

# Social Science Data Archiving and Needs of the Public Sector:

the Case of Estonia by Rein Murakas and Andu Rämmer<sup>1</sup>

## ESSDA

### Abstract

Estonia was one of the pioneering empirical data research centres in the Soviet Union since the 1960s, with computing centres located at the largest research institutions. After the restoration of Estonian independence, a team of social scientists developed an initiative to save unique data produced in the preceding decades. Higher Education Support Program from Open Society Foundations supported early data conversion projects. Establishment of the Estonian Social Science Data Archive in 1996 at the University of Tartu provided a focal point for data acquisition and support efforts, but its activities have been constrained by lack of funding and the size of the Estonian social science research community. ESSDA has broadened its user base by offering services to employees in the public sector and teaching general principles of data use and archiving to social science students

### Development of social science and data archiving in Estonia before founding of ESSDA

Estonia was incorporated into the Soviet Union only in 1940 after a period of independence. For that reason, it had a relatively open ideological atmosphere and many of its citizens spoke foreign languages. For these reasons, new ideas were accepted more easily than in the rest of the Soviet Union. Thus it was not surprising that Estonia became (along with the Russian cities of Leningrad and Moscow) one of the pioneering empirical data research centres from the 1960s (Titma 2002). Two of the largest mainframe computing centres were housed by Estonian Radio and the University of Tartu.

The research environment in Soviet period produced relatively good quality data products in robust computing environments. However, shortcomings in university education in sociological disciplines caused data analysis methodologies to be weak. Improvements in sociology

education in universities started only in 1989 when the Soviet Union was very near to its collapse. That milestone sharply accelerated the development of quantitative methodologies and expanded the number of potential secondary data users in Estonia.

After the restoration of Estonian independence, a team of social scientists from the University of Tartu made up an initiative group in 1993 that had two primary goals: to create a social sciences data bank and to develop a strategy for saving and encouraging use of the research materials collected by the Estonian social scientists during the previous decades. Their application for support to the Higher Education Support Program (HESP) was successful; a grant gave a chance to "save" unique data from previous decades.

In 1996, the Estonia Social Science Data Archive was officially established as an interdisciplinary centre of the Faculty of Social Sciences of Tartu University and as a national social science data bank. At the end of that year, ESSDA hosted an International conference on data archives and their functions in social research in Eastern Europe (Murakas and Rämmer 2001). ESSDA became a full member of the European Council of Social Science Data Archives (CESSDA) in 1997.

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### Developments of data archiving in Estonia after the establishment of ESSDA

Lack of the funding seriously restricted development of the Estonian Social Science Data Archive in the late 1990s (Murakas and Rämmer 2002). The situation was quite critical and the main goal for ESSDA in that period was survival. Several applications for funding were rejected, so the Faculty of Social Sciences of the University of Tartu has been our only regular funding source. The archive was also supported by the national programme Collections for the

Humanities and Natural Sciences" in 2005–2008, especially in activities connected with Soviet-time data. Despite very limited resources, ESSDA has continued its activities compiling new data and organizing existing data. Our electronic data collections were supplemented with complementary non-electronic archives of Soviet period studies (study reports, unpublished analyses) from Estonian Radio and the former Laboratory of Educational Studies (that continued its activities as Department of Sociology) at University of Tartu.

The number of users of the ESSDA has increased. In addition to Estonian users, some are foreign social scientists and journalists. A growing number of international publications (Kaplan 2006, Kaplan and Brady 2009, Brady and Kaplan 2011) are based on the archived Estonian data; ESSDA itself is noted as an important institution in various overviews about the state of Estonian social science (Kroos, Murakas and Veski 2009, Murakas and Rämmer 2000, Rosimannus and Titma 2004, Titma 2002). At the same time interest among Estonian researchers in studies housed by foreign archives is growing. Most are interested in Eurobarometer surveys. Martinotti and Stefanizzi (2000) stressed the importance of Eurobarometer as one of the most comprehensive and continuous academic survey programs made available to the academic community thanks to the data archiving.

ESSDA has developed some important initiatives. Accompanying printed questionnaires of Soviet-era datasets were scanned and now make up an essential part of our online database. We tried to launch a regular international electronic journal "Estonian Social Science Online"<sup>2</sup>. Due to lack of finances, only two first issues in English were launched. However, two subsequent numbers were issued with articles in Estonian. These featured the presentations of the Estonian Annual Conferences of Social Sciences.

ESSDA also faces many challenges. The biggest limitation that emerged in acquiring new data is the lack of trust. Like most spheres of life in post-communist societies (Howard 2003) the lack of trust also characterizes potential providers of social data. For example, they can be worried that local customers at Tartu University may enjoy advantages of access to the data not available to others. It appears that the tradition of sharing data among social scientists is remarkably weak and depends on personal relationships. Secondly, support from the public sector is often cooperative but comes with no financial assistance. Thirdly, the permanent lack of funding generally reduces chances of finding additional means of financing. Often the work of the data archive was regarded as some small local initiative of enthusiasts and it was not financed from state level structures.

In the framework of structural reform at Tartu University ESSDA has been re-organized to a consortium in 2008. ESSDA's statute was also renewed. This organizational reform would probably give us better possibilities for direct cooperation with different institutions involved with using and producing of social science data.

### Current data sources and data usage in Estonia

Estonia is one of the smallest EU countries with a total population of 1.34 million at January 1st, 2010<sup>3</sup>. Although membership in the EU boosted international cooperation among social scientists (Murakas et al 2007), the total number of social scientists in Estonia is one of the smallest among member countries. On the basis of very discussable statistical data, in Estonia in 2009 947 people are working as social science researchers in non-profit institutions. In full-time equivalents the same number is 474<sup>4</sup>. Those data are based on broad definition of social science. If we exclude law and economy professionals, not directly connected with social science survey data stored in ESSDA, we can say, that only a few hundred social scientists are potential users of our archive data. They are organised into 30-40 small research groups that use and need data in different ways. If ESSDA data collections

consist of only local data, they are not a good resource base for publications in international peer-reviewed journals, the main criterion for evaluating academic contributions among the social sciences in Estonia.

The Ministry of Education and Research together with the Estonian Academy of Sciences launched a process of compiling the Estonian Research Infrastructures Roadmap. To develop possibilities of international data usage in social sciences, ESSDA made a proposal to include the Council of European Social Science Data Archives (CESSDA) as an important international infrastructure in the roadmap. ESSDA's proposal was not accepted with suggestion to apply again in the next round. But it is important that from social sciences, the proposal "Estonia in European Social Survey" was accepted for the roadmap.

Archived Estonian data can be essential for the narrow branch of historical analysis of the former Soviet Union. For example we can mention Estonian Science Foundation grant "Changing cultural dispositions of Estonians through the four decades: from the 1970s to the present time" headed by professor Marju Lauristin, started in 2009. The historical part of the project is based on the re-analysis of the Soviet- and transition-time Estonian data from ESSDA.

However, research groups use mostly public data from comparative surveys (like European Social Survey) that are available online, but also official statistics collected by Estonian Statistical Office that is stored in their online database and data collected by joint projects with international partners. However, we can conclude that there cannot be very high demand for data from ESSDA's traditional clients for the foreseeable future. To enlarge the circle of potential customers, reorganization of the activities and change of paradigm were needed.

### Raising the importance of alternative customers from the public sector

In 2009, the Estonian public sector employed about 159,000 people, about 47% of them with higher education, Master's or PhD degree<sup>5</sup>. About 37,000 people are working in the state-level institutions (branch Public administration and defence, compulsory social security in Estonian classification of economic activities<sup>6</sup>).

It is difficult to say how many of public sector employees can be considered analysts who need social science data to support their work but in any case their number is much higher than that of academic social scientists.

Fast economic development triggered new divisions in society, and the need to encourage use of social science research information by public sector staff is urgent. This information is of growing significance to Estonian public policy and its development programs in recent years. Based on surveys (Kasemets 2009), the real situation suggests that the use of social science data is rather modest in the public sphere. Possible rise in interest toward data resources should be connected with the need to raise the effectiveness of the public sector (especially due to budget cuts) and also with the realisation of different projects that are directed to the development of public sector. The number of projects financed from European structural funds that require increasing of quantitative methodologies based on social analyses has increased sharply after joining the European Union.

At present, the focus of sharing the fruits of applied research is production and distribution of research. These fulfil the legislative mandate that the results of applied research projects that are publicly funded by the Estonian government be widely distributed by government agencies. However, such reports are generally published only on web sites of these agencies. There is no coordination among agencies to provide a comprehensive view of public research investments, for example to establish centralized database of research reports.

To help address this, ESSDA submitted a proposal to establish an inter-agency meta-information database with information on these dispersed research projects. However, the proposal was not funded because of emerging institutional barriers. Every institution needs for its purposes specific information, for example, an overview about research projects connected with higher education or multicultural issues. As a result, the current solution is that ESSDA started establishing meta-information database by topics depending on the available funding sources. This means that single meta-information database is accessible via different user interfaces via different user interfaces like separate interface for educational or for cultural surveys. In 2009, ESSDA already developed all-Estonian survey information database about higher education and also small database about multicultural problems like for educational surveys or for cultural surveys. Plans for the future are to build a large NESSTAR-based meta-information database that will cover all research areas. Our NESSTAR server is launched and the number of resources in our virtual library is increasing. Early data descriptions are in Estonian as we try to extend the NESSTAR community in the Estonian public sector.

However, even if research reports are sometimes insufficient, there is currently little further interest from the public sector representatives to analyse data themselves. As a general rule, they do not need complex secondary analysis but quick answers to very concrete questions. In addition, they sometimes lack relevant skills and appropriate software expertise. These are difficult to address when public sector budgets are being cut. ESSDA may have a future role in providing a service to analyse and interpret survey results for many different research datasets to support public policy work. As part of the Faculty of Social Sciences, ESSDA could use graduate students as part-time analysts. In the short term, there is no funding for this. But in the longer term, the data service tradition can be institutionalised if it can become self-financed.

### Raising the profile with teaching and training

A large percentage of social science students start their careers in the public sector after graduating from the university. As a result, working with students can supply them with the data use and archiving skills they may need when they enter the workforce.

At the University of Tartu, almost all social science students (excluding law students) get at least basic information about social science data archives and learn fundamentals of secondary analysis in the introductory social science courses ("Introduction to Social Sciences", "Basics of Social Analysis"). We also teach advanced data archiving study courses ("Social Science Data Archives", "Databases in Social Sciences") or sociology students on a regular basis and offer a special course "Re-contextualization of Sociological Inquiries from the Soviet Era" about data resources and interpretation difficulties of Soviet-period data to PhD students.

When our alumni attain key positions in the public sector, they are familiar with the potential of secondary analysis based on data archiving. They will also be more competent in using resources offered by the data archive.

Dangers associated with misuse of data and disregard of rules for data protection can be serious obstacles to accepting the products of data analysis (Jagodzinski and Moschner 2007). We initiated activities directed toward raising the knowledge and competency of the public sector in the field of social data analysis. To that end we developed specific components in special continuing vocational training (CVT) courses about the methodology and research design. We already have positive experiences about providing such training with education and criminal justice analysts, secondary school leaders etc. Conveying knowledge of the advantages and strengths of data libraries is not an

easy job, but such problems are no unusual and characterize the current state of social sciences in general.

### References

- Brady, H. E., and C. Kaplan. 2011, forthcoming. *Gathering Voices: Political Mobilization and the Collapse of the Soviet Union*. New York: Cambridge University Press
- Howard, M. M. 2003. *The weakness of civil society in post-Communist Europe*. Cambridge: Cambridge University Press.
- Jagodzinski, W., and M. Moschner. 2007. Archiving Poll Data. In: W. Donsbach, M., W. Traugott (eds) *Sage Handbook of Public Opinion Research*. London: Sage, 468-476.
- Kaplan, C., S. 2006. Setting the Political Agenda: Cultural Discourse in the Estonian Transition. In Esherick, J. W., H. Kayali and E. van Young. (eds) *Empire to Nation: Historical Perspectives on the Making of the Modern World*. Boulder Colorado: Rowman & Littlefield Publishers, Inc.: 340-372.
- Kaplan, C., S. and H. E. Brady, 2009. Conceptualizing and Measuring Ethnic Identity. In Abdelal, R., Y. Herrera, A. I. Johnson and R. McDermott. (eds) *Measuring Identity: A Guide for Social Science Research*. Cambridge: Cambridge University Press, 33-71.
- Kasemets, A. 2009. The rift between legislative drafting standards and the facts in presenting information on evaluating impacts and involving interest groups; in Estonian. *Riigikogu Toimetised*, 19, 104 - 115.
- Kroos, K., R. Murakas, and L. Veski. 2009. The need for integrating higher educational policy and research studies; in Estonian. *Riigikogu Toimetised*, 20, 159 - 167.
- Martinotti, G. and S. Stefanizzi, 2000. Data Banks and Depositories. In Borgatta, E. F., and R. J. V. Montgomery (eds) *Encyclopedia of Sociology*. NY: Macmillan Reference, 573-581.
- Murakas, R. and A. Rämmer. 2000. ESSDA spreads information about Changing Society; in Estonian. *Riigikogu Toimetised*, 1, 282-283.
- Murakas, R. and A. Rämmer. 2001. Estonian Social Science Data Archives: Past and Future Perspectives. *IASSIST Quarterly (IQ)*, 25 (2), 9 - 10.
- Murakas, R. and A. Rämmer. 2002. Empirical Research and Situation of Data Archiving in Estonia. In Hausstein, B., P. de Guchteneire. (eds). *Social Science Data Archives in Eastern Europe: Results, Potentials, and Prospects of Archival Development*. Berlin: Ferger Verlag, 177 - 180.
- Murakas, R., I. Soidla, K. Kasearu, I. Toots, A. Rämmer, A. Lepik, S. Reinumägi, E. Telpt, and H. Suvi. 2007. *Researcher mobility in Estonia and factors that influence mobility*. Tartu: Archimedes Foundation.
- Rosimannus, R.; and M. Titma. 2004. Estonia. In Geer, J. G. (ed) *Public Opinion and Polling Around the World, Vol. 2*. Santa Barbara: ABC-CLIO, 570 - 576.
- Titma, M. 2002. Sociology - Estonia. In: Kaase, M.; V., Sparschuh, and A. Wenniger. (eds). *Three Social Science Disciplines in Central and Eastern Europe. Handbook on Economics, Political Science and Sociology (1989-2001)*. Budapest: Social Science Information Centre, 425 - 436.

### Notes

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2. <http://www.psych.ut.ee/esta/online>
3. Database of Estonian Statistical Office (<http://www.stat.ee>)
4. Database of Estonian Statistical Office (<http://www.stat.ee>)
5. Estonian Labour Force Survey 2009 data, Estonian Statistical Office (<http://www.stat.ee>)
6. Database of Estonian Statistical Office (<http://www.stat.ee>)