

Back to the Future: How the Convergence of Globalization and Technology is Changing Labour and Mobility

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ABSTRACT

Throughout this research we reflect on how the convergence of technology and migration is changing highly skilled labour mobility and the relationship between place and value production. We reflect on the impact of these transformations on the tech sector and IT labour market in Cluj-Napoca. We aim to understand how the pandemic coupled with the current trends in labour mobility and value production have affected labour markets and highly skilled labour migration. The paper stems as reflection from a fieldwork which are currently conducting in Romania with a focus on transnational entrepreneurship, social networks of innovation and labour migration in the tech industry. The article brings forward findings from the field, drawing on the developments that accelerated and changed the way we work in the post-pandemic period and analysing what implications these trends could have on the nature of migration and the connection between value production and place.

Introduction

Very little research has been undertaken into understanding how emerging business strategies flowing from converging technology and globalisation are creating new patterns of migration. Even before the pandemic, mobile digital

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technology was not only enabling firms to relocate and outsource work globally but allowing so-called digital nomads (Makimoto and Manners 1997) to work from anywhere that they could find an internet connection (Reichenberger 2018). However, the Covid-19 pandemic both required many people to work from home and in so-doing the take up of digital technologies, such as Zoom, Teams, Meet, etc., transformed people's willingness and capabilities to work remotely (Shirmohammadi et al 2022; Yang et al 2022). Furthermore, after recognising that they can work from almost anywhere, without compromising performance, the Covid-19 pandemic has caused widespread outward migration from large urban business centres such as London, New York, or Stockholm to the surrounding rural townships in the countryside (Florida et al 2021; Vogiazides and Kawalerowicz 2023). Remote and hybrid working patterns are increasingly becoming established as normal (Vyas 2022; Ford et al 2021). Not only is this enabling workers to retreat to further flung locations from their nominal office, but it is also enabling employers to conduct genuinely global searches for talent. For as long as work gets done it seems that where it gets done is no longer the point. This raises significant questions about how far such trends can go, who gains and who is losing from such patterns and the impact they are already having upon labour markets.

In this paper we are reflecting on these changes and emerging patterns of migration by analysing the impact of these transformations on the tech sector and labour market of Cluj-Napoca, one of the largest Romanian cities which has seen a fast development of the tech sector. Whilst the tech sector is now reaching a turning point, the current labour mobility trends might enhance its development or write off a significant share of the business and technical capacity that was created together with some of the locational capital and shared sense of purpose.

Migration and the remittance of financial capital, ideas, and business connectivity

Similar to other Central and Eastern European countries such as Czechia, Poland, Hungary and Slovakia, Romania has seen a solid economic growth over more than two decades. At the same time society went profound transformations and has seen one of the largest outwards migrations towards Western Europe. The Romanian labour market and economy have been strongly impacted by migration in the past three decades. Westward outmigration started long before the fall of communism with the ethnic migration of the German and Jewish communities (Anghel 2013; Brubaker 1998). These groups left Romania to escape ethnic discrimination but also to enjoy the benefits of living in democratic and economically affluent countries where they did not have to fear state repression and where they could express their cultural identity openly (Oltean 2019; Brubaker 1998; Dowling 1991; Verdery 1985). After being accessible only to some ethnic groups, migration increased after the economic restructuring that took place after the fall of communism (Stan and Erne 2014; Anghel 2008). The increase in outward migration led to the emergence of large Romanian communities abroad and complex transnational networks linking their places of origin with their destination countries (Nedelcu and Wyss 2016; Croitoru 2014; Potot 2008). A whole transnational economy of migration emerged and developed (Cosciug 2019; Anghel 2016; Ban 2009; Michalon 2003). Romanian migrants knitted a dense web of transnational linkages across Europe where remittances, people, products, and ideas circulate (Cosciug 2019; Potot 2008).

Migration did not only lead to the creation of large Romanian diasporas abroad, but it also enabled a significant transfer of wealth and financial remittances (Cosciug 2019; Anghel et al 2017; Vlas 2013; Potot 2008). Romanian migrants have sent over the last three decades consistent amounts of financial remittances to their families back home (Soava et al 2020), which were channelled into consumption and investments, improving standards of living, supplying their families with consumption goods, or investing in housing and businesses (Cosciug 2019; Vlas and Croitoru 2019; Anghel 2016).

But migrants brought more than material wealth. Financial remittances did not travel alone. They were interconnected with social remittances - world views, norms, ideas and practices those migrants brought back home embedded in stories and vignettes from their life abroad (Levitt 2001). These transfers produced enduring changes. Not only that entire groups moved abroad and developed a transnational existence but also home communities transformed their structure, aspect, norms, and challenged social underlying values (Oltean 2019; Anghel 2016; Vlas 2013).

In this vein, more recent research projects that deal with return migration in Europe investigate the emergent and growing return migration in former communist countries in Central and Eastern Europe and Romania, trying to understand how return migration is connected to development and the emergence of entrepreneurship (Croitoru 2021; Nadler et al. 2016).

In this strand of scholarship returnees or transnational migrants have often been depicted as transnational entrepreneurs who are able to bridge the developmental, social, and cognitive gap that separates their countries of origin from more developed Western economies and foster the emergence of new business models and modern market economies (Croitoru 2021; Coşciug 2019; Predojevic-Despic et al. 2016; Klein-Hitpaß 2016). The return scholarship shows that return migrants can act as “knowledge brokers” (Klein-Hitpaß 2016) and brokers of trust (Predojevic-Despic et al. 2016), supplying their home countries with much needed social and technical capital that is fundamental in attracting investments and establishing transnational businesses. Return migrants are also risk takers who have a higher propensity for entrepreneurship and who can convert their migration experience in acquiring a competitive edge over non-migrant entrepreneurs (Croitoru and Coşciug 2021; Coşciug 2019).

Creation of value and relation to place

To make sense of how the convergence of technology and globalisation is transforming both the creation of value and the societies from which its value is derived and how powerfully it is driving new patterns of migration we first need to understand the underlying processes that collectively driving this convergence that, for the purposes of convenience is often simply referred to as the 'new economy' (Alexander 1983; Porter 2001).

As networked technology for business emerged Hammer (1990) showed that rather than embed old processes in silicon, managers could and should use technology to obliterate old business processes completely. He realised that global connectivity would wipe whole layers of processes and people from organisations. At the same time Prahalad & Hamel (1990) identified that technology enabled a renewed focus upon so-called core competencies - the benefit streams most valuable to customers. The combination of Hammer and Prahalad's work gave rise to so-called business process re-engineering (Taylor and Bronstone, 2019), where companies would use new digital technologies to streamline their activities. It began the process of companies outsourcing or divesting those parts of their business which were not considered core.

Arthur (1996) described how the convergence of technology and globalisation was re-shaping value creation. Processes of social and technological 'groove-in'¹ were creating winner takes all markets, characterised by monopolistic competition (Arthur 1996; Anderson 2006). Evans and Wurster (1997) revealed how technology platforms were using forces of globalisation to capture richness and reach. It is evidence of groove-in taking place that is driving multi-billion-dollar valuations of firms that have yet to turn a profit.

Technology is also increasingly creating value through digital communities of practice (Wenger and Snyder 2000), which are blurring the

¹ To collaborate there needs to be an agreed technological standard and whoever controls that technological standard gains 'groove-in'. Social 'groove-in' captures the fact that people are reluctant to learn new technologies.

boundaries of the firm and are aggregated by data platforms, such as Amazon, Facebook, and Google (Owens 2019). For example, Mason (2015) showed, with examples like iTunes, that digital disruption is moving the marginal cost of distribution close to zero. A world of using groove-in to capture network effects is very different from the positioning of value in products and processes that Porter and Millar (1985) described. It rewards flexibility and adaptability above optimisation (Snowden and Boone 2007). It is about seeing the next big wave coming and positioning the business to catch it (Kennedy 2012). As such, it relies upon what Argyris (1991) calls double loop learning; where instead of asking ‘how do I do things right’ managers ask the more challenging question of ‘what are the right things.’

The growing concentration of wealth that technology firms have accumulated has attracted growing criticism both for their perceived avoidance of tax (Sherman 2017; Neate 2021) and their approach to managing people seen to be driving inequalities (Taylor and Bronstone 2019). Those able to adapt and deliver profit from this new world are enjoying the benefits (Goodhart 2017), whilst those less comfortable with the uncertainty, ambiguity and complexity of digital disruption are treated to a harder approach to HR (Bloodworth, 2018).

As Taylor and Bronstone (2022) note, the convergence of technology and globalisation is transforming both relationships of production and consumption:

The network economy is simultaneously enabling the outsourcing of jobs to cheaper locations around the world, whilst e-commerce is undermining traditional retailers. What started with the moving of so-called non-core staff into call centres is currently expanding to include the traditionally value-added functions, including Human Resources (HR) and accounting.

Central and Eastern European member-states of the EU, have successfully attracted considerable investment, based upon their lower labour costs, engineering experience and younger people’s English language skills.

Starting in the 1990's led by Western manufacturers shifting industrial production to the region, "by the time Romania joined the European Union (EU) in 2007, the reach of the network economy led to a rapid growth of both outsourced IT and wider business services²" (Taylor and Bronstone 2022).

The Context

We interrogate these processes by looking at their impact on the Romanian labour market and tech sector. This comes at a point when the Romanian economy and labour market are in full transformation. The economy has grown constantly in the past decade as Romania recovered from the economic and financial crisis of 2008-2010 (Tudorache 2021) with growth rates averaging close to 4% per year right until the outbreak of the COVID-19 pandemic (Ban and Adăscăliței 2022, 244). Growth was accompanied by a shift towards a more complex export structure based on automotive products, cars, electronics, and software development (Ban 2019). In terms of complexity, data measuring the change of the export profile in the past two decades shows a transition from exports based on low-tech manufactures (LTM) to medium-tech manufactures (MTM) and high-tech manufactures (HTM) (Burciu et al 2020). Alongside manufacturing, new jobs were also created in more knowledge intensive sectors such as IT&C and creative industries such as film making, electronic games or advertising (Pavel et al 2023; Oltean et al 2021; Ban 2019; Fan et al 2019). Competitive salaries, technical capabilities, enabling policies and fiscal stimulus led to a significant growth of the software development and outsourcing services in the past decade and a half, leading to the emergence of several tech hubs such as Bucharest, Cluj-Napoca, Iași and Timișoara (Cruz et al 2022). With growth rates averaging 3% a year and projected to continue to grow, the IT sector became one of the fastest growing sectors in the past years (Statista 2023). Despite having a lower score of innovation and share of research and

² Companies as diverse as Kellogg, Deloitte, Deutsche Bank, Emerson and Michelin have outsourced HR and/or accounting functions to Romania, for example.

development in the economy compared to other central European countries such as Czechia, Poland, and Hungary (Burciu et al 2020), Romania has seen a steadfast creation of highly skilled and knowledge-intensive jobs in a region characterized by Foreign Direct Investment growth models, competitive salaries and export led economies (Ban and Adăscăliței 2022; Fan et al 2019). Driven by a combination of integration of local IT companies into global multinational corporations, investments from global companies and development of “innovative social network start-ups” the tech sector evolved from being mainly based on an outsourcing model to one that is moving into development of products and fostering areas of innovation (Fan et al 2019). Research conducted by Adina Săniuță and Sorana-Oana Filip (2021) who mapped Romanian tech startups with data collected from start-up accelerator *Techcelerator* shows that there are over 100 start-ups in the technology sector in Romania which managed to raise funding over different founding rounds in the past years, which integrate or develop AI driven technologies. The solutions they provide range from Agricultural Technology, Blockchain, Fintech, Health, Mobility and Logistics to Robotic Process Automation and AI (Szalavetz 2023; Cruz et al 2022; Săniuță and Filip 2021; Busu et al 2021).

Some of these networks have been powered by the return of the Romanian diaspora working in the global tech industry which transferred both business and management knowledge as well as capital and connectivity (Fan et al 2019; Herman 2021). However, despite the emergence of “clusters of innovation” and the existence of some “local buzz” in start-up development (Fan et al 2019, 6), evidence from recent studies show that there are several hindering factors that impede the maturing and the scaling-up of tech products. A report published by the World Bank (Cruz et al 2022) outlined the fact that gaps in business skills, reduced access to capital investments and reduced capacity of global market penetration affects the capacity of the local tech sector to convert ideas into products that get traction and market share. Nevertheless, the transformations in the tech sector point towards technological change and development of both capacity and social networks of innovation (Fan et al 2019).

Skilled migration, brain-drain, and development risks

At the same time, outward migration of both skilled and less skilled persons led to a shortage of labour in many domains (Anghel et al. 2017; Ciobanu 2015). Migration scholars have documented the emigration of highly skilled professionals such as physicians and medical specialists pinpointing the risk that this departure poses for the attrition of the entire Romanian medical system (Botezat and Moraru 2020; Boncea 2015). Other recent studies have outlined the risks that migration could generate for the development of the tech and the industrial sector, two of the major directions of development for the Romanian economy, as more and more young graduates of engineering programs are intending to leave the country after completing their university studies (Gherhes et al 2020). Although the magnitude of outward migration is much more reduced now than it was a decade ago, cross-border mobility became ingrained in the life strategies of Romanian youth (Roman and Vasilescu 2016) and an intricate component of Romanian society (Anghel 2016; Horváth 2008). Romanian migration has become extremely diversified and for many young individuals, migration has become a strategy for entering adult life (Horváth 2008) and pursuing self-realisation and professional accomplishment (Bermudez and Paraschivescu 2021). In this context we want to understand how the new business models emerging out of the pandemic are shaping the labour mobility of Romanian professionals working in the tech sector or in domains that are embedded in the network economy, and what are the effects of this new forms of work and labour migration on the Romanian labour market.

With new studies indicating that return has started to target larger and more affluent urban centres as a return destination, where returnees often endeavour into entrepreneurial projects, return migration and entrepreneurship became one of the 'development mantras' of migration scholars, policy makers and local authorities. The low level of capital accumulation in Romania and the small share of entrepreneurs and

companies per capita compared to other EU countries could be addressed through stimulating return and entrepreneurship amongst returnees (Piracha and Vădean 2010; Croitoru 2021; Croitoru 2020). This would supposedly generate a more organic and sustainable development and economic growth than large scale investments in industrial manufacturing, which are often mainly cost centres integrated into larger global assembly lines that make the Romanian economy technologically dependent on more developed economies in Western Europe (Ban 2019). Studies conducted by Croitoru (2020) and Croitoru and Coşciug (2021) through a multi-method approach highlight that returning migrants have a high propensity of becoming self-employed or entrepreneurs upon return. This is however determined and shaped by several factors such as the length of stay abroad, level of education, country of destination, patterns of capital accumulation and saving patterns (money was not spent in investing in housing and consumption in the home country) and gender (Croitoru 2020). Other studies are looking at diaspora policies meant to encourage return migration and entrepreneurship amongst Romanian migrants (Croitoru 2021; Şerban and Croitoru 2018). In a recent paper Alin Croitoru tackles the policies stimulating return migration and entrepreneurship and analyses the factors shaping returnees' support and engagement with return policies (Croitoru 2021). His paper reveals that Romanian migrants and Romanians in general are overly fond of the idea of entrepreneurship, and support return policies that stimulate returnees' entrepreneurship – with 72% in support, and 28% being somewhat circumspect regarding these types of policies. These attitudes might be the effect of an overall preference for self-employment status amongst migrants as well as a “cumulative effect of challenges faced by entrepreneurs during the return process” (Croitoru 2020, 15). This overall support for entrepreneurship policies does not rule out the strong scepticism that migrants and returnees have towards the capacity of the Romanian government to implement return programs. However, despite the growing attention that migrant entrepreneurship received, there are still very few studies documenting the effect of migration and mobility on the development

of the tech sector in Romania. Despite being a sector that operates within global transnational economic and professional networks, the development of the tech sector in Romania was rarely analysed from the perspectives of migration and return entrepreneurship. In a context where a significant number of tech entrepreneurs and founders of tech companies have migration experience, we attempt to tap into this relation and understand whether there is any linkage between migration experience and entrepreneurship, and whether the development of the tech sector has been enhanced by the increased mobility and migration experience of tech entrepreneurs. Further on, we want to explore how the convergence of globalisation and technology is changing the Romanian labour market and mobility patterns.

Authors such as Manuel Castells have been writing about the emergence of the networked society and convergence of technology and globalisation for almost two decades now, showing how the advance of communication technology and the technological progress is not only transforming the economy but also restructuring the process of social organisation (Castells 2004, 5). Castells argues that the revolution in the information technology that started with the creation of microchips and the ARPANET, the project that laid down the technical foundation for the Internet more than 50 years ago, did not only transform the way we communicate but completely shifted the hierarchical structure of the modern state and society from vertical to horizontal, leading to the emergence of social and economic networks that often operate independently from centres of authority (Castells 2010; Sey and Castells 2015; Castells 2004). In this vein, authors such as Thomas Faist, Nina Glick Schiller, Cristina Szanton Blanc, Peggy Levitt, Dana Diminescu and others have outlined how these transformations reflect on the transnational lives that many migrants choose to lead today.

Within this landscape, we take as a case study the tech sector and ecosystem in the city of Cluj-Napoca, one of the largest tech hubs in Romania. The IT sector in Cluj-Napoca developed considerably based on strong technical competencies, a large, educated workforce and cultural similarities

with the western world (Fan et al 2019). The ecosystem went through a considerable change in the past years, embarking on the mission to move up the value chain by taking on the challenge of moving from outsourcing to product development. Demand for software developers and senior managers with business and leadership skills led to an overheating of the technology labour market, with companies overbidding for programmers and generating increased bargaining power for developers. Even prior to the pandemic firms were seeking to use technology to not only service global customers but leverage global labour markets. Crossover was one example that filled the coffee shops conversations of IT professionals in Cluj. The model funnelled software development projects into a global hub and then distributed the management and delivery of the work to globally distributed developers. Connected only through the platform's software developers never had to leave their desk and their reward was set globally, rather than locally benchmarked, which was often appealing to lower income markets, such as Romania. Other similar model gained traction during the pandemic.

Work from Anywhere: The viral Pandemic

The stampede to work from home during the pandemic both accelerated the development of working remotely and turbo-charged the same employees, especially senior level programmers to extend their reach, bidding for job offerings on global markets. Simultaneously, the pandemic also accelerated the digitization of internal processes and of entire companies enabling their workers to work remotely and to work (at least temporarily) from anywhere in the world where they can get an internet connection. Such trends have clearly created the potential to reverse historic outward migration trends from countries like Romania. However, little research has been undertaken to examine the extent to which the widespread acceptance of using technology to work remotely has affected migration and the issues that emerging patterns may create for business and society.

Examples & Issues

During periods when travel was permitted during the pandemic, some executives have taken the opportunity to base themselves in what were defined as more desirable locations. Examples we have discovered from staff working for companies in Cluj and Bucharest include software developers working in Spain, managers of a foreign languages school in Greece and one of the authors delivering training from the UK to clients in Eastern Europe. Some of these people were single and some took their families with them, but all were in pursuit of a perceived better lockdown quality of life.

Post-pandemic, several executives have sought to either extend or explore the newly discovered opportunities to work remotely beyond the boundaries of their own State. For employers this creates significant problems of commitment and motivation beyond regular hybrid work. Since employees may not be able to travel into the office on a regular basis, how do managers motivate staff, build commitment to corporate endeavours, and organise the delivery of work in consistent ways? More immediately it has caused considerable concern inside HR departments about how to book salaries for taxation. Should they be booked where the company is based, or where the employee is actually working and how can that work if the company has no representation in the country of employee residence? Although there do exist laws about this, the wide range of locations that employees could potentially be dispersed to and the limited capability of employees to manage their own tax affairs is causing considerable angst.

Crossover, like other tech firms, has always sought to hire people as contracted freelancers and shift the tax burden entirely onto their developers. However, as Uber has discovered, the argument that such workers are not employees has not stood up in the courts of several countries (Hodžić 2022; Carrelli et al. 2021).

Beyond taxation, companies such as Crossover offer software developers the opportunity to work wherever and from wherever they like, so long as project deadlines and KPI's are delivered. However, they have employed technology to monitor and track their employees' behaviour in

ways that go beyond the electronic bracelets used to monitor parcel handling that Amazon has been heavily criticised for in the UK (Bloodworth 2018). Cameras take photos every few minutes and sensors track keyboard and mouse activities of developers to ensure that they are active when signed in. Furthermore, productivity and quality tracking tools identify the hardest working employees and automatically dismiss under-performers. Thereby turning the working experience into a hamster wheel of the kind that F. W. Taylor (Littler 1978) could only have dreamed of. Clearly this raises important questions about whether remote work is just another example of using technology being used to dress ever harder forms of HR up as soft HR (Bloodworth 2018; Varoufakis 2023).

Despite concerns over exploitation, the fact remains that where technology first enabled work to be outsourced to lower cost countries it is now enabling highly skilled workers to access global salaries without having to migrate towards global centres of commerce. For instance, discussions with CEO's and HR managers during 2023 revealed that their employees were being tempted by offers to work from anywhere by firms such as Facebook in exchange for salaries benchmarked to the US.

Interviews and discussions carried out with return migrants working in the tech sector in Cluj on management positions, together with software developers and tech entrepreneurs revealed that the current trend of senior developers and tech entrepreneurs to move out for jobs to other markets became widespread during the pandemic. The possibility to work from anywhere, led more experienced engineers to leave their jobs, access offers from companies based in the US or Denmark and assemble teams that work across several continents. These decisions were motivated by higher earnings, more autonomy, and opportunities to take on professional challenges that were not available in their previous companies. Developers, senior managers, and analysts of the IT labour market in Cluj-Napoca asserted that this trend led to the departure of a significant share of the experienced programmers who were absorbed by other markets. Alongside with the departure of some of the experienced engineers, this has also put a strain on the market in terms

of salaries and job offers. As the more experienced engineers were now accessing jobs on global markets, the tech sector in Cluj had to try to outbid these offers in terms of wages in order to retain their more experienced developers. These decisions led to an overheating of the labour market, with companies entering a race of outbidding the other companies in offering the next to none highest salary in order to attract or retain the more experienced employees. Having to increase salaries also came with a need to change business strategies. Interview with a tech entrepreneur that became a partner in a company with Romanian and German ownership outlined that these transformations alongside with other challenges pushed them to change their business model. Instead of simply acting as cost centres for projects and products designed elsewhere, his company moved away from this model either by trying to create their own product or by partnering with companies that would allow them to directly enter certain markets in Western Europe and negotiate fees and rates directly with the main clients, whilst taking ownership over projects and products. The pandemic and the flight of a share of the more senior workforce accelerated some of the trends that many in the tech sector were awaiting or talking about for some years now. After thriving for more than a decade on a model led by outsourcing where companies were mostly leasing programmers to tech companies abroad, the IT sector in Cluj has hit a threshold where outsourcing is no longer sustainable. As wage levels have been stretched to higher levels and developers expect that such trends continue, companies cannot longer compete on the global market simply on competitive salaries. Whilst many companies are thinking or talking about this aspect in their boardrooms or coffee shop conversations not all of them have the capacity to shift to different business strategies. Meanwhile, the global technology market has swept away a share of the most experienced developers or managers. But if in the past people had to move across borders or move across territories to search for work and access better economic opportunities (Thomas and Znaniecki 1996 [1920]; Ravenstein 1889), the tech professionals moved away to work on global markets without leaving their city of origin or familiar places.

Throughout our exploratory fieldwork in the past year, we encountered over interviews and discussions people who were now employed by global tech companies and working with teams based in the US or Ireland whilst getting to drive their children to school everyday in their home city and stopping for a break in their favourite coffee shop. Other programmers have also taken up work for global markets whilst moving across Europe, in search for places where they could maximize their quality of life, without assuming a permanent move. In terms of career opportunities and income increase some tech professionals have taken a huge leap forward in their careers. Others who had to manage teams built with people working from all over the world who were recruited remotely were struggling to keep people on track with projects and even to delineate when recruiting between real candidates and avatar like profiles of ‘experienced’ programmers applying for jobs from far flung locations. Apparently, the race for talents that could work from anywhere has also created the space for scams and fraud, as it was outlined by some managers who had to find ways to identify whether they were talking during the online interview to a real person or an AI generated image or whether the person they hired was really doing the job or externalizing it to someone else.

Furthermore, in our research we have become aware of a growing number of skilled executives choosing to relocate to Cluj-Napoca from more developed countries. Although, at this point, we do not have data about the statistical significance of this trend, early discussions indicate that such moves are driven by a mixture of lifestyle choice and lower costs of living, compared to countries like Germany, the US, and the UK. The success of music and culture festivals (such as Untold and Electric Castle), combined with the historic architecture, successful Universities and a thriving technology sector seems to be a big draw. Certainly, Taylor and Bronstone (2022) found that a pooling of relational capital by entrepreneurs, Universities and the City Hall had led to the development of overlapping and nested business, social and cultural forms of locational capital that they called ‘pioneering stewardship’.

Interviews with HR Managers, CEO’s and executives indicate that whilst the IT sector is leading the way in shifting historic patterns of migration

it may well be the start of a wider and more fundamental change. Whilst we are undertaking further research to understand the extent and pace of such changes, they do raise serious questions for scholars and policy makers about the future of taxation, patterns of inequality, development strategies and flows of global capital. At the same time, the outward migration flow of the highly skilled workforce in Romania enters a new, unprecedented stage, where people are leaving for accessing labour opportunities elsewhere without physically leaving the country. Moreover, they raise questions about whether such labour mobility trends will enhance the existent locational capital, institutional memory, shared sense of purpose and 'pioneering stewardship' as it happened in the case of the first tech returnees who invested in the development of the sector or will lead to its dissolution as global tech companies sweep away technical knowledge and human resource.

Conclusion

Migration patterns appear to be undergoing a significant shift and the impact of technology is likely to have highly uneven consequences. Interviews with business leaders in Cluj-Napoca indicate that the convergence of technology and globalisation is already changing the nature of competition. Historically localised wars for talent are becoming global, such that executives with globally valuable skills no longer have to migrate to achieve their career and income potential. For countries like Romania this represents not only a powerful reversal of recent trends, but potentially to become a net recipient of skilled migrants, attracted by lifestyle factors and a lower cost of living. At the same time, it raises questions to whether the availability of such jobs would impact the local tech sector negatively. As global tech companies are sourcing for talent remotely this could in time affect the viability of tech companies in Cluj. Technical and business competencies might be drained away to global tech centres, whilst the locational capital and the local tech infrastructures and innovation networks might wean away in time or face

limited prospects of development or maturity that would allow them to grow to new ways of capturing and producing value.

From another perspective, these transformations have potential to accentuate the current global disparities in income and opportunities. Whilst promising a levelling of wage differences in the tech sector, the convergence of globalization, technology and global labour mobility could lead to the creation of global dual labour markets (Piore 1979) where high wages and highly skilled jobs are commanded by a few global tech companies which capture and define value, whilst other sectors which are much more locally embedded will remain closed in a dependent relationship to a global spanning market dominated by big tech and all-encompassing global companies (Varoufakis 2023). Whilst we do not want to shun out the benefits that could stream from the current developments and transnational forms of digital migration, we should not lose sight of the potential of global big tech systems of hollowing local forms of capacity, connectivity, and stewardship. In this respect, Varoufakis (2023) signals that global tech companies like Amazon are replacing in a fast way the current markets with a new model based on platforms and rents where the market is fully in the control of private tech companies.

On a less grim note, in terms of labour migration, highly skilled workers move to work on global labour markets without physically leaving their hometowns and familiar places. This new arrangement could allow them to reap the benefits of both worlds – access knowledge, social and financial capital whilst working on global markets and at the same time being able to stay with their families and live in places where they have friends and connections and to which they feel attached to. Or as we have seen in the post-pandemic context, move temporary to work from locations where they could maximize the quality of life. This is an important change, as work no longer gets done in the proximity of the places where we live. For most of the history of humankind most types of work were usually carried out in the proximity of places where people lived. Traders and artisans in the medieval cities used to live in apartments situated above or next to their trade and workshops.

Places where they worked mixed with the places where they lived and socialised. Factories in the 19th century and early 20th century build accommodation for workers close to the production facilities. Entertainment was also often provided in the proximity, as some factories and industrial compounds used to house cinemas and theatres. And today's real estate developments aim to mix office places with private apartments and commercial spaces to increase the attractiveness of redeveloped urban areas. Such realities are being replaced to a certain extent by these new developments, where the value of a place is no longer given simply by the type of work that it gets done in that area. The whole linkage between value and place is redefined changing how value is produced and where the benefits go. These developments open up new avenues for reflection and research and challenge scholars and practitioners alike to look for ways of understanding this new world.

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