MIGRATE: MIGRation pATterns in Europe

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Recent trends in migration

Worldwide (UNHCR - Global trends 2015):

**65.3 million** forcibly displaced people, meaning 34,000 people every day

**21.3 million** refugees, over half of whom are under the age of 18

**10 million** stateless people

The war in Syria produced **4.9 million registered refugees** by the end of 2015, more than from any other country in the world (source: UNHCR)

In 2015 **1,015,078 people have crossed the Mediterranean Sea** and **3771 people died** in their attempt to reach Europe.

In 2016 the number of arrivals by sea has reduced (333,940); however, still **3949 dead or missing people** have been registered (source: UNHCR)
MIGRATE – MIGRation pATterns in Europe

✓ A Web mapping application
  ▪ developed with a gamification approach
  ▪ based on open data
  ▪ available at http://geomobile.como.polimi.it/migrate

✓ Purposes:
  ▪ educating and raising awareness about the phenomenon of migration in Europe
  ▪ deriving insights on people’s perception of migration by analyzing the

✓ The application is funded under the third call of MYGEOSS project by the European Commission – Joint Research Center (JRC).
MIGRATE – The open data used

✓ MIGRATE makes full use of open-licensed data:
  - **OpenStreetMap (OSM)** - http://www.openstreetmap.org
    - license: ODbL
MIGRATE – The open data used

MIGRATE makes full use of open-licensed data:

  - licenses: CC BY, CC BY-IGO, CC BY-SA, ODbL, ODC-BY, PDDL, CC0
  - aggregated data on 2015 global trends & Mediterranean area
MIGRATE – The open data used

✓ MIGRATE makes full use of open-licensed data:

- **International Organization for Migration (IOM)** - [https://www.iom.int](https://www.iom.int)
  & **IOM Missing Migrants** project - [http://missingmigrants.iom.int](http://missingmigrants.iom.int)
  - licenses: CC BY, CC BY-IGO, CC BY-SA, ODbL, ODC-BY, PDDL, CC0
  - aggregated data on migration in Europe
MIGRATE – The open data used

✓ MIGRATE makes full use of open-licensed data:

- **The Migrants’ Files** - [http://www.themigrantsfiles.com](http://www.themigrantsfiles.com)
  - license: ODbL

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**The human and financial cost of 15 years of Fortress Europe**

The Migrants Files was a consortium of journalists from over 15 European countries. It was coordinated by *Journalism++.*

- Winner, Data Journalism Awards 2014
- Winner, European Press Prize 2015
MIGRATE – The open data used

- MIGRATE makes full use of on open-licensed data:
  - Eurostat - [http://ec.europa.eu/eurostat](http://ec.europa.eu/eurostat)
    - license: a customized open license policy
MIGRATE – The registration

- Playing the game requires a **free and anonymous registration**:
  - no sensitive information required – only nickname, password, gender, age range, country of origin, education level

![Registration Form]

- Nickname:
  - `demo`
  - Required. 30 characters or fewer. Letters, digits and @/./+/-/_ only.

- Password:
  - `**********`

- Gender:
  - `Male`

- Age range (years):
  - `25 - 34`
  - I hereby certify that I am 18 years of age or older.

- Country of origin:
  - `Italy`

- Education level:
  - `PhD degree`
MIGRATE – The game

✓ Each game is composed of 6 questions:
  ▪ 1 true/false question (select True or False)

The number of refugees who returned to their countries of origin was higher in 2015 than in 2014.

- TRUE
- FALSE

Submit
MIGRATE – The game

Each game is composed of 6 questions:
- 1 true/false question (select True or False)
- 2 multiple choice questions (select one out of four possible answers)
MIGRATE – The game

☑ Each game is composed of 6 questions:
  - 1 true/false question (select True or False)
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  - 2 map-based questions (select a country on the map)
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  - 1 text-based question (type a number)
MIGRATE – The game

Each game is composed of 6 questions:

- 1 true/false question (select True or False)
- 2 multiple choice questions (select one out of four possible answers)
- 2 map-based questions (select a country on the map)
- 1 text-based question (type a number)
  - 2 out of the 6 questions depend on the user’s country of origin
  - each question is extracted randomly from a set of 20 questions
MIGRATE – The game

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  ▪ 1 text-based question (type a number)
    ○ 2 out of the 6 questions depend on the user’s country of origin
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✓ A limited amount of time (30 seconds) is given to answer each question.

✓ After the user answers the outcome (right/wrong), the correct answer and its explanation and a link to the data source are provided.
MIGRATE – The game

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✓ After the user answers the outcome (right/wrong), the correct answer and its explanation and a link to the data source are provided.

✓ Computation of user’s score:
  ▪ single-game score: each type of question has a different weight and the time taken to answer is also weighted
  ▪ aggregated score (after multiple games): average score is computed and extra points are given as long as the user keeps on playing
MIGRATE – The technical architecture

✓ MIGRATE is fully based on **Free and Open Source Software (FOSS)**.

✓ Source code is available at [https://github.com/kilsedar/migrate](https://github.com/kilsedar/migrate)
  - EU Public License (EUPL)
  - instructions for deployment available
MIGRATE – The game

MIGRATE - MIGRation pARTners in Europe is a Web mapping application aimed at educating and raising awareness about the phenomenon of migration in Europe. This goal is achieved using a gamification approach, that means you will interact with the application by playing a map-based game, where questions are asked and answers are provided and explained about a number of topics related to migration. Your answers will help to understand the current knowledge and perception of migration-related issues. The source code of MIGRATE can be accessed here.

Each time you play, you will be asked 6 questions of different types: true/false questions, multiple choice questions, text-based questions (where you are required to enter a numerical value) and map-based questions (where you are required to select a country on the map). You will have only 30 seconds to answer each question. Questions will be focused on Europe. If you come from Europe, parts of the questions are customized according to the country you come from. To play the application, you need a user account.

Click here to create a new user account; if you already have an account, click here to login.

This application has been developed within the MYEOSS project, which has received funding from the European Union’s Horizon 2020 research and innovation programme. The JRC, or as the case may be the European Commission, shall not be held liable for any direct or indirect, incidental, consequential or other damages, including but not limited to the loss of data, loss of profits, or any other financial loss arising from the use of this application, or inability to use it, even if the JRC is notified of the possibility of such damages.

https://youtu.be/gaVMoG8m6jo
MIGRATE – Next steps

✓ Technical improvements of MIGRATE:
  ▪ security fixes
  ▪ form to download the data collected, available under an open license
  ▪ refinement of the scoring system

✓ First official campaign of MIGRATE:
  ▪ one month duration: from December 6, 2016 to January 6, 2017
    - official announcement during MYGEOSS final event in Brussels
  ▪ awards for the 10-15 top players (Amazon vouchers)
  ▪ advertisement required – please spread the word!

✓ User’s answers will be analyzed and studied
  ▪ at least an academic paper will be produced
MIGRATE – The team

Eng. Martina Aiello
data analysis

Prof. Maria Antonia Brovelli
idea, scientific consultancy, supervision of data and questions

Prof. Marco Gianinetto
scientific consultancy

Eng. Candan Eylül Kilsedar
technical manager, development of the application

Dr. Marco Minghini
project manager, data analysis, questions & answers

Eng. Mayra Alejandra Zurbarán Nucci
technical manager, development of the application
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