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DIGITALIZATION OF LABOR MIGRATION IS A NEW AGENDA FOR MIGRANTS' CONTRIBUTIONS TO SOCIETIES OF THE WORLD

Abstract: *The future of labor market depends upon several factors, long-term innovation and the demographic developments. However, one of the main drivers of technological change in the future is digitalization and central to this development is the production and use of digital logic circuits and its derived technologies, including the computer, the smart phone and the Internet. Especially, smart automation will perhaps not cause overall job losses but may lead to considerable shifts in the structure of employment, e.g. regarding industries, occupations, skills, tasks and duties.*

In this article are researched the questions of the development of digitalization of labor migration in the world and how to implement this experience in Uzbekistan. As the world is increasingly relying on digital technology, digitalization can also play an important role in labor migration governance and protection mechanisms.

Key words: Digitalization, labor, migration, management, digital technologies, Uzbekistan.

Language: English

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Introduction

Currently many Western countries have been confronted with various labor market disadvantages, and in many of these countries levels of unemployment are significantly increasing. In addition, these countries face several structural and social labor market problems. Companies frequently report difficulties to fill vacancies requiring workers with highly specialized, trained, internationally recognized skills and abilities. For individuals belonging to the "hard core" of unemployed, it has become rather difficult to get a job. And there are workers for whom the quality of their current employment is not fully satisfying either in terms of knowledge standard, stability or in terms salary amount. Such structural labor market problems can be found to a greater or almost all Western countries. These problems are partly interrelated with the particular labor market documentation, registration, control and monitoring process. ILO as a main initiative put forwards new technology-based

migration policy like Agenda 2030 will save most labor integration for preventing lost, becoming refugee and poor dignity of the humanity.

Whether it is before, during or after moving abroad, migrant workers use apps and digital platforms to access services, share experiences or connect with each other, with their communities, families and friends. They offer tremendous opportunities to simplify, secure, and accelerate the migration process for the growing population of migrant workers.

Methods

It this article it is used qualitative research methodology with conceptual and structural approaches of digitalization international migration process. As a main dataset we have been studied few paper works from Scienedirect, ILO reports, official web sites and data from modern international migration tendencies.

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Research Framework

The framework of this study has proposed international mobility practices of safe migration including training and supervision, safe work procedures, consultation, reporting health position and management commitment with new digital technology. As an independent variable can be considered level of digitalization process of migration and structural and organizational management of the process as a dependent variable.

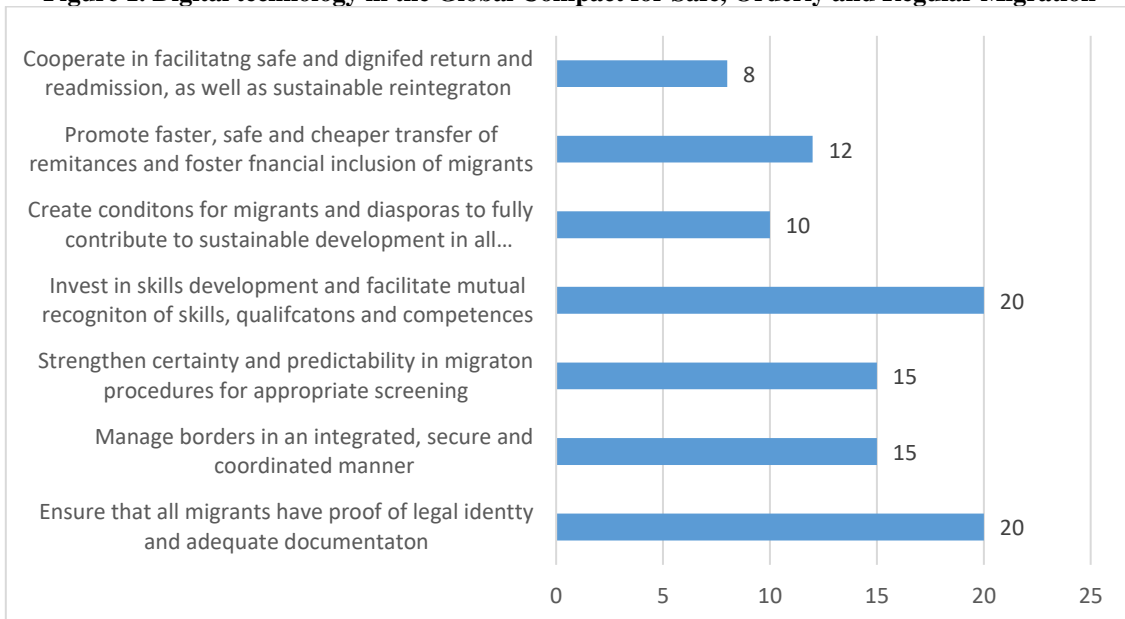
Results

Digital migration management platforms can also help reduce the cost and time induced by formal recruitment processes, which too often pushes many women and men to migrate through informal, undocumented, and unsafe channels. Governments, workers' and employers' organizations and other stakeholders are already applying or at least considering the use of digital technology in their labor migration programs, systems and governance. Civil society organizations and other private and public actors are developing digital platforms that offer various support services to migrant workers in need.

Monitoring migrations is not an easy task. While in today's economy, survey data about economic confidence or public opinion are collected on a daily basis, that is not the case for migration statistics, which come from Censuses, population registers, and, occasionally, ad-hoc surveys--and are often outdated and inconsistent across countries. Problem is, this lack of information does not allow policy makers to build up timely and consistent strategies to manage migratory flows.

That's why researchers are turning to social networks, using the zillions of data produced by users as a tool to monitor recent trends in migration. In the last few years, there have been quite a lot of studies focusing on this methodology. One of the latest is contained in a paper called "[Inferring International](#) and Internal Migration Patterns from [Twitter Data](#)", published earlier this year by scholars from NYC's Queen College, Doha's Qatar Computing Research Institute and [Stanford University](#). In it, scientists tried to develop an indicator of geographic mobility in OECD countries, based on publicly available geolocated tweets [1].

Figure 1. Digital technology in the Global Compact for Safe, Orderly and Regular Migration



Source: Digitalization to promote decent work for migrant workers in ASEAN, page 7

While technology presents a great opportunity to make labor migration safer, more efficient, and more transparent, digitalization -as any tool- also involves risks, challenges, and unequal distribution of technological gains. For it to promote decent work and

better conditions for women and men migrant workers, it needs to be designed, implemented, and used properly, with due consideration of risks and unintended negative effects.

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Table 1. Advantages and Disadvantages of digitalization of labor market

Advantages	Disadvantages
Digital technology can be a beneficial tool in making labor migration management systems more efficient and transparent	Unequal access to technology
Increasing connectivity	Unreliable online information and services
Providing better services and information to migrant workers	Lack of protection regarding personal data and online privacy

Many governments in the ASEAN region have developed digital management systems and databases for governance of different aspects of the migration process and provision of services to migrant workers. Management systems are being created and piloted for facilitating recruitment and administrative processes for overseas placement, as well as for managing migrant workers' personal profiles and access to services and welfare support throughout the migration cycle. Some of these management systems are linked to online services, such as online pre-departure orientation, skills training, or legal counselling. For example, the Vietnamese Ministry of Labor, Invalids

and Social Affairs has been assessing online applications for labor supply contracts since January 2017. Ministry also issued Circular No. 35/2017/TT-BLDTBXH, which addresses database management and operation, as well as the exploitation of Vietnamese contract workers working abroad. The Circular requires that all employers of Vietnamese migrant workers must register labor supply contracts on the online system of the Ministry. Other digital management systems may be accompanied with mobile apps and smart cards to ease migrant workers' access to related services [2].

Picture 1. Application of digitalization in policy and intervention areas



Such management systems have a great potential to make recruitment and administrative processes for overseas placement smoother and faster, which can

bring benefits to governments, employers, and migrant workers themselves. These systems can have the benefit of reducing the time and cost associated

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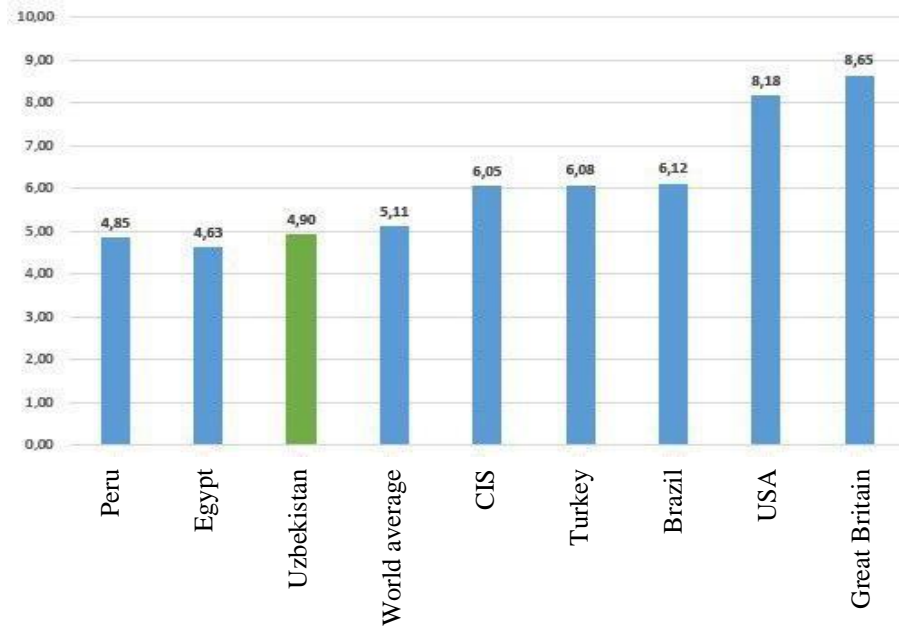
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with regular migration, which in turn increases the attractiveness of regular channels for migrants [3].

Online repositories that hold migrant documentation (including contracts), allow applications for welfare fund contributions, and host online complaints mechanisms can save migrants time and money as they seeking to protect themselves or otherwise resolve issues when they arise. In addition, digitalization of recruitment and administrative

processes increases transparency and accountability at all stages of the migration cycle. Digital platforms have proved beneficial in keeping a record of agreements, or a “digital trail”. This can prove particularly useful in addressing issues such as contract substitution or fee charges/repayments, by providing an evidential trail that migrant workers, recruiters, and employers alike can rely on [4].

Picture 2. ICT development index [5]



In terms of the ICT development index, Uzbekistan ranks 103rd out of more than 170 countries, ahead of, for example, Egypt, but behind Turkey and Brazil.

Since October last year, a new system has been launched that will help Uzbeks who are in labor migration abroad. Migrant workers registered in the system who have found themselves in a difficult situation abroad and need help can remotely contact the agency for help through the Labor-migration software package.

Digitalization has also enabled significant changes in employment. Skilled occupations are now

much more accessible on a global scale, as well as more temporary and compartmentalized in nature. Workers can participate in the digital economy at any time from any place.

Migration is an important component of Uzbekistan's economic future, having been long used to fills gaps both low-skilled and high-skilled roles. Digitalization will impact both. While migration has long been thought of as the physical movement of humans from one place to another, we are now witnessing a form of virtual labor migration. Work is crossing national boundaries through online capital, labor, and information flows.

Table 2. Labor market of Uzbekistan [6]

Descriptor	2010	2013	2016	2019-Q3*
Number of Employed Population (period average)				
Economically active population thousand people)	12286,6	13163,0	14022,4	14946,2
of which Employed (thousand people)	11628,4	12523,3	13298,4	13608,8
Employment by economic activity				
Agriculture, forestry and fisheries	3118,1	3402,1	3646,7	3653,4

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Industry	1605,7	1703,1	1802,4	1820,5
Construction	1033,7	1144,0	1263,6	1238,7
Trade	1235,6	1342,0	1452,4	1461,6
Transportation and Storage	509,9	570,2	638,2	663,5
Education	1102,0	1104,0	1105,6	1154,1
Health and social services	596,2	599,5	601,6	620,7
Other activities	2427,2	2658,4	2787,9	2996,3
Employment by sector of economy (private and public)				
Public sector	2410,2	2341,1	2330,4	2542,2
Non-Public sector	9218,2	10182,2	10968,0	11066,6
of which Unemployed, Registered in labor agencies	16,2	5,4	5,0	34,7

Source:Stat.uz

Table 3. Wages

Descriptor	2010	2013	2016	2019-Q3
Average Nominal Wages, annual, sum	504796,8	865950,9	1293764,3	2217827,2
Average nominal wages by economic activity				
Industry	789275,5	1262123,7	1863843,5	3143122,2
Construction	882455,7	1283542,0	1619107,6	2670836,5
Trade	625982,2	1133534,3	1500523,2	2280113,8
Transportation and Storage	710670,4	1210980,5	1763892,0	2818162,8
Accommodation and Food	333117,4	624023,5	913366,7	1704765,9
Information and Communication	741255,5	1287243,2	2042223,6	3994606,4
Financial and Insurance	510313,0	1187011,8	2140142,4	4397188,3
Education	399001,1	688802,0	1038910,9	1751446,2
Human Health and Social	384776,2	608368,0	887794,3	1498406,8
Art, entertainment and rest	463303,7	708311,3	1272108,1	1989544,1
Other activities	313160,4	664400,8	1109688,8	2219536,4

Source:Stat.uz

Unfortunately, the significance of this online labor is poorly understood, not least because conventional labor market statistics are ill-suited to measuring work that is transacted via online platforms. It's often understood as 'trade', 'subcontracting', or 'outsourcing'; not as 'labor migration', a term reserved for physical migration. An entire transformation is taking place almost unobserved by policy-makers and statisticians (table2,3).

Discussion

One of the first (and few) economic indicators that we do have for the online gig economy is the [Online Labor Index](#), developed by researchers at Oxford University, which tracks online labor projects. Over the past year the Index has experienced rapid and volatile growth, as shown below. The biggest sources of online vacancies ([as of September 2016](#)) were 'in' the United States (52% of the global total), followed by the United Kingdom at 6.3%, India at 5.9%,

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Australia at 5.7% and Canada at 5%. What is striking is that this growth occurred in the context of stagnant conventional labor markets [7]. What is also striking is that the highest demand was for skilled work in areas such as software development, technology, and creative and multimedia tasks. It isn't just automation changing the future of work, but digitalization and virtual labor migration as well. Many of the assumptions that underpin our current system need rethinking.

Perhaps most importantly, our assumptions about migration are being challenged. What were once perceived as controllable national borders are much more porous than we'd like to admit. This is proven daily by the sheer volume of data, capital and information that flows across our national boundaries unimpeded. And as the aging population of developed countries creates a new competition for the (youthful) best and brightest, we can't assume that a ready supply of highly skilled labor will always be eagerly awaiting offshore. Likewise, not all migrants may seek citizenship as their end goal. There is a younger generation of professionals entering the workforce who see themselves as mobile and global, with a transnational identity. They want to be able to move between countries, not just take a one-way trip to a new passport.

The trend towards increased mobility (both virtual and physical) must be a key consideration for policy makers. If work visits are shorter and more frequent, then the process to gain a visa shouldn't take longer than the stay itself. If future workers are going to be self-employed or hold a portfolio of jobs, then having a visa that is tied to a single employer, or cumbersome to transfer as employment conditions change, also creates an unwelcome barrier to labor mobility. Even the paperwork to document the many jobs that a worker has held in the past may need revisiting. And if self-employed entrepreneurs are a key part of the new economy, how do they fare in policy considerations? Governments rely heavily on signals from employers to inform them what skills are in demand. The risk is that programs informed only by traditional employer intelligence may be missing trends in alternative modes of work. And in a world where start-ups companies are increasingly important, how can the red tape that currently stops small (and regional) businesses from sponsoring skilled workers be amended?

Evidence regarding skills gaps, who is employed by whom, and where value is being generated is crucial to inform effective policy across categories of employment, education and migration and beyond. As stated above, there is still no true measure of the value of the 'internet' and technology-enabled services. It is the unique nature of digital goods that make them so hard track. Who is working to create the means to monitor and keep track of new trends? Are we

thinking big enough in terms of what data we collect in a digital age?

There are mixed views on the degree to which the fourth industrial revolution will truly transform our lives. But this isn't about predicting the future. It is about testing today's assumptions in order to be ready for tomorrow. Given the complexity and inherent uncertainty about the future, it doesn't make sense to just pick a single strategy and wait to see if it works. Government needs to become more comfortable with pursuing a portfolio of solutions that allow for ongoing experimentation, learning, and adaptation. Admitting uncertainty and taking on a portfolio of experiments doesn't mean not having any strategic direction. It means creating a system that can learn for itself, based on real time feedback. Disruptions will likely unfold over decades rather than months but we have choices to make, with many possible solutions, and a lot of rapid learning to do.

The unified database was created on the initiative of the President of Uzbekistan, who in August 2019 signed a decree on strengthening guarantees for the protection of citizens of the country engaged in temporary labor activities abroad. This document provided for the launch of the Labor-migration software package containing data on external labor migration in the Unified National Labor System information system [8].

It is important to note that the President of the Republic of Uzbekistan Shavkat Mirziyoyev in his Address to the Senate and the Legislative Chamber of the Oliy Majlis declared 2020 "Year of the Development of Science, Education and the Digital Economy." The opening of the Center is another step to achieve the ambitious goals outlined by the head of state in this area.

Digitalization of migrant labor management

- Encourage governments in countries of origin and destination to develop management databases to facilitate administrative processes related to recruitment and placement, and manage support services to migrant workers throughout the migration cycle, including legal support, welfare assistance, and online training opportunities.

- Enable management databases to store important documents – such as work contracts, payment slips, or medical certificates – in migrant workers' personal profiles to create a record of agreements, a so called "digital trail". These can be useful if disputes about contract terms, repayments, or other issues arise between a migrant worker and an employer or recruitment agency.

- Create one-stop service centers, apps, and e-cards to accompany these management databases to enable migrant workers to check their personal profiles, file documents, and access services online.

- Regulate and monitor the collection, use, and sharing of data on migrant workers to protect their

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privacy and online safety, regardless of whether such platforms are developed and managed by private companies or state actors.

- Ensure that costs related to the development and use of digital services are not borne by migrant workers.

- Increase connectivity in hard-to-reach workplaces, such as fishing boats and plantations, to assist labor inspection and reporting of violations.

- Build capacity of stakeholders involved in labor migration governance to develop and use digital tools.

- Strengthen the application of general information systems in Uzbekistan to promptly coordinate and solve problems, for example: strengthening the settlement of complaints.

- Strengthening the role of civil society organizations in supporting governments and trade unions in migrant worker management.

Main outcomes

As for the main opportunities and benefits technology-based mobility policy of the migration can be as followings:

1. Digital management systems: Improving efficiency and transparency;

2. Recruitment platforms: Lowering costs, increasing accountability;

3. Messaging apps and social media: Improving outreach, networking, and service provision;

4. Mobile payment systems: Addressing remittance costs and financial inclusion;

5. Digital aids for labor inspection and reporting: Improving compliance.

Suggestions and Recommendation

- Encourage governments in countries of origin and destination to develop management databases to facilitate administrative processes related to recruitment and placement;

- Enable management databases to store important documents – such as work contracts, payment slips, or medical certificates;

- Create one-stop service centers, apps, and e-cards to accompany these management databases to enable migrant workers to check their personal profiles;

- Regulate and monitor the collection, use, and sharing of data on migrant workers to protect their privacy and online safety, regardless of whether such platforms are developed and managed by private companies or state actors;

- Ensure that costs related to the development and use of digital services are not borne by migrant workers [9].

Conclusion

As a conclusion, in a globalized world, individual member States cannot “do it alone” in effectively advancing their national migration health agendas. Multilateral diplomatic efforts need to be made with both sending and receiving countries, recognizing that health vulnerabilities diffuse across all phases of migration and across borders. The action on developing country-specific migration profiles with disaggregated data in a national context should include health data to develop evidence-informed migration policies. This can begin with practical platforms for connecting research experts, scholars and policymakers globally to strengthen information systems to analyses trends in migrants’ health, disaggregate health information and facilitate the exchange of lessons learned.

In few years Uzbekistan is also provide its own platform for prevent problem causing and mobility of labor migration internationally. Digital technology can contribute and win major problems and barriers for the best migrants’ contributions to societies of the world countries.

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