# DIGINAUTS: Migrants' digital practices in/of the European border regime

## Scope, Aim and Research Questions

Current migration influx into Europe is characterized by an elaborate use of digital applications by migrants to facilitate safe and free passageways (Gillespie et al. 2016). Despite a digital 'turn' in migration research, which focuses mainly on the use of Internet and Communication Technology (ICT) to maintain diaspora networks, so far there have been no major studies on migrants' use of ICT to establish the infrastructures for navigating during and after flight.

*The aim of DIGINAUTS is to examine how migrants' widespread, varied and innovative digital practices remake migration and potentially create networks of solidarity as migrants navigate through the European border regime.*

The concept of 'Diginauts' alludes to Malinowski's Argonauts of the Western Pacific (1922). When used as a suffix, '-naut' means voyager or farer and our project name 'DIGINAUTS' therefore aims to highlight the migrants' digital navigation practices as they enter into unknown and uncertain bordered spaces and zones of the European continent. Migrants refer here to a highly diverse group in terms of nationality, race and ethnicity but with the common characteristics that it includes asylum seekers, including rejected ones disappearing from state authorities, and undocumented migrants from non-EU countries, i.e. third country nationals. It is a key assumption of the project that the migrants' digital practices not only challenge our usual ways of thinking about migration but also subtly reconfigure the functioning of the digital platforms themselves. Attending to the (re)making of ICT infrastructures for migration that spans across three European regions (Southern, Central and Northern Europe), the DIGINAUTS project will answer the following research questions:

1. How do migrants integrate ICT into migration practices, and how are existing digital platforms reconfigured for navigation and for creating solidarity networks?
2. What are the challenges and potentials for aid workers as they relate (or fail to relate) to migrants' digital practices?
3. How can insight into migrants' digital usages (en route and on site) lead to a better understanding of migrants' routings, everyday practices and life conditions?

## State of the art and research lacunas

There is a growing literature on how Web 2.0 has transformed migrant networks and facilitated new ties (e.g. Dekker & Engbertsen 2012; Thulin & Vilhelmson 2015; Watson et al. 2015). It is argued that digital media and devices have deterritorialized social spaces that facilitate communication among geographically dispersed migrant groups/networks (e.g. Harney 2013; McGregor & Siegel 2013). Indeed, migrants have developed strategies to navigate, survive and stay mobile (Trimikliniotis et al. 2014). Smartphones, for example, alleviate information precarity (Wall et al. 2015) by providing access to networks of care as well as to in/formal work, whilst

their meaning and use vary depending on class, education, gender, and age (Walker et al. 2014). ICT have an important symbolic/semiotic value for migrants in addition to their role in maintaining diasporic identities (Horst & Taylor 2014). Paying attention to the role of ICT in migration trajectories is called for by a number of scholars (see Ponzanesi & Leurs 2014; Gillespie et al. 2016).

Yet, most studies conceptualize ICT as an add-on to migrants' everyday practice, rather than seeing ICT as co-constituting migration. There still is limited literature concerning the migrants' use of ICT during and after their flight (e.g. Charmarkeh 2013; van Liempt & Zijlstra 2017). Existing studies may in some cases address issues of surveillance and/or privacy, but fail to conceptualize how migrants become increasingly dependent on ICT as they travel. Thus, ICT partly constitutes the very migration routes; ICT becomes a lens and a tool for shared decision-making and navigation among migrants. Crucially, the ways in which migrants repurpose, rather than simply use these technologies, have received no attention. Hence there is a need for research that simultaneously examines how migrants are using ICT and focuses on how their varied usage affects not only the migration journey but also the digital platforms themselves. Further, existing studies neither problematize issues of navigation during the journey nor scrutinize the solidarity work at play in the migration process that ICT enables or hinders. By focusing on 'solidarity work' we aim at investigating the ways in which the migrants build and maintain relations and networks through digital means including contact to aid workers and NGOs in the countries of transit and arrival (Cabot 2010). Such formations and actions constitute what we depict as solidarity networks.

*A theoretical interdisciplinary approach*

DIGINAUTS investigates the complex entanglements of migration and ICT by drawing on an interdisciplinary framework combining Critical Border and Migration Studies (Casas-Cortés, de Genova et al. 2016), Social Media Studies (Rodríguez et al. 2014; Croeser 2014), European Ethnology (Ehn, Löfgren & Wilk 2016) and Science and Technology Studies (STS) (Dijstelbloem & Meijer 2011; Galis et al. 2016a). These literatures have shown how borders are not fixed geographical entities but a set of complex practices in a constant state of becoming; how social media transforms not only the mediascape but also forms of activism; how everyday life can be studied; and how societies are influenced by the fact that we are producers and users of science and technology. Except for the first string of literature there has not been any special focus on migrants and neither has there been any attempt to combine these literatures.

DIGINAUTS aims to synthesize existing insights from these fields and take them one step further by empirically showing that bordering practices trigger digital-material counter-actions to reconfigure migratory routes and perform solidarity. Based on the findings of a pilot study (Galis et al. 2016b), these counter-actions create free zones or, following Bey (2011) "temporary autonomous zones" (TAZ). The concept of TAZ can be related to the different strings of literature outlined above. TAZ allows DIGINAUTS to investigate non-institutionalized spaces (geographic, social, digital) beyond state surveillance. Within such zones, invisible to state bureaucracies that do not possess legal or technical tools to discern them, migrants under the radar communicate, move, and navigate. TAZ occur ad hoc in the intersection of materiality and the digital world

enacted by the desire for abundant life, unfolding "within the fractal dimensions invisible to the cartography of control" (Bey 2011: 71). The TAZ has a temporary but actual location in time and a temporary but actual location in space. Nevertheless, clearly it must also have "location in the Web, and this location is of a different sort, not actual but virtual, not immediate but instantaneous" (ibid.). Therefore, the notion of TAZ also assists us in approaching the digital world primarily as a support system, capable of carrying information from one TAZ to another. The project will not merely map these zones, but will investigate how they are made into *temporary autonomous transfer zones*, by whom, in which situations, by what means, and how they interface (or not) with institutions set up to support migrants.

The term border regime "calls attention to the role both of individual states and of changing international regulatory and surveillance administrations that affect individual mobility. At the same time, the term reflects a notion of governmentality and hegemony in which there are constant struggles to understand, query, embody, celebrate and transform categories of similarity, difference, belonging and strangeness" (Glick Schiller and Salazar 2013: 189). The functioning of a border regime can thus tell us about the *modus operandi* of the individual states: What is protected inside the state, and what kind of "regulatory apparatus" that is framing the population, the territory and the state's security. Each border regime encompasses specific regulations of openness and of closure, and the concept of the border regime is therefore well suited to explore the intersecting logics that we can observe in the current EU border regime privileging movements of some on the one hand, while restricting and criminalizing the movements of others (Hess and Kasparek 2010).

**Methodological framework**

The methods employed in this project are chosen for their ability to identify and interrogate complex relations and to guide analysis at the intersection of migration and the digital world (Dijstelbloem & Meijer 2011). Thus, to gain insights into migrants' day-to-day use of ICT, we will apply a mixed-methods approach (Axinn & Pearce 2006) that combines ethnographic, qualitative data with digital methods (Rogers 2013). Previous studies of ICT in migration have been based on qualitative data, with no or little use of the emerging computational techniques applied to social media data (Jacobsen & Landau 2003). Nevertheless, the digital practices that migrants put in place before, during and after their journey, are supported by existing digital platforms and produce digital traces and digital data (see Weber & Zagheni 2013; Zagheni et al. 2014). These data, even if they will be presumably scattered through different digital platforms, can be collected using API interfaces or web-scraping techniques and geolocated data. Then, after thorough anonymization they can be used to perform several specific analyses such as: trends analysis, topics identification, and network analysis of the various digital platforms. This will produce a general mapping of how digital practices combine with digital platform that will support and inform the ethnographic fieldwork. At the same time ethnographic fieldwork will, as specified in the project design, provide constant feedback to the digital methods for further data collection or deeper data analysis.

DIGINAUTS will use ethnographic fieldwork methods (participant observation and online ethnography) and semi-structured interviews in order to identify important aspects of migrants'

emerging communication ecologies, both as a starting-point for the project and throughout the project design. This is in contrast to the largely adopted research approaches, which often focus on a particular pre-identified platform as the basis for research. The use of interviews for direct qualitative data collection by selecting appropriate informants captures a qualified sample of migrants' digital practices in order to develop the research questions and themes, and eventually recruit further informants. Simultaneously, this approach aims at generating a heterogeneous set of digital data, often produced within context-specific platforms, which can be further explored. These datasets will constitute a challenge both from the point of view of data collections (e.g. multiple platforms, different API, data accessibility) as well as from the point of view of data analysis (inconsistent data, missing data, and context dependent data). The ETHOS lab at IT University of Copenhagen (ITU) has developed a widely recognized expertise in dealing with this kind of socio-digital data. Drawing on existing expertise, the heterogeneous digital data, collected following the preliminary qualitative inquiry, will be analyzed in order to identify: a) temporal and spatial patterns of usage, b) key actors and information repositories (Borgatti 2006). The ongoing analysis of the digital data identified during the qualitative research will produce an iterative process where qualitative research informs the collection of digital data, and vice-versa. The participant observations are conducted in a selection of sites and will further stimulate in-depth knowledge on migrants' everyday digital practices, since meeting and talking with migrants in situ about their digital usages will facilitate insights, not only into the migrants' online imprints and navigations, but also on their reflections and aims related to those digital practices. These ethnographic approaches will enable investigations of the smartphone as a 'sensitive everyday object' which can connect sites and people, and potentially enact new networks of solidarity (Frykman & Povrzanovic Frykman 2016; Miller 2016). In this way, DIGINAUTS moves beyond the methodological state of the art in combining quantitative and qualitative methods and online/offline data gathering to more effectively research the complex, cross-platform nature of migrants' ICT use.

**Project Design**

DIGINAUTS comprises four subprojects 0-3. Subproject 0 guides and informs the three subprojects 1-3 and provides a consistent methodological framework for each of them. Subproject 0 is the foundation of the 3 following subprojects and aims at establishing a platform in order to develop the digital tools needed for the subprojects 1-3 which will ensure a systematic and coherent methodology. The four subprojects can be described as follows:

*Subproject 0. Digital tools development* (Luca Rossi, ITU; Postdoc: Vasiliki Makrygianni; Research Assistant, NN, ITU; Vasilis Galis, ITU; Martin Bak Jørgensen, Aalborg University (AAU); Marie Sandberg, University of Copenhagen (UCPH))

The lack of up to date digital empirical data has been one of the challenges for theoretical advances in the field of migration. Although institutions like EUROSTAT has worked to improve the availability of statistical data there is a profound time lag in the collection of data and the production of statistics. This challenge becomes even larger when we turn our gaze from patterns of mobility of regular migrants which we are able to trace through visa regimes and official

statistics to the irregular migrants most often not detected by the official channels of data collection. New methods for collecting online data can help us identify these unregistered external, internal and localized mobilities using API interfaces, web-scraping techniques and geolocated data. This methodological approach can help us answer how the migrant target group of this application manage and navigate mobility and how they interlink (or not) with solidarity networks in and en route to different migratory hubs.

Subproject 0 will be methodologically and empirically informed by the findings of the pilot study by Galis et al. 2016b, which investigated how interactions of migrants and digital technologies shape migrants' passageways in the Greek borderland and territory, during the summer of 2016. The pilot study has granted us an initial understanding of digital media and their usages (e.g. the use of WhatsApp), means of mobility, patterns of navigation and linkage with solidarity networks which together comprises the core focus of DIGINAUTS. Subproject 0 will develop a systematic and coherent framework combining online data collection techniques with ethnographic methods that can be applied to subprojects 1-3.

**Motivation for choice of three complementary sites in subprojects 1-3**

Three sites for migratory ICT activities have been carefully selected for the ethnographic investigation of migrants' digital practices: 1) the Greek borderland with a focus on the islands of Lesvos and Chios on the border with Turkey, but also Athens as a stopover or place of accommodation for thousands of migrants, 2) the larger German-Danish border region and 3) the Oresund region encompassing the transnational borderland between Denmark and Sweden. In order better to understand the current transformations of Danish borders, we need to include the Greek borderland in the scope of the DIGINAUTS project: each borderland represents different aspects of the EU's internal and external border regimes, respectively. It is important to mention that the pilot study by Galis et al. 2016b has been a valuable guide and source of inspiration for selecting these border regimes. According to this study, the three sites signify different yet related zones in a progressive journey from Southern to Northern Europe. This does not mean that DIGINAUTS aims to reconstruct the exact migration journey from A to B but to understand the migrants' practices of routing and digital navigation across Europe and through these three sites based on migrants' narratives (interviews), ethnographic observations and computational techniques. Greece represents the entry point to Europe. Germany represents both a final destination and a middle-destination *en route* to Scandinavia. The Oresund region represents a final destination but it also illustrates the 'border struggle' in Scandinavia including the introduction of temporary border control since 2016 on Denmark's border to Sweden in light of the 2015 refugee influx. Moreover this region is now scene for an ongoing political concern regarding a growing number of rejected asylum seekers disappearing from authorities fueling debates on security and potential terrorism.

Another interlinking aspect between the three sites is the growing number of self-organized digital collectives (such as WatchTheMed and Alarm Phone) and several existing digital applications that have been appropriated by migrants and volunteers (such as the UNHCR App for Syrian Refugees, Whatsapp, Facebook, Twitter, and so on) in order to provide aid in terms of navigation, networking and solidarity. What the self-organized digital collectives have in common

is that they are non-governmental, non-commercial initiatives taken online by volunteers in solidarity with migrants. All these digital collectives aim to assist migrants in terms of navigation, legal advice, translation and care. Likewise, the aforementioned commercial digital applications are recuperated by migrants and volunteers to provide information that might be useful for migrants on their journey to and through Europe. These resources are simultaneously active along migrants' passageways from the European South to the North (Galis et al. 2016b). Thus, as a common theme, the subprojects will problematise how migrants create free zones through their use of ICT and how these zones enter border struggles far away from the geographical borders. The subprojects are regarded as sites in an extended field-site (Andersson 2014) in which 'site' is not geographically limited (e.g. to the respective national borders or control posts) but also implies several hubs such as reception centers and relevant policy-making. The subprojects will apply the methodology developed initially in subproject 0. The three empirical subprojects will each address research questions 1 and 2. Together with the subproject 0, the three empirical subprojects will address research question 3.

**Subproject 1. The Greek borderland** (Vasilis Galis, ITU; Postdoc: Vasiliki Makrygianni, ITU)
According to the UNHCR (2015), over 800,000 migrants entered Greece from the coast of Turkey to the Greek islands during 2015. Smartphones and digital connectivity have been essential for migrants navigating at sea and/or crossing borders as well as seeking protection and safety in Greece (Gillespie et al. 2016). Subproject 1 will be a follow-up of Galis et al. (2016b). Building on the current empirical material and utilizing already existing contacts/networks, Galis and Makrygianni will conduct interviews with migrants' and aid workers about their use of ICT, while they will perform ethnographic studies on two Greek islands (Chios and Lesvos) and in Athens, where migrants' 'hotspots' (such as EU-run reception centers) lie. This subproject also investigates the interface between digital media and the migrants, which is embedded in the digital traces left by the migrants' use and re-configuring of digital media. The study of these sites from Greece will act as a backdrop for contextualizing and mapping migration hubs, ICT applications and sites for the overall project.

**Subproject 2. The Danish-German borderland** (Martin Bak Jørgensen, AAU; Postdoc: Leandros Fischer, AAU)
In 2015, more than 21,000 people applied for asylum in Denmark (Udlændinge-, Integration- og Boligministeriet 2016). Many used Denmark as a pathway to get to Sweden before border controls were enforced. In 2015, Germany received over one million claims for asylum and large numbers passed through the country to get further north. Hamburg has long been a hub for especially sub-Saharan migrants coming to Hamburg via Libya and Lampedusa. Digital connectivity has been important for both the migrants staying in Germany trying to find information on rights, housing, work, legal help, and civil society groups and aid workers, and for the migrants seeking to enter Scandinavia. In this subproject we will conduct fieldwork in Hamburg, Northern Germany and Southern Denmark as a basis to compare patterns in ICT use and survival strategies between the latter group and the recent incoming groups - especially from Syria. Concretely we will conduct interviews with networks in Hamburg. Furthermore, fieldwork

will be carried out in asylum centers in Southern Denmark and one deportation center and we will map the migratory hubs, ICT applications and sites the residents have used to enter Denmark. In contrast to subproject 1 there is no preceding pilot-study hence, part of the digital and ethnographic fieldwork is to identify the collectives present in the solidarity work.

**Subproject 3. The Oresund region** (Marie Sandberg, KU; Postdoc: NN, KU)
When Sweden introduced temporary border control on January 4, 2016, this did not only affect refugees seeking to get from Denmark to Sweden, but also implied major changes for the 8,000 daily commuters from both sides of the Sound (Øresundsinstituttet 2016). Since the early 2000s, the Oresund Region has been launched as a center for growth, mobility and tourism. This subproject will take the Oresund Region as a point of departure for investigating the digital practices of migrants and aid workers in Malmö and Copenhagen. Ethnographic fieldwork will be conducted in a selection of locally initiated hubs for receiving migrants, such as reception centers, temporary housing facilities and activity centers in Malmö and Copenhagen). Likewise will we conduct ethnographic fieldwork on collectives centering on anti-deportation campaigns and refugee solidarity networks (such as Refugees welcome). Investigating migrants' ICT patterns upon arrival to the Oresund Region, will provide new understandings regarding aid and solidarity initiatives as well as the emergence of communities of volunteers and migrants in a region considered by migrants as their final destination. As with subproject 2 there is no preceding pilot-study hence, part of the digital and ethnographic fieldwork is to identify the collectives present here.