worked at “Rēzeknes Dzirnavnies”²⁰, but later she worked in a kindergarten. Vanda lost that job when she went on maternity leave in 1997. Then Vanda registered with the State Employment Agency and has sought work and worked whenever an opportunity presented itself ever since. For four years Vanda had a private arrangement taking care of an old woman, a pensioner. But when the woman passed away Vanda was left without a job again.

Vanda’s husband, Leonīds, doesn’t have a paying job either. During the Soviet period he worked on a *sovkhos* as a tractor driver, but after Latvia

²⁰ One of the main regional flour production companies.

regained independence he worked in the local forestry service for many years. When the forestry service was liquidated a few years ago, Leonīds was forced to look for other work, but he was unable to find anything. He lived in Jelgava and worked as a well digger with a crew there for a while. When he returned, Leonīds entered the “100 Lats” programme. At the moment he receives a GMI grant that is given to able-bodied inhabitants of the Rēzekne district in exchange for 12 hours per week working in civil parish territory.²¹

Vanda and Leonīds have four children, three of whom live at home. The oldest daughter, from Vanda’s first marriage, is 29. She and her boyfriend are now living and working in England. The middle daughter is 20 years old; she is studying to be a chef at a professional technical school. Their 18-year-old son is in secondary school, and their youngest daughter is in the 7th grade.

During the winter the family lives in an apartment, but on weekends and in the summer time, they stay with Leonīds’ mother in the countryside. Leonīds and Vanda have 2 hectares of land where they grow wheat for their hens, potatoes, and other vegetables. Leonīds and Vanda pay local farmers who have a tractor and a combine to work their land. When they have no money, the tractor owners plough the field in exchange for a promise of future payment. The family also has rabbits. They get milk from Leonīds’ sister, who has a cow. During the summer Leonīds and Vanda help prepare hay for the cow. Vanda says that the family also uses food from the grocery packages that the Social Service together with the Rural Support Service hand out in cooperation with some charitable organisations. In the store Vanda mostly buys bread and meat or meat products.

Members of the family pick up work whenever they have the chance. Last summer all three children went to the neighbouring village to pick berries, but in the fall they dug potatoes at a local farm. Since they have their own potatoes, Vanda and Leonīds received payment in money and not in kind. Sometimes Vanda’s mother, a pensioner who also lives locally, gives her money.

²¹ In accordance with recent amendments to the Social Services and Social Assistance Law, social services in rural municipalities have the right to involve able-bodied clients who have received social assistance for at least three months in a row in 1) projects that facilitate the preservation, renewal, and acquisition of job and social skills (for up to twelve hours per week over several days) that benefit the community and don’t replace the work done by regular employees; 2) work with the territory managed by the municipality, signing contracts with able-bodied clients for a limited period of time (15.12.2011. the law “Grozījumi Sociālo pakalpojumu un sociālās palīdzības likumā”, is available here: <http://www.likumi.lv/doc.php?id=241847>.

Apart from the “100 Lats” programme, Vanda doesn’t think her family has much of a chance of finding employment. Her husband could go work in the woods if his back didn’t hurt. Traveling for work isn’t really an option since travel expenses, living expenses, and food must be taken into consideration, so a large part of the earnings would be spent almost immediately. “It is better that we all eat from one pot,” says Vanda. She doesn’t think about leaving herself because she doesn’t want to leave the children. And she is used to life in her civil parish: “When you are used to your place, where else can you go. [...] If I were younger, I might go to another country”, Vanda adds with a smile.

Vanda is very happy about her chance to work in “100 Lats” programme. She thinks it is a very good project for the people – there is a big difference between having nothing and having 100 LVL. “Then you live on those hundred lats. And if we didn’t have those hundred lats I don’t know how we could [manage]. It is very good for us here in the countryside that we have that money,” says Vanda. When asked how much she would need for a month she replies that 150 LVL would be enough. When Vanda has finished her current four-month work period she will put her name on the list for another chance at the programme. Taking into consideration the number of people waiting (about 80), Vanda hopes that she will work again in about eight months.

When asked if any good comes from the “100 Lats” programme, Vanda replies that the civil parish has become cleaner. As a part of the programme Vanda has cleaned pedestrian pathways in the village centre during the winter, during the summer she weeds and sweeps the school territory, and together with other “100 Lats” workers she has tended the cemetery. The local social worker also agrees that their civil parish has really improved as a result of the work done by the “100 Lats” workers – land along the roadside has been mown, dry branches have been cut down, fallen branches have been cleared from the roads etc. The “100 Lats” workers are also involved in supplying winter firewood for the school and municipal buildings, as well as for pensioners that need it.

When her supervisor gives Vanda a job she does it diligently. She distances herself from those people on the programme who tend to drink heavily and, according to the social worker, have lost their place in the programme because of that. “Let them stay home if they don’t want to work. If you [want to] drink, then don’t work,” Vanda is strict.

Andris, a 49-year-old “100 Lats” programme participant in a neighbouring parish may well be one of those who Vanda thinks should stay at home. When we met Andris on a workday morning, he looked like he had either already managed to have a drink or that he was hung over.

But over the course of the conversation we discovered that Andris doesn't only drink, he also does other things.

Andris is a driver by profession. During the Soviet period he worked in a local *sovkhos* as a driver, a builder, and furnace-tender. At the *sovkhos* he "had everything", says Andris – a wife, children, a house, a job, a garden, a cow, a greenhouse. But with the changes that came in the 1990s he lost his job. His wife, Ināra, worked as a teacher in the local school. When the school was transformed into an orphanage, she lost her job as well. Now his wife works seasonal farm jobs in England and comes home to Latvia when the seasonal work ends. Andris and Ināra's three daughters have also left the parish. The oldest lives with her husband and children in Denmark, the middle daughter lives in Jūrmala, and the youngest lives in Rīga. They wouldn't really have anything to do locally, says Andris.

Three years ago Andris himself spent about ten months working in England, but he hasn't returned there since then. One needs a strong back and good health, Andris says (he seems to have a few health problems). Andris used the money he earned in England to support his daughters, who were still studying at the time, as well as to do some work on his apartment. His last paid job was two years ago, when he worked for a transportation firm as a long-distance driver. He earned close to 1000 LVL driving to Germany, Poland, and France, but then he got into a conflict with the boss and quit. Andris had hoped to find another salaried position, but he wasn't able to, and ever since he has been surviving on the occasional odd job and the "100 Lats" programme. When we were talking with Andris he was participating in the programme for the second time, receiving a lower stipend of 80 LVL. He wasn't sure what kind of job he might find when his stint with programme ended in one month's time.

Just like Vanda and Leonīds' family, Andris lives in an apartment house in the centre of the village and works a piece of land three kilometres distant from his home. Andris grows his potatoes and other vegetables there, and gathers wood for heating his apartment as well. In addition, Andris fishes in a nearby lake and picks mushrooms in the forest. Sometimes Andris makes a little money on the side by digging potatoes or making hay at one of the local farms. At a respectable farm Andris can earn 5 LVL for a day of digging potatoes.

The "100 Lats" stipend gives Andris some very necessary cash, but in contrast to Vanda, he doesn't express appreciation for either the job or the money. Andris emphasises several times that he gets "only 80 lats".

The salary determines the job. [...] I can do the job in a week or in a month. [But] I have no interest in doing it in a week. They won't pay me anymore. [...] I would do it [finish the job] until evening or work more with a good conscience, if

I were to receive even a kopek [for it]. But if I don't get [paid] any more than 80 Lats, I do it haltai-baltai [carelessly], as they say.

Andris admits that he sometimes drinks, but he does do his work: “I work according to my own conscience... [although] slowly and calmly.” Andris sees himself as potentially a good worker, who would work properly and reliably for an adequate salary. When asked what the minimum wage would need to be so that he could manage Andris mentions the same sum that Vanda mentioned, 150 LVL.

From the examples here we can conclude that none of these people are “lazy drunkards”, not Vanda and Leonīds, not Andris, and not Vilnis mentioned above. They are people who are trying to come to terms with the vicissitudes of their lives, namely with the unpleasant circumstances in which they find themselves due to structural social change. All of them work “invisibly”, that is, in addition to “100 Lats” programme they work at home and in their kitchen gardens, which helps them to survive and sustain their families.

These life story fragments also demonstrate the variation in motivation and interpretation that exists within this seemingly homogenous social group. Not only are not all “100 Lats” programme beneficiaries “lazy drunkards”, they also vary greatly in their attitudes and their behaviour.

It is important also to pay attention to the differences between the recipients of social benefits in various regions. The social worker in Vanda and Leonīds civil parish says that sooner or later everyone in this parish – except for pensioners, farmers, and those people who have jobs in the local municipality, the school, or the store – goes through the “100 Lats” programme. Compared with the neighbouring civil parish in Northern Vidzeme, where she worked before, in the Rēzekne district people participating in the “100 Lats” programme have many fewer alcohol problems. Most of the “100 Lats” workers are from families with children where the parents lost their previous *sovkhos* or factory jobs and have not been able to regain their footing in the new economic landscape. By contrast, according to the social worker’s experience in Northern Vidzeme, most of the “100 Lats” workers there, predominantly men around 40 and older, drink seriously and have no desire to work. In the Kurzeme district where Alma lives, the work organiser likewise says that there isn’t anyone in the programme who doesn’t drink. Of course, these small insights do not provide enough information to come to any generalised conclusions, but they do warn against characterising these people without critical assessment.

Yet there is one trait that could be attributed to a large part of rural proletariat who currently hold no paid jobs. Namely, these workers see

work as a guaranteed right, as a status they are entitled to, which would allow them to provide their living and on the whole ensure an acceptable life, just as it used to be during the Soviet times. As we saw in the previous sections, some workers have been unable to make the change from a situation in which work is guaranteed to one in which work must be sought by selling one's skills in the free market.

This understanding of work as a guaranteed status and a guaranteed source of income does not agree with and often even contradicts the idea of hard work as a virtue which seems to have retained its force in the realm of collective representations.²² In public discourse, the virtue of work – the cornerstone of the Latvian self-image as a nation – is linked to the countryside, to those who tend the soil. But can this ideal (the idealised view of industriousness) really be attributed to the contemporary work in rural areas? Before we answer this question let us briefly look into the genealogy of work as a virtue.

Work as virtue?

The characterisation of Latvians as diligent workers reaches back to the second part of the 19th century and the first part of the 20th century when the Latvian nation was conjured in both national politics and literature alongside with its affirmation on the international stage.

It is important to note that the image of the Latvian people is not simply “workers”, but “peasant workers”. Borrowing from a rich body of folklore material, the Latvian literature has produced a figure of a strong productive peasant farmer – a tireless labourer and steward of his land. As political scientist Katrina Schwartz has accurately observed, it was precisely this image of farmer that went into the conceptual core of agrarian nationalism (the triad of man, soil/nature, and man's productive work tilling the soil) so powerfully resurrected in Latvia in the 1990s (Schwartz 2006: 1–91). This political vision was based on the rebirth of rural Latvia as a prerequisite for economic development and the health of the nation. We can surmise that the virtue of work, which is inextricably bound with stewardship of the land, is not a neutral concept.

Let's examine a bit more the “content” of this virtue that has been idealised over time. In the rich body of Latvian folk songs, work is revealed as the basis of life – in fact, work is inseparable from life (Jansons 1973 [1960]: 13–16). For example:

²² The virtue of work could be viewed as an ideal form which lingers on, even if its substance is partially depleted (MacIntyre 2007: 5).

I thank my mother
 For the virtue she cherished:
 I tired not from singing,
 Nor from a life of work.
 (Ibid: 14, LD 94, II suppl.)

Did bread come of itself
 In a wealthy place? –
 The sun has not risen,
 If my back is not wet.
 (Ibid: 60, Sel. I 982)

Through working, man becomes a part of nature and social life and gains recognition as a virtuous worker. Folklorist Jānis Alberts Jansons emphasises that in the language of the Latvian folk song *tikums* (virtue) in its most basic form always refers to *darba tikums* (the virtue of work). The ability to perform work well, day in and day out, is connected to all of the other virtues that are dependent on the virtue of work in some sense: bravery, wisdom, compassion, harmony, the joy of living etc. (Ibid: 12–52).

It is also important to note that folksongs are indicative of a particular socioeconomic context, as in this example, which characterises the unpaid labour of Latvian serfs during the period of German feudalism:

Hell is the master's threshing-barn,
 Hell is his threshing-floor;
 Gold is my threshing-barn,
 Gilded is my threshing-floor.
 (Ibid: 13, Sel. I 1866)

This day, that day,
 I must work for my master.
 I will work again for myself
 When my strength is gone.
 (Ibid: 77, LD 31706)

Likewise, the Latvian literature of the 19th–20th centuries provides rich insights into the idea of work and work and property relations during various time periods. In the project “*Savs kaktiņš, savs stūrītis ...*” literary scientist Aija Priedīte has analysed this theme in depth (see Priedīte 2011, 2012a, 2012b). In her research Priedīte turns to the ideal of heavy, unrelenting, and well executed labour that can be found in the work of authors Anna Brigadere, Jānis Purapuķe, Jānis Jaunsudrabiņš and others. She traces the connection between this type of work and ownership of land and a home, or striving towards such ownership (Priedīte 2012b: 187–218), showing how at the end of the 19th and beginning of the 20th centuries the ideal model of work was work *for oneself* and *in one's own place* or to create *one's own place*. This insight casts a different light on work and working relationships during the Soviet and post-Soviet years. Relevant passages are easily found in Latvian literature, as, for example, this conversation in Juris Purapuķe's 1898 novella between Pēters Zelmenis, a servant who has become his own master, and his son shows that the current social processes are nothing new for Latvians:

“Don’t all land owners complain about the lack of workers? – Now everyone wants to be master, to receive a large salary, but rarely does anyone want to work. That is why landowners are ruined and servants are ruined.

Yes, ruined; and still in places servants would rather be idle and die of starvation than work for a moderate wage.

How sad: an entire people’s prosperity is destroyed by this kind of thinking.” (Purapuķe 1948: 142, quoted in Priedīte 2011: 49).

As Aija Priedīte observes, if Purapuķe’s land owner sees his land as the potential source of good harvest, profit, and as enhancing the general wellbeing of his family, the servant associates the same land and harvest with heavy (and insufficiently compensated) labour (Ibid.) Fieldwork carried out for the purposes of current article has revealed similar sentiments among the former *kolkhoz* workers who sometimes see working for farmers as unfairly remunerated employment.²³

As regards farmers themselves, and especially smallholders, hard work on their farms indeed often forms the core of their life, close to how it has been portrayed in literature. And yet the heavy farm labour, which supposedly has its own moral value as the “basis for the Latvian way of life”, does not always bring profit and is not valued as competitive in the market economy, but rather is seen as “backward” and insufficiently productive.²⁴

Many of the close to 90 farmers we have met in various rural districts, both non-commercial small holders and commercial farm owners, have said that they do not wish this kind of hard and insufficiently profitable labour on their children and they would like them to do something else with their lives (This does not mean, however, that there are no farms in the countryside where the younger generation takes over or wants to take over farming from their parents).

A small dairy farmer in Rēzekne district, whose son and daughter are both in their final years of secondary school and help their father a lot with the farm work, says of his son potentially staying on at the farm: “Why ruin the health of a young man? – “Yes!” adds the farmer’s 72 year

²³ Polish anthropologist Michał Buchowski has observed akin attitudes among the Polish rural proletariat (Buchowski 2004).

²⁴ Again, Buchowski has observed a similar transformation in the Polish countryside in the post-Soviet period (Ibid.). He shows that farmers, whose ethical core is derived from heavy, unrelenting labour and independence or self-sufficiency that is guaranteed by stewardship of the land, and who therefore feel separate from and better than the local proletariat and office workers, have still not accepted the fact that their heavy labour does not result in corresponding profit.

old mother, who continues to work daily on the farm. “There is no need for him [the grandson] to shovel the same shit we shovel.”

“It isn’t worth it,” says a small holder in one of the districts of Kurzeme region. “I don’t recommend it either. I don’t even want my son to come here to the countryside. The work is simply not worth the effort.”

But a local government worker in another civil parish in the same rural district, who has a dairy farm with 30 cows, anxiously concludes: “The worst thing is that all the young people are leaving. But of course, how can we keep them here, with heavy labour from morning till night!? And in the end you can barely make ends meet. That isn’t really much of anything.”

It is interesting to note that despite the understanding that hard work does not pay and is not appreciated, farmers continue to do it and also expect it of their paid (in money or in kind) workers. And so relationships between farmers and representatives of the local proletariat are very similar today to those between landowners and farmworkers (including pieceworkers) in the first half of the 20th century. Anthropologists might call such relationships patron-client relationships. It is not uncommon for mid-size farm owners to hire additional help for a limited time or permanently. Most often such agreements are informal and do not include the payment of employee taxes. The worker may become something like a member of the family – he is allowed to make use of extra space, he may eat with the family or be given food and clothing separately. Some farmers accept alcoholism or binge drinking that is often found among such workers, as long as it does not significantly interfere with work.

So far I have described two different understandings of work in the daily rural life and public discourse: work as a guaranteed right to earn one’s living associated with the proletarians and work as a virtue linked to the peasants. Neither of these meanings corresponds to a third, ideologically predominant interpretation of work as productive wage labour that produces high added value and leads to an increase in the GDP. These criteria cannot be applied neither to small and mid-sized farms, standing with one foot in the subsistence sector and with the other in the capitalist production sector, nor to the rural proletariat. Rather, common to both farmers and farm labourers is their continuous heavy physical work in a rural environment that remains “invisible”, i.e., not considered to be work or work that is appropriate for today’s economy due to its lacking productivity. For the landowners, work is an investment in their farms, but for the proletariat (of which many are officially unemployed and receiving welfare), work is tending to their kitchen gardens without which it would be impossible to survive. As says the head of social service in a Kurzeme district, almost everyone has a garden, and “a person without a garden is a very lazy person in our eyes”. It seems that many of those who are

being asked to get up from the sofa haven't even had a chance to sit down in one. This is determined by a rural lifestyle that demands "movement" or practical activity – working the land and tending the garden, milking, sawing, digging, fixing something etc.

Perhaps under the present circumstances, when a stable increase in jobs is not guaranteed (Hazans 2010) and an immediate leap in the qualifications of the presently unemployed is likewise unlikely, the invisible work should be seen just for what it is – the main way to sustain what has remained of life in the countryside?

REFERENCES

- Abrahams, R. (ed.) 1996. *After socialism: land reform and social change in Eastern Europe*. Providence, RI, Oxford: Berghahn Books.
- Applebaum, H. A. 1981. *Royal blue: the culture of construction workers*. New York: Holt, Rinehart & Winston.
- 1992. *The concept of work: Ancient, Medieval and Modern*. Albany, New York: SUNY Press.
- [Apollo.lv]. 2012. 400 latu alga «uz rokas», taču nav kas strādā. *Apollo.lv*, 15.10.2012. Pieejams: <http://www.apollo.lv/zinas/400-latu-alga-uz-rokas-tacu-nav-kas-strada/535471> (22.10.2012.).
- Biernacki, R. 1995. *The fabrication of labor: Germany and Britain, 1640-1941*. Berkeley, Los Angeles et. al.: University of California Press.
- Brauna, A. 2011. Aizsēdējušiešs dīvanā. *Ir*, 14.12.2011. Pieejams: <http://www.ir.lv/2011/12/14/aizsedejusies-divana> (22.10.2012.).
- Brila, D. 2012. Nabadzības psiholoģija. *Latvijas avīze*, 23.07.2012. Pieejams: <http://lasi.la.lv/f809s> (23.07.2012.).
- Buchowski, M. 2003. Coming to terms with capitalism: an example of a rural community in Poland. *Dialectical Anthropology*, 27, 47–68.
- 2004. Redefining work in a local community in Poland: "transformation" and class, culture and work. A. Procoli (ed.) *Workers and narratives of survival in Europe: the management of precariousness at the end of the twentieth century*. Albany, NY: State University of New York Press, 173–196.
- Burawoy, M. 1985. *The Politics of production: factory regimes under capitalism and socialism*. London: Verso.
- Caplan, P. 2007. Between socialism & neo-liberalism: Mafia Island, Tanzania, 1965–2004. *Review of African Political Economy*, 34:114, 679–694.
- Centrālā statistikas pārvalde. 2012. *Nodarbinātība un bezdarbs – Galvenie rādītāji*. Pieejams: <http://www.csb.gov.lv/statistikas-temas/nodarbinatiba-un-bezdarbs-galvenie-raditaji-30263.html> (22.10.2012.).
- Cimdīņa, A., Raubiško, I. 2012a. "Dzīvot dzīvojam" jeb dzīve attīstības kontekstā: Ievads. Cimdīņa A., Raubiško I. (red.) *Dzīve – Labbūtība – Attīstība Latvijas laukos*. Rīga: Zinātne.
- 2012b. *Cilvēks un darbs Latvijas laukos: sociālantropoloģisks skatījums*. Rīga: Zinātne.

- Corsín-Jiménez, A. 2003. Working out personhood: notes on 'labour' and its anthropology. *Anthropology Today*, 19:5, 14-17.
- Dalton, G. 1971. *Traditional tribal and peasant economies: an introductory survey of economic anthropology*. Reading, MA: Addison-Wesley.
- Daniels, A. 1987. Invisible work. *Social Problems*, 34: 5, 403–415.
- Ehmer, J. 2001. History of work. Smelser, N. J., Baltes, P. B. (eds.). *International Encyclopedia of the Social & Behavioral Sciences*, Vol. 12 [e-book]. Amsterdam, Paris et. al.: Elsevier, 16569–16575. Pieejams: <http://dx.doi.org/10.1016/B0-08-043076-7/02736-4> (22.10.2012.).
- Eurostat. 2012a. *Labour productivity per person employed*, 19.10.2012. Pieejams: http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=TEC00116 (22.10.2012.).
- Eurostat. 2012b. *Labour productivity per hour worked*, 19.10.2012. Pieejams: http://epp.eurostat.ec.europa.eu/portal/page/portal/product_details/dataset?p_product_code=TEC00117 (22.10.2012.).
- Firth, R. 1979. Work and value: reflections on ideas of Karl Marx. Wallman, S. (ed.). *Social anthropology of work*. London, New York: Academic Press, 177–206.
- Gamst, F. C. 1980. *The hoghead: an industrial ethnology of the locomotive engineers*. New York: Holt, Rinehart and Winston.
- 1995. *Meanings of work: Considerations for the twenty-first century*. Albany, NY: State University of New York Press.
- Godelier, M. 1980. Work and its representations: a research proposal. *History Workshop* 10: 1, 164–174.
- 1986. *The mental and the material: thought, economy, and society*. London: Verso.
- Grīnvalde-Iruka, A. 2012. Darbu atrast var. Trūkst vēlmes strādāt. *Diena*, 16.02.2012. Pieejams: <http://www.diena.lv/sodien-laikraksta/darbu-atrast-var-trukst-velmes-stradat-13931705> (22.10.2012.).
- Hann, C. (ed.) 2003. *The postsocialist agrarian question: property relations and the rural condition*. Münster: LIT Verlag Münster.
- Hazans, M. (zinātniskais vadītājs). 2006. *Reģionālie pētījumi par bezdarbnieku sociālpsiholoģisko portretu*. Pieejams: www.nva.lv/docs/1_45135dc4cb20b9.91339932.pdf (31.10.2012.).
- 2010. Simtlatnieku' programma domāta neatliekamam bezdarbnieku atbalstam. *Delfi.lv*, 22.03.2012. Pieejams: <http://www.delfi.lv/news/comment/comment/mihails-hazans-simtlatnieku-programma-domata-neatliekamam-bezdarbnieku-atbalstam.d?id=30777253> (20.09.2012.).
- Jancius, A. 2006. Unemployment, deindustrialization, and 'community economy' in eastern Germany. *Ethnos: Journal of Anthropology*, 71:2, 213–232.
- Jansons, J. A. 1973 [1960]. *Darba vara lielu dara: tautas dziesmu izlase*. Rīga: Liesma.
- Krasnopjorovs, O. 2011. Kā sasniegt Rietumeiropas labklājības līmeni? Pieejams: <http://www.makroekonomika.lv/ka-sasnigt-rietumeiropas-labklajibas-limeni> (07.05.2012.).
- LVAEI (Latvijas Valsts agrārās ekonomikas institūts). 2012. Sociālekonomiskā situācija Latvijā laukos. Latvijas Valsts Agrārās Ekonomikas Institūts. 08.30.2012. Pārskats sagatavots projekta "Savs kaktiņš, savs stūrītis zemes – Latvijas lauku iedzīvotāju

- attīstības stratēģijas un kultūrvides pārmaiņas” projekta vajadzībām un pieejams projekta arhīvā.
- Lee, R. B. 1979. *The !KungSan: men, women, and work in a foraging society*. Cambridge, New York: Cambridge University Press.
- Leifman, H., Henrichson, N. E. (eds.) 2000. *Statistics on alcohol, drugs and crime in the Baltic Sea region. Publication No. 37*. Helsinki: Nordic Council for Alcohol and Drug Research. Pieejams: <http://www.drugslibrary.stir.ac.uk/documents/nad37.pdf> (31.10.2012.).
- Leonard, P., Kaneff, D. (eds.) 2002. *Post-socialist peasant?: rural and urban constructions of identity in Eastern Europe, East Asia and the former Soviet Union*. Basingstoke, New York: Palgrave Macmillan.
- MacIntyre, A. 2007 [1981]. *After virtue: a study in moral theory*. Norfolk: Duckworth.
- Markss, K. 2010 [1973]. *Kapitāls*. Rīga: Zvaigzne ABC.
- Mintz, S. 1973. A note on the definition of peasantries. *Journal of Peasant Studies* 1:1, 91–106.
- Misiņa, I. 2012. Pie darba pieradināt nespēj. *Latvijas avīze*, 19.07.2012. Pieejams: <http://lasi.la.lv/ipmpf> (22.10.2012.).
- Muižnieks, N. (ed.) 1996. *Latvia. Human Development Report*. Riga: United Nations Development Programme.
- Narkoloģijas centrs. 2000. *Gada pārskats, 1999*. Pieejams: <http://arsti.narko.lv/statistika.html> (31.10.2012.).
- Nash, J. 1981. Ethnographic aspects of the world capitalist system. *Annual Review of Anthropology* 10, 393–423.
- Netting, R. 1993. *Smallholders, householders: farm families and the ecology of intensive, sustainable agriculture*. Stanford, CA: Stanford University Press.
- Nodarbinātības Valsts aģentūra. 2012. Pārskats par bezdarba situāciju valstī 2012. gada augustā. Pieejams: http://nva.gov.lv/docs/17_505ab81d3be932.07211325.doc (22.10.2012.).
- Petrick, M., Weingarten, P. (eds.) 2004. *The role of agriculture in Central and Eastern European rural development: engine of change or social buffer?* Halle: Institut für Agrarentwicklung in Mittel- und Osteuropa (IAMO, Institute of Agricultural Development in Central and Eastern Europe).
- Priedīte, A. 2011. Savs kaktiņš, savs stūrītis zemes starpdisciplinārā skatījumā. *Akadēmiskā Dzīve* 48, 46–59.
- Priedīte, A. 2012a. “Savs kaktiņš, savs stūrītis zemes”- fikcija un/ vai realitāte? Cimdiņa A., Raubiško I. (red.) *Dzīve – Labbūtība – Attīstība Latvijas laukos*. Rīga: Zinātne.
- Priedīte, A. 2012b. *Zaļās zemes dievsunišu un likteņu lūdmnieku laiki*. Rīga: Zinātne.
- Procoli, A. (ed.) 2004. *Workers and narratives of survival in Europe: the management of precariousness at the end of the twentieth century*. Albany, NY: State University of New York Press.
- Purapuķe, J. 1948. *Savs kaktiņš, savs stūrītis zemes*. Lībekā.
- Read, R., Thelen, T. 2007. Social security and care after socialism: reconfigurations of public and private. *Focaal: European Journal of Anthropology*, 50, 3–18.
- Roseberry, W. 1978. Peasants as proletarians. *Critique of Anthropology* 3:3, 3–18.

- Rudd, E. 2006. Gendering unemployment in postsocialist Germany: 'what I do is work, even if it's not paid'. *Ethnos: Journal of Anthropology*, 71:2, 191–212.
- Sahlins, M. 1972. *Stone Age economics*. New York: Aldine de Gruyter.
- Schwartz, K. 2006. *Nature and national identity after Communism: globalizing the ethnoscapes*. Pittsburgh, PA: University of Pittsburgh Press.
- Smith, A. 1904 [1776]. *An inquiry into the nature and causes of the wealth of nations*, ed. E. Cannan [e-book]. London: Methuen & Co. Pieejams: <http://www.econlib.org/library/Smith/smWNCover.html> (20.10.2012.).
- SUDAT (Latvijas lauku saimniecību uzskaites datu tīkls). 2011. Lauku saimniecības darba ekonomiskās analīzes rezultāti. Pieejams: https://sudat.lvaei.lv/pub/teksts_2010.pdf (22.10.2012.).
- Thomas, P. 2010. Labour-power. *Krisis*, No. 2, 49-54 [e-journal]. Pieejams: <http://www.krisis.eu/content/2010-2/krisis-2010-2-09-thomas.pdf> (22.10.2012.).
- Tisenkopfs, T. 1999. *Latvia. Human Development Report*. Riga: United Nations Development Programme.
- Trapenciere, I. et. al. 2000. *Listening to the poor: a social assessment of poverty in Latvia*. Riga: United Nations Development Programme & Ministry of Welfare of the Republic of Latvia.
- Wolf, E. 1957. Closed corporate peasant communities in Mesoamerica and Central Java. *Southwestern Journal of Anthropology*, 13:1, 1–18.
- Vasaraudze, I. 1996. Health. Aasland, A. (ed.). *Latvia: The Impact of the Transformation*. Oslo: Forskningsstiftelsen, 71–94.
- Wadel, C. 1979. The hidden work of everyday life. Wallman, S. (ed.). *Social anthropology of work*. London, New York: Academic Press, 365–383.
- Wallman, S. (ed.) 1979. *Social anthropology of work*. London, New York: Academic Press.
- Winter, Y. 2012. Violence and visibility. *New Political Science*, 34: 2, 195–202.
- Wolf, E. 1966. *Peasants*. Englewood Cliffs: Prentice Hall.
- Zimmermann, B. 2001. Work and labor: history of the concept. Smelser, N. J., Baltes, P. B. (eds.). *International Encyclopedia of the Social & Behavioral Sciences*, Vol. 12 [e-book]. Amsterdam, Paris et. al.: Elsevier, 16561–16565. Pieejams: <http://dx.doi.org/10.1016/B0-08-043076-7/00152-2> (22.10.2012.).

PECULIARITIES OF CROWDSOURCING TAXATION IN LATVIA

Aleksejs Busarovs

MSc Management

Abstract

Crowdsourcing is a production model for problem solving in the Internet. This modern phenomenon gained its popularity owing to development of Web 2.0, and the opportunity to cut costs on new product development. Unfortunately, legislators are not always keeping up with progress, which leads to ambiguous interpretation of the law that results in repressive actions from the government and prolonged litigation with increased costs for lawyers. The aim of this article is to analyse the current Latvian tax legislation, in order to distinguish its readiness to embrace all forms of crowdsourcing, determine ambiguous moments and offer suggestions to solve these problems. This article is useful for entrepreneurs who implement crowdsourcing as part of their business model and for public servants, responsible for the development of amendments to Latvian tax legislation, to make it line with the challenges of the modern age, where the Internet plays a more increasing role.

Keywords: crowdsourcing, Internet, web 2.0, taxation, Latvia

Definition of Crowdsourcing

The idea of crowdsourcing first appeared in 2006, in an article by Jeff Howe called “The Rise of Crowdsourcing” in the Internet journal *Wired*. He was also the first who introduced its definition:

“Crowdsourcing is the act of taking a job traditionally performed by a designated agent (usually an employee) and outsourcing it to an undefined, generally large group of people in the form of an open call.” (Howe, 2008: 35)

The word itself comes from two English words: crowd and outsourcing that together make a hybrid word crowdsourcing. It is worth to notice, that Jeff Howe did not invent the concept of crowdsourcing. He had just proposed the name and the formulation of it, which covers the wide range of occurrence that often very differs in its main parameters. Two main approaches of structuring the crowdsourcing can be met in the modern literature: the first according to the type of executable task, the second according to the size of compensation. Many authors proposed their

formulations of crowdsourcing. Daren Brabham introduced crowdsourcing in a form of a model for solving problems:

“Crowdsourcing is a legitimate, complex problems solving model, more than merely a new format for holding contests or awarding prizes. It is a model capable of aggregating talent and leveraging ingenuity while reducing the costs and time formerly needed to solve problems.” (Brabham, 2010: 1122–1145)

The most exact definition of crowdsourcing was introduced by Estelles-Arolas and Gonzalez-Ladryn-de-Gueva (2012: 1–14) on the basis of examination of the literature on the topic with all the possible forms of crowdsourcing, as the result quite a long formulation has been developed:

“Crowdsourcing is a type of participative online activity in which an individual, an institution, a non-profit organization, or company proposes to a group of individuals of varying knowledge, heterogeneity, and number, via a flexible open call, the voluntary undertaking of a task. The undertaking of the task, of variable complexity and modularity, and in which the crowd should participate bringing their work, money, knowledge and/or experience, always entails mutual benefit. The user will receive the satisfaction of a given type of need, be it economic, social recognition, self-esteem, or the development of individual skills, while the crowdsourcer will obtain and utilize to their advantage that what the user has brought to the venture, whose form will depend on the type of activity undertaken.” (Estelles-Arolas & Gonzalez-Ladryn-de-Gueva, 2012: 1–14)

Crowdsourcing, as a form of voluntary online participation, brings a lot of benefits, the main one of which is cost reduction, because online volunteers are paid differently than permanent employees. They often participate in crowdsourcing projects for free (Lampel & Bhala, 2007: 434–455). Even if the project supports material compensation, it is paid only to those people, whose participation has provided a profit for the company. For example, the Internet platform innoCentive pays from 1000 to one million USA dollars for the problem solution, but only the author of the solution, which had been chosen, gets the payment. This significantly lowers the risks and costs of problem solving. The negative point of crowdsourcing projects is the process of choosing the best solution. According to the experience of the companies, which have organised an innovation competition on the Internet, this process may happen to be quite resource-intensive in relation to time and money (Jouret, 2009: 43–46).

The other benefits of crowdsourcing are the improvement of the product's quality, the intensification of emotional attachment to the brand, the acceleration of the processes of development and introduction of goods, as well as the execution of large routine tasks. The quality of a good improves when the large groups of users try a new product or when groups of expert participate in the forecasting. The emotional attachment to the brand intensifies owing to the more intensive communication with the client via Internet and to the large input of the clients when they contribute to the online communities (Bonabeau, 2009: 45–52). It is possible to achieve the time reduction of the market entry by the attraction of the knowledge of freelance experts. Using crowdsourcing methods, the company P&G found out about an Italian professor, who possessed a particular ink printing technology, which allowed the printing of text directly on the Pringle potato chips that in turn provided it with a competitive advantage. Large routine projects may be accelerated thanks to crowdsourcing, for example, the social network Facebook, with the help of volunteers, had translated all its contents into the Spanish language in four weeks and into 100 languages and dialects in a year.

Crowdsourcing is not possible without Internet facilities. During the Internet boom in the middle 1990s, a lot of users with minimal differences appeared, but, due to the large scale of the Internet and minimal costs, the users were subdivided into the slightly different groups and their demands had been satisfied almost individually, which caused a huge amount of the niche Internet sites. But the market has reached its natural limit; the result was the crash of dot.com in 2000. One of the business rules is that the overuse of any resources, also virtual resources, leads to its exhaustion and the crash of a system, supported by these resources. But it does not mean that the entrepreneurs should not search for rare talents capable of solving actual problems. It is easier to understand this from the example of a “long tail”, described by Anderson (2006). The conditions for it is in the low cost of goods' storage and distribution, as a result, rare and not very popular goods may outrun momentary blockbusters, if the distribution network is wide enough. The major part of the “long tail” research deals with the sale of rare books on Amazon.com: the most important factor for the customers is not the low price, but the availability of rare books that are not available in local traditional book stores. In the case of crowdsourcing and searching for new talents, it is the wide distribution and low prices of the delivery channels that are available, owing to the Internet, which is accessible and not expensive all over the world. The marginal costs of talent storage are zero; therefore there are all the preconditions to find that unique talent with the lapse of time. James Surowiecki corroborates the current point of view in his research, which affirms that, under the

right circumstances, a group of people is much cleverer than the cleverest member of it. The so-called “wisdom of crowds” appears not by equalizing all the knowledge of members, but by joining all the knowledge together. It is obviously represented in the following quotation.

“After all, think about what happens if you ask a hundred people to run a 100 meter race, and then average their time. The average time will not be better than the time of the fastest runners. It will be worse. It will be a mediocre time. But ask a hundred people to answer a question or solve a problem, and the average answer will often at least as good as the answer of the smartest member. With most things, the average is mediocrity. With decision making, it’s often excellence. You could say it’s as if we’ve been programmed to be collectively smart.” (Surowiecki, 2004: 11)

Scott Page (2007: 23–51) had broadened Surowiecki’s point of view on the wisdom of the crowd by introducing a more complex diversity of environment where the problems are solved. According to his opinion, in some situations the problem solution would gain owing to the implication of individuals with different cognitive types, even if they are not experts. In addition, Terwiesch and Xu (2008: 1529–1543) had noticed that the process of generation of ideas for problem solution is applicable for the transfer of this problem via Internet to the wide mass of potential problem solvers. This means that the questions related to the creation of a unique design or idea are good for open online communities. The promissory Internet factor is the opportunity to use the wisdom of a wide group of people in order to solve difficult problems, if the structure of the Internet portal is thoroughly designed and is intended for the maximisation of a synergy among the members of the current multifarious group. According to Terranova, the Internet is an ideal technology for the distribution of thinking.

“[Internet]... is not simply a specific medium but a kind of active implementation of a design technique able to deal with the openness of systems” (Terranova, 2004: 3).

The current statement corresponds to that of Fisher (2002: 2 December 2002), which affirms that the processes of communication in the Internet should be aimed not only to discuss, they are able to purposefully solve problems.

Crowdsourcing is classified according to three types of knowledge: routine, complex and creative (Schenk & Guitard, 2009: 8 Dec 2009), or four types of compensation (Borst & Van Den Ende, 2007; 2008).

Elementary, mechanical, repeated tasks are called routine, for example putting the labels with the title of what is imaged on the photo. Complex tasks require the larger input, in comparison with the routine tasks, but also remain simple, with no need of peculiar knowledge or skill, for example writing short overviews on the contents of films (Hsueh, Melville & Sindhvani, 2009: 27–35). Creative tasks require the problem solution or the creative execution of a task, for example the development of a drug molecule (Brabham, 2008: 75–90; Hsueh, Melville & Sindhvani, 2009: 27–35; McCreddie, Macdonald & Ounis, 2010: 23 July, 2010). The problem of this method is its uncertainty of formulation that causes a blurring of the borders between the routine and complex approaches, and between the complex and creative approaches. For example, making photos for the depositary iStock Photo does not require serious skills and may be put under the complex tasks' group. On the other hand, the process of photography is usually considered as an act of creation that brings it to the creative process.

The second approach for the taxonomy of crowdsourcing is its classification according to the payment levels for the executed tasks. Many researchers investigate this aspect of crowdsourcing because they are interested in the motivation of members. The entrepreneurs are also interested in the current aspect of crowdsourcing, because the level of the fee in crowdsourcing is much lower than that of the classical contract of engagement (Howe, 2008). Netherlands researcher Irma Borst proposed to divide it into four types (Borst & Van Den Ende, 2007: 12 June 2007; 2008: 1 July 2008): no reward, penny reward, dollars reward and millions reward. In order to make crowdsourcing's classification more visible, the author proposes to merge both approaches into one and to classify crowdsourcing simultaneously according to the type of task and to the size of a payment (Table 1) (Busarovs, 2011a: 53–60).

For the present article, all the categories of creative tasks are the most interesting, because, for the creation of radical innovations, a fresh look at the problem, the capability of creative thinking and the possession of knowledge (Amabile, 1996: 47), which could be successfully used in solving the problem, are required. The routine and complex types of tasks systematically are not able to lead to radical innovations; this limitation is built-in into their formulation.

Table 1 Crowdsourcing Matrix (Busarovs, 2011a: 53–60)

	Routine task	Complex task	Creative task
No reward	ReCAPTCHA – is a system that use uses CAPTCHA to help digitise the text of books while protecting websites from bots attempting to access restricted areas (von Ahn et al., 2008: 1465–1468).	<i>www.noziegumukarte.lv</i> – web page, where users leave information about crimes in particular place, thus crowd creates crime map of Latvia (Krauze, 2011: 27 Mach 2011).	The Harvard Business Review/McKinsey M-Prize for Management Innovation – contest for innovative approaches in management, main prize is acknowledgment among professionals and possibility to get published in industry related journals.
Penny reward	<i>www.one.lv</i> – is social network in Latvia, where users determine whether other users pictures corresponds with this web site rules, as compensation is in form of this web site services.	MTürk is a crowdsourcing Internet marketplace that enables computer programmers to co-ordinate the use of human intelligence to perform tasks that computers are currently unable to do. (Kittur, Chi & Bongwon, 2008: 10 April 2008).	iStockphoto – is an online, royalty free, international microstock photography provider operating with the micropayment business model. (Brabham, 2008: 75–90).
Dollars reward	No data, due to the impossibility of this combination.	Thereadless – cloth company and community of artists, where design of t-shirts is created and evaluated by internet users (Brabham, 2010: 1122–1145).	FYI – Fly Your Idea, is contest, organised by Airbus, with goal to find innovative ideas how to reduce pollution from aviation industry.
Millions reward	No data, due to the impossibility of this combination.	No data, due to the impossibility of this combination.	The Pepsi Refresh Project (PRP) is a 2010 initiative by PepsiCo to award \$20 million in grants to individuals, businesses and non-profits that promote a new idea that has a positive impact on their community, state, or the nation.

The realisation of crowdsourcing projects may be implemented either by the company itself, or with the help of an intermediate. Intermediates are the companies whose task is to connect companies with the problems, and people with the solutions. The crowdsourcing success can't be achieved without attracting a critical mass of contributors (Toral et al., 2009: 378–392), which could be a serious barrier for companies with only one crowdsourcing project, which is executed on their own web page, due to high investments in the project promotion. Crowdsourcing

intermediates are operating both the creative tasks with substantial reward and the routine tasks with minimum reward, but they are not interested in projects with no reward, because in that case, there is no one to pay for their services. Amazon Mechanical Turk (mturk) and innoCentive are the most popular crowdsourcing intermediate websites. According to the research of Karim Lakhani, innoCentive helped to solve 29.5% of problems, which could be solved by the in-house of the company R&D (Lakhani et al., 2007).

Crowdsourcing Criticism

Crowdsourcing has gained not only followers, but opponents as well. First of all crowdsourcing is criticised for its name and too wide definition. Jimmy Wales, co-founder of Wikipedia says:

“Any company that thinks it’s going to build a site by outsourcing all the work to its users not only disrespects the users but completely misunderstands what it should be doing. Your job is to provide a structure for your users to collaborate, and that takes a lot of work.” (McNichol, 2007: 1).

Crowdsourcing also is criticised for low quality of outcome, fraud (Chen et al., 2010: 28–35), manipulation with votes and people exploitation (Gill & Pratt, 2008: 1–30). There is clear analogy with critique of social media, for its low quality (Keen, 2007). The problem of low quality results is present in both routine and complex tasks of crowdsourcing, with financial reward, thus they are routine task and penny reward, complex tasks and penny reward and complex tasks and dollars reward. McCreadie’s research shows that participants try to maximise the number of performed tasks, in order to increase reward (McCreadie, Macdonald & Ounis, 2010: 23 July, 2010). To battle this problem, performance time should be taken in to account, and unrealistically fast answers should be rejected, as fraud attempts. Check questions should be included in the tasks, for which answers are already known (Kittur et al., 2008: 10 April 2008). Answers also could be checked by the “crowd” itself, through the second round of crowdsourcing activities, as well as an uneven gradation scale for answers, to increase precision of the results.

A serious critique that crowdsourcing has received is for human exploitation, absence of agreements for work with contributors and wages level much lower than the minimum defined by law (Postigo, 2003: 593–607). In one critique, crowdsourcing is even presented as 21st century slavery. Opponents note, that participation in crowdsourcing activities is voluntary, that there is no any compulsion to take part in crowdsourcing,

and thus there are not any signs of exploitation. From the formal point of view there is no exploitation, but from an ethical position there is clear disbalance of rights and obligations in favour of the crowdsourcing executor. Let us examine the employer and employee relationship. The employer has a problem, which has to be solved, it also has employees with special skills to solve this kind of problem, but they didn't; the problem itself points this out. Speaking about tasks, which require a creative approach and mental work, it is impossible to forecast how much time will be required for solving a certain problem, but for all this time the employer is paying a salary to the employee, who is trying to solve problem, even unsuccessfully. There is no guaranty that the employee will solve this problem, in that case the company has losses, which include the direct costs of the employee wages, as well as losses due an unsolved problem. In the case of outsourcing problem solving, the employer becomes the outsourcer, and cost burden in this relationship moves toward the outsourcee (Figure 1). It all depends on the signed agreement, where the outsourcee is a legal person and is less protected than a private person, but still could have embed in the agreement a minimum reward, even in the case of failure, and a much bigger reward in the case of success. In this case, the outsourcer is bound by the agreement, but not with legislation about labour rights. Theoretically, the outsourcee has a better chance to find a solution to the problem, due to a more narrow specialisation and greater experience in similar cases. In the worst case scenario, the outsourcer will have losses, which will be lower. The difficulty is to determine a proper time frame for solution search, which might be crucial. In the case of crowdsourcing, costs are moving further to the contributor or solver, and the company will pay only for a successful solution, with no minimum payments and no obligations.

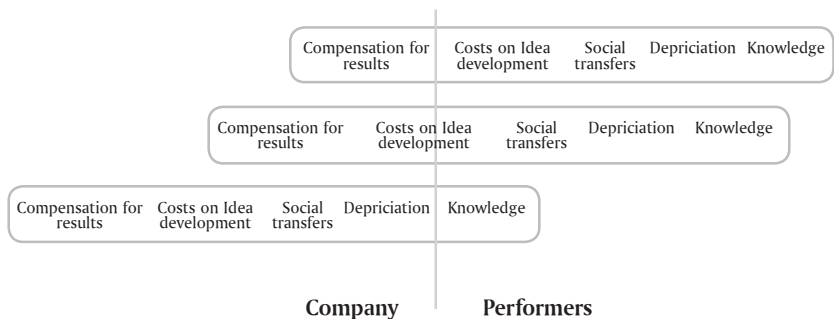


Figure 1 Cost burden migration (Busarovs, 2011b: 1 October 2011)

In relation to the above, the author has examined the ethical aspects more deeply. As a result, the following conclusion has been made: from the modern theory point of view – crowdsourcing exploits workers, but the workers do not consider themselves being exploited, and are planning to participate in crowdsourcing projects in the future, repeatedly and voluntarily. Therefore, notwithstanding the applications of theorists, crowdsourcing is not a form of exploitation of workers (Busarovs, 2011b: 1 October 2011).

Options for crowdsourcing taxation with substantial reward's amount

For a more clear understanding of crowdsourcing taxation is a better to start with the copyright issue. According to the Latvian Copyright Law, the object, protected by this Law, could be: “1.2. Result of author’s creative work, in literature, science, art, independently of its form, expression or value” (“Autortiesību likums”, 2000). It is important to know what the Copyright Law doesn’t protect: “6.5. ideas, methods, processes and mathematical concepts.” (“Autortiesību likums”, 2000), thus in the case, when a crowdsourcing contest is looking for an idea, or new method, its author is not protected by copyright law and should agree on the conditions offered by the company, or recall their own participation. According to the Latvian Law on Personal Income Tax and Law on Enterprise Income Tax, in this situation there should be applied a 5% income tax (Section 3, 4.4.b. “Par uzņēmumu ienākuma nodokli”, 1995) for non-residents, if they didn’t pay income tax, and 25% for residents (Par iedzīvotāju ienākuma nodokli, 1993).

Any invention author can voluntarily renounce from copyright in favour of society, and protect their work with a creative commons license, which has the following forms: Creative Commons licenses consist of four major condition modules: Attribution (BY), requiring attribution to the original author; Share Alike (SA), allowing derivative works under the same or a similar license (later or jurisdiction version); Non-Commercial (NC), requiring the work is not used for commercial purposes; and No Derivative Works (ND), allowing only the original work, without derivatives. These modules are combined to currently form six major licenses of the Creative Commons (Stix, 2003: 46).

In case of crowdsourcing, to apply creative commons or not is the responsibility of the company, and its business model; for example, company Local Motors applies creative commons from the beginning, that substantially simplifies process of copyright protection, but creates challenges for making a profit. Thus, in order to stay profitable, the company should apply an unconventional business approach, or open business models.

Besides questions as to who will own the right for intellectual property, crowdsourcing organisers should determine from the very beginning in which form the relationship between company and idea author will be formalised. According to Latvian law, the simplest way is to have an exclusive license from the author in exchange for a fixed fee or honorarium. The payment of this fee doesn't require any additional taxes from the company. This form of relationship is also most suitable for non-residents of EU.

There are also alternatives, the most disadvantageous for both sides is an employer and employee agreement for single task, in this case, the employer must additionally pay employer social security tax, but the idea author employee social security tax and personal income tax ("Par valsts sociālo apdrošināšanu", 1997). This option also has limitations for non-EU residents, because according to the Labour Law all applicants must have a work permit and a valid visa for Schengen agreement countries (35.3. "Darba likums", 2001).

A third option is payment for consulting services if the idea author is registered in Latvia as a self-employed person. For the company this option has no additional costs, but for author himself there are three variants how to pay taxes.

- Regular self-employed person – besides personal income tax, the author should pay social security tax for employees, but only if the amount is higher than the minimum monthly wage, or 200 LVL, in this case a self-employed person can choose from which amount social security tax will be paid, whether from the minimum 200 LVL, or from any voluntarily chosen amount. This option is more advantageous than the single employment act, but less advantageous than a fee for copyright, unless there are substantial deductible costs, associated with idea development.
- Self-employed person, payer of micro enterprise tax. In this case, the idea author should pay 9% from turnover, what is substantially smaller than the 25% of personal income tax. But there are some limitations, annual turnover can't exceed 70 000 LVL, thus the prize should be smaller. There are also a limitation to use this money for personal purposes, they can be paid to self-employed person in form of salary without any additional taxes, but not more than 500 LVL per month, or they can be paid in the form of dividends, which will bring an additional 10% personal income tax, which in total will be 19%, which is still lower than the 25% of regular personal income tax.
- Self-employed person, payer of a fixed tax rate. In this case, personal income tax will be a maximum of 10% and a minimum of 5%, there is also social security tax, similar to the situation of a regular self-employed person. This option is available for an annual turnover of less than 10 000 LVL.

In addition for all self-employed persons there is valid Value Added Tax, if the turnover during last 12 month exceeded 35 000 LVL; this includes the amount of the prize and all the rest of turnover of this self-employed person. The VAT rate in Latvia is 21%, thus this should be subtracted from the prize. Accordingly, if the prize is higher than 35 000 LVL it is better to pay it in form of a copyright fee, because it is free from VAT (6.1.28. "Par pievienotās vērtības nodokli", 1995).

Taking in to account the crowdsourcing definition, and the fact that all actions take place in the Internet and are accomplished by an undefined group of people, the agreement conditions between a company and contributors should be freely available in the Internet before a contributor will start working on the project. For a company it is beneficial if the contributor will agree to these conditions in advance, but the open questions remains, whether the contributor will understand them, since most of the Internet users, simply click on agree in order to proceed without any delays, not even thinking about agreement conditions.

Table 2 Comparative table of tax rates for Latvian residents

Relationship's form	Company's taxes	Author's taxes	Tax rates	Comments
Author's honorarium	no	Personal income tax	25%	Applied to everybody
Employment to perform single task	Employer's social responsibility tax	Personal income tax, Employee's social responsibility tax	$25\% + 35.09\% = 60.09\%$	Most disadvantages option, has limitations for non-EU residents
Self-employed person	no	Personal income tax, Employee's social responsibility tax, VAT*	$25\% + 11\% + 21\%^* = 36\%$ (57%*) but 11% could be applied to any amount starting from 200 LVL	Idea's author should in advance register as self-employed person
Self-employed person, payer of micro enterprise tax	no	Micro enterprise tax, personal income tax on capital, VAT*	$9\% + 10\% + 21\%^* = 19\%$ (40%)	Idea's author should in advance register as self-employed person and micro enterprise tax payer
Self-employed person, payer of fixed tax rate	no	Fixed rate of personal income tax, Employee's social responsibility tax.	$5-10\% + 11\% = 16-21\%$ but 11% could be applied to any amount starting from 200 LVL	Idea's author should in advance register as self-employed person and fixed rate tax payer

* If turnover of self-employed person during last 12 months is greater than 35 000 LVL, he or she automatically becomes payer of VAT, which is 21%.

Taxation in case of insignificant compensation amounts.

Penny reward and routine type of crowdsourcing is the most controversial from a legislative point of view. First of all, the copyright approach can't be applied in this situation, since simple tasks are performed, and no intellectual property was created. Thus, this is example of employment for single task, and in this case is not suitable for non-EU residents without a valid visa and work permit (35.3. "Darba likums", 2001). For self-employed persons the rates remain the same as was discussed earlier. In the case of employment for a single task, special attention should be paid whether in the work advertisement is specified the duration of the task, since Latvia has a minimum wage, which is 200 LVL, or 1.189 LVL per hour, or 0.02 LVL per minute, thus tasks cheaper than 0.02 LVL should be shorter than one minute, otherwise it will be violation of Cabinet Regulation No, 1096 (MK noteikumi Nr.1096 "Noteikumi par minimālo mēneša darba algu un minimālo stundas tarifa likmi", 2010). Every single task is a separate work agreement, even if tasks have a recurring nature, since the performer of the task can execute only one, and request the promised compensation. For every compensation there should be applied personal income tax (25%), employer's social security tax (24.09%) and employee's social security tax (11%), which in absolute magnitudes will be 0.005 LVL, 0.004818 LVL and 0.0022 LVL, and thus make it impossible to pay, since every task is performed under a separate agreement. As a result, a company faces an ambiguous and controversial situation, when tax is calculated, but not collected, due to the fact that the tax legislation is not ready to deal with such small amounts. On a systemic level, the interests of the company and the government clash, and the result is penalties, litigations and higher costs for lawyers. Another barrier to implement this form of crowdsourcing is then requirement to inform the State Revenue Service (SRS) about every new employee accepted to work, even for a single task agreement. Taking into account the amount of single tasks and their bulk nature, the SRS will be overwhelmed with data about new employees if this process is automated; otherwise it makes no sense to cut costs by applying crowdsourcing if its maintenance is made manually.

Conclusions

Latvian law legislation is not ready to cover work in the Internet. To make it possible to use all forms of crowdsourcing the Labour Law should be changed, where in a separate Section will be described the conditions regarding executing work in the Internet by foreigners and by residents, the taxation of this work and SRS information about each new Internet worker. This new Section also will have an influence for the Law on

Personal Income Tax and social security tax, which should be accordingly harmonised.

The creative type of crowdsourcing faces fewer problems, since it goes under Copyright Law. After analysing the different tax rates and their application rules, the optimal rate for non-residents in Latvia is 5% of enterprise income tax for other types of intellectual property (non-literature, or art works). For Latvian residents best way is the reduced taxes in the case of a self-employed person who pays micro enterprise tax, which is 9%, or a fixed tax rate, which is from 5% to 10%, but these reduced rates have their limitations, which were discussed earlier. The most simple way to apply tax and advantages for amounts larger than 35 000 LVL is by a fee for intellectual property. Summarising all taxes and creative crowdsourcing options, all activities to search for a solution should be targeted to foreigners; it will both reduce tax payments and simplify taxation procedure. An additional benefit will be a much wider audience and a higher possibility to find better solution.

REFERENCES

- “Autortiesību likums” (“LV”, 148/150 (2059/2061), 27.04.2000., Ziņotājs, 11, 01.06.2000.
- “Darba likums” (“LV”, 105 (2492), 06.07.2001., Ziņotājs, 15, 09.08.2001.
- “Par iedzīvotāju ienākuma nodokli” (“LV”, 32, 01.06.1993., Ziņotājs, 22/23, 10.06.1993.
- “Par pievienotās vērtības nodokli” (“LV”, 49 (332), 30.03.1995., Ziņotājs, 9, 11.05.1995.)
- “Par uzņēmumu ienākuma nodokli” (“LV”, 32 (315), 01.03.1995., Ziņotājs, 7, 13.04.1995.
- “Par valsts sociālo apdrošināšanu” (“LV”, 274/276 (989/991), 21.10.1997., Ziņotājs, 22, 27.11.1997.
- Amabile, T. (1996) *Creativity in Context: Update to the Social Psychology of Creativity*. Westview Press, Boulder, CO.
- Anderson, C. (2006) *The Long Tail: Why the future of business is selling less of more*. Hyperion, New York.
- Bonabeau, E. (2009) Decisions 2.0: the power of collective intelligence. *MIT Sloan Management Review*, 50, 45–52.
- Borst, I., Van Den Ende, J. (2007) Financial rewards in open sourcing model; the case of multimedia services. *Proceedings International Product Developments Conference*. 10–12 June 2007, Porto, Portugal.
- Borst, I., Van Den Ende, J. (2008) Motivation and contributions in crowdsourced activities: theory and empirical tests. *Proceedings International Product Developments Conference*. 29 June – 1 July 2008, Hamburg, Germany.
- Brabham, D. C. (2008a) Crowdsourcing as a model for problem solving: An Introduction and Cases, Convergence. *The International Journal of Research into New Media Technologies*, 14, 75–90.

- Brabham, D. C. (2010) Moving the crowd at Threadless. *Information, Communication & Society*, 13, 1122–1145.
- Busarovs, A. (2011a) Crowdsourcing as user-driven innovation, new business philosophy's model. *Journal of Business Management*, No. 4, 53–60.
- Busarovs, A. (2011b) Ethical Aspects of Crowdsourcing, or Is It Modern Form of Exploitation. *Proceedings of ICABE 2011*, 29th September – 01st October 2011, University of Piraeus, Piraeus, Greece.
- Chen, K. T., Chang, C. J., Wu, C. C., Chang, Y. C., Lei, C. L., Sinica, C. (2010). "Quadrant of euphoria: A crowdsourcing platform for QoE assessment". *IEEE Network*. 24, 28–35.
- Estellés-Arolas & González-Ladrón-de-Gueva, 2012. Towards an integrated crowdsourcing definition. *Journal of Information Science*, 20, 1–14.
- Fischer, G. (2002) Beyond «Couch Potatoes»: From Consumers to Designers and Active Contributors. *First Monday*, 7(12), Retrieved from <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1010/931> at 14.05.2012.
- Gill, R., Pratt, A. (2008). "In the Social Factory?: Immaterial Labour, Precariousness, and Cultural Work." *Theory, Culture & Society*. 25, 1–30.
- Howe, J. (2006) The rise of crowdsourcing. *Wired*. 14(6). Retrieved from <http://www.wired.com/wired/archive/14.06/crowds.html> at 20 June 2011.
- Howe, J. (2008) *Crowdsourcing: Why the Power of the Crowd is Driving the Future of Business*. Three Rivers Press, New York, NY.
- Hsueh, P. Y., Melville, P., Sindhvani, V. (2009). Data quality from crowdsourcing: a study of annotation selection criteria. *Proceedings of the NAACL HLT 2009 Workshop on Active Learning for Natural Language Processing*, 27–35.
- Jouret, G. (2009) Inside Cisco's search for next big idea. *Harvard Business Review*, 87, 43–46.
- Keen, A. (2007). *The cult of the amateur*. Doubleday/Currency, New York.
- Kittur, A., Chi, E., Bongwon, S. (2008) Crowdsourcing User Studies With Mechanical Turk. *Proceedings of CHI 2008*, April 5–10, 2008, Florence, Italy.
- Krauze, F. (2011). "Izveidota Latvijas noziegumu karte internetā". *ir*. 27 Mach 2011. Retrieved from <http://www.ir.lv/2011/3/27/izveidota-latvijas-noziegumu-karte-interneta>. at 20 June 2011.
- Lakhani, K. R., Jeppesen, L. B., Lohse, P. A., Panetta, J. A. (2007) *The value of openness in scientific problem solving*. Harvard Business School Working Paper, No. 07–050.
- Lampel, J., Bhalla, A. (2007) The role of status seeking in online communities: Giving the gift of experience. *Journal of Consumer-Mediated Communication*, 12, 434–455.
- McCreadie, R. M. C., Macdonald, C., Ounis, I. (2010) Crowdsourcing a News Query Classification Dataset. *Proceedings of CSE'2010. 23 July, 2010*, Geneva, Switzerland.
- McNichol, T. (2007). "The Wales Rules for Web 2.0". *Business 2.0*. Available at: http://money.cnn.com/galleries/2007/biz2/0702/gallery.wikia_rules.biz2/index.html Accessed 20 June 2011.
- MK noteikumi Nr.1096 "Noteikumi par minimālo mēneša darba algu un minimālo stundas tarifa likmi" ("LV", 193 (4385), 07.12.2010.)

- Page, S. (2007) *The Difference: How The Power of Diversity Creates Better Groups, Firms, Schools, and Societies*. Princeton University Press, Princeton, NJ.
- Postigo, H. (2003). From Pong to Planet Quake: Post-Industrial Transitions from Leisure to Work. *Information, Communication and Society*, 6, 593–607.
- Schenk, E., Guitard, C. (2009) Crowdsourcing: What can be Outsourced to the Crowd, and Why? *halshs-00439256*, version 1–8 Dec 2009.
- Stix, G. (2003) Some Rights Reserved. *Scientific American*, 288, 46.
- Surowiecki, J. (2004) *The Wisdom of Crowds: Why the Many are Smarter than the Few and How Collective Wisdom Shapes Business, Economies, Societies, and Nations*. Doubleday, New York.
- Terranova, T. (2004) *Network Culture: Politics for the Information Age*. Pluto Press, London.
- Terwiesch, C., Xu, Y. (2008) Innovation contests, open innovation, and multiagent problem solving. *Management Science*, 54, 1529–1543.
- Toral, S. L., Rocío Martínez-Torres, M., Barrero, F., Cortés F. (2009). An empirical study of the driving forces behind online communities. *Internet Research*, 19, 378–392.
- von Ahn, L., Maurer, B., McMillen, C., Abraham, D., Blum, M. (2008) reCAPTCHA: Human-Based Character Recognition via Web Security Measures. *Science*, 32, 1465–1468.

INNOVATION IN A KNOWLEDGE-BASED ECONOMY AND LATVIA'S INNOVATIVE PERFORMANCE

Svetlana Jesiļevska

Mg. oec.

Abstract

In this article the relation between innovations and a knowledge-based economy is introduced; innovative performances of Latvia, Lithuania and Estonia are compared; the factors hampering innovation activity in Latvia are analysed; the need for more active co-operation in the sphere of education and research between Latvia, Lithuania and Estonia for the promotion of a knowledge-based economy is stressed. This article considers a number of different measures of innovation, such as the proportion of innovative enterprises, R&D intensity, etc. An innovative performance is one of the drivers in a knowledge-based economy. An innovative performance stimulates economic growth, public welfare and national prosperity of a country. Innovation encourages an increasing demand for research at universities and research institutions. For innovation to take place enterprises must be able to carry out innovation projects and an appropriate infrastructure in the form of universities, financial institutions, etc. is necessary. Thus, the intersection of firm growth, innovation and regional development are three different, but interrelated dimensions. Latvia is a relatively small country with limited natural resources, so human resources and knowledge are the two main factors that can ensure long-term development of Latvia. The theoretical and methodological background of this article is formed mainly by scientific researches and publications and statistical information collected by the author during an innovation survey.

Key words: innovation, knowledge-based economy, the Triple Helix model, economic development, Community Innovation Survey, Baltic States, Latvia.

Introduction

According to the results of various researches, the global economy is undergoing a changing paradigm wherein creative ideas, knowledge and inventions are the main driving force for the economy. [15, 8]

Knowledge and innovation have played a crucial role in development from the beginnings of human history. But with globalisation and the technological revolution, knowledge has clearly become the key driver of competitiveness and is now profoundly reshaping the patterns of the world's economic growth and activity.

To have a meaningful dialogue about knowledge and innovation, it is essential to carefully define these words.

Following Davenport and Prusak: *knowledge is a fluid mix of framed experiences, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information.* [2]

Knowledge can be split into two types: *explicit and tacit.* [22, 20] Tacit knowledge is held by experts, having topic specific, as well as cognitive skills that contain patterns of thought or notions, beliefs, institution and mental models. Explicit knowledge can be articulated in an artefact of some type outside a human being and be transferred e.g. to non-experts. Explicit knowledge is rational and includes theoretical approaches, problem solving, manuals, and databases. The transfer of knowledge from tacit to explicit or explicit to tacit can be viewed as a continuous learning process becoming the so-called knowledge spiral. [20, 24] It enables building and conveying knowledge in need of good “Knowledge Management” to enhance the process, finally leveraging corporate performance. [7; p.4]

Knowledge is of decisive importance in the economic development of countries. According to Houghton and Sheehan [14], a knowledge economy emerges from two forces: *the rise in knowledge intensity of economic activities and the increasing globalisation of economic affairs.* Knowledge societies are generally characterised with the ability to create, share and use knowledge for the sole purpose of improving upon the general well-being of the people, as well as making it possible for them to prosper. [10; p.160]

A basic distinction should be drawn between knowledge and information. Knowledge means that the possessors have the capacity for intellectual or physical action. So what one means by knowledge is fundamentally a matter of cognitive capability. Information, on the other hand, takes the shape of structured and formatted data that remain passive and inert until used by those with the knowledge needed to interpret and process them. The full meaning of this distinction becomes clear when one looks into the conditions governing the reproduction of knowledge and information. While the cost of replicating information amounts to no more than the price of making copies, reproducing knowledge is a far more expensive process because some, indeed many, cognitive capabilities are not easy to articulate explicitly or to transfer to others. [1; p.60]

The following different kinds of knowledge can be identified: *know-what, know-why, know-how and know-who.* Generally, knowledge represents the answer to questions: *what, why, how, who.* The basis of the information concept is the answer to the what and why components of knowledge. Other types of knowledge – know-how and know-who – are more difficult to represent. Thus, information is one of the components of knowledge. Knowledge reflects in fact a deep understanding of information. [1; p.60]

The concept of innovation has been interpreted in several ways. The generally accepted definition by the World Bank is the following: *the use of*

new ideas, new technologies or new ways of doing things in a place or by people where they have not been used before. [18; p.7]

Innovation is at the heart of economic change. In Schumpeter's words, "radical" innovations shape big changes in the world, whereas "incremental" innovations fill in the process of change continuously. Schumpeter proposed a list of various types of innovations:

- introduction of a new product or a qualitative change in an existing product;
- process innovation new to an industry;
- the opening of a new market;
- development of new sources of supply for raw materials or other inputs; and
- changes in industrial organisation. [23]

The Oslo Manual defines innovation as *the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organisational method in business practices, workplace organisation or external relations.* [21; p.46] The Central statistical bureau of Latvia (CSB) collects statistical data on innovations according to the definition provided by the Oslo Manual.

The Law on Scientific Activity adopted in Latvia gives the following definition: *innovation – the implementation in a product or service of new ideas, developments and technologies of a scientific, technical, social, or cultural field or other fields.* [33] The Ministry of Economics of the Republic of Latvia recommends this definition of innovation. The main difference between the two definitions is that in the Law of Scientific Activity the following types of innovations are distinguished – **product** innovation and **process** innovation, while in the Oslo Manual four types of innovations are distinguished: **product innovations, process innovations, marketing innovations and organisational innovations.** The definition of the Oslo Manual is broader. In the next few years we should agree on a single approach of defining innovations in Latvia.

Within a knowledge-based economy, innovation is seen to play a central role.

Knowledge-based economy concept

"*The knowledge-based economy*" is an expression coined to describe trends in the most advanced economies towards greater dependence on knowledge, information and high skill levels, and an increasing need for ready access to all of these. Today, knowledge in all its forms plays a crucial role in economic processes. [27]

Scientists Foray and Lundvall first introduced the concept of a “knowledge-based economy” at a workshop of the Organization of Economic Cooperation and Development (OECD) in 1994. [9]

OECD (Organization for Economic Co-Operation and Development) define the knowledge economy as *an economy which is directly based on the production, distribution and use of knowledge and information*. In this economy, *knowledge has become the key driver of economic competitiveness and success*: it has added massive value to economic production through increases in productivity, and the application of new technologies and new ideas – both in the form of new inventions and also new applications of existing knowledge – has brought revolutionary change to virtually all markets and sectors. [26]

The World Bank has developed the following framework to help countries articulate strategies for their transition to a knowledge economy:

- An economic and institutional regime to provide incentives for the efficient use of existing and new knowledge and the flourishing of entrepreneurship.
- An educated and skilled population to create, share, and use knowledge well.
- A dynamic information infrastructure to facilitate the effective communication, dissemination, and processing of information.
- An efficient innovation system of firms, research centres, universities, consultants, and other organizations to tap into the growing stock of global knowledge, assimilate and adapt it to local needs, and create new technology. [1; p.61]

A knowledge economy is characterised by the rapidity of change in information and knowledge in services and products fields. In this economy it is important to remark that the barriers of communication and the physical distance are lowest, the value of knowledge and information depends on the situation they are used, but the mode in which they are understood by the citizen is important too. [1; p.61]

Latvia is a relatively small country with limited natural resources, thus human resources and knowledge are the main factors that can ensure a long-term development of the country. In Latvia, the development of a knowledge-based economy has been pronounced as one of the key Government priorities by the National Development Plan 2020 of Latvia, and a set of co-ordinated activities are being implemented to foster the process. The promotion of a knowledge-based economy also assumes more active co-operation in the sphere of education and research between Latvia, Lithuania and Estonia.

Triple helix model of innovation

In recent years, a number of concepts have been proposed for modelling the transformation processes in university-industry-government relations. [4] For example, Statist Model (see Figure 1).

Statist Model: Inclusive Spheres:

- government dominates other spheres,
- top-down bureaucratic co-ordination,
- large project mentality,
- industry: national champions, and
- university: primarily teaching institution. [5]

Laissez-Faire Model: Separate Spheres (see Figure 2):

- university: basic research and human resource provider;
- industry: Firms linked by market;
- government: limited to addressing market failures;
- individualistic mentality; heroic entrepreneur; and
- interface units across strong boundaries. [5]

In the Laissez-Faire Model with strong boundaries, institutional spheres are strongly believed to have a single purpose. Organisations within each sphere are expected to remain within their respective boundaries. Thus it is held that universities should focus on knowledge production; while patenting and licensing of technology is believed to be an appropriate activity of the industrial sphere, extraneous to the purpose of the university. [6; p.19]

In the Triple Helix model (see Figure 3) of the knowledge-based economy, the main institutions have first been defined as *university, industry, and government*. [3] Three sub-dynamics are reproduced as functions of a knowledge-based economy: (1) wealth generation in the economy, (2) novelty generation by organised science and technology, and (3) governance of the interactions among these two sub-dynamics by policy-making in the public sphere and management in the private sphere. [16; p.4]

The three sub-dynamics are not given, but constructed and continuously reconstructed in social relations. They can be considered as three helices operating upon each other selectively. For example, a patent can be considered as an event in which the coordination mechanisms interact (Figure 4). The interactions among these functionally differentiated mechanisms drive a cultural evolution which requires a model more complex than the biological model of evolution. [17]

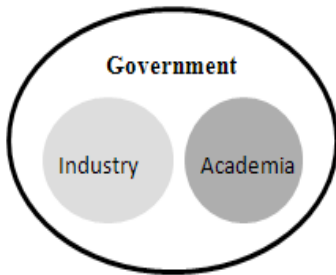


Figure 1 Statist Model [5]

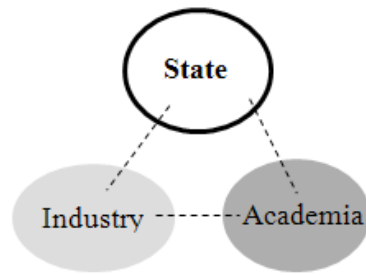


Figure 2 Laissez-Faire Model [5]

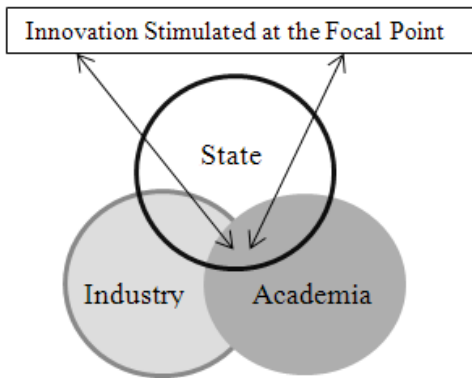


Figure 3 Triple Helix Model [5]

The Triple Helix model comprises of three basic elements:

- A more prominent role for the university in innovation, on a par with industry and government, in a knowledge-based society;
- A movement toward collaborative relationships among the three major institutional spheres, in which innovation policy is increasingly an outcome of interactions among the spheres rather than a prescription from government or an internal development within industry; and
- In addition to fulfilling their traditional functions, each institutional sphere also “takes the role of the other” operating on a y axis of their new role as well as an x axis of their traditional function. Functional integration, as well as differentiation among institutions, takes place though interaction among the spheres. [6; p.15]

The triple helix concept arose from an analysis of the university-industry double helix, and the realization that government was an essential part of the innovation equation, even when it was either suppressed for ideological reasons or given too great a weight due to political exigencies. The university, the key institution of knowledge-based societies, can be replicated and expanded more easily and quickly through knowledge transfer, than the industrial factory system, which is dependent upon physical technology transfer. The spread of knowledge-based innovation collapses the time frame of the first great transformation, measured in centuries, into mere decades.

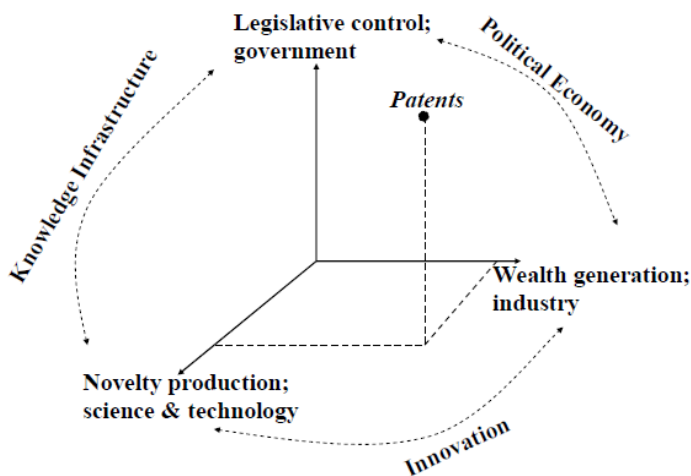


Figure 4 The three-dimensional space of Triple Helix interactions [16; p.4]

Not only do universities play their traditional roles, but also they take on some of the roles of other institutional spheres, such as the role of the entrepreneur, in helping to see that knowledge is put to use; both by establishing organisational mechanisms to transfer knowledge and technology and by playing a strategic role in regional innovation.

As the university takes up this new role in promoting innovation, it becomes transformed as well. As firms take their new role in continually adapting and raising their technological level, they become a little closer to what a university does. As government plays a role as public entrepreneur it becomes a little more like the industrial and academic spheres in realising the importance of knowledge in creating this new economy and new society. [6; p.22]

Overview of innovativeness in Latvia

The Community Innovation Survey (CIS) is a survey conducted by EU Member states to monitor Europe's progress on innovation. The Community Innovation Survey 2010 in Latvia (CIS 2010) collected information on an enterprise's innovations and innovation activities during the three years 2008 to 2010 inclusive (the three-year period from 1 January 2008 to 31 December 2010; the reference period of the CIS 2010 is the year 2010). The empirical results of CIS 2010 presented in this article are based on a sample of 1358 enterprises.

According to CIS 2010 results, in 2008–2010 innovation activities (product, process, organisational, marketing innovation) in Latvia were carried out by 29.9 per cent of enterprises (in 2006–2008 it was 24.3 per cent). Innovation activities were carried out by 62.2 per cent of large (250 and more employees), 38.4 per cent of medium (50–249 employees), and 26.7 per cent of small (10–49 employees) enterprises, in the 2006–2008 survey – respectively 73.2, 38.9 and 19.9 per cent. During the survey period 2008–2010 in Latvia, 19.2 per cent of enterprises introduced only process innovation, 15.2 per cent – only product innovation. Many enterprises (16.4 per cent of all enterprises) introduced both product and process innovation.

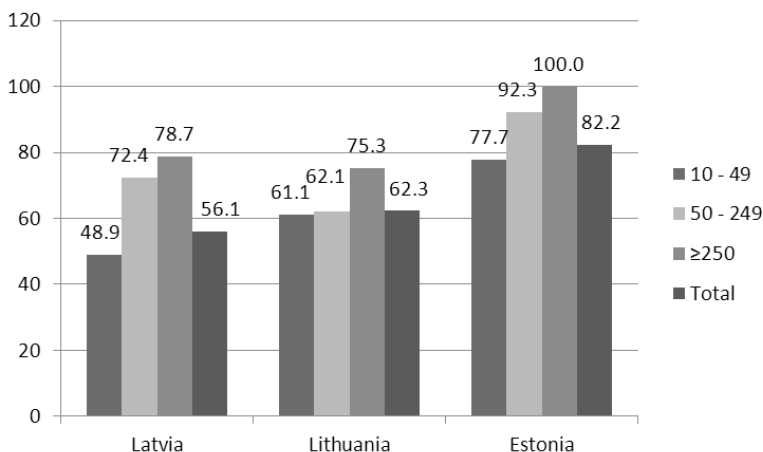


Figure 5 Technologically innovative enterprises as per cent of the number of innovative enterprises in Baltic States in 2008–2010

According to the results of CIS 2010 survey in 2008–2010, technologically innovative enterprises were estimated as 56.1 per cent of the number of innovative enterprises in Latvia (see Figure 5), but in Lithuania and Estonia this percentage is higher (62.3 per cent in Lithuania and 82.2 per cent in Estonia). In Latvia, Lithuania, Estonia the majority of technologically innovative enterprises are large enterprises (250 and more employees). In Estonia 100 per cent of innovative enterprises are technologically innovative.

It can be concluded that in 2008–2010 (see Figure 6) in Estonia the percentage of innovative enterprises was much higher (56.8 per cent) than in Latvia (29.9 per cent) and Lithuania (32.5 per cent). Large enterprises (with 250 or more employees) in Estonia, Latvia and Lithuania were more likely to have brought innovations in 2008–2010 than either small (10 to 49 employees) or medium-sized enterprises (50 to 249 employees).

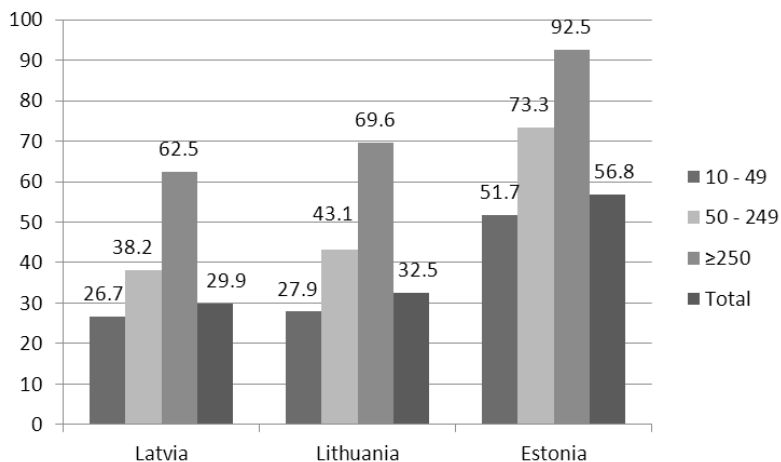


Figure 6 Innovative enterprises as per cent of total enterprise number in the Baltic States in 2008–2010

15.5 per cent of innovative enterprises in Latvia in 2008–2010 had 75 and more per cent of employees with higher education. Among service enterprises, this figure stood at 26.5 per cent. In Latvia in 2009, the majority of doctorate holders are 55–64 years old (see Figure 7). The problem arising here is aged scientists and lack of young doctoral students.

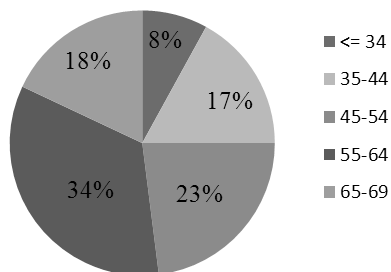


Figure 7 Doctorate holders by age groups in Latvia in 2009

The main factor hampering innovation activity – too high innovation costs; this reason was indicated by 29 per cent of enterprises. The second important factor – lack of funds within the enterprise or enterprise group (23.1 per cent), and the third one – market dominated by established enterprises (18.1 per cent of enterprises).

In Latvia in 2010, expenditure on technological innovation activity amounted to LVL 92 561 thsd, of which LVL 71 662 thsd was allocated for the acquisition of new machinery and equipment, LVL 10 981 thsd – intramural research and development.

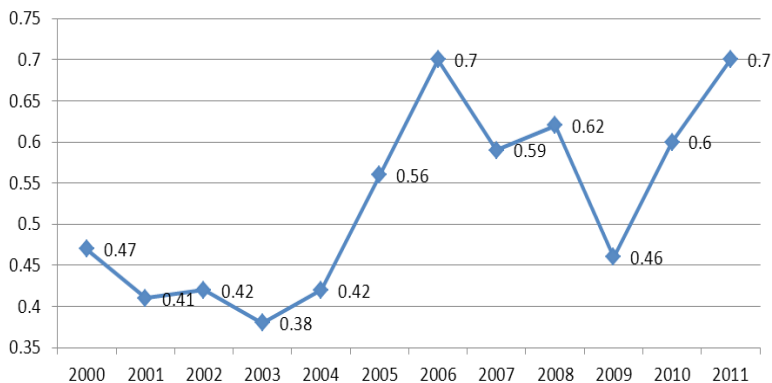


Figure 8 Expenditure on R&D as a percentage of Gross Domestic Product in Latvia

R&D intensity (R&D expenditure as a percentage of GDP) reflects the extent of research and innovation activities undertaken in a given country. The Europe 2020 strategy sets a 3% objective for R&D intensity and most

Member States have adopted their national R&D intensity target for 2020. [36] R&D intensity in Latvia is below 3%; in 2011 it was only 0.7% (see Figure 9).

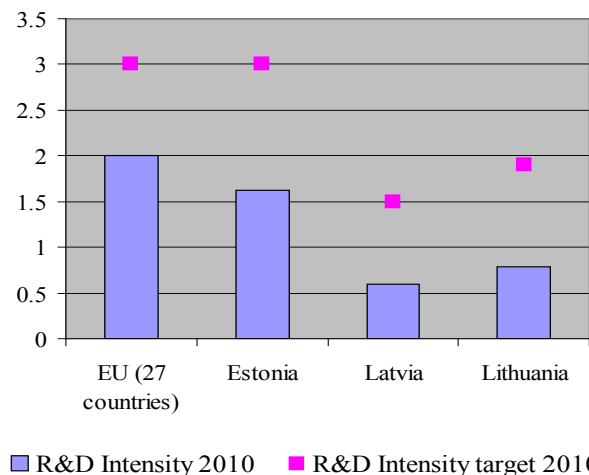


Figure 9 R&D Intensity in 2010 and targets for 2020 [29]

On 26 April 2011, the Cabinet approved the National Reform Programme of Latvia for the implementation of the “Europe 2020” strategy that sets the following investment targets: 1.0% of GDP by 2015 and 1.5% by 2020, yet without specifying the split between public and private investment shares. [30] In Estonia and Lithuania R&D intensity is higher than in Latvia (see Figure 9). The Estonian and Lithuania governments set more ambitious targets than Latvian government. Estonia hopes to achieve the investment target 3.0% of GDP by 2020 and Lithuania – 2.0%. A poorly developed system of funding new knowledge intensive enterprises is a weakness in Latvia.

According to the Global Innovation Index rankings 2012 Latvia is ranked 30th (29th among Global Innovation Index 2011 economies) in 2012. Latvia was one of the countries hardest hit by the economic crisis, subject to three recession years in 2008 – 10 and with the largest decrease in GDP in the world in 2009 (–17.7%), but it has been steadily recovering since. Latvia is placed in the top 30 positions in the Output Sub-Index (27th), Institutions (30th), Market sophistication (22nd), and Creative outputs (21st). It displays a relative weaknesses in the Input Sub-Index (where it places 36th), Human capital and research (50th), Infrastructure (38th), Business sophistication (53th), and Knowledge and technology outputs

(37th). It is the only upper-middle income country in the top 30 this year, also a result of the fact that it recently fell in classification from high income to upper-middle income in the 2011 World Bank classification. [31] The Baltic States were very severely hit by the crisis in 2008–09 with severe decreases in their GDPs; 18% in Latvia, 15% in Lithuania, and 14% in Estonia in 2009. Nonetheless, they have all increased their rankings on all four indices (GII, Input, Output, and Efficiency), sometimes also because innovation expenditures (the nominator in many variables) fell less rapidly than the plunging GDP (the denominator) – leading to an overall positive, but somewhat misleading effect in the rankings. Lithuania and Latvia, for instance, have actually seen their R&D expenditures fall in absolute terms during the crisis and have not recovered to 2007 levels to this day. The situation in Estonia is different, as, on average, it has seen its business and total R&D expenditures levels increase significantly between 2007 and 2010. [31]

Table 1 Global Innovation Index rankings 2012 [31]

Country/Economy	Score (0–100)	Rank
Latvia	47.0	30
Estonia	55.3	19
Lithuania	44.0	38

According to the Innovation Union Scoreboard 2011, Latvia is one of the modest innovators with a below average performance. Relative strengths are in Human resources, Firm investments, Intellectual assets and Economic effects. Relative weaknesses are in Open, Excellent and attractive research systems, Finance and support, Linkages & entrepreneurship and Innovators. High growth is observed in Community trademarks and Community designs. A strong decline is observed for Innovative SMEs collaborating with others and License and patent revenues from abroad. Growth performance in Human resources, Open, Excellent and attractive research systems and Intellectual assets is well above average. [37]

The results of the analyses of different measures of innovation intensity in Latvia supports the idea that the economy of Latvia is just at the beginning of the process of moving into a knowledge-based development stage and this process needs support from a well-functioning innovation system, which should create appropriate innovative capacity widely in the society. At least on the level of different economic policy documents, the need was indicated to move toward a knowledge-based economy. In this respect the following documents are important: National *development plan 2020* and project *Latvia 2030*.

Latvian challenges for increasing R&D investment are: a small number of people employed in science and research (aged scientists and small number of new PhD students), underdeveloped science and research infrastructure, lack of modern laboratories for the realisation of technology-oriented projects, poor commercialisation potential of research results, poor co-operation between science and industry sectors. The Latvian business structure is mainly composed of small and medium-sized enterprises that do not have the capacity to invest in R&D and a poorly developed high-tech sector.

The following factors can explain the smaller innovation activity in Latvia in comparison with Lithuania and Estonia: Latvia has lower level of R&D intensity than Lithuania and Estonia; lack of co-operation between enterprises, researchers and government; lack of a common understanding of what innovation is and lack of consensus on a common definition still exists in Latvia; the fact that expenditures on technological innovation activity in Latvia mostly are allocated for the acquisition of new machinery and equipment, not for intramural research and development; differences in the statistical approach to collecting statistical data on R&D and innovations between three Baltic States and other factors. The CSB collects statistical data on innovation activity with a time lag, e.g., in 2011 data was collected for the observation period 2008–2010. In the time period when the CIS survey is not conducted, it would be necessary to carry out smaller sample surveys with smaller number of innovative companies surveyed and innovative performance characterising indicators (determining the basic indicators of innovative activity which are essential for development of the innovation support policy) to obtain operational data. It would be useful to obtain data on transfer of funds to enterprises from the Treasury. This data could help to verify and monitor the accuracy of data collected by innovation survey.

Support system and barriers to innovate

For developing countries, the ability of enterprises to innovate is widely seen to be one of the keys to technological catching up and economic development. [11, 12, 13] Successful innovations require investment in research and development.

Since Nelson [19], economists have been aware that various market failures may prevent enterprises from obtaining a socially optimal amount of finance for their innovation activities. One reason is that an innovator is unlikely to receive fully appropriate returns on his innovation, because knowledge is a public good, which is hard to keep secret. Also, investment in innovation is characterised by a high degree of asymmetric information,

which makes it difficult for outsiders to judge their potential value. Moreover, enterprises may be reluctant to reveal details of their ideas to potential investors because of the risk that they might be stolen. [25]

In Latvia, R&D intensity is the lowest between the three Baltic States. Government grants and EU structural funds are significant to carry out research. However, the bureaucratic paperwork accompanying usage of state grants seems to upset entrepreneurs.

Politics can promote innovation not only through the instruments of its infrastructure, but directly or indirectly on a governmental level. Its own research network, education system, especially in higher education induces the generation of demands for new products on the one hand; on the other hand, they gear the assessment of market demands. [18; p.8]

The Law on Scientific Activity, having taken effect on 18 May 2005, is presently the chief document governing legal regulation for science and technology development policy. The law stipulates: uniformity of science and higher education; rights, liability, independence and academic freedom of scientists; professional and social guarantees; competence and obligations of state authorities related to ensuring scientific activity. [33]

Out of numerous Latvian institutions for higher education, the three largest universities – the University of Latvia, the Rīga Technical University, the Rīga Stradiņš University – play the most important role in technology – related R&D and education. Over the last years these universities have established units to support scientists (e.g. Latvia Technology Park) in commercialising research outcomes. The Latvia Technology Park (LTP) was founded in 1996 by the Rīga Technical University, University of Latvia, Ministry of Economics of the Republic of Latvia, Riga City Council, Chamber of Commerce and Industry of Latvia, etc. The main task of LTP is to promote commercialisation of science through modern technologies, to support start-up and develop technological and innovative businesses, by supporting small and medium-size production companies. LTP is a member and active participant of the IASP (International Association of Science Parks), IRC (Innovation Relay Centre), BASTIC (The Baltic Network of Innovation Centres), LATICA (Latvian Association of Technological Parks, Centers and Business Incubators). [28]

In Latvia, according to the Cabinet Regulations No 271 of 23 March 2010 “Regulation of the Ministry of Economics”, the Ministry of Economics of the Republic of Latvia is the lead government body in the field of economic policy, and is responsible for the development and implementation of innovation and industrial policy in Latvia. The Ministry of Economics of the Republic of Latvia is working on a number of innovation support measures, co-financed by the EU Structural Funds. The Enterprise Europe Network in

Latvia (EEN Latvia) and the Eurostars (European research and development project) is functioning in Latvia as well. [34]

The Ministry of Economics and the State agency Investment and Development Agency of Latvia organise a competition called the Export and Innovation Award. This is an opportunity to rate competitive ideas and products, to praise the best companies and to encourage national identity. The objective of the competition is to increase competitiveness of Latvian companies on the Latvian and foreign markets – to create innovations and products with high added value, to improve quality and to raise exports. The jury evaluates Latvian companies who offer innovative products on the market, who are able to replace imported analogues with their products and to compete with similar foreign companies. Companies may apply in four competition categories: Best Exporter (in two groups: large and medium-sized companies and small companies), Import Substitute Product, Innovative Product and Industrial Design. Participants in the fifth category, Leading Exporter, are selected by the jury. [35]

The success of Latvian economy depends on the ability and willingness of entrepreneurs to search for and use knowledge produced outside Latvia. This process will require certain skills – to understand the knowledge, be able to use it and to adapt it for creating new knowledge. The investments into this area in Latvia are extremely low and should be supported.

Conclusions and recommendations

1. The concept of innovation is interpreted in several ways. In Latvia two different definitions exist: the definition of the Oslo Manual (upon which innovation statistics are based) and the definition in the Law on Scientific Activity, which is recommended by the Ministry of Economics of the Republic of Latvia. In the next few years there should be agreement on a single approach to defining innovations in Latvia.
2. Latvia is relatively small country with limited natural resources, thus human resources and knowledge are the main factors that can ensure a long-term growth and prosperity of Latvia. In Latvia, the development of a knowledge-based economy has been pronounced as one of the key Government priorities by National Development Plan 2020 of Latvia, and a set of co-ordinated activities are being implemented to foster the process.
3. The development of a knowledge-based economy assumes more active co-operation in the sphere of education and research between Latvia, Lithuania and Estonia.

4. According to the Triple-Helix Model, in the knowledge-based economy an interaction between three main institutions: university, industry, and government are extremely important to stimulate innovations.
5. In Latvia it is necessary to support innovative entrepreneurship by strong correlation between the four sectors: entrepreneurship, R&D and education, funding and legislation.
6. Recent innovation surveys indicated that only a small percentage of Latvian enterprises are innovative and most of those innovate by importing capital equipment rather than by conducting research.
7. One of the largest barriers hampering innovations in Latvia is that entrepreneurs often lack the understanding of the role of innovations in promoting competitiveness and growth. The entrepreneurs are not competent in the available information flow. Entrepreneurs are poorly informed and involved in EU research programmes.
8. Establishment of an adequate higher education sector; achievement of international recognition of higher education, i.e. the recognition of awarded degrees are important factors for development of education system in Latvia.
9. The CSB collects statistical data on innovation activity with a time lag, e.g., in 2011 data was collected for the observation period 2008–2010. In the time period when the CIS survey is not conducted, it would be necessary to carry out smaller sample surveys with smaller number of innovative companies surveyed and innovative performance characterising indicators (determining the basic indicators of innovative activity which are essential for development of the innovation support policy) to obtain operational data.

REFERENCES

1. Batagan, L., 2007, Indicators for Knowledge Economy. *Revista Informatica Economica*, nr. 4 (44)/2007, Bucharest, Romania. Available at <<http://revistaie.ase.ro/content/44/6%20batagan.pdf>> [Accessed 22 September 2012].
2. Davenport, T., Prusak, L. 2000, Working Knowledge, *Harvard Business School Press*, Boston
3. Etzkowitz, H., Leydesdorff, L. 1995, The Triple Helix-University-Industry-Government Relations: A Laboratory for Knowledge Based Economic Development. *EASST Review* 14, 14–19.
4. Etzkowitz, H., Leydesdorff, L. 1998, The Triple Helix as a Model for Innovation Studies. (*Conference Report*), *Science & Public Policy* Vol. 25(3) (1998) 195–203. Available at <<http://www.leydesdorff.net/th2/spp.htm>> [Accessed 22 September 2012].
5. Etzkowitz, H., & Triple Helix Group 2007. The Triple Helix Model. *First Annual Triple Helix Summit*. Available at <http://www.triplehelixinstitute.org/thi/ithi_drupal/sites/>

- default/files/uploaded/documents/summit2007/Summit07_Etzkowitz_TripleHelixModel.pdf> [Accessed 24 September 2012].
6. Etzkowitz, H., Dzisah, J., Ranga, M., Zhou, C. 2007, The triple-helix model of innovation. *Tech Monitor*. <http://www.techmonitor.net/tm/images/7/7d/07jan_feb_sf1.pdf> [Accessed 18 September 2012].
 7. Florian, Resatsch, Ulrich, Faisst, Measuring the performance of knowledge management initiatives. Available at: <http://www2.warwick.ac.uk/fac/soc/wbs/conf/olkc/archive/oklc5/papers/f-4_resatsch.pdf> [Accessed 18 September 2012].
 8. Florida, R., Charlotta, M., and Kevin, S. 2007. Inside the Black Box of Regional Development: Human Capital, the Creative Class and Tolerance, April 2007.
 9. Foray, D., Lundvall, B.-A. 1996, The Knowledge-Based Economy: From the Economics of Knowledge to the Learning Economy. In *Employment and Growth in the Knowledge-Based Economy* (pp. 11–32). Paris: OECD.
 10. Ghirmai T. Kefela 2010, Knowledge-based economy and society has become a vital commodity to countries. Available at: <<http://www.academicjournals.org/ingoj/pdf/pdf2010/aug/Kefela.pdf>> [Accessed 18 September 2012].
 11. Grossman, G., Helpman, E. 1991, *Innovation and Growth in the Global Economy*, Cambridge, MA: MIT Press.
 12. Hausmann, R., Klinger, B. 2006, Structural Transformation and Patterns of Comparative Advantage in the Product Space. *CID Working Paper*, 128.
 13. Hausmann, R.; Hwang, J. and Rodrik, D. 2007, What You Export Matters. *Journal of Economic Growth*, 12(1).
 14. Houghton, J., Sheehan, P. 2000, A Primer on the Knowledge Economy. Available at: <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1329870> [Accessed 18 September 2012].
 15. Landry, C. 2000, *The Creative City: a toolkit for urban innovators*. UK: Comedia.
 16. Leydesdorff, L. The Knowledge-Based Economy and the Triple Helix Model. . Available at: <<http://www.leydesdorff.net/arist09/arist09.pdf>> [Accessed 28 September 2012].
 17. Luhmann, N. 1990, *Die Wissenschaft der Gesellschaft*. Frankfurt a.M.: Suhrkamp.
 18. Nabradi, A. Role of innovations and knowledge-infrastructure and institutions. *Applied Studies in Agribusiness and Commerce, Scientific papers*. Available at: <http://ageconsearch.umn.edu/bitstream/91123/2/1_Nabradi%20Role_Apstract.pdf > [Accessed 18 September 2012].
 19. Nelson, R.R. 1959, The Simple Economics of Basic Scientific Research. *Journal of Political Economy* 49, 297–306.
 20. Nonaka, I., Takeuchi, H. 1995, *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press, May.
 21. *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition*. OECD, EUROSTAT. Available at: <http://www.oecd.org/document/33/0,3746,en_2649_34451_35595607_1_1_1_1,00.html> [Accessed 20 September 2012].
 22. Polanyi, M. 1997, The tacit dimension, in *Knowledge in Organizations*, Butterworths, London, 135–146.

23. Schumpeter, J. 1934, *The Theory of Economic Development*, Harvard University Press, Cambridge, Massachusetts.
24. Senge, P., 1990, *The Fifth Discipline: The Art and Practice of the Learning Organization*, Currency/Doubleday, August.
25. Stiglitz, J., Weiss, A. 1981, Credit Rationing in Markets with Imperfect Information, *American Economic Review* 71, 393–410.
26. *The Measurement of Scientific and Technological Activities: Proposed Guidelines for Collecting and Interpreting Technological Innovation Data*. OECD, EUROSTAT. Available at: <<http://www.oecd.org/science/innovation/sciencetechnologyandindustry/2367580.pdf>> [Accessed 21 September 2012].
27. Statistics Database of Central Statistical Bureau of Latvia. *Central Statistical Bureau of Latvia*. [online] <http://data.csb.gov.lv>.
28. Latvian Technology Park portal. [online] <http://www.ltp.lv/pub/index.php?lang=eng>.
29. EUROSTAT Statistics Database. *EUROSTAT*. [online] http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database.
30. Erawatch portal. [online] http://erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/lv/country?section=Overview&subsection=BasicChar.
31. Global Innovation Index 2012 portal. [online] <http://www.globalinnovationindex.org/gii/main/fullreport/index.html>.
32. Unpublished materials of Central Statistical Bureau of Latvia.
33. Ministry of Education and Science of the Republic of Latvia portal. [online] <http://izm.izm.gov.lv/>.
34. Ministry of Economics of the Republic of Latvia portal. [online] www.em.gov.lv.
35. Export and Innovation Award 2011 Report. Available at <http://www.liaa.gov.lv/files/liaa/attachments/le_2012_en.pdf> [Accessed 26 September 2012].
36. EUROPE 2020 TARGETS: RESEARCH AND DEVELOPMENT. Available at <http://ec.europa.eu/europe2020/pdf/themes/12_research_development.pdf> [Accessed 20 September 2012].
37. Innovation Union Scoreboard 2011. [online] http://ec.europa.eu/enterprise/policies/innovation/files/ius-2011_en.pdf.

USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES IN TEACHING PROCESS IN PRIMARY SCHOOLS

Inese Lūsēna-Ezera

Dr. sc. administr.

Kristīne Bārdule

Mg. paed.

Abstract

With the development of technology, students require a different approach to teaching, because they are well versed in the new information and communication technologies, are happy to seek and analyse information, they are open to everything new. A progressively larger part of the public is no longer satisfied with the level of information extraction, awareness and utilisation that is provided by a basic skill of literacy and numeracy. Every individual has a need to understand the necessity of information, find it and use it. Thus, the common basic concept of basic skills naturally expands and acquires far higher criteria and a new specific skill that must be learned – information literacy.

In addition to the basic knowledge, skills such as computer skills have to be learned, because the rapidly evolving technology and the influence of the virtually connected world dictates the need to change the process of studies, learning, teaching and assessment.

Within the framework of this article, the data of an empirical study on information and communication technologies (hereafter ICT) in teaching elementary school classes are analysed. The study included 132 fifth – ninth grade teachers from nine (9) City of Liepāja

general education schools. The main objective of the study is to clarify the relationship between the use of ICT in learning and such factors as the age and subject of the teachers. The study revealed that teachers' age and subject taught does not influence whether or not to use ICT in lessons or not. ICT is used in lessons both by young teachers and older teachers, as well as teachers of various subjects. The study found that there is no statistically significant relationship between teachers' age and forms of work in the teaching process, when using ICT, whereas a significant correlation was found between the ICT courses visited by individual teachers, specific subjects and certain forms of work, using ICT. The study found that teachers have mostly attended basic computer science courses and web framework, but the study found no evidence that these ICT courses most popular among teachers would relate specifically to the use of ICT in lessons.

The study found that 82.6% of teachers use ICT in lessons, but the results also reveal that the use of ICT in the learning process is relatively passive. To some extent this is due to the lack of technical support in the general education in Liepāja.

Keywords: information and communication technologies, e-learning, computer literacy, primary schools, Liepāja, Latvia

Introduction

The first ten years of the 21st century are characterised by the beginning of the processes of change. The change itself is nothing new – the acceleration of change is new, as evidenced by an increase of the amount of information due to changes in technology and changes in communication.

Today, ICT significantly changes the learning environment at school. Whereas relatively recently the computer was associated only with the teaching of informatics, now it is also taking a part in the teaching process in the rest of the subjects. In addition to the skills of reading, writing and numeracy, competency for the use of ICT has become a key skill in the 21st century. Interactive solutions are the ones that attract young people, so today's educators must be sufficiently flexible, knowledgeable and able to provide new knowledge, using ICT in the learning process. The practice of such an approach is being associated both with optimal achievement of the goals of study and the social order, as well as the taking into account the interests and individual peculiarities of the students.

In relation to modern use of ICT in a variety of life situations, including school education, preparation and/or processing of information as a resource becomes increasingly important, when using ICT, so, for this purpose, everyone needs to learn not only the specific skills for daily use, but also skills to use ICT in their professional field of interest. What's the meaning of the term "ability of using ICT?"

In Cabinet Regulation No. 812 "Regarding the Programme "Information and Communication Technologies for Education Quality. Information Programme 2007–2013"¹, the term *computer literacy* is being used, which is defined both as an ability to use computer and use of computer and other ICT tools directly in the field of activity. In the AkadTerm² database for academic terms, "*computer literacy*" is defined as "an understanding of computer use and the ability to use it effectively," where "the simplest

¹ *Informatizācijas un komunikācijas tehnoloģijas izglītības kvalitātei. Informatizācijas programma 2007.–2013. gadam* [tiešsaiste]: MK noteikumi Nr. 812, 20.10.2006., pieejams: <http://www.likumi.lv>. (in Latvian)

² Akadēmiskā terminu datubāze AkadTerm [tiešsaiste], pieejams <http://termini.lza.lv/term.php?term=datorprat%C4%ABba&list=&lang=LV> (in Latvian).

level of computer literacy includes only running the computer, using simple application, record-keeping and printing, while “higher level computer literacy presumes the use of complex applications and programming by any of the programming languages”. E.Karnītis³, a leading researcher at the University of Latvia, believes that computer literacy are a set of skills that consist of “skills to use modern ICTs, make full use of their potential, which also means the ability to take more effective actions in their profession.” Given the above explanations of computer literacy, it can be concluded that computer literacy is the ability to use the computer as a tool and for achieving specific goals, as well as creatively, to use the opportunities provided by ICT to increase work productivity, according to the modern trends.

Rapidly evolving technology and the influence of the virtually connected world dictates the need to modify the process of studying, teaching, learning and evaluation. By integrating ICT in the learning process, a set of different objectives can be achieved:

- *social objective*, if the students are given the basic knowledge and skills in working with computers, the Internet; students are prepared for life in modern society; they are being raised as informed citizens.
- *professional objective*, if the students are being prepared for a possible use of ICT in their future careers, at least on the basic level;
- *pedagogical objective*, if ICT is used to improve the learning process.

In the process of learning, these objectives overlap and students acquire the knowledge and skills needed for an independent and professional life in the future society.

The use of ICT in the learning process can be approached differently: it can serve as a subject of study, where computer skills are taught as a separate subject, but it can also be used as a modern learning environment, a learning tool that enhances and complements the traditional learning process.

Undoubtedly, the use of ICT in teaching process is a big challenge for teachers. In order to master the use of ICT as well as possible, the teachers have to adopt the changes that are taking place in the education system, as well as being aware of the knowledge and skills needed to work with ICT. It is important for every teacher not only to understand the progress of education and the development of ICT, but also to be able to participate in this development, understand what they want to achieve and the means by which they want to attain this goal. In this context, it is important to find out ways of using ICT in primary schools and the reasons for not using ICT.

³ Karnītis, E. *Informācijas sabiedrība – Latvijas iespējas un uzdrošināšanās*. – Rīga: Pētergailis, 2004. 208 lpp. (in Latvian)

The study

Methodology of study

To find out whether the teachers use information and communication technologies in the teaching process, as well as the association with the age of the teachers, ICT professional development courses taken and the subject taught in school in the elementary grades, an empirical study was conducted in nine (9) elementary schools in the City of Liepāja, by surveying teachers of elementary grades (grades 5–9) for a total of 132 respondents. The study was conducted from October 2010 to March 2011.

A questionnaire was developed for conducting the study (in total, 150 questionnaires were distributed, of which 132 were considered valid (88% of the questionnaires distributed), where respondents are asked to indicate:

- information about learning the professional program on the use of ICT in the learning process;
- use and frequency of use of ICT during lessons; and
- reasons why teachers do not use ICT in the learning process.

In addition, it was also asked to indicate the age and subjects taught by the teachers in basic school grades.

To analyse the results, non-parametric data analysis methods for the determination of liability (Fisher's exact test, Chi-square test, Yates Chi-square test, Spearman's rank correlation Coefficient) were used. The use of non-parametric methods was determined by the classification of measurement scale.

Results and analysis

Collecting the responses of teachers surveyed on the question of the use of ICT in lessons, it has to be evaluated positively that a very large proportion (82.6%) of City of Liepāja basic school primary grade teachers use ICT (Table 1) during the lessons, however, the survey reveals that, from nine schools involved in the study, only in one school (school C) the ICT was used in lessons by all the teachers surveyed (Table 1). The results of the contingency table (Table 1) also indicate that on each trial, the participating schools are teaching a variety of ICT-using and ICT-avoiding teacher rates, however, Chi – Square test results for statistically significant coherence between the use of ICT in teaching lessons and schools were not found ($\chi^2(8) = 8.670$, *exact p* = .377 > 0.05) (Table 2).

Table 1 Usage of ICT in teaching lessons, per school

		Do you use ICT in teaching lessons?		
		Yes	No	Total
School A	Count	13	6	19
	% within School	68.4%	31.6%	100.0%
School B	Count	10	3	13
	% within School	76.9%	23.1%	100.0%
School C	Count	10	0	10
	% within School	100.0%	.0%	100.0%
School D	Count	16	1	17
	% within School	94.1%	5.9%	100.0%
School E	Count	10	1	11
	% within School	90.9%	9.1%	100.0%
School F	Count	13	2	15
	% within School	86.7%	13.3%	100.0%
School G	Count	13	5	18
	% within School	72.2%	27.8%	100.0%
School H	Count	14	3	17
	% within School	82.4%	17.6%	100.0%
School I	Count	10	2	12
	% within School	83.3%	16.7%	100.0%
Total	Count	109	23	132
	% within School	82.6%	17.4%	100.0%

Table 2 Chi-Square Test results for use of ICT in teaching lessons and schools

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	8.670	8	.371	.377	
Likelihood Ratio	10.353	8	.241	.339	
Fisher's Exact Test	8.020			.408	
Linear-by-Linear Association	.164	1	.685	.697	.359
N of Valid Cases	132				

Interesting results of the research were found by comparing the age of the teachers and their answers about ICT usage in teaching lessons. The results of the contingency table reveal that the largest share of teachers, using ICT in teaching lessons are the ones in the age group of “56–65 years old” (90% of teachers), while in the other age groups the share of ICT-users

is, albeit minimally, declining (Table 3). While the results of the contingency table show a possible correlation between the age of the teacher and their usage of ICT in teaching lessons, significant statistical coherence was not found between these indications ($\chi^2(3) = .440$; $p = .932 > 0.05$) (Table 4).

Table 3 Usage of ICT in teaching lessons, according to the age of the teachers

			Age of the teachers				Total
			Up to 35 years	36–45 years	46–55 years	56–65 years	
Do you use ICT in teaching lessons?	Yes	Count	26	36	38	9	109
		% within age group	81.3%	81.8%	82.6%	90.0%	82.6%
	No	Count	6	8	8	1	23
		% within age group	18.8%	18.2%	17.4%	10.0%	17.4%
Total		Count	32	44	46	10	132
		% within age group	100.0%	100.0%	100.0%	100.0%	100.0%

Table 4 Chi – Square Test results for the usage of ICT in lessons and Age of teachers

	Age of the teachers	
		Chi-square
The usage of ICT in teaching lessons	df	3
	Sig.	.932

While analysing the question about the usage of ICT in the classes, according to the subject taught by the teachers in schools, it was discovered that there is no association between the subject taught by the teacher and their usage of ICT in teaching lessons (according to *Fisher`s Exact test* results on all questions $p > 0.05$) (Appendix A, table 1). Disregarding the nonexistence of the said coherences, the results seen in the Figure 1, show that ICT is mostly used in lessons by teachers in primary school that teach mathematics (27 teachers), Latvian language (native language) (18 teachers), literature (15 teachers) and English language (foreign language) (13 teachers).

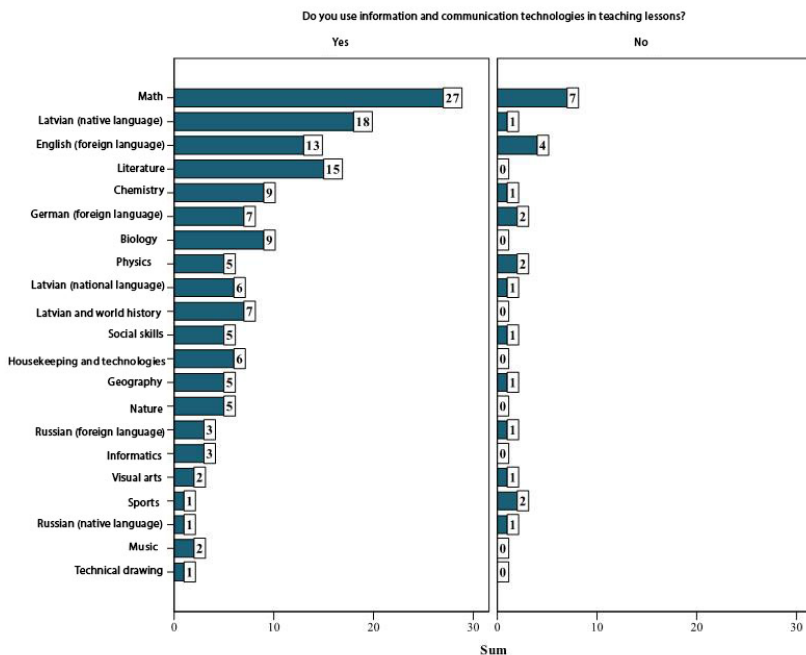


Figure 1 ICT usage in teaching lessons, according to the subject taught by the teachers

Determining what knowledge and skills in the field of ICT have been learned by the general education school teachers of the primary classes in the City of Līepāja, the collected results (Figure 2) show that the teachers have mostly attended courses that were directly oriented towards learning the basics of ICT knowledge and required operational skills: most teachers have learned the basics of IT (112 teachers), basics of the Internet (78 teachers) and basics of presentation-creating while working with Power Point software (76 teachers). A comparatively smaller amount of teachers have gained skills and knowledge necessary to work with software associated with creating various tasks and exercises, as well as organising the teaching process: the basics of test-making have been learned only by 18 teachers, and the “Lectora” software – only 14 teachers. 34 teachers have stated that they have learned the required ICT skills and knowledge independently (Figure 2).

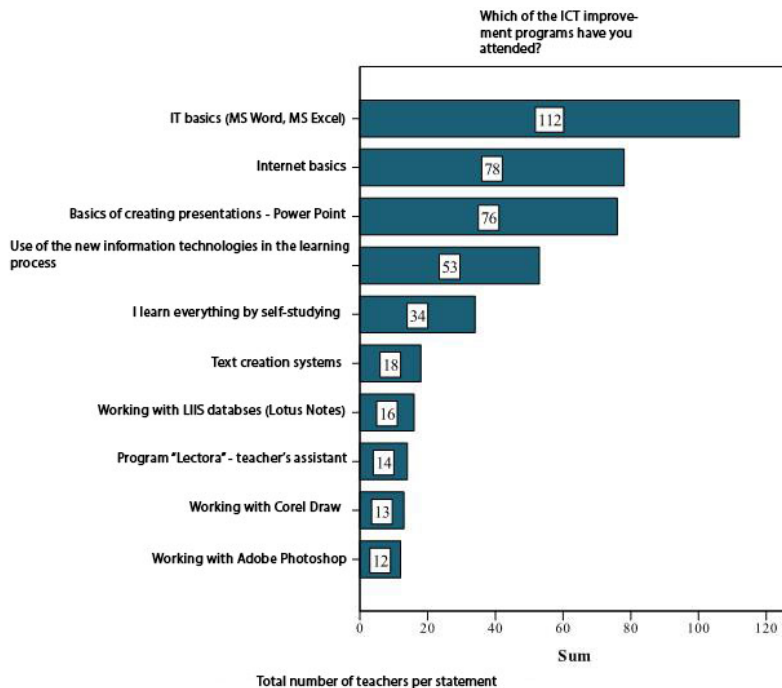


Figure 2 Total amount of teachers that have attended any of the ICT professional development courses

Analysing the question about the ICT professional growth programme courses, attended by teachers, according to whether the teachers are using/are not using ICT in their classes, it was discovered that the teachers who had attended any of the ICT courses, are, in general, using ICT in their classes. (Figure 3).

As we can see in Figure 3, 95 teachers who have learned the basics of IT and 64 teachers who have learned the basics of the Internet usage, and 66 teachers who have learned the basics of presentation-making, also use ICT in their classes. It should be valued positively that a comparatively large amount of teachers that have specifically taken the "New information technology usage in the teaching process" ICT course, (49 teachers) and are using the acquired knowledge in their classes (Figure 3). Taking into account the results of the comparative analysis seen in the Figure 3, research was also carried out, studying the mutual association of the according indications. Acquired results revealed that a significant association between the teacher attended ICT professional growth programme

courses and usage of ICT in teaching lessons exists only in two cases: by taking the “New information technology usage in the teaching process” course ($\chi^2_{Yates}(1) = 4,664; p = .031 < .05$) (Table 5) and “I learn everything by self-studying” ($\chi^2_{Yates}(1) = 3,868; p = .049 < .05$) (Table 6).

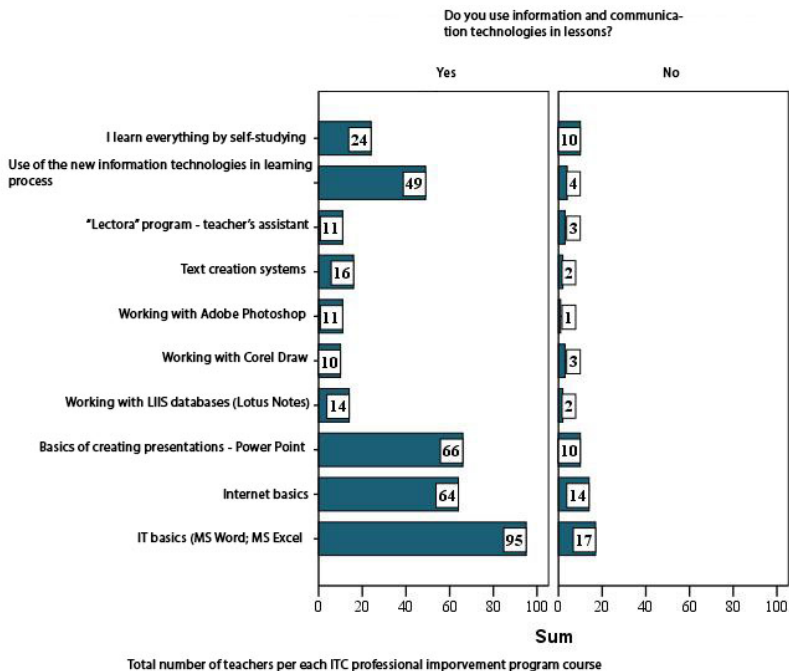


Figure 3 Comparative analysis of the teachers attended ICT professional growth programme courses and usage of ICT in teaching lessons

Table 5 Chi-Square Test results of usage of ICT in teaching lessons and ICT course “New information technology usage in the teaching process”

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	5.748	1	.017	
Continuity Correction	4.664	1	.031	
Likelihood Ratio	6.271	1	.012	
Fisher's Exact Test				.018
Linear-by-Linear Association	5.703	1	.017	
N of Valid Cases	129			

Table 6 Chi-Square Test results of usage of ICT in teaching lessons and “I learn everything by self-studying”

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	4.984	1	.026	
Continuity Correction	3.868	1	.049	
Likelihood Ratio	4.575	1	.032	
Fisher’s Exact Test				.034
Linear-by-Linear Association	4.945	1	.026	
N of Valid Cases	129			

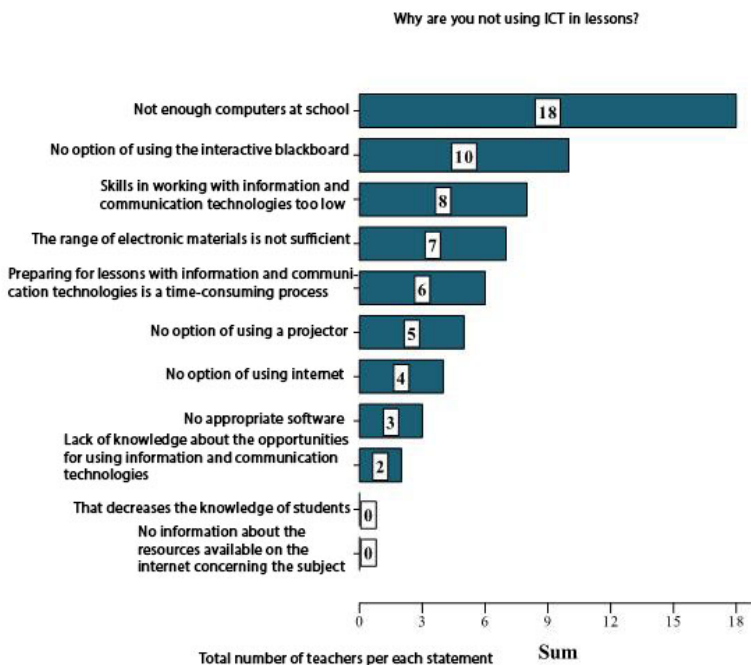


Figure 4 Reasons for not using ICT in teaching lessons⁴

Summarising the answers about the reasons of not using ICT in teaching lessons, it was found that of the **external factors**, most teachers mention the insufficient amount of computers (18 teachers) and the lack or

⁴ Only answers from teachers who stated that they are not using ITC in teaching lessons were collected (n = 23).

non-availability of an interactive blackboard in their school (10 teachers). From the **internal factors** the teachers have mentioned specifically the lack of skills (8 teachers) rather than a lack of knowledge (2 teachers) while working with ICT (Figure 4).

The comparative analysis of reasons for not using ICT per school (Figure 5) allows one to conclude that the material-technical supply problem most mentioned by teachers – *insufficient amount of computers and the lack or non-availability of an interactive blackboard*, concerns almost all of the schools, involved in the research. Taking into account the results of the comparative analysis of ICT non-usage reasons (Figure 5) according to the inner factors – *Lack of ICT usage skills and the long preparation process of working with ICT in classes* – it can be stated that these results can also be generally attributed to all the teachers of the schools involved in the research: lack of ICT usage skills and the long preparation process of working with ICT in classes have been stated as the reasons for not using ICT in classes in five schools: (School A, School F, School G, School H and School I).

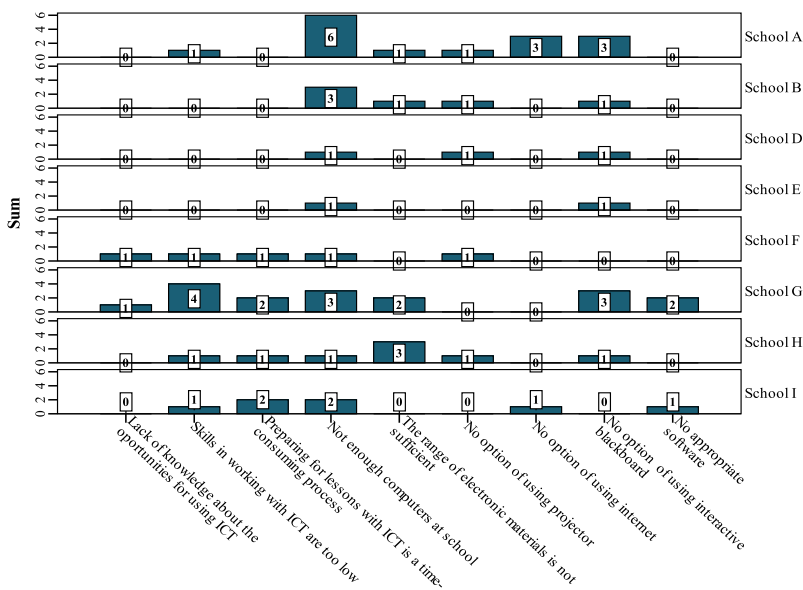


Figure 5 Results of the comparative analysis of ICT non-usage reasons per school⁵

⁵ In the school group compared answers from teachers who stated that they are not using ITC in classes were (n = 23).

In the research, it was also discovered what forms of work were used in the teaching process while using ICT, and also how widespread is the practice of using ICT in the class and teaching process organisation.

The questions about the teacher's forms of work, using ICT, summarised in Table 4, reveal a different spread of answers in the frequency categories of ICT usage in teaching process.

In spite of the fact that 82.6% of the surveyed teachers use ICT in teaching lessons (Table 1), a large part of those teachers have **never** used an interactive blackboard in the teaching process (75.2% of teachers), 45.4% of teachers have **never** created tests and other exercises, have not used the Internet (44% of teachers) or software (59.6% of teachers) for the student's individual, paired or group work/research during the class (Table 7).

Table 7 Frequency of using ICT in the teaching process⁶

	Once per week	Once per month	Once per semester	Once per year	Never
	Row N %	Row N %	Row N %	Row N %	Row N %
Creating presentations with a computer, projector	21.1%	28.4%	35.8%	.9%	13.8%
Creating tests for work with the interactive blackboard	3.7%	12.8%	4.6%	3.7%	75.2%
Using animation, video materials or other visual demonstrations	13.8%	31.2%	36.7%	2.8%	15.6%
Creating tests or other exercises, which the students complete independently during the class, using a computer	9.3%	28.7%	13.0%	3.7%	45.4%
Using the internet so that the students can conduct research during the class, either individually, in pairs or in groups.	4.6%	21.1%	16.5%	13.8%	44.0%
Using software so that the students can conduct research during the class, either individually, in pairs or in groups.	2.8%	14.7%	11.9%	11.0%	59.6%
Assigning homework for students, using information and communication technologies	4.6%	40.4%	39.4%	11.0%	4.6%

⁶ Only answers from teachers who stated that they are using ITC in teaching lessons were collected (n = 109).

This situation can be explained both with the insufficient supply of ICT (including internet browsing software) in schools (Figure 4) and classes, as with the teacher's lack of knowledge and skills required to use the relevant software/internet browser, as with, possibly, the teacher's attitude towards the ICT usage in the teaching process. Comparing the forms of work, shown in the Table 7, it can be concluded that once per month (40.4%) and once per semester (39.4%) most of the teachers use ICT indirectly – assigning homework to students, using ICT; less frequently, the teachers use animation, video or other visual demonstrations (31.2% – once per month; 36.7% – once per semester) and creating presentations (28.4% – once per month; 35.8% – once per semester). The method of creating presentations and using them in the teaching process every week is being used by 21.1% of teachers (Table 7)

Analysing the used ICT forms of work, according to the age of the teacher, learned ICT skills and knowledge and the subject taught in school, it was found that:

- there is no statistically important correlation between the age of the teacher and the ICT work forms used in the teaching process (according to Spearman's rho on all questions $p > 0.05$) (Appendix A, Table 2);
- there is a statistically significant association between creating presentations with a computer/projector and learning the basics of IT in the relevant course. ($\chi^2(4) = 15.729$, *exact p* = 0.006 < 0.05) (Appendix C, Table 1);
- there is a statistically significant association between creating tests meant for work with the interactive blackboard and learning the Corel Draw software. ($\chi^2(4) = 10.784$, *exact p* = 0.036) (Appendix C, Table 2.);
- there is a statistically significant association between the usage of animation, video and other visual demonstrations and attending the “New information technology usage in the teaching process” course. ($\chi^2(4) = 11.107$; *exact p* = 0.019) (Appendix C, Table 3); and
- there is a statistically significant association between the subject “Geography” and Using animation, video or other demonstrations in the teaching process ($\chi^2(4) = 11.560$; *exact p* = 0.016) (Appendix B, Table 1); subject “Mathematics” and creating tests and other exercises ($\chi^2(4) = 11.666$; *exact p* = 0.019) (Appendix B, Table 2); subject “Physics” and assigning such homework for students, for whose completion ICT must be used ($\chi^2(4) = 9.071$; *exact p* = 0.047) (Appendix B, Table 3).

Conclusions

- The lack of ICT in schools and the insufficient material supply of ICT prohibits the teachers from using the knowledge and skills acquired in the courses in practice – in spite of the fact that most teachers have learned the basics of IT, Internet usage and presentation-making, a passivity is observed in the ICT usage in the teaching process, when the teachers mostly use ICT once per month or only once per semester.
- The results of the research generally allow one to conclude that the frequency of ICT usage is not related to the age of the teacher, the taught subjects, the ICT courses attended or the school, where the teachers are working in. Only in individual cases, the frequency of the teacher's ICT usage is related to a distinct subject or specific ICT courses.
- In the context of using ICT, there is a pressing question about the teacher's further education in combining ICT skills with the subject's didactic knowledge and pedagogical mastery.
- So that the information and communication technologies could be used in the teaching process, there is a need for planning in the governmental level about the improvement of technical base of supplies in schools. Also, technics age with time, therefore it cannot be an instant one-time event, and the renovation of the technical base is to be considered upon continuously.

REFERENCES

1. Karnītis, E. *Informācijas sabiedrība – Latvijas iespējas un uzdrošināšanās*. - Rīga: Pētergailis, 2004. 208 lpp. (in Latvian).
2. Akadēmiskā terminu datubāze *AkadTerm* [tiešsaiste], pieejams <http://termini.lza.lv/term.php?term=datorprat%C4%ABba&list=&lang=LV> (in Latvian).
3. *Informatizācijas un komunikācijas tehnoloģijas izglītības kvalitātei*. Informatizācijas programma 2007. – 2013.gadam [tiešsaiste]: MK noteikumi Nr. 812, 20.10.2006., pieejams: <http://www.likumi.lv>. (in Latvian).

APPENDIX A

Table 1 Chi-Square Test results of usage of ICT in teaching lessons and the subject taught by teachers

Chi-Square Tests		
Statistics=Fisher's Exact Test		
	Exact Sig. (2-sided) ^a	Exact Sig. (1-sided) ^a
Latviešu valoda (dzimtā valoda)	.195	.127
Krievu valoda (dzimtā valoda)	.309	.309
Latviešu valoda (valsts valoda)	1.000	.666
Angļu valoda (svešvaloda)	.486	.311
Krievu valoda (svešvaloda)	.525	.525
Vācu valoda (svešvaloda)	.646	.466
Matemātika	.594	.329
Dabaszinības	.589	.393
Fizika	.334	.334
Ķīmija	1.000	.473
Ģeogrāfija	1.000	.735
Bioloģija	.355	.180
Mājturība un tehnoloģijas	.589	.324
Sociālās zinības	1.000	.735
Latvijas un pasaules vēsture	.601	.267
Mūzika	1.000	.691
Literatūra	.074	.053
Sports	.073	.073
Vizuālā māksla	.427	.427
Informātika	1.000	.573
Tehniskā grafika	1.000	.832

a. Computed only for a 2x2 table

Table 2 Correlation results of age of teachers and usage of ICT in teaching process

Usage of ICT in teaching process	Spearman's rho		
	Age of teachers		N
	Correlation Coefficient	Sig. (2-tailed)	
Creating presentations with a computer, projector	.011	.906	109
Creating tests for work with the interactive blackboard	.115	.234	109
Using animation, video materials or other visual demonstrations	-.124	.200	109
Creating tests or other exercises, which the students complete independently during the class, using a computer	-.082	.399	108
Using the internet so that the students can conduct research during the class, either individually, in pairs or in groups.	-.024	.803	109
Using software so that the students can conduct research during the class, either individually, in pairs or in groups	.006	.950	109
Assigning homework for students, using information and communication technologies	-.009	.927	109

APPENDIX B

Coherences between usage of ICT in teaching process and the subject taught by teachers

Table 1 Chi-Square test results of subject “Geography” and “Using animation, video materials or other visual demonstrations”

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	11.560	4	.021	.016
Likelihood Ratio	12.191	4	.016	.011
Fisher’s Exact Test	8.080			.038
Linear-by-Linear Association	2.023	1	.155	.190
N of Valid Cases	109			

Table 2 Chi-Square test results of subject “Mathematics” and “Creating tests or other exercises, which the students complete independently during the class, using a computer”

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	11.666	4	.020	.019
Likelihood Ratio	11.752	4	.019	.028
Fisher’s Exact Test	9.840			.031
Linear-by-Linear Association	.708	1	.400	.423
N of Valid Cases	108			

Table 3 Chi-Square test results of subject “Physics” and “Assigning homework for students, using information and communication technologies”

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	9.071	4	.059	.047
Likelihood Ratio	8.591	4	.072	.071
Fisher’s Exact Test	8.549			.035
Linear-by-Linear Association	.563	1	.453	.609
N of Valid Cases	109			

APPENDIX C

Coherences between usage of ICT in teaching process and ICT professional development courses

Table 1 Chi-Square test results of “IT basics” and “Creating presentations with a computer, projector”

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	15.729	4	.003	.006
Likelihood Ratio	13.010	4	.011	.013
Fisher’s Exact Test	12.622			.006
Linear-by-Linear Association	1.146	1	.284	.318
N of Valid Cases	107			

Table 2 Chi-Square test results of “Corel Draw” and “Creating tests for work with the interactive blackboard”

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	10.784	4	.029	.036
Likelihood Ratio	7.506	4	.111	.079
Fisher’s Exact Test	8.804			.040
Linear-by-Linear Association	1.962	1	.161	.184
N of Valid Cases	107			

Table 3 Chi-Square test results of “Use of the new technologies in the learning process” and “Using animation, video materials or other visual demonstrations”

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	11.107	4	.025	.019
Likelihood Ratio	12.120	4	.016	.018
Fisher’s Exact Test	10.572			.022
Linear-by-Linear Association	3.459	1	.063	.066
N of Valid Cases	107			

USING SUPERVISION FOR SOLVING HUMAN PROBLEMS DURING PERIODS OF CRISES

Ligita Landzmane

Dr. andus sc. admin.

Abstract

A human is a unitary, indivisible, bio-psycho-social entity, whose performance depends on the quality of entirety. A crisis is the result of the effect of the external environment, which reduces the performance of a human's entirety. Without receiving complex assistance for solving problems and restoring the bio-psycho-social entirety, restoring private and professional performance can take a much longer time period. The aim of the study was to create guidelines of a conceptual integrative model suitable for overcoming the human problems of crises. To achieve this result, academic sources were reviewed, theories were analysed and guidelines were selected; a meta-analysis of Latvian people's career development support interests was used; a synthesis of the conceptual guidelines of a suitable integrative model for overcoming the human problems of a crisis was carried out. The general principles for an integrative model that is suitable for overcoming human problems of a crisis were established. Career supervision in combination with medical and psychotherapy methods, would make it possible to create an effective and integrative, technological model for solving the human problems of a crisis.

Keywords: human, holism, crisis, problem solving, supervision, Latvia

Introduction

Not only practice that is based on empirical experience, but modern science is returning to the old opinion that the human is a unitary, indivisible bio-psycho-social entity. The performance of a human depends on the quality of his or her entirety.

A crisis is the result of the effect of the external environment, which reduces the performance of a human's entirety. It affects a human's physical, psychological and social performance. During crises, psychotherapy options are not sufficient. Psychotherapy helps overcome personal psychological problems, without providing medical and social assistance in case such problems arise. Without receiving the necessary complex for solving these problems, restoring performance can take a much longer time period.

Representatives of an increasing amount of sciences name a systemic approach as the only possible method for solving human problems. Within the framework of a systemic approach, methods are used to deal with the somatic, emotional, thinking and behavioural human problems in an integrative manner.

Career supervision intends the use of an inter-disciplinary and integrative approach that is based on meta-theoretical viewpoints and is focused on the individual's goals. Supervision combines: psychologically supportive, pedagogically administrative and informative-educational functions. Career supervision in combination with medical and psychotherapy methods, makes it possible to create an effective and integrative, technology for solving the problems of a crisis.

Professional assistance for overcoming the problems of a crisis can be effective, if it is organised and managed, by considering the following principles: 1) a human is evaluated as a indivisible bio-psycho-social entity; 2) assistance is organised and managed, considering the holistic viewpoint and systemic approach; and 3) the assistance system combines the following in an integrative manner: a) career supervision; c) psychotherapy; b) medical assistance.

Aim of the study

On the basis of knowledge gained from academic literature and an analysis of practical experience, to develop conceptual guidelines of an integrative model that is suitable for solving the human problems of a crisis.

Materials and methods

The research was made within the context of a holistic, person-orientated and systemic approach. The following instruments are used in the research and its description: 1) a review of academic works, analysis of theories and a selection of positions about: a) human holism; b) crisis and its management; c) career supervision; formation of an integrative therapeutic system; 2) a meta-analysis of Latvian people's career development support interests; and 3) a synthesis of the conceptual guidelines of a suitable integrative model for overcoming the human problems of a crisis.

The age of knowledge society and new economics enters Latvia in the form of structural reforms. The Latvian population has encountered the reforms suddenly, without understanding them and unprepared. The new paradigms in the management of society, economics, education, work market and career competitiveness demand a change of understanding, way of thinking, viewpoints, attitudes, stereotypes and behaviour.

New multi-cultural traditions and the economic crisis heavily affect the consciousness, emotional world, behaviour, attitude and relationship of humanity. A crisis of a material nature always causes a psychological crisis for the members of society. At this moment, at the beginning of the year 2011, a large part of the Latvian population still encounters factors

that are troublesome in life and work, falling into deeper frustration. An understanding of the behaviour that is necessary for the new personal and work life (career management) is the first meaningful step towards reducing the intellectual and psychological barriers in competitiveness.

For everyone, especially representatives of the assisting professions, it is important to note that the 21st century career is no longer a profession or trade. The term career is merged with the concept of a successful and meaningful life. By inviting one to create a new career, an individual is in fact invited to develop a synergistic combination of work and private life, making both meaningful. The theoretical statements of Drucker (Drucker, 1995), Rifkin (Rifkin, 2000), Patton and McMahon (Patton, McMahon, 2006a, 2006b), Bloch (Bloch, 2005), Mogilievkin (Могилевкин, 2007), Landau, Mittal and Wieling (Landau et al., 2008) help to understand the new career paradigm in systemic way. The scholars mentioned in this article not only describe the new paradigms of economics, education and career, but also offer healthy solutions for solving the difficult problems of career competitiveness in the 21st century.

Knowledge economy, knowledge management, knowledge workers are new unknown concepts making frustration, psychological and practical safeguard mechanisms. *This society in which knowledge workers dominate is in danger of a new "class conflict": the conflict between the large minority of the knowledge workers and the majority of people who will make their living through traditional ways, either by manual work, whether skilled or unskilled, or by services work, whether skilled or unskilled* (Drucker, 1995: 235–236).

The basic skills anticipated by modern theories, that are necessary for successful life management, can be seen in Table 1. The content of Table 1 integrates the competence and behaviour indicators necessary for a person's living (career) as defined by Mogilievkin.

The necessity to know, think and do more than an individual actually can, always encourages the rise of individual and collective psychological protectiveness and defence mechanisms. Defence mechanisms that aren't transformed early enough, encourage conflicts, but unsolved conflicts – states of psychological crisis. In his work, Kulbergs emphasises that a crisis often brings a lack of sense of purpose, a sense of purposelessness and chaos (Kulbergs, 1998, 2001). The loss of usual financial, economic and social possibilities has driven many Latvian people into a crisis, endangering improvement and creating changes in a person.

Many specialists of psychology, medical, social work, etc. have arrived at a dead-end. Care specialists can no longer find answers to questions like: How to live now and in the future? How to get over problems of practical nature, whose result is a psychological crisis? How to create one's own personal path of private and work life – own career?

Table 1 Abilities and behaviour indicators necessary for a person's career
(Могилевкин, 2007: 303–305; author's interpretation)

Abilities	Behavioural indicators
Systemic thinking	Skill to work with large quantities of information of varying nature
	Skill to structure information
	Skill to view information as a whole, mutual connection of all aspects
Dynamic thinking	Skill to quickly solve intellectual tasks
Non-standard thinking	Skill to generate new ideas
	Skill to create multiple versions for solving tasks
	Skill to find alternative solutions
Orientation on a specific goal	Skill to precisely formulate the necessary result
	Ability to "keep and hold" a significant target
	Skill to reach a proposed target
Ability to plan and Project	Skill to distribute resources, forces, possibilities
	Skill to anticipate the progress of a situation
	Skill to think logically
Group management	Skill to undertake the management of key decisions
	Skill to delegate powers
	Ability to motivate for reaching results
Co-operation efficiency	Presentation skills
	Skill to co-operate with people with different opinions and views
	Skill to reach goals through communication
Flexibility in communication	Skill to convert destructive conflicts in constructive
	Ability to side with and manage
Ability to negotiate	Skill to listen and understand the point of a verbal and written notification
Loyalty to organisation	Skill to coordinate own and organisation's goals
	Skill to maintain high motivation in an organization
Stability in stress situations	Ability to maintain a dynamic work rate
	Skill to sustain a permanent intellectual productivity
	Skill to manage own emotional state
Motivation on achievements	Readiness to use maximum amount of personal resources
	Ability to achieve the best possible results
	Self-motivation ability
Readiness for change	Skill to use chances of expanding and extending own knowledge and skills
	Self-education skills
Independence and validity in decision-making	Skill to justify, argue and defend own position
	Skill to monitor own decision until execution

By using non-traditional theories of medicine, psychotherapy, career, etc., the result is more than often negative. Right now it is no longer the traditional therapy or social assistance, which is crucial to people with special needs. Increasingly many seemingly strong individuals, who have experienced losses in business, have lost their jobs, have lost the possibility to be with their children, by choosing a life in another country, the healthy ability to manage oneself is fading away and there is a necessity to restore it.

The traditional Western consulting practice doesn't evaluate an individual as a bio-psycho-social entity, but reviews and consults narrow scope problems.

Nowadays, more under-rated becomes the fact that the path of life or career of an individual has become much harder. The artefacts of social culture change – humanity loses such supporting instruments like family, friends, power and support of religion. Even in situations of urgent or chronic fatigue, an individual can't stop working and hand over the functions to another person. The bureaucratic formalities have become complicated; the times are impetuous and unsafe. The events of the economic crisis can traumatise a mentally, intellectually and emotionally stable individual in such a way that the individual's ability to ensure basic needs is affected – the person arrives at a psychological crisis.

The aspects that affect an individual's choice and performance are described by Patton and McMahon (Figure 1).

The academic sphere receives, but still insufficiently, practical guidelines, which provide a collaborative effort from pedagogues, psychologists, career consultants, trainers. But it can be seen, that methods based on an integrative approach in theory and in practice more often are considered the more successful, which can be used to overcome conflicts of a human's feelings, thinking and behaviour. Increasingly many representatives of different areas name the integrative, holistic or systemic approach as the only possible method for solving people's problems.

Even career system theories try to change the standardised paradigm of career development support, which, when considering it as a simple linear process, has created and maintains the traditional career theories. The new career management paradigm demands to view the human as a unique and multi-dimensional being, and waive the possibility to offer the same solutions for even seemingly similar career problems. Career system theories ask to redefine the guidelines of career object, career support and consulting practices, anticipating a variation and management of a career consultation process based on meta-theoretical statements and focused on the individual's goals.

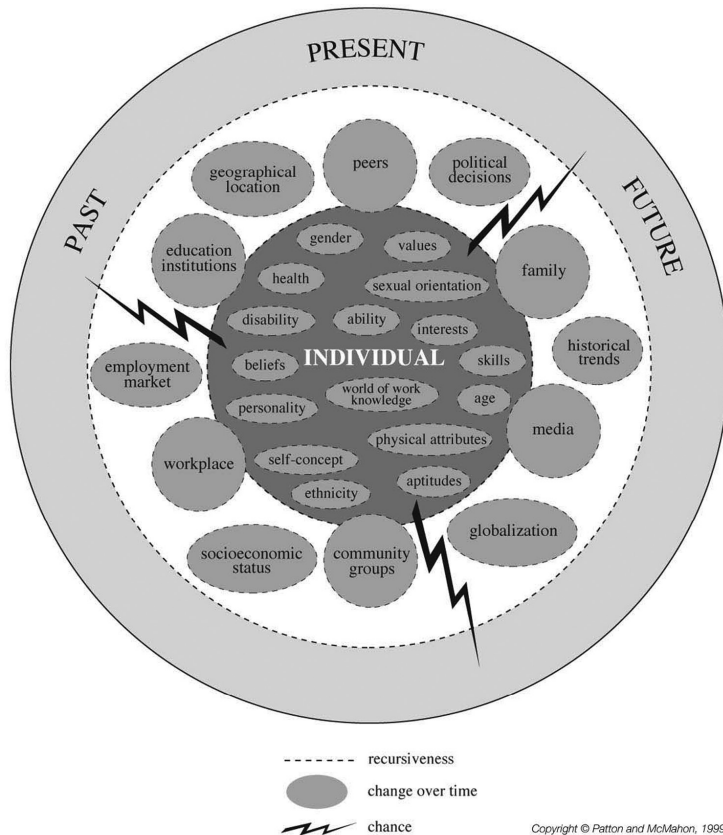


Figure 1 Theoretical framework of career development system
 (Patton and McMahon, 2006b: 154)

The advantages of a systemic and holistic approach to solving human performance problems of work and life are interpreted by the theories of Patton and McMahon (Patton, McMahon, 2006), Bloch (Bloch, 2005), Mogilievkin (Могилевкин, 2007), Coady and Lehman (Coady, Lehman, 2008), etc. The opinion that unites these scholars is that for the use and management of human resources in the 21st century, new tasks have to be set and new methods have to be found, making them dynamic and flexible – able to work in an ever-changing environment with a varying goal.

Scholars of areas orientated on holism, often indicate the relation of their own theories to the theories of the Rogers, the main theoretician of humanistic psychology. The concept of a *person-centred approach* (Rogers, 1994) created by Rogers and his teachings about a *fully-functioned person*

is the basis of moderns paradigms for economics, psychology, sociology, philosophy and management. The *person-centred* approach more often is the basis for the management of human resources and career. Modern theoreticians and practitioners still refer to Rogers, using the ideas from his works.

Such a matured academic approach that is orientated on holism can be encountered in the opinions and works of scholars-psychologists. Nelson-Jones in his explanatory work on consulting theory “Theory and Practice of Counselling and Therapy” (Nelson-Jones, 2006: 2–21; 390–414) brings together psychological consultation and psychotherapy with the consulting of career and social affairs. The scholar brings forward the theory that in the 21st century, when individual personalities are developed so differently, it is no longer correct to separate emotional and practical problems because they are mutually related – so they are to be solved together.

The 21st century meaning of a career is brought nearer to the meaning of healthy living. Care for a career means holistic and integrative care for one’s health in all its aspects: Emotional Wellness, Intellectual Wellness, Physical Wellness, Environmental Wellness, Social Wellness, Occupational Wellness, and Spiritual Wellness.

Such an approach and task of management of human existence is well known in the Eastern world, but it is new and frustrating for Western civilizations. At the moment there are multiple sources, which indicate what an individual has to think, what to know, what to be aware of, but an individual can’t handle the task. Even more – the demands of the new paradigms, the new economics and the career and work market creates a confusion, fear, panic – they cause a trauma in a person’s consciousness, narrows cognition, and reduces the behavioural capacity. The amount of psychosomatic illnesses increases, the resources that are used for surviving take over the resources, which are necessary to be healthy.

Medical science talks about an integrative, holistic systemic approach for human health, by using terms like, self-care, self-care restrictions and care (assistance with self-care). The theoretical viewpoints of medical care generated by the expert of medical sciences, Orem, anticipated that care for humans includes not only the solving of physical and mental problems, but also of development. Development needs includes a normal development of a human and protecting a human from life’s dangers and risks. These needs are closely related to the basic universal needs. Orem emphasises that an individual’s natural state is the ability of self-care, which she defines as *an aggregate of practical actions which individuals initiate and fulfil for their own good upon own initiative, by maintaining and preserving life, health and well-being* (Orem, 2001: 20). An individual’s self-care requires the following internal factors: power, willpower, knowledge, and external

factors: physical factors of the environment, social factors, mental factors, and psychic factors.

The pressure, which is exerted on the individual by the internal and external environment, creates requirements. Inability of self-care means that an individual isn't able to do actions, which are crucial for preserving life, health and well-being, independently and upon own initiative. And in these situations help from another person is necessary.

By taking care, one has to remember that each human has his own needs and therefore demands an individual approach. To ensure holistic care, it is crucial to understand the unsatisfied needs of a human as a bio-psycho-social being and the arising problems. The main goal of care is a solving of the patient's problems and an aversion of their causes.

Care, especially during situations of crisis, helps an individual overcome the effect of these harmful circumstances: educational obstructions; problems with social adaptation (adjustment); specific health problems; loss of a family member, friend or relative; loss of job or an unstable workplace; change of residence or changes within the family; problems caused by status; poor health or bio-psycho-social disabilities; a depressing life situation; and incurable illness or death threats, etc.

In the opinion of Coady and Lehman (Coady, Lehman, 2007: 268): *Crisis intervention has many things in common with a generalist-eclectic framework for direct social work practice...This approach has incorporated the basic principles and perspectives from systems theory, ego-psychology (including life cycle/human development theory) and cognitive –behavioural theories into holistic framework for crisis intervention with diverse client populations and types of crises.*

The opinion of Coady and Lehman (Coady, Lehman, 2007) is similar to Orem's (Orem, 2001). The opinion has been shared also by Landzmane (Landzmane 2010, 2011, 2012).

Results

In the research undertaken by the author in 2008 and 2009, the career development interests and the amount of necessary support of the Latvian population was determined. The results of the research are summarized in Landzmane's scientific works (Landzmane, 2010, 2011, 2012).

During the research respondents were asked to express their thoughts about assistance with a Latvian career development support system most crucial to the Latvian population, to find out whether it is:

1. informative scope – to receive the information necessary for career development;
2. consultation scope – to receive the assistance necessary for areas of decision-making, problem solving, work capacity efficiency etc.;

3. educational scope – to receive or secure the competence in the form of knowledge and skills, necessary for career development; or
4. all scopes together by forming a support possibility in systemic way.

Out of 130 answers received 80 respondents chose option 4. The result reveals what's already known – people don't separate the support development needs for their private and work lives within scopes and they have a hard time using support systems, if they don't use common problem diagnostic and support technologies that are available in one place. The Latvian population wants to receive assistance for solving their personal and work life's problems within the framework of a *one-stop* model – in one place.

Specialists of problem solving support in times of crisis have to understand an individual's development needs as a bio-psycho-social entity. An individual's needs should be diagnosed using a holistic approach, but support and therapy should be offered in an integrative format, so the specialist involved in diagnostics involves necessary specialists for the individual's (client's) good – by integrating professional services of multiple areas in the therapeutic system.

The results gained from the research show that, during times of changing reforms and crisis, supervision can be used as a universal instrument for overcoming self-care difficulties.

In Latvia, supervision is more recognisable as a professional work assistance method in psychotherapy, social work and medical areas. But, upon clarifying the history of supervision, it can be found out that it can be used in a wider and more extensive scope – even as a form of assistance for overcoming self-care problems. The viewpoint about supervision has been narrowed only because of the narrowly researched contexts of other sciences.

The historical development of supervision and its universal nature is revealed in the works of world-wide known scholars of the area: Kulakov (Кулаков, 2002), Hawkins and Shohet (Hawkin, Shohet 2006), Kadushin (Kadushin, 1992), Kočiūnas (Kočiūnas, 2005), etc. By analysing the content of these scholars' works, information can be gained about the roots and universal features of supervision.

The historical development of the concept of supervision has been studied in the Master's and Doctoral thesis of Landzmane. In the thesis it has been proven that supervision isn't only a method pertaining to psychology, social work or any other separate profession, but it can be used more widely. The historical research of supervision verifies the fact that supervision has been used and still is used for the development of different competences and correction of problematic behaviour indicators for a long time. Even to this day supervision and its three main functions –

administrative, educational and supportive, are used in all the areas and contexts mentioned – administrative work, processes of learning technical skills, educational processes, processes of forming different professional relationships, and psychological support processes, etc.

Many good and logical definitions have been dedicated to supervision, but they are usually offered in the context of a certain profession. Because of this, the author has summarised these definitions in one general definition: *Supervision is a meaningful process of mutual relations, where one person, supervisor, meets a second person, the supervised, with a goal – to make the second person more effective at managing a process or situation or solving a problem.*

Always, during processes of supervisor education and supervision processes it is useful to accent the fact that supervision is a form of assistance, in which ready advice and answers are not given. During supervision, assistance that stimulates cognition is provided to the supervised with a goal – to stimulate thinking and give the individual a chance to learn to solve his or her own hardships and problems on his or her own. By researching the works of the above-mentioned scholars, it is possible to suggest that supervision is an assisting and consultative method that can be formed as flexible and can be used for overcoming problems of professional everyday work and professional development in systemic way. The following principles that describe supervision are essential:

1. assistance is realised in areas (situations and processes), which the supervisor knows and is familiar with, including: the supervisor understands the situation; the supervisor can diagnose hardships and problems; the supervisor can diagnose the necessary assistance; the supervisor sees the hardship and the way to overcome it; the supervisor feels his or her maturity, empathy and patience in relation to the supervised and his or her problem;
2. assistance isn't provided as advice, but as a process, in which a more experienced person (supervisor) helps a less experienced person (the supervised): to discover the situation; to advance the problem; to distinguish and choose the way to solve the hardships and problems; understand oneself and support oneself in hardships and mistakes.

The current Latvian support systems for solving human problems of crisis don't have integrated technologies, which could help the Latvian population at solving complex bio-psycho-social self-care problems. Support systems for solving Latvian problems of crisis in *one-stop* model format are acutely crucial. The formation of such system should take into account the conceptual features from Table 2:

Table 2 Conceptual features of the support system for solving human problems of crisis

Approach	Holistic, systemic, integrative
Goal	Health of the human bio-psycho-social entity
Tasks	Ensure the diagnostics and therapy of the problems of: 1) Emotional Wellness, 2) Intellectual Wellness, 3) Physical Wellness, 4) Environmental Wellness, 5) Social Wellness, 6) Occupational Wellness, 7) Spiritual Wellness
Unifying form of the structural elements	<i>One-stop</i> agency model
Unifying methods of the structural elements	Supervision
Integrated professional competences	Medical, psychological, social, juridical, career management, pedagogical etc.

Conclusions

The research is considered innovative in Latvia, because it studies a holistic, systemic and integrative approach to solving human problems of periods of crisis. By combining academic viewpoints about helping humans as bio-psycho-social beings, a new opinion on supervision and its uses for solving human problems of crisis has been revealed and offered. Laconic support systems for solving problems of crisis have been developed in this article.

The goal of the specific article is not to explain the content and purpose of supervision in a scientific manner. It is presumed that persons, who will become acquainted with the article, will be familiar with supervision – in an academic and practical context.

The goal of the article is to accent supervision as an instrument familiar to representatives of assisting professions, by doing it in a different context – reviewing the possibilities of using it in an integrative model for solving problems of crisis. It's necessary to continue the discussion. The methodology requires an academic and practical discussion – to determine how supervision can be used more effectively in a *one-stop* format within an integrative model for solving problems of crisis.

The results of the study can be used for the needs of specialists of students, teaching staff and also solving Latvian problems of crisis: 1) for a better understanding of the 21st century career paradigm; 2) new interdisciplinary discussion about creating a support system for solving Latvian problems of crisis; and 3) research and practice of overcoming problems of crisis.

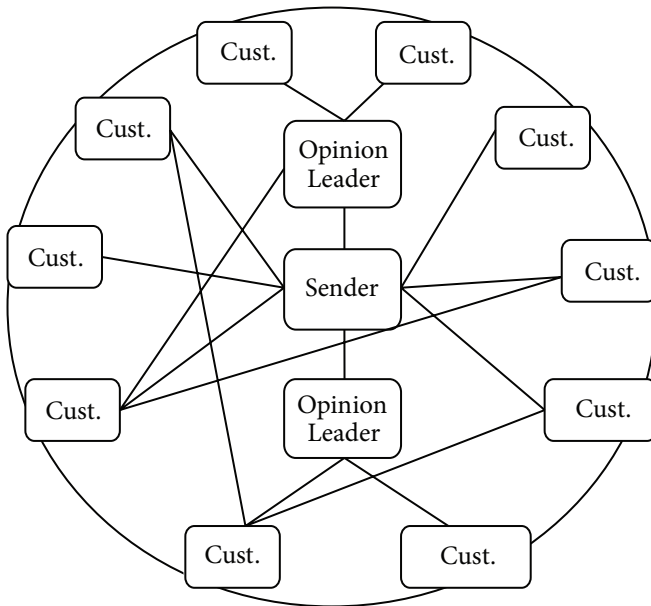
REFERENCES

1. Bloch, D.P. (2005). Complexity, Chaos, and Nonlinear Dynamics: *A New Perspective on Career Development Theory Journal Career Development Quarterly*, 03, p. 194–207.
2. Coady, N; Lehman P. (2008). *Theoretical Perspectives for Direct Social Work Practice: A Generalist-Eclectic Approach* (2-d edition). New York: Springer Publishing Company, 556 p.
3. Drucker, P. F. (1995). *Managing in a Time of Great Change*. Dutton: New York. Truman, Talley Books, 371 p.
4. Hawkins, P.; Shohet, R. (2006). *Supervision in the Helping Professions*. (3rd edition) Berkshire: Open University Press, 258 p.
5. Kadushin, A. (1992). *Supervision in Social Work* (3rd edition.), New York: Columbia University Press, 583 p.
6. Kulbergs, J. (1998). *Krīze un attīstība*. Liepāja: LPA, 133. lpp.
7. Kulbergs, J. (2001). *Dinamiskā psihiatrija*. Rīga: Jumava, 494. lpp.
8. Landau, J.; Mittal, M.; Wieling, E. (2008). Linking Human Systems: Strengthening Individuals, Families, and Communities in the Wake of Mass Trauma. *Journal of Marital and Family Therapy*, 34(2), p. 193–209.
9. Landzmane, L. (2010). Izglītības darbinieku konkurētspējas intelektuālie un psiholoģiskie šķēršļi. *Psiholoģijas aktualitātes mūsdienu izglītībā*. Zinātnisko rakstu krājums. Strazdiņas I. redakcijā. Liepāja: Liepājas Universitāte, 69–78. lpp.
10. Landzmane, L. (2011). Organization and Management of Mediation System: Macro-Ergonomic Aspects. *Contemporary Ergonomics and Business*. Riga: University of Latvia Press, 71–78. p.
11. Landzmane, L. (2012). Pieaugušo karjeras vadības īpatnības strauju pārmaiņu laikā. *Pieaugušo izglītība*. Rīga: RAKA, 137.–149. lpp.
12. Nelson-Jones, R. (2006). *Theory and Practice of Counselling and Therapy* (4th edition). London: SAGE Publications Ltd, p. 482.
13. Orem, D. E. (2001). *Nursing: Concepts of Practice* (6th edition.). St. Louis: Mosby, 542 p.
14. Patton, W.A; McMahon M.L. (2006a). *Career Development and System*. Rotterdam/ Taipei: Sensepublishers, 70 p.
15. Patton, W.A; McMahon M.L. (2006b). The Systems Theory Framework of Career Development and Counseling: Connecting Theory and Practice. *International Journal for the Advancement of Counselling*. 28(2), p. 153–166.
16. Rifkin, J. (2000). *The Age of Access: The New Culture of Hypercapitalism, Where All of Life is a Paid-For Experience*. New York: Putnam Publishing Group, 312 p.
17. Кочюнас, Р. (2005). Процесс супервизии: Экзистенциальный взгляд. *Сборник ИГЭП и ВЕАЭТ*. Биштонас-Вильнюс, 97–107 стр.
18. Кулаков, С.А. (2002). *Практикум по супервизии в консультировании и психотерапии*. Санкт–Петербург: Речь, 236 стр.
19. Могилевкин, Е. А. (2007). *Карьерный рост: диагностика, технологии, тренинг*. Санкт–Петербург: Речь, 335 стр.
20. Роджерс, К. (1994). *Взгляд на психотерапию*. Становление человека. Москва: Прогресс универс, 478 стр.

**Erratum to: Humanities and Social Sciences Latvia
Volume 20, Issue 1 (Winter–Spring 2012), p. 68**

Fig. 2 has been published incorrectly in the original version of the article.
The correct version of Fig. 2 is given below:

Figure 2 Communication among consumers regarding companu's products
[11,175-176]



THE AUTHORS

Agnese Cimdiņa holds the degree of Philosophiae Doctor in Social Anthropology from the University of Bergen, Norway. Currently she works as a researcher in the European Social Fund project carried out at the University of Latvia “Changing Development Strategies and Cultural Spaces of Latvia’s Rural Inhabitants” and as a lecturer at the Department of Cultural and Social Anthropology at the University of Latvia.

Ieva Raubiško is a researcher and lecturer in Cultural and Social Anthropology at the Faculty of Humanities, University of Latvia. From 2010-2012, she took part in an interdisciplinary research project focusing on the development strategies and cultural spaces of Latvia’s rural inhabitants, funded by the European Social Fund. Under the project, Raubiško co-authored an anthropological monograph *Life and work in the Latvian countryside* (in Latvian) and co-edited an interdisciplinary volume *Life – Development – Well-being in the Latvian countryside* (in Latvian) with Agnese Cimdiņa. Raubiško holds a DPhil in Social and Cultural Anthropology from the University of Oxford. She is currently working on a book manuscript based on her doctoral dissertation *Life in a Positive – Negative Space: moral transformations in post-war Chechnya*. The book, which received the European Association of Anthropologists Book Prize in 2012, will focus on the effects of prolonged violence among Chechen society in the North Caucasus region of Russia.

Aleksejs Busarovs is a PhD student from Riga International School of Economics and Business Administration (RISEBA); fields of interest are innovations and collaboration in the Internet. Obtained Bachelor and Masters degrees in Management at RISEBA, later enrolled in joint PhD program of RISEBA, BA School of Business and Finance and Ventspils University College. The name of his thesis is: “Radical innovation development, applying crowdsourcing model: experience, problems, solutions.” In the period from 2007 till 2010 he worked as an innovation management lecturer at RISEBA. After completing PhD program he intends to proceed with further research of innovation, particularly its creation and issues how to foster creativity.

Svetlana Jesilevska Mg. oec. – Graduated the Business Administration Master program (Administration of Business and Environment) at the University of Latvia, Faculty of Economics and Management in 2011 spring. Currently working at the Central Statistical Bureau of Latvia, responsible

for methodological aspects of statistics on R&D and innovation; mathematical, logical and analytical analysis of statistical data; calculation of the great amount of data on R&D and innovation statistics; participates in international projects. Since January 2011 participates in ESSnet project on consistency of concepts and methods of business-related statistics. Author of several papers about methodological aspects of innovation and R&D statistics.

Ligita Landzmane Mg. iur.; Mg. paed. in career counselling; Dr-andus sc.admin. Graduated in the public management Doctoral programme at the University of Latvia. She also studied existential psychology at the Humanistic and Existential Psychology Institute in Lithuania and improve her professional skills at the St. Petersburg State University. She is the head of Institute of Conflictology, and a guest lecturer in public and private sector education projects. Her main research interest is human well-being, performance and health improvement management.

Inese Lūsēna-Ezera: Dr. sc. administr. Associate professor in Education Management at the Liepāja University (LiepU), Faculty of Natural and Social Sciences; researcher at the Institute of the Management Sciences (IMS) of LiepU. Main research interests: team work, theories of management and leadership; knowledge management.

Kristīne Bārdule: Mg. paed. Head teacher at Liepāja Centre Primary School and teacher of history. In collaboration with the Ministry of Education carried out content analysis of compulsory education. Graduated in the Pedagogical Masters programme at the University of Liepāja in 2011. Currently a PhD student at the Faculty of Natural and Social Sciences, at the University of Liepāja in the study programme “E-studies Technologies and Management”. Main research interests: using information and communication technologies as tools in educational process, especially in primary school from grades 5 to 9.