Search "I" for Italy
The Internetization of Migration

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Abstract

The Internet has revolutionized our economies, societies, as well as our everyday life. Many social phenomena are no longer the same as they were in the pre-Internet era, as they have been *Internetized*. We here study the Internetization of migratory movements, by studying the links between the Internet and migration intentions and behavior, also distinguishing between economic and political migrants. To do so, we leverage different data sources, both at the micro- and macro-levels, including the Gallup World Poll, the Arab Barometer, data on migrant stocks from the Italian Statistical Office, data from the International Telecommunications Union, and unique data from a migrant reception center in Italy. Our results, across the different data sources, point to a positive link between the Internet and both willingness to migrate and actual migration. This link is particularly relevant for economic migrants.

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1 Introduction

The current era can be described by using two periphrases: the era of the Internetization of the life course and the era of migration (Castles et al., 2013). Information and communications technology (ICT, henceforth), in particular the Internet, have fundamentally changed every aspect of our social, economic, and political life, with immense implications also for demographic outcomes and life-course trajectories (e.g., Billari et al., 2019; Danielsbacka et al., 2019). At the same time, recent migration waves to Europe and the US, especially following Syria's civil war, have generated heated political, academic, and public debate.

This paper makes a first attempt to link the digital revolution with the massive flows of migrants that the world has faced during the last years, by relying on a heterogeneous set of data sources that examine different steps of the migration path. There are several reasons why Internet and migration can be linked all across the migration path. Before migration occurs, Internet lowers pre-departure mobility costs such as visa procedures; it also facilitates access to information about the destination country, therefore potentially encouraging people to move (Dekker et al., 2016; Vilhelmson and Thulin, 2013; Choo and Mokhtarian, 2007; Withaeckx et al., 2015). Furthermore, by providing information about the life of others, the Internet shifts material aspirations upwards (Clark and Senik, 2010; Lohmann, 2015) therefore increasing willingness to migrate. The Internet also plays a crucial role during migrants' journeys by connecting migrants with each other and with the smugglers that often exploit them (Zijlstra and Liempt, 2017; Alencar et al., 2018; Gillespie et al., 2018). Once migrants have made it across a border, the Internet provides a relatively cheap, accessible, and flexible form of transnational communication that helps them keep their contacts with those left many miles behind — being them inside or outside their direct social network (Dekker and Engbersen, 2014; Withaeckx et al., 2015).

This paper is structured along three axes which follow the main steps of the migration path. First, it focuses on the correlation between Internet and migration intentions,[1] i.e., a subject's willingness to leave his/her country of origin.[2] We expect to find a positive correlation between Internet use and

[1] In the literature, the same phenomenon is often named differently with about 15 terms broadly meant to capture potential migration such as individual aspirations, intentions to migrate, migration potential, or migration desires (Carling and Collins, 2018).

[2] Migration intentions have already been the topic of a flourishing scientific literature (See, for instance, Becerra, 2012; Hoffman et al., 2015; Falco and Rotondi, 2016; Migali

willingness to migrate. Second, we focus on the association between Internet and actual migration, and we expect Internet to be positively associated to the actual decision to migrate. Third, we look at the differential association between Internet and the decision to migrate for two groups of migrants, namely economic and political migrants. Economic migrants are usually defined as those leaving their country of origin due to unfavourable economic conditions and with the aim of seeking improved living standards and economic opportunities. Unless the economic conditions they face are so severe to cause generalised violence and to disturb the public order, economic migrants usually do not fall within the criteria for asylum and are not entitled to receive international protection. Conversely, political migrants are those that are forced to leave their countries of origin because of violence or because of discriminatory policies, often without warning. Unlike economic migrants, political migrants are unable to return home without being persecuted until conditions in their country of origin are safe again for them. We expect the association between Internet and migration to be more salient for economic migrants with respect to political migrants whose migratory paths are likely to be less predictable and purposefully planned.

We test our hypotheses by relying on four different data sources, with data at both the macro and the micro (individual) level.

In the first part of this paper, we look at migration intentions. To examine these, we use data from the Gallup World Poll – a continuous survey of citizens in 160 countries, representing more than 98% of the worlds adult population –, and from the Arab Barometer – a repeated cross-section covering 14 countries and more than 40000 individuals from the Middle East and North Africa. As Gallup provides individual-level data on migration intentions, but not on Internet usage, we run both multilevel models at the micro-level and panel-data models at the macro-level, aggregating up at the country level and merging information on country-level predictors from external sources such as the World Development Indicators and the International Telecommunications Union. We complement the Gallup analysis by showing individual-level associations between Internet usage and willingness to emigrate from those countries included in the Arab Barometer, which in recent years have an upsurge of emigration, mainly directed towards Europe.

In the second part of this paper we take Italy as a case study. Given its relative proximity to north Africa, in recent years Italy has constituted the gateway to Europe for hundreds of thousand migrants. Using time series and panel data on the stock of migrants – the number of individuals from a foreign country who register as residents in Italy as for the National Insti-

and Scipioni, 2019). Notice that Falco and Rotondi (2016) show that migration intentions are correlated with actual migrations flows.

[2]This group of people is also referred to as migrant workers, see for instance https://ec.europa.eu/home-affairs/what-we-do/networks/european_migration_network/glossary_search/migrant-worker_en.

tute of Statistics from 2008 to 2018 – that we link to Internet penetration in the country of origin available from the International Telecommunications Union, we look at the association between Internet penetration in the country of origin and the probability to migrate to Italy. Lastly, we focus on the trajectories of migrants that have just touched the coasts of Italy. The stretch of the Mediterranean Sea that separates North Africa from Europe has been used for hundreds of thousands of migrants in recent years. Those migrants have often attempted to reach the southern coasts of Italy aboard dinghies and ships in desperate conditions. To study the trajectories of recent arrivals to Italy, we use a novel sample of migrants who have been assigned to one of the biggest migrant reception centres in Southern Italy. Migrants reaching the coasts of Italy are usually assigned to CDAs (Centri di Accoglienza or Centres of Hospitality) or CARAs (Centri di Accoglienza per richiedenti asilo, Reception Centres for Asylum Seekers). CDAs are centres where new arrivals, regardless of their legal status, are transferred to receive first aid and be registered. Migrants are issued with a decision which legitimates their presence on Italian soil or with an order for their expulsion from the country. CARAs are instead centres where asylum seekers without identity documents or who refuse to undergo border controls are sent in order to be identified and to apply for recognition of their refugee status. We exploit the richness of a novel dataset including register data corresponding to the exhaustive list of migrant entries to the Sant'Anna centre, a multipurpose CDA/CARA located in Crotone, one of the five provincial capitals of Calabria in the South of Italy, between 2008 and 2018.[3]

This new dataset allows us to assess whether there is an individual-level correlation between migrants' digital skills and their choices in terms of trajectories once they reach the centre. In the centre, in fact, the migrants remain until they are transferred to another place that will host them, or obtain the status of asylum seekers. At the same time, the migrants are free to leave the centre during the day. Many of them, especially those who don't want to be transferred because they already have contacts somewhere in Europe or because they know they won't easily be granted international protection, leave the centre ahead of time.

Our results point to a positive correlation between Internet and both willingness to migrate and actual migration. Furthermore, they corroborate the hypothesis that this correlation is particularly relevant for economic migrants with respect to their political counterparts.

The remainder of this paper is structured as follows: Section 2 reviews the relevant literature and outlines pathways through which Internet can

[3]With a GDP per capita of 15,309 euros (versus 25,586.4 euros in Italy as a whole), an incidence of poverty at the household level of 26.9% (10.4% in Italy as a whole), and an unemployment rate of 19.4% (11.7% in Italy as a whole) Calabria is one of the poorest Italian regions according to the National Institute of Statistics - ISTAT. See: http://noi-italia.istat.it/

shape migration intentions and actual decisions; Section 3 presents the different sources of data used in the empirical analysis; Section 4 presents some preliminary results.

2 Theoretical perspectives

The revolution brought about by the advent of the Internet has compressed if not time and space, at least the way we perceive them (Harvey, 1989). By facilitating access to information and the formation, growth and maintenance of (remote) global and diaspora communities (Oiarzabal and Reips, 2012), the Internet has reduced the perceived cost of migration to such an extent that the experience of migration before and after the advent of the Internet can hardly be compared (Alonso and Oiarzabal, 2010).

Beyond reduced costs in terms of access to information, maintenance of ties with those left behind, and creation of new ties in the host society, the Internet might impact migration and, more specifically, migration intentions through another, more indirect, channel. By providing information about the life of others, Internet shifts material aspirations upwards (Lohmann, 2015). Access to information, in fact, is a crucial asset that people use to evaluate their own living conditions, income, and happiness relative to others and, specifically, to those of some reference group, so that utility depends on relative consumption, rather than just on its absolute level (Scitovsky, 1976). A recent group of studies has shown that ICT drives material aspirations upwards. Bruni and Stanca (2006) show that for heavy television viewers — people who watch TV for more than two hours per day — an income increase is worth less in terms of both life and financial satisfaction with respect to low-frequency TV viewers, a result extensively confirmed by Frey et al. (2007). Hyll and Schneider (2013) show that television consumption causally increases material aspirations defined as individual assessments of the importance of material possessions.

However, when compared to other (monological) sources of information technologies, the Internet is distinct for several reasons (Gergen, 2002). While monological technologies, such as television or radio, imply a uni-directional communication flow, without allowing any interaction, dialogical communication technologies imply an interactive communication flow that is more instantaneous and enables connections with wider networks. Furthermore, Internet transcends national and international boundaries, which television and radio generally do not transcend. Internet therefore expands the reference group with which an individual compares to, potentially, the whole world. Clark and Senik (2010) show that Internet users, as well as TV users, attach greater importance to income comparisons relative to non users, a result largely confirmed by Lohmann (2015). On the same line, Sabatini and Sarracino (2016) find that online social network users have a higher prob-

ability to compare their achievements to those of others, resulting in lower satisfaction with their income.

Here we posit that Internet use increases people's aspirations, as they are induced to compare themselves with a broad virtual reference group, broader with respect to their actual social-reference group, often living in other countries. Internet use therefore makes them more willing to migrate. If this is true, we expect that the mechanism is above all linked to economic aspirations. We thus expect the Internet to have a greater effect on the willingness to migrate and on the actual migration of economic migrants with respect to political migrants. Unlike political migrants, economic migrants decisions are more likely to be planned and more likely to benefit from the opportunity to access information and employment opportunities about their destination countries and by studying the language of the country where they plan to live.

3 Data

This project makes use of four data sources, as detailed below.

3.1 The Gallup World Poll

In the first part of our analysis, we use data from the Gallup World Poll, a continuous survey of citizens in 160 countries, representing more than 98% of the world's adult population. The Gallup World Poll consists of more than 100 global questions as well as region-specific items, and it includes questions pertaining to one of these areas: law and order, food and shelter, institutions and infrastructure, good jobs, wellbeing, and brain gain. For the sake of our work, Gallup includes a question on whether the respondent is willing to move permanently to another country. We use this variable as a proxy for migration intentions. As Gallup provides individual-level data on migration intentions, but not on Internet usage, we run panel-data models at the macro-level, aggregating up migration intentions' information at the country level and merging information on country-level predictors — including Internet usage — from external sources such as the World Development Indicators. As a predictor of migration intentions, we also include the Global Peace Index (GPI), an index produced by the Institute for Economics and Peace since 2008 which measures the relative position of nations' and regions' peacefulness. The GPI ranks 163 independent states and territories (99.7 per cent of the worlds population) according to their levels of peacefulness, measured as the extent to which they are involved in ongoing domestic and international conflicts. Twenty-three indicators related to peace, security, conflicts, safety, terrorism, and between-country relations are used to obtain the final score. Higher values of the GPI correspond to more conflict,

i.e. less peace. The inclusion of the GPI as predictor is particularly useful to get a sense of whether our hypothesis on economic versus political migration is also observed at the aggregate level. Methodologically, we estimate fixed-effects models and investigate heterogeneity by year-specific GDP per capita and GPI terciles.

3.2 The Arab Barometer

To provide a micro-level counterpart to the macro-level analyses conducted with Gallup, we use data from the four available waves of the Arab Barometer[4] a project developed by a network of regional barometers in Latin America, Sub-Saharan Africa, East and South Asia. The sample includes 14 countries,[5] covering more than 40,000 individuals. Face-to-face interviews were conducted using multistage random sampling. The questionnaire in the Arab Barometer included, among others, items on citizens' attitudes about public affairs and governance, religion and religiosity, social capital, family status, employment, and economic morality. One key question on the intention to migrate was also included in the questionnaire ("Do you think about emigrating from your country?"). For ease of interpretation, we re-coded the original four-item migration variable into a dummy variable, with "I think about emigrating from my country" = 1 and "I do not think about emigrating from my country" = 0. Internet use is a variable accounting for whether individuals use the Internet, and how much time they devote to this activity. More specifically, we consider a dummy variable equal to 1 if the individual declares to use the Internet at least daily (and 0 otherwise). As a robustness check, we also consider a ranking variable (1–5) indicating the time use of the Internet. Empirically, we estimate OLS models and nearest-neighbor matching techniques to help address selection issues that may differentiate those with intentions to migrate compared to those who do not report these.

3.3 ISTAT migration flows

In order to offer additional evidence on the relationship between Internet and actual migration, we make use of information from the Italian National Institute of Statistics providing detailed time-series data on the number of individuals who register at the "anagrafe" as resident on the Italian territory in a specific year. This information is separated by the individual country of origin, thus allowing us to merge country-level time-series data on these origin countries in the year prior to the registration — indeed, the underlying assumption is that people were living in their countries of origin in the year

[4] https://www.arabbarometer.org/

[5] Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Palestine, Saudi Arabia, Sudan, Tunisia, and Yemen

prior to registration. We thus predict what we label the "migrant stock" — the number of individuals from a foreign country who register as residents on the Italian territory — as a function of country-level variables pertaining to the origin countries, including use of the Internet. Time-series of these predictors are obtained from the World Bank Development Indicators (WDI) and ancillary sources. These data span the time-frame between 1995 and 2017, and provide information on individuals from 30 origin countries. Note that these 30 countries cover a wide range of development stages — ranging from Nigeria to the United States — and do not exhaust all possible origin countries. Oftentimes, migrants entering Italy from the most disadvantaged countries do not regularize their position immediately by registering at the "anagrafe." We nonetheless believe this set of countries — including a range of high-income countries — represents a strength of this dataset as it allows us to complement the evidence from other data sources that pertain largely to migrants from low-income societies. Methodologically, we provide descriptive evidence on the association between Internet penetration in a country (at time t-1) and migration stock (at time t), and we run OLS and Fixed-Effects (FE) and Random-Effects (RE) models exploiting the panel nature of the country-level dataset.

3.4 Register data from the Sant'Anna center

To focus on migrants after arrival, we use novel register data from the SantAnna CDA/CARA center located in Crotone, in the region of Calabria in the south of Italy. Our complete dataset covers the period 2008-2018. The dataset includes, for each migrant, the following information: gender, date of birth, country and place of origin, date of entry, date of exit (if any), and reason for departure including transfer to another centre, obtaining any kind of protection (in this case the type is specified: humanitarian protection, political asylum, subsidiary protection, temporary residence permit), and voluntary departure (migrants who escape from the centre). This variable is particularly important for our project because it allows us to study the differentiated effect of Internet use and digital skills with respect to the trajectories of migrants once they reach the centre. See Stranges and Wolff (2018) for further details on the dataset.

For the period 2011-2012, due to a special statistical survey project conducted in the centre, in addition to the in addition to the individual characteristics described above, the dataset provides information on skills of migrants, including also digital skills. Using this subsample, we focus on how the digital skills of migrants (and in particular the knowledge of internet) may affect their trajectories. We rely on survival analysis techniques to examine this. In a final step, we will study the correlation between Internet penetration at origin and the trajectories of migrants. Results about this part will be added

in the next iteration of the paper.

4 Preliminary evidence

4.1 Internet and migration intentions

4.1.1 Evidence from the Gallup World Poll

Table 1 provides results on the macro-level association between the share of the population in a country using the Internet and the willingness to move permanently to another country as recorded in the Gallup World Poll. Results from column 1 suggest that the raw association between the use of the Internet and migration intentions is negative and strongly significant. Yet additional models adding controls and country and year fixed-effects (sequentially) suggest that this negative association is wholly driven by measures of a country's development, such as GDP per capita. In fact, our full specification (model 4) corroborates our hypotheses, showing a positive and statistically significant association between the use of the Internet and the willingness to move elsewhere. Economic variables are in line with expectations, and the share of the total labor force that is unemployed emerges a particularly strong positive predictor of out-migration intentions.

Table 2 focuses on the same relationship yet it provides estimates separately by terciles of GDP per capita and Global Peace Index. Starting from the former, our results suggest that the positive association between Internet use and migration intentions is not observed in the lowest terciles, while it is strong and significant in the relatively wealthier groups of countries (terciles 2 and 3). As for the latter, we show that the strongest associations between Internet use and willingness to move are observed for the groups of countries that have lower GPIs, i.e. less conflict. In the group of countries with high conflict prevalence (GPI tercile 3), the positive association decreases in magnitude and turns insignificant. These two pieces of evidence combined corroborate the idea that economic migration — rather than political or conflict-related — is the one that tends to be most strongly affected by Internet access and diffusion.

4.1.2 Evidence from the Arab Barometer

Figure 1 and 2 show the distribution of willingness to migrate and of willingness to migrate by Internet use, respectively. Internet use is positively correlated with willingness to migrate, and this correlation is especially strong for women (see Figure 3) and for the less educated (see Figure 4). This bivariate evidence is largely confirmed by a linear probability model depicted in Table

3 and by a nearest-neighbor propensity score matching depicted in Table 4 that attempts to better account for selection issues. Furthermore, the correlation between Internet use and willingness to emigrate is indeed stronger for those who claim to be willing to emigrate for economic reasons (see Table 5). Table 6 shows that what seems to matter is access to Internet more than the intensive margin of using it. Furthermore, women and the less educated are those who benefit more from the technology (see Table 7 and 8).

4.2 Internet and migration

4.2.1 Evidence from ISTAT data

Figure 5 provides descriptive evidence on the association between Internet use (proportion of Internet users or Internet penetration) in the origin country in the year prior to registration in Italy (t-1) and the stock of individuals who register as residents in Italy in the following year (t). In line with the results presented up to now, the figure provides evidence of a positive association between the two variables. Note, though, that these are time-series data from 30 origin countries covering more than 20 years. Therefore, in what follows we present regression analyses accounting for time and year fixed-effects, and controlling for potential country-level — from the country of origin — confounders.

Table 9 provides estimates of the association depicted in the above figure, accounting for controls and gradually adding time (3) and country of origin (4) fixed-effects. Model (5) includes all controls and both year and country dummies. Results show a remarkably stable association between Internet use at time t-1 and migration stock at time t. As both the predictor and the outcome are expressed in log, the coefficient of interest is the elasticity of migrant stock with respect to Internet use. This suggests that a 10 percent change in Internet penetration is associated with a 2 percent increase in the stock of migrants, approximately.

4.2.2 Evidence from Sant'Anna center

We assess the role of the migrants characteristics and in particular of digital skills on the various risks of leaving the centre using a survival analysis framework. We group all reasons for departure related to the obtainment of a form of international protection and consider the four following reasons c: voluntary exit (c=1), transfer to another centre (c=2), international protection (c=3), other reasons (c=4). Since each migrant may be affected by one of these mutually exclusive events, we use a competing risk model (Fine and Gray, 1999).

We estimate the survival model for the four reasons for departure simultaneously. We focus on the internet knowledge of migrants. The other control

variables included in the analysis are gender, age class, level of education, entered in the centre with family member. Results from the flexible model are reported in Table 10, where we present hazard ratios obtained from the proportional hazard estimates. The risk of voluntary departure from the centre is 81% higher for those who have digital skills. Studies have demonstrated that migrants reaching Europe irregularly often did not have an intended destination when leaving their country of origin (Stranges and Wolff, 2018; Grillo, 2007; Collyer, 2007; Schapendonk, 2012).

5 Conclusion

The digital revolution has affected migration at different stages of the migration path. Our analyses, which leverage different data sources, highlight a strong correlation between Internet use and migration intentions, migrant stocks and migration outcomes, both at the macro- and micro-levels. At the macro-level we find that, controlling for socioeconomic development, countries with higher proportion of Internet users are also those with greater proportions of those willing to migrate. With individual-level data, we find that this association also holds and is stronger among women and those with less education. Turning to analyses of actual migrant stocks in Italy, we also find significant associations between levels of Internet use in a given country of origin and the presence of migrants from that country in Italy. Building on a growing literature that has highlighted to implications of the digital revolution for demographic processes, our work is among the first to provide quantitative empirical evidence of the significant role of the Internet on migration. The different datasets enable us to study different stages of the migration process, and our findings across them, provide consistent evidence of the important role of the Internet. We hypothesize that the Internet affects migration intentions by exposing individuals to the life of others and shaping aspirations, enabling access to relevant information and opportunities to facilitate the migration decision, which in turn also help migrants' adapt to life in their new countries upon arrival more effectively. These effects are likely to be salient for those with purposeful, planned mobility, such as economic migrants and our preliminary analyses provide support for this idea.

6 Tables and figures

Table 1: Country-level association between Internet use and willingness to move to another country, Gallup data

	Willingness to move			
	(1)	(2)	(3)	(4)
Use of Internet (%)	-0.175***	0.022	0.231***	0.118**
	(0.015)	(0.030)	(0.036)	(0.046)
GDP per capita (ln)		-10.835***	-16.342***	-12.966***
		(0.860)	(3.597)	(3.593)
Unemployment (%)		0.357***	0.602***	0.837***
		(0.077)	(0.166)	(0.165)
Population (ln)		9.499***	8.209	6.741
		(0.961)	(7.500)	(7.590)
Rural population (%)		-0.328***	-0.425	-0.469*
		(0.033)	(0.260)	(0.260)
Global Peace Index (GPI)		0.291	-4.029**	-3.747*
		(1.083)	(1.,992)	(1.992)
Constant	31.835***	154.048***	318.654***	264.891**
	(0.765)	(9.295)	(101.718)	(114.204)
Year dummies	No	No	No	Yes
Country dummies	No	No	Yes	Yes
Obs.	756	694	694	694
R-squared	0.146	0.362	0.897	0.908

Table 2: Country-level association between Internet use and willingness to move to another country, heterogeneous effects by GDP and Global Peace Index (GPI) terciles, Gallup data

	Willingness to move					
	GDP terciles			GPI terciles		
	(1)	(2)	(3)	(1)	(2)	(3)
Use of Internet (%)	-0.079	0.236***	0.233***	0.219***	0.218**	0.116
	(0.104)	(0.083)	(0.060)	(0.097)	(0.097)	(0.090)
GDP per capita (ln)	-5.170	-3.870	-17.272**	-2.261	-18.476*	-10.308*
	(6.929)	(5.403)	(7.483)	(7.728)	(9.820)	(5.854)
Unemployment (%)	1.322***	0.639**	1.041***	1.025***	0.678**	0.764
	(0.323)	(0.246)	(0.335)	(0.292)	(0.302)	(0.469)
Population (ln)	-15.435	-12.038	25.800	15.252	17.878	21.252
	(16.,662)	(12.311)	(16.471)	(15.191)	(19.731)	(18.359)
Rural population (%)	-1.623***	-0.065	-0.047	0.570	-0.101	-1.915***
	(0.441)	(0.519)	(0.471)	(0.485)	(0.596)	(0.525)
Global Peace Index (GPI)	-3.657	-6.037	0.527	-7.233	-3.378	-6.736*
	(3.634)	(3.649)	(3.074)	(6.334)	(7.359)	(3.465)
Constant	482.889**	323.032*	24.426	-191.036	207.350	43.009
	(223.247)	(184.503)	(280.747)	(248.892)	(282.769)	(310.379)
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	220	240	234	235	236	223
R-squared	0.928	0.914	0.938	0.915	0.939	0.907

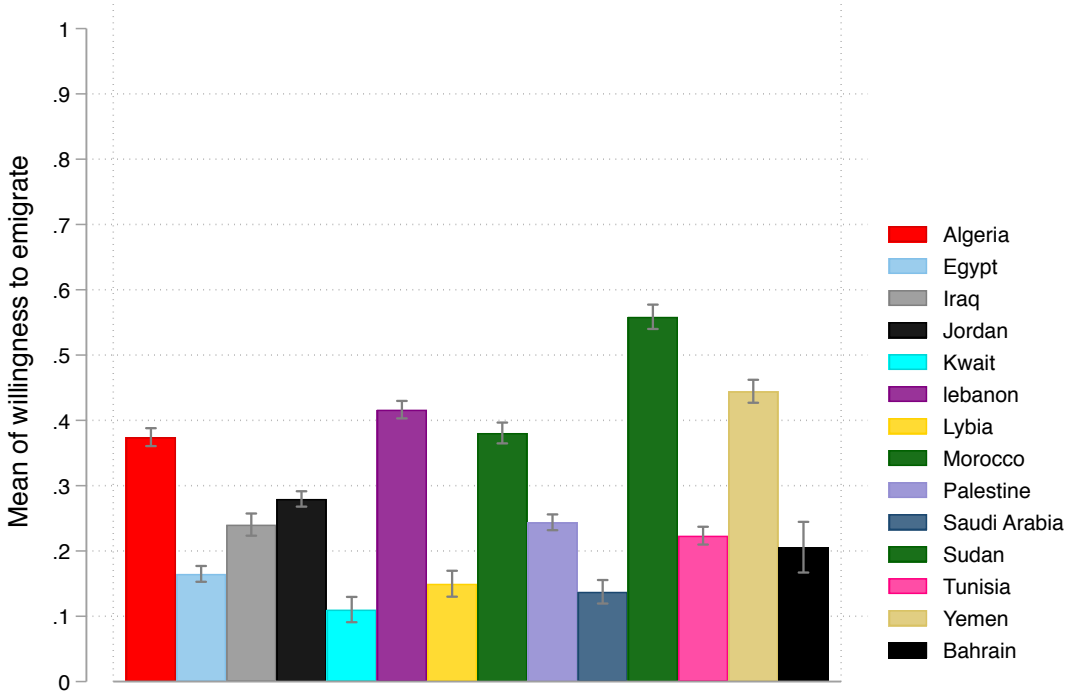

Figure 1: Willingness to migrate

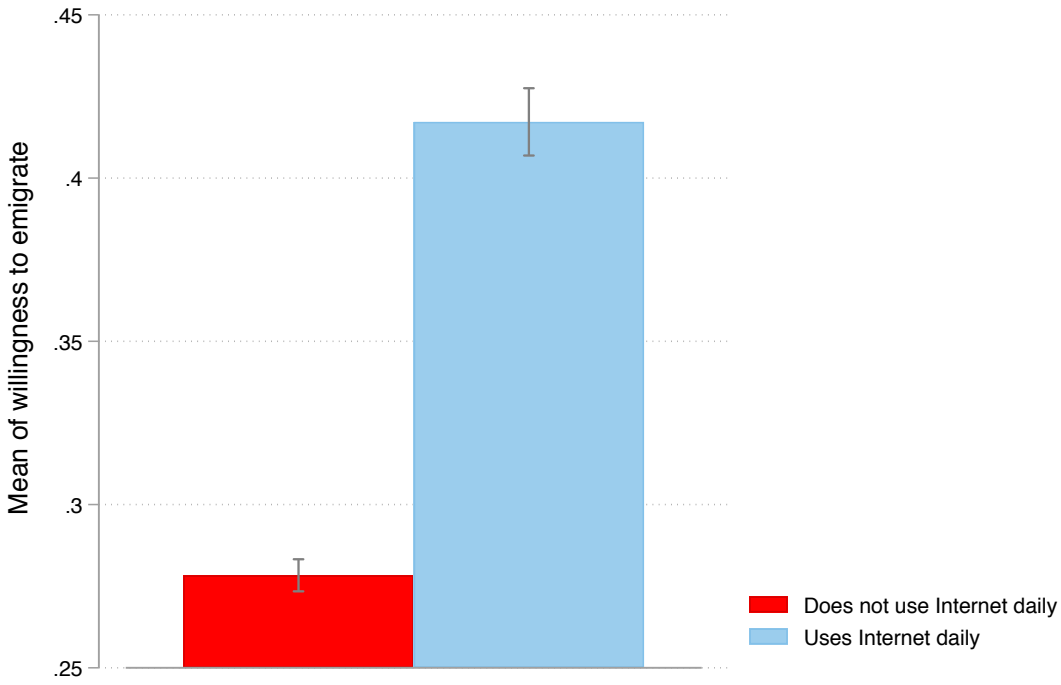

Figure 2: Willingness to migrate by Internet use

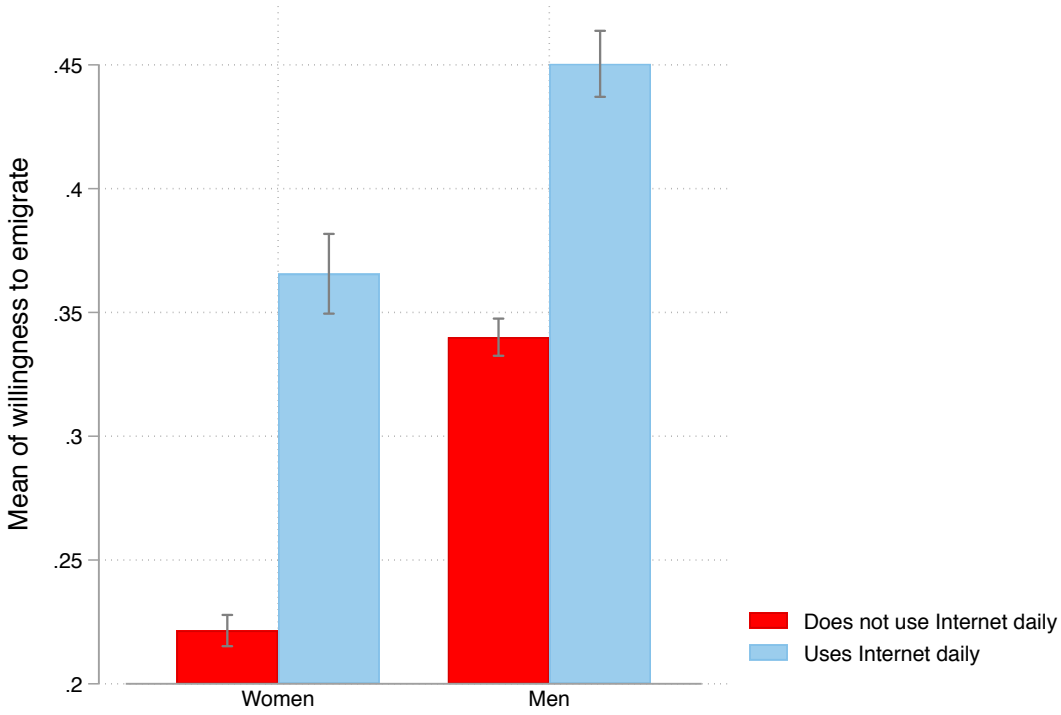

Figure 3: Willingness to migrate by gender and Internet use

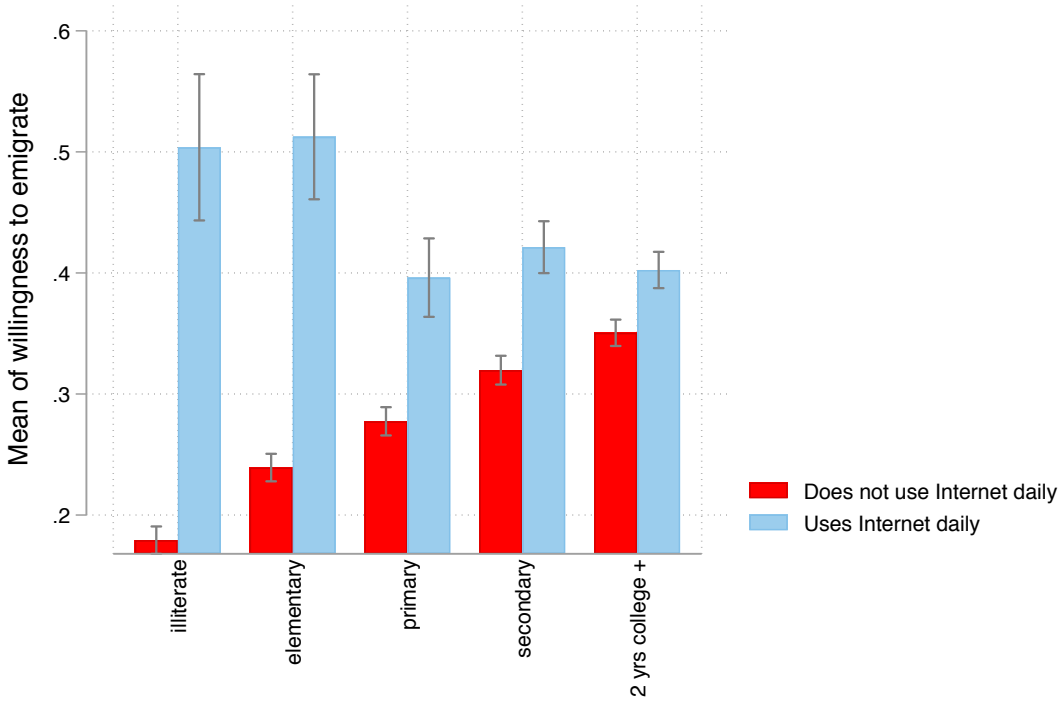

Figure 4: Willingness to migrate by education and Internet use

Table 3: Daily Internet use and willingness to migrate

	(1)	(2)	(3)	(4)
	Considered emigrating: any reason			
Internet daily	0.153***	0.100***	0.081***	0.085***
	(0.007)	(0.007)	(0.008)	(0.011)
Gender (Male=1)		0.119***	0.118***	0.101***
		(0.005)	(0.007)	(0.009)
Age		-0.008***	-0.002	-0.001
		(0.001)	(0.001)	(0.002)
Age sq.		0.000**	-0.000**	-0.000**
		(0.000)	(0.000)	(0.000)
Married (Yes=1)			-0.073***	-0.042***
			(0.007)	(0.011)
education==2			0.011	-0.008
			(0.010)	(0.017)
education==3			0.022**	-0.012
			(0.011)	(0.018)
education==4			0.047***	0.017
			(0.011)	(0.018)
education==5			0.061***	0.022
			(0.011)	(0.017)
Employed (Yes=1)			-0.031***	0.002
			(0.007)	(0.011)
General Trust			-0.074***	-0.075***
			(0.006)	(0.009)
Income deciles (calculated by Country-wave)				-0.004**
				(0.002)
Constant	0.258***	0.504***	0.386***	0.413***
	(0.003)	(0.022)	(0.029)	(0.046)
R^2	0.020	0.147	0.163	0.144
Obs.	33828	33775	28384	14490

Linear probability model. Standard errors in parentheses. Country and wave fixed effects included.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 4: Daily Internet use and willingness to migrate

	(1)	(2)
	Considered emigrating: any reason	
ATE		
Internet daily	0.098***	0.097***
	(0.013)	(0.016)
Obs.	33729	14490

Standard errors in parentheses. Nearest-neighbor matching. Distance metric: Mahalanobis.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Daily Internet use and willingness to migrate

	(1)	(2)
	Cons. emig.: eco. reasons	Cons. emig.: pol. reasons
Internet daily	0.055***	0.008**
	(0.009)	(0.004)
Gender (Male=1)	0.125***	0.009***
	(0.007)	(0.003)
Age	-0.001	-0.000
	(0.001)	(0.000)
Age sq.	-0.000***	-0.000
	(0.000)	(0.000)
Married (Yes=1)	-0.074***	-0.000
	(0.007)	(0.003)
education==2	0.019*	-0.009**
	(0.010)	(0.004)
education==3	0.023**	-0.008**
	(0.011)	(0.004)
education==4	0.012	0.000
	(0.011)	(0.004)
education==5	0.023**	0.002
	(0.011)	(0.004)
Employed (Yes=1)	-0.021***	-0.003
	(0.008)	(0.003)
General Trust	-0.040***	-0.010***
	(0.006)	(0.002)
Constant	0.232***	0.027***
	(0.028)	(0.010)
R^2	0.128	0.017
Obs.	24507	21300

Standard errors in parentheses. Country and wave fixed effects.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 6: Daily Internet use and willingness to migrate

	(1)	(2)	(3)	(4)
	Considered emigrating: any reason			
Ref: I do not use the Internet				
Several times a year	0.181***	0.106***	0.098***	0.093***
	(0.018)	(0.017)	(0.019)	(0.027)
At least once a month	0.162***	0.092***	0.082***	0.095***
	(0.013)	(0.012)	(0.013)	(0.019)
At least once a week	0.164***	0.093***	0.086***	0.091***
	(0.009)	(0.009)	(0.010)	(0.015)
Daily or almost daily	0.198***	0.137***	0.121***	0.125***
	(0.007)	(0.008)	(0.009)	(0.012)
Standard controls		Yes	Yes	Yes
		(0.005)	(0.007)	(0.009)
R^2	0.040	0.153	0.168	0.149
Obs.	33828	33775	28384	14490

Linear probability model. Standard errors in parentheses. Country and wave fixed effects included.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 7: Daily Internet use and willingness to migrate: by gender

	(1)	(2)	(3)
	Female	Male	Interaction model
Internet daily	0.096***	0.070***	
	(0.012)	(0.011)	
Internet daily=1			0.102***
			(0.012)
Gender (Male=1)=1			0.127***
			(0.007)
Internet daily=1 × Gender (Male=1)=1			-0.036**
			(0.015)
Obs.	14031	14353	28384

Standard errors in parentheses. Country and wave fixed effects included.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8: Daily Internet use and willingness to migrate: by education

	(1) Illitterate	(2) Elementary	(3) Primary	(4) Secondary	(5) 2yrs college +	(6) Interaction
Internet daily	0.139*	0.117***	0.080**	0.105***	0.073***	
	(0.079)	(0.044)	(0.032)	(0.023)	(0.015)	
Internet daily=1						0.158**
						(0.069)
Internet =1 × el.						-0.030
						(0.080)
Internet =1 × pr.						-0.066
						(0.074)
Internet =1 × sec.						-0.061
						(0.071)
Internet =1 × 2 +						-0.091
						(0.070)
Constant	0.421***	0.252**	0.545***	0.338***	0.402***	0.407***
	(0.148)	(0.102)	(0.113)	(0.099)	(0.089)	(0.046)
R^2	0.203	0.162	0.129	0.135	0.146	0.145
Obs.	1502	2132	2581	3114	5161	14490

Standard errors in parentheses. Country and wave fixed effects included.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

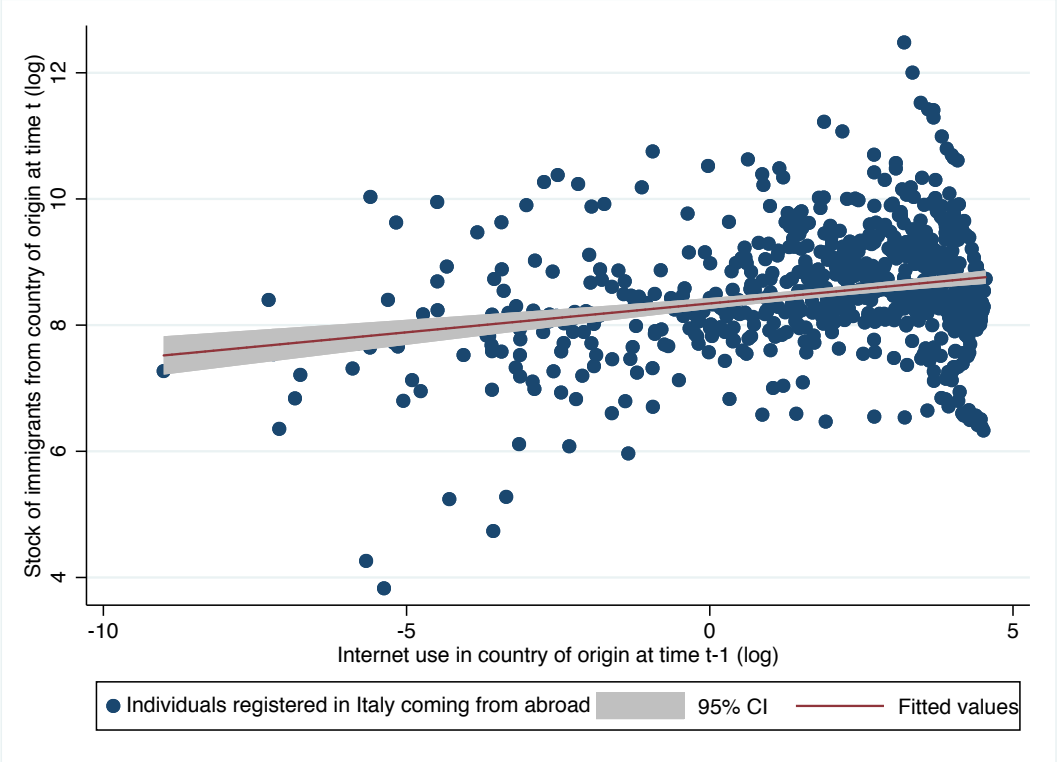

Figure 5: Association between Internet use in country of origin (t-1) and stock of migrants who register as residents in Italy (t)

Table 9: Association between use of the Internet in origin country and stock of migrants

Stock of migrants (t)	(1)	(2)	(3)	(4)	(5)
Internet use (ln, t-1)	0.092***	0.165***	0.168***	0.204***	0.197***
	(0.016)	(0.021)	(0.041)	(0.028)	(0.044)
GDP per capita in PPP (ln, t-1)		-0.486***	-0.470***	0.022	0.536***
		(0.065)	(0.071)	(0.213)	(0.242)
Unemployment (% total, t-1)		0.009	0.007	0.093***	0.089***
		(0.007)	(0.007)	(0.012)	(0.014)
Population (ln, t-1)		0.205***	0.204***	-1.498***	-0.692
		(0.027)	(0.026)	(0.521)	(0.663)
Rural population (%, t-1)		0.005*	0.005*	0.053***	0.058***
		(0.003)	(0.003)	(0.016)	(0.016)
Population ages 15-64 (% total, t-1)		0.012	0.013	0.053**	0.042*
		(0.008)	(0.008)	(0.023)	(0.023)
Distance to Italy (ln, t-1)		-0.361***	-0.359***		
		(0.041)	(0.040)		
Constant	8.344***	10.898***	10.398***	27.919***	9.490
	(0.049)	(0.812)	(0.898)	(9.156)	(12.208)
Year dummies	No	No	Yes	No	Yes
Country dummies	No	No	No	Yes	Yes
Observations	678	652	652	652	652
R-squared	0.059	0.335	0.376	0.701	0.735

Table 10: Hazard ratio estimates from a competing risk model explaining exit from Sant'Anna centre (minors)

Variables	Voluntary departure Hazard	Transfer Hazard	Any form of protection Hazard
Internet knowledge	1.807***	0.704**	0.927
	(9.63)	(-2.07)	(-0.80)
Woman	0.088***	0.000	3.971***
	(-7.65)	(-0.02)	(9.62)
Age classes (ref. <18)			
(18-24)	2.675***	0.925	0.605**
	(4.79)	(-0.25)	(-2.54)
(25-34)	2.527***	0.780	0.698*
	(4.52)	(-0.79)	(-1.85)
(>=35)	2.208***	1.328	0.757
	(3.56)	(0.81)	(-1.22)
Level of education medium-high (vs low)	1.086	2.180***	1.084
	(1.09)	(3.56)	(0.49)
Entered in the centre with family members (yes=1, no=0)	3.803***	0.000	0.285***
	(4.96)	(-0.01)	(-3.96)
Constant	0.131***	0.037***	0.000***
	(-9.97)	(-10.34)	(-8.56)
Observations	2,008	2,008	2,008

Estimates from competing risk models obtained by a maximum likelihood method, with robust standard errors. t-stat in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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