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How diaspora knowledge networks make difference to post-Soviet scientists' migration, research and career

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In the context of ongoing internationalization of science and higher education and a considerable increase in transnational academic mobility we observe growing visibility and significance of diasporic ties in academia. From co-authoring papers with former compatriots to recruiting co-nationals to the laboratories - various manifestations of diasporic networking for professional purposes represent **diaspora knowledge networks** (DKNs) in action. *Why do DKNs emerge and persist in an internationalized academic environment and what consequences do they have?* This study answers these questions by using a mixed methods approach and exploring collaboration patterns and career trajectories of Russian-speaking computer scientists (RCS), who migrated from countries of the former Soviet Union in the 1990-2010s and work(ed) in the United Kingdom.

This thesis finds that *DKNs arise as a response and a coping mechanism that compensates for the unintended consequences of HE internationalization, i.e. the emerging inequalities among academics based on citizenship, national origin, and migrant background.* Migration policies and immigration legislation, higher education regulations, and formal and informal rules on the academic labour market produce systemic disadvantages for migrant scientists from the developing world. In the UK RCS faced various tensions when seeking to enter the country, adjust to their new workplace and integrate themselves into scientific and higher education institutions. Seeking the support of their co-nationals, RCS established connections to Russian-speaking scientists inside the UK, in Europe, and the US, and brought to the UK researchers from their home countries, building extensive DKNs. Providing access to otherwise hardly accessible or scarce resources (information, funding, connections, accommodation etc), *DKNs became an effective means of mitigating the disadvantages of migrant scholar position* and had a positive impact on RCS scientific enquiries and professional careers, as well as enhanced their ability to relocate and successfully integrate abroad. Though largely constituted by male-to-male ties and based on male bonding, DKNs proved to be male-dominated networks, substantially improving the migration experience and career chances of male scholars, while leaving women with much fewer benefits.

IRINA ANTOSHCHUK

COLLEAGUES WITH BENEFITS: HOW DIASPORA KNOWLEDGE NETWORKS MAKE DIFFERENCE TO POST-SOVIET SCIENTISTS' MIGRATION, RESEARCH AND CAREER

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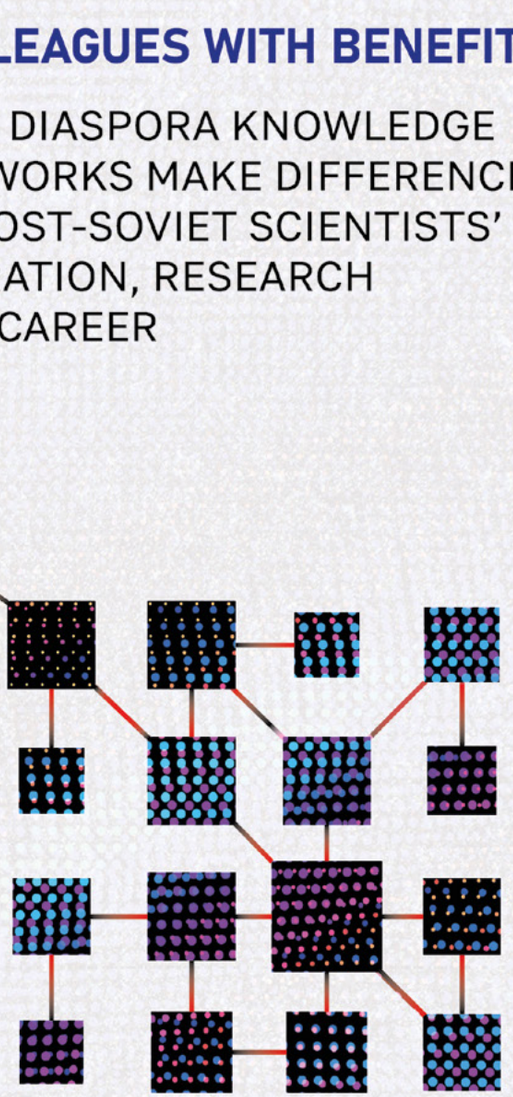

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Colleagues with Benefits:
How Diaspora Knowledge Networks Make Difference to Post-Soviet Scientists' Migration, Research and Career

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for Vanya and Masha

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Acronyms

RCS - Russian-speaking computer scientists
FSU - former Soviet Union
DKN - diaspora knowledge network
DC - diasporic collaboration
No DC - not involved in diasporic collaboration
STEM - Science, Technology, Engineering and Mathematics
CS - computer science
RI - research-intensive universities [1]
TO - teaching-oriented universities, not research-intensive
IRO - international research organization
RC - research company
PERM - permanent positions (lecturer, senior lecturer, reader, associate professor, professor)
TEMP - temporary positions (PhD student, postdoctoral researcher, research associate, research fellow, senior research associate or fellow)
PB - total number of publications produced in the UK or overall scientific output
PD - period of publication activity in the UK or publication period (number of years)
PR - average number of publications produced per year in the UK or scientific productivity (PB divided by PD)
CA - co-authors, overall number for PB in the UK
PB DC - number of publications written in diasporic collaboration in the UK
% PB DC - share of such publications in the total number of publications produced in the UK (PB)
PB ODC - number of publications written exclusively in diasporic collaboration in the UK
% PB ODC - share of such publications in the total number of publications produced in the UK
DCA - diasporic co-authors, overall number for PB in the UK
% DCA - share of diasporic (Russian-speaking) co-authors in total number of co-authors
F - female RCS

1 Times Higher Education ranking based on REF 2014 was used to classify universities as research-intensive (top 30 - RI) and not research-intensive or teaching-oriented institutions (below top 30 - TO): Times Higher Education, "Research Excellence Framework 2014: institutions ranked by subject", n.d., https://www.timeshighereducation.com/sites/default/files/Attachments/2014/12/17/x/o/z/sub-14-01.pdf

M - male RCS
SNA - social network analysis
Mdn - median
IQR - interquartile range
df - degrees of freedom
N - number of observations
M-W test - Mann-Whitney test
NPR - RCS occupying hierarchical positions below professor (not professor position)
D - degree of the node, the number of diasporic connections (one co-author = one tie)
WD - weighted degree, the sum of weights of the node's diasporic connections (one publication = one weight)
CC - closeness centrality or the inverse of distance/ peripherality of a node, defined as the sum of its distances from all other nodes
BC - betweenness centrality or the number of times a node acts as a bridge along the shortest path between two other nodes
EVC - eigenvector centrality or the centrality of a node, based not only on its connections, but also on the centrality of that node's connections

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