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Scientific foundations training and entrepreneurship activities in the domain of ICT-enabled Governance

[D4.1 Massive Open Online Courses (MOOC) Development]

Deliverable Form	
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Document description:	The purpose of this deliverable is to report on the development of the MOOC platform during the period M13-M30, which will host the online training material and activities generated through Work Package 3 of the project.

Partners

	University of the Aegean (UAEGEAN)	Greece
	United Nations University Operating Unit on Policy-Driven Electronic Governance (UNU-EGOV)	Portugal
	Universität für Weiterbildung Krems (Danube University Krems) - DUK	Austria
	Singular Logic Cyprus Ltd. (SILO)	Cyprus
	National E-Government Kompetenzzentrum (NEGZ)	Germany
	The Lisbon Council for Economic Competitiveness and Social Renewal asbl (Lisbon Council)	Belgium
	UNIVERSITETET I AGDER / Agder University (UiA)	Norway
	PricewaterhouseCoopers Business Solutions SA - PwC	Greece

Document History

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Draft v0.1	09/10/2020	Kostas Karavassilis, Singular Logic Cyprus Ltd. (SILO)	First Draft
Draft v0.2	21/10/2020	Yannis Charalabidis - Charalampos Alexopoulos, University of the Aegean	Internal Review
Final v1.0	21/10/2020	Kostas Karavassilis, Singular Logic Cyprus Ltd. (SILO)	Final Version

Executive Summary

The D4.1 Mooc Report serves as an overview and evaluation of the development of the MOOC platform which took place during the period M13-M30.

The MOOC report contains all the activities taken place in order to develop the platform which will host the online training material and activities generated through Work Package 3 of the project.

The areas addressed by this deliverable are the technical aspects of the MOOC development such as the site registration method, course enrolment method, course content and structure, dependencies, certificate etc.

Table of Contents

1. Introduction

1.1 Purpose and Scope of the MOOC Report

The purpose of this deliverable (D4.2 Mooc Report) is to report on the development activities undertaken by the Government 3.0 consortium during the period M13-M30. The document also takes into account suggestions made during 1st version of the MOOC (D4.1 - MOOC for Gov 3.0 1st version).

This document will provide information related to:

- Moodle platform
- MOOCs
- Authentication in the MOOC platform
- Students enrolment
- Course structure
- Contents of each course
- Different learning modes
- Issuing a Certificate

2. Moodle Platform

2.1 About Moodle

Moodle is a learning platform designed to provide educators, administrators and learners with a single robust, secure and integrated system to create personalised learning environments.

Moodle is built by the Moodle project, which is led and coordinated by Moodle HQ, which is financially supported by a network of over 80 Moodle Partner service companies worldwide.

Powering hundreds of thousands of learning environments globally, Moodle is trusted by institutions and organisations large and small, including Shell, London School of Economics, State University of New York, Microsoft and the Open University. Moodle's worldwide numbers of more than 213 million users across both academic and enterprise level usage makes it the world's most widely used learning platform.

2.2 Moodle Features

Moodle is a free, online Learning Management system enabling educators to create their own private website filled with dynamic courses that extend learning, anytime, anywhere.

Moodle's extremely customizable core comes with many standard features.

Some of Moodle's core features are:

- Modern, easy to use interface
- Personalized Dashboard
- Collaborative tools and activities
- All-in-one calendar
- Convenient file management
- Simple and intuitive text editor
- Notifications
- Track progress

2.3 Moodle Standards

Moodle is a global learning management platform that supports open standards, and is interoperable by design to enable integration of external applications and information onto a single Moodle platform.

Commitment to open standards means institutions and organizations can leverage Moodle to customize and extend features for any teaching and learning requirements, and benefit from increased cost efficiencies, flexibility, easier manageability along with performance and scalability advantages of using Moodle.

Moodle has achieved and is compliant with the following international standards:

- An Open Source Initiative
- IMS LTI™ Certified
- SCORM-ADL compliant
- Open Badges

2.4 Moodle and Interoperability

In supporting the seamless integration and use of content from different sources and multiple vendors, the Moodle platform is designed to exchange data using open industry standards for Web deployments, and supports:

Authentication using:

LDAP, the most widely used standard protocol for authentication.

Direct direct database lookup (e.g. in an external Oracle database), or on the Shibboleth protocol, or alternatively using IMAP, NNTP, CAS or FirstClass.

Enrolment using:

LDAP server (e.g. Active Directory)

IMS Enterprise standard (via a downloadable plugin).

Content using:

The import of Reusable Learning Objects, packaged according to the SCORM/AICC/IMS Content Packaging standards.

Moodle 1.9.5 is certified SCORM 1.2 compliant.

Moodle supports IMS Common Cartridge import and export

The use of XML for content import/export (standard in Moodle). The "web services" method of exchanging data with other systems (e.g. via SOAP or XML-RPC) is not yet standard - but is in active development.

Quiz questions:

Via import and export using a variety of formats.

RSS newsfeeds,

Integrated into a Moodle site or course.

Forum discussions, glossary entries and database content can be accessed as RSS newsfeeds, and therefore integrated into other RSS-capable websites or systems.

2.5   Moodle key terms

A Moodle site is made up of courses, which are, basically pages containing the learning materials teachers want to share with their students. A teacher in a Moodle course can select items from three different elements, which together assist in the learning process. They are Activities, Resources and Blocks.

2.5.1   Activities

An Activity in Moodle is a feature where students learn by interacting with each other or with their teacher. They might for instance contribute in a forum, upload an assignment, answer questions in a quiz or collaborate in a wiki. Activities can be graded.

A teacher can add activities by turning on the editing and choosing an activity by clicking Add an activity or resource in a course section. They then select an activity from the activity chooser. (If the activity chooser has been turned off, a drop down menu appears instead.) Activities usually appear in the central area of the course.

Moodle has a number of activities which come as standard and there are also extra ones available for download by the administrator. See Activities to find out more.

2.5.2   Resources

A Resource in Moodle is an item that a teacher can add to a Moodle course to support learning, such as a file, a video or link to a website. A resource differs from an activity in that it is static; i.e., the student can merely look at or read it, rather than participate.

A teacher can add resources by turning on the editing and by clicking Add an activity or resource in a course section. They then select a resource from the activity chooser. (If the activity chooser has been turned off, a drop down menu appears instead.) Resources usually appear in the central area of the course.

Moodle has a number of resources which come as standard and there are also extra ones available for download by the administrator. See Resources to find out more.

2.5.3   Blocks

A Block in Moodle is an item that a teacher can add to the left or right of a Moodle course page. They provide extra information or links to aid learning. Blocks are a bit like "widgets" elsewhere online and can contain; for example, RSS news feeds, quiz results, a calendar, links to blogs, glossary terms or private files. There is also a simple HTML block, which can be customised as the teacher wishes.

A teacher can add blocks by turning on the editing and choosing from the "Add a block" drop down which is usually on the bottom right side of the course page. Blocks usually appear on the sides of the course.

Moodle has a number of blocks which come as standard and there are also extra ones available for download by the administrator. See Blocks to find out more.

3. MOOCs

3.1 Introduction

Massive Open Online Courses (MOOCs) are free online courses available for anyone to enroll. MOOCs provide an affordable and flexible way to learn new skills, advance your career and deliver quality educational experiences at scale.

Millions of people around the world use MOOCs to learn for a variety of reasons, including career development, changing careers, college preparations, supplemental learning, lifelong learning, corporate eLearning & training, and more.

MOOCs have dramatically changed the way the world learns.

3.2 GOV3.0 MOOCs (WP4)

WP4: Massive Open Online Courses (MOOC) Development

The GOV3.0 MOOC is a Massive Open Online Course (MOOC) that runs on Moodle Platform.

The GOV 3.0 MOOCs are available through this link: https://moodle.gov30.eu/

It consists of 5 courses:

- Gov 1.0: Foundations of digital government
- Gov 2.0: Digital governance and engagement
- Gov 3.0: Towards data-driven and evidence-based decision and policy making
- Ethics and soft skills
- Entrepreneurship

After the successful completion of the five courses, students will get a certificate on "Basics of Digital Government Transformation" issued by the Erasmus+ Government 3.0 Consortium.

The GOV3.0 MOOC will cover all three stages of digital government evolution from the basics of information systems (IS), through Government 1.0 (digital transformation foundations) and Government 2.0 (collaborative government) to Government 3.0 (disruptive technologies in data-driven policy making and public service).

4. GOV3.0 MOOCs Features

4.1 Authentication

Authentication is the process of allowing a user to log in to a Moodle site with a username and password.

- **Email-based self-registration**

The email-based self-registration authentication method enables users to create their own accounts via the 'Create new account' button on the login page. They then receive an email at the address they specified in their account profile to confirm their account.

GOV 3.0

New account

Collapse all

Choose your username and password

Username

The password must have at least 8 characters, at least 1 digit(s), at least 1 lower case letter(s), at least 1 upper case letter(s), at least 1 non-alphanumeric character(s) such as as *, -, or #

Password

More details

Email address

Email (again)

First name

Surname

City/town

Country   Select a country

CREATE MY NEW ACCOUNT   CANCEL

There are required fields in this form marked ❶ .

4.2 Enrolment

Enrolment is the process of marking users as participants in the course, in other words assigning them a role such as student or teacher.

- Self-enrolment

Self-enrolment is the method whereby users can choose to enrol themselves into a course, either immediately by clicking "\enrol me in this course" or by typing in an enrolment key they have been given.

Basics of Digital Government Transformation

Digital transformation characterizes the attempt of modernizing government and public service provisioning through the use of information and communication technologies (ICT).

Teacher: Francesco MUREDDU

▾ Self enrolment (Student)

No enrolment key required.

ENROL ME

If a student enrols in: " Basics of Digital Government Transformation "

then it is automatically enrolled in all other courses needed for the certificate.

4.3 Certificate

Upon successful completion of the 5 courses the student can request to issue his Certificate.

It must also be 30 days since the student enrolled in the course before requesting his / her certificate.

The courses must be completed successfully in the following order:

- Gov 1.0: Foundations of digital government
- Gov 2.0: Digital governance and engagement
- Gov 3.0: Towards data-driven and evidence-based decision and policy making
- Ethics and soft skills
- Entrepreneurship

Each course is considered completed if the student has previously successfully completed all the activities of the course (Lecture, Complementary Notes, Quiz).

Upon completion of the 5 courses, the "activity" with which the student asks for his certificate to be issued is activated:
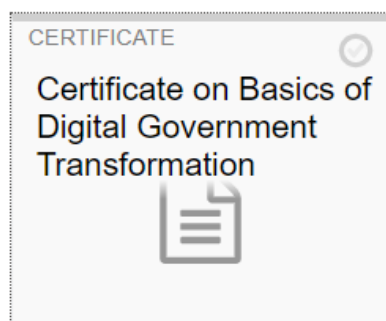
Finally, he presses the button: "GET YOUR CERTIFICATE" The certificate is also automatically sent to the student's email as an attachment:

Summary of previously received certificates

Issued
Wednesday, 8 April 2020, 10:13 PM

Click the button below and your certificate will be sent to you as an email attachment.

GET YOUR CERTIFICATE

The Government 3.0 Consortium CERTIFICATE:

The Government 3.0 Consortium
CERTIFICATE
THIS CERTIFIES THAT

Kostas Karavassilis

has completed the course

Basics of Digital Government Transformation

comprised of 32 training modules, equivalent to 3 ECTS or 6.0 Online Continuing Education Units

Topics
- Foundations of Digital Government
- Digital Governance and Engagement
- Towards data-driven and evidence-based decision and policy making
- Ethics and soft skills
- Entrepreneurship

April 8, 2020

Date Issued

On behalf of the consortium,
The Scientific Coordinator

Yannis Charalabidis
Professor of Digital Governance
University of the Aegean

Funded by the Erasmus+ Programme of the European Union

www.gov30.eu

4.4   Two learning modes

The GOV3.0 MOOC has two learning modes:

- The one that leads to the certificate and has been described in previous slides.
- And the "free mode" where the student can choose between 25+ modules for attend without any prerequisites.

4.5 Basics of Digital Government Transformation

This course leads to the acquisition of a certificate.

If a student enrols in: " Basics of Digital Government Transformation "

then it is automatically enrolled in all other courses needed for the certificate.

Basics of Digital Government Transformation

Digital transformation characterizes the attempt of modernizing government and public service provisioning through the use of information and communication technologies (ICT).

32 modules   🕐 64 hours

These are the 5 courses that are part of the "Basics of Digital Government Transformation" meta-course:

Gov 1.0: Foundations of Digital Government

The Gov 1.0 course addresses the foundations of digital government, including modules in the following topics: Introduction to electronic government (index, indicators, definitions), Digital Government (OOP, innovation, e-Id, etc.), Standardisation and interoperability (EIF, EIRA).

6 modules   🕐 12 hours

Gov 2.0: Digital Governance and Engagement

The Gov 2.0 course focuses o digital governance and engagement, including modules in the following topics: Digital transformation, Open Government and Data, E-Participation (e-consultation 2.0, e-democracy), Service co-creation & Social Media.

4 modules   🕐 8 hours

Gov 3.0: Towards data-driven and evidence-based decision and policy making	Ethics and soft skills	Entrepreneurship
The Gov 3.0 course encompasses data-driven and evidence-based decision and policy making, including modules like: Big Data, Smart City Government / IoT, Machine Learning/Data Mining and more.	This course includes modules related to Legal Foundations, including international and national laws regulating digital government, Sustainability and societal challenges and Ethics in disruptive technologies.	The Entrepreneurship courses will teach you basic knowledge about starting your own business. It will take you through how to organize your ideas, get to know your market and customers and develop products and services.
9 modules 18 hours	3 modules 6 hours	10 modules 20 hours

Each course includes modules as shown below:

- **Gov 1.0: Foundations of Digital Government**

Progress % 50	Progress % 50	Progress % 50	Progress % 0
1.1. Introduction to e-Government and Information Society Principles	1.2 Digital Government and Service Innovation	1.3 Standardization and Interoperability	1.4 e-Identity & e-Signature

Progress % 0	Progress % 50	Progress % 0
1.5 Once Only Principle	1.6 Cloud Computing	Evaluation of the course Gov 1.0: Foundations of Digital Government

- **Gov 2.0: Digital Governance and Engagement**

Progress % 25	Progress % 25	Progress % 0	Progress % 0	Progress % 0
2.1 Digital Government Transformation	2.2. Open Government Data	2.3 Service Co-creation & Social Media	2.4 e-Democracy & e-Participation	Evaluation of the course Gov 2.0: Digital Governance and Engagement

- **Gov 3.0: Towards data-driven and evidence-based decision and policy making**

Progress % 25	Progress % 25	Progress % 0	Progress % 0	Progress % 0
3.1 Machine Learning and Data Mining	3.2 Big Data Analytics & Datafication	3.3. Smart City Government & IoT	3.4 Algorithmic Government	3.5 Policy Modelling & Simulation
Progress % 25	Progress % 0	Progress % 50	Progress % 25	Progress % 0
3.6 Augmented Reality & Virtual Reality	3.7 Blockchain and Smart Contracting	3.8 Gaming Based Simulation	3.9 Natural Language Processing	Evaluation of the course Gov 3.0: Towards data-driven and evidence-based ...

- **Ethics and soft skills**

Progress % 25	Progress % 0	Progress % 25	Progress % 0
4.1 Legal Implications of Data-driven Decision Making	4.2 Ethics in Government	4.3 Sustainability Societal Challenges	Evaluation of the course Ethics and soft skills

- **Entrepreneurship**

Progress % 75	Progress % 50	Progress % 50	Progress % 25	Progress % 50
5.1 Introduction to entrepreneurship related to Digital Government	5.2 Disciplined entrepreneurship	5.3 Customer and Market	5.4 What can you do for your customer	5.5 How do you make money
Contents: File Progress % 50 Feedback 1	Progress % 75	Progress % 50	Progress % 75	Progress % 75
5.6 How do you design the product	5.7 Public sector innovation	5.8 Legal issues	5.9 Social innovation	5.10 Information Systems in Digital Governance & Entrepreneurship ...
Progress % 0				
Evaluation of the course Entrepreneurship				

4.6 Explore 25+ Modules

If a student wants to have access to more than 25 modules, he can enrol in this course. This course does not lead to the acquisition of a certificate. The student is free to attend any module he wants and in any order he wishes.

The modules included in this course are:

5.3 Customer and Market ✔	5.4 What can you do for your customer ✔	5.5 How do you make money ✔	5.6 How do you design the product ✔
5.7 Public sector innovation ✔	5.8 Legal issues ✔	5.9 Social innovation ✔	5.10 Information Systems in Digital Governance & Entrepreneurship ... ✔

4.7 Contents of each module

Each module consists of a Lecture, Complementary notes and a Quiz. Student must watch the lecture, read the notes and successfully answer all the questions of the quiz in order to complete the module.

Each module consists of a Lecture, Complementary notes and a Quiz. Student must watch the lecture, read the notes and successfully answer all the questions of the quiz in order to complete the module.

GOV 3.0

Question 1

Not yet answered

Marked out of 5.00

⚐ Flag question

⚙ Edit question

Which of the following statement(s) IS/ARE true?

Select one or more:

☐ a. Social media technologies are digital platforms, services and apps built around the convergence of content sharing, public communication, and interpersonal connection.

☐ b. The concept of digital is meanwhile commonly agreed upon and well-known.

☐ c. Digital government solely concerns the use of information technology to improve government operations, while services offered to citizens are covered by the area of E-Government.

☐ d. The widespread proliferation of the new Information and Communication Technologies (ICT) has spurred organizations across all sectors to develop strategies to harness and exploit the benefits

Quiz Navigation

Note: Make sure you select all of the correct options—there may be more than one!

| 1 | 2 |

Finish attempt ...

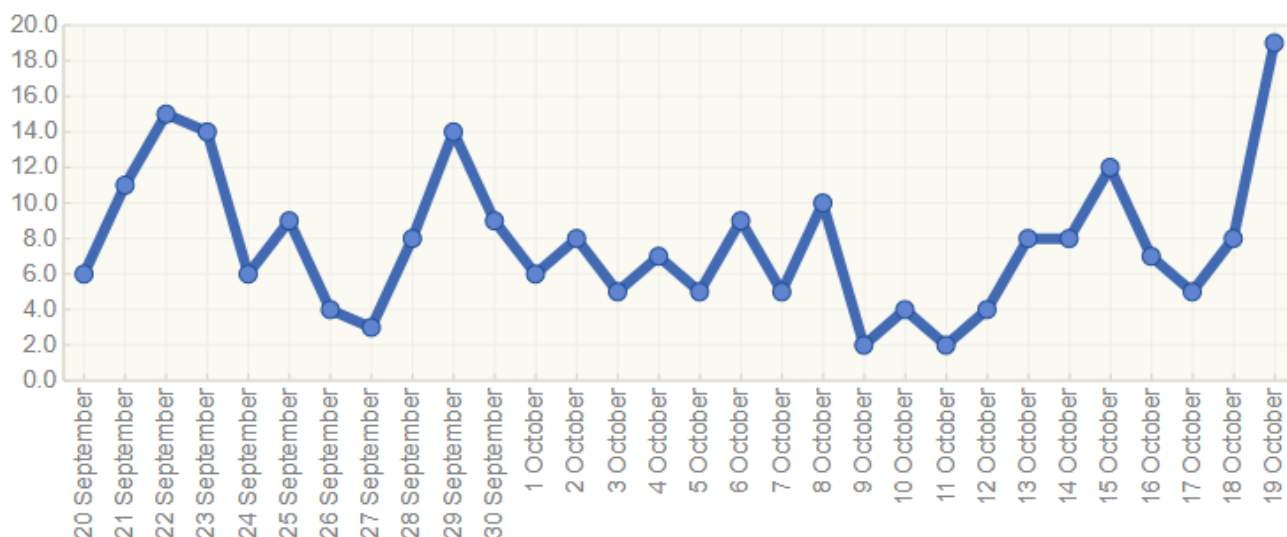START A NEW PREVIEW

5. GOV3.0 MOOCs Statistics

5.1 Overview statistics

This section presents statistics from the GOV 3.0 MOOC platform.

5.1.1 Users logging in per day

The chart below shows how many users logged in to the platform GOV3.0 MOOC each day, from September 20, 2020 to October 19, 2020.

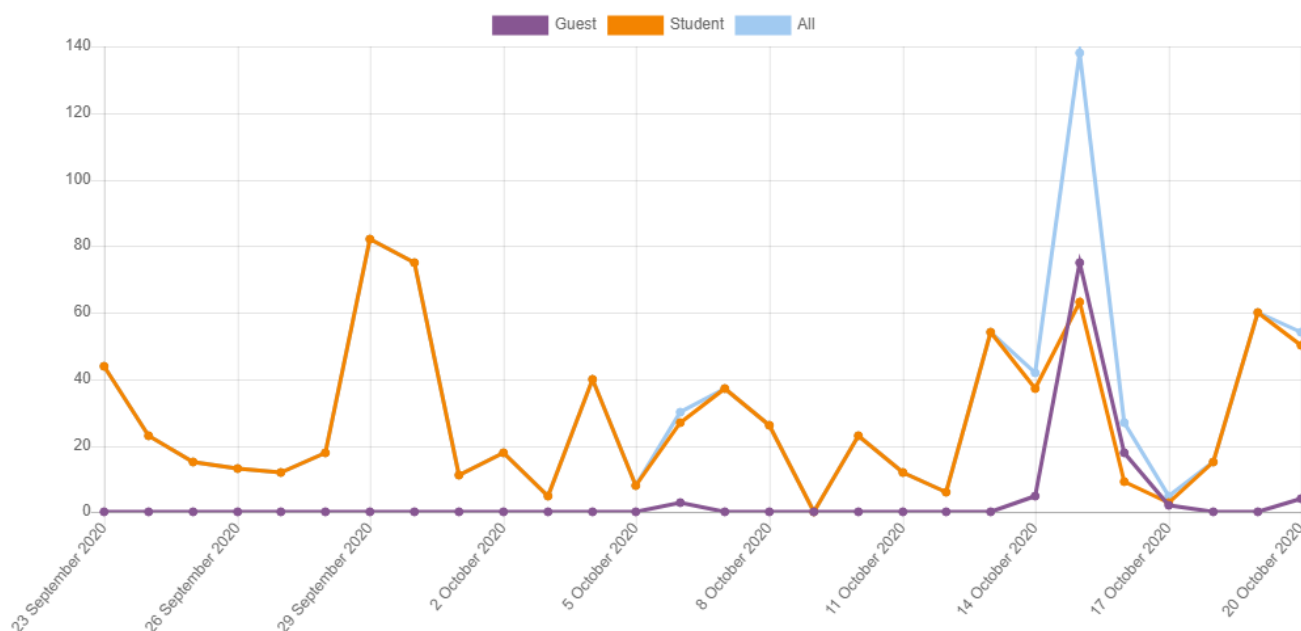## Users logging in
Per day

5.1.2   Users activity

The chart below shows all activities per Role for the course "Basics of Digital Government Transformation", from September 23, 2020 to October 20, 2020.
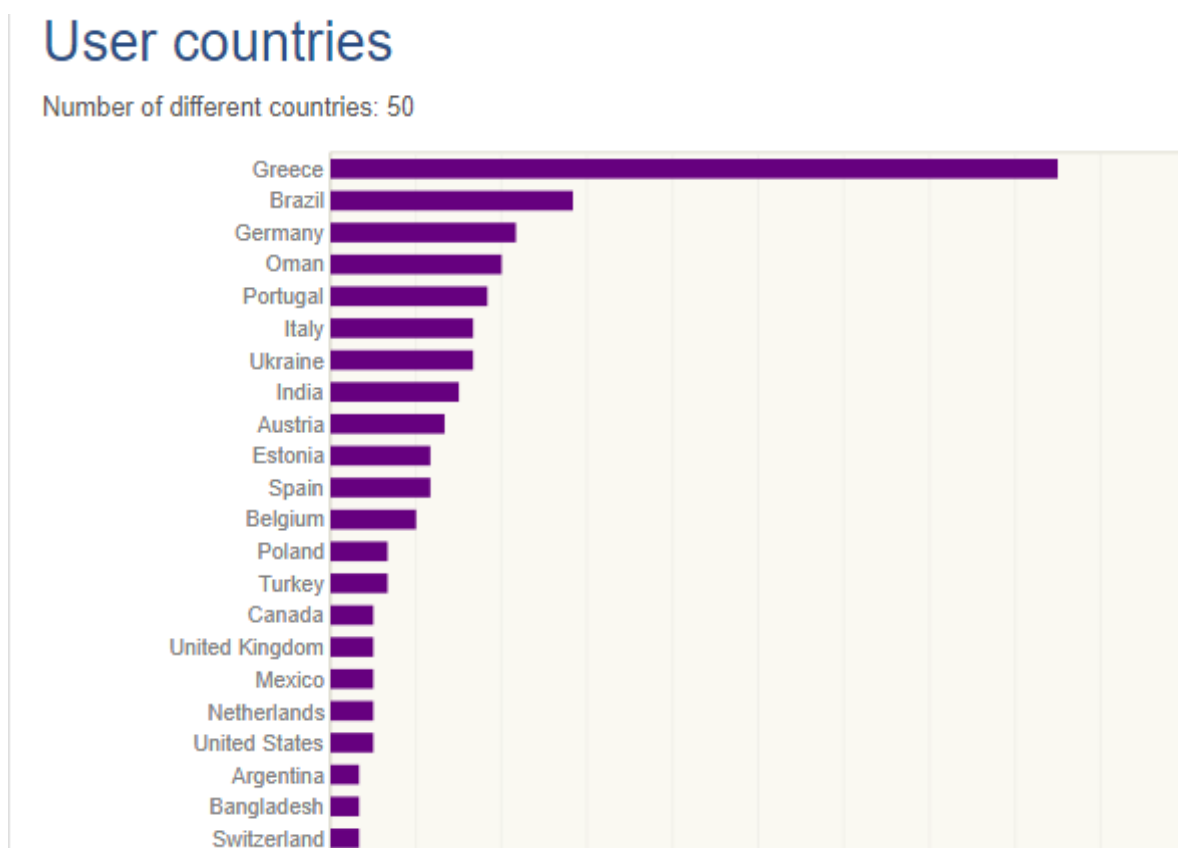
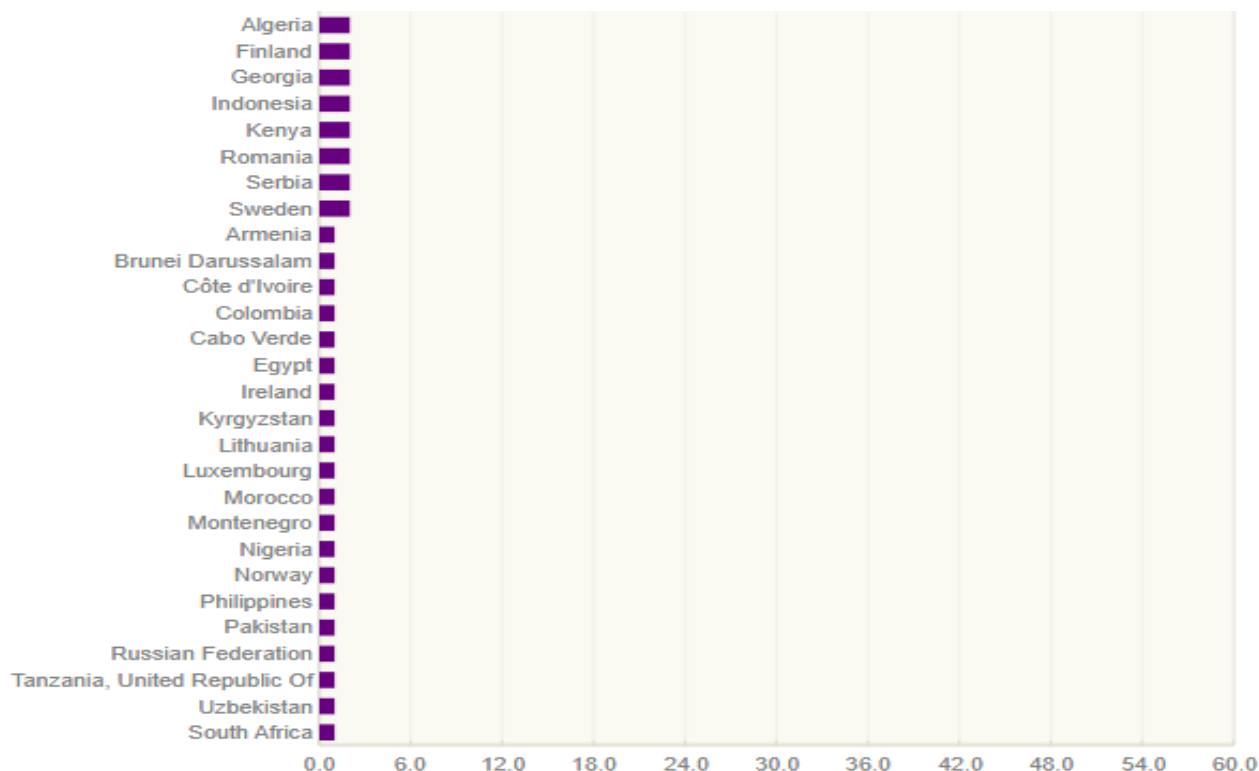### 5.1.3   User countries

The chart below shows the distribution of users in different countries.

5.1.4 Courses Completion Overview

Here are some statistics for the completion of the courses and the users of the GOV3.0 MOOC platform.*

*(These data are until 21/10/2020.)

- Total number of users: **250**

- Number of users that got a certificate: **26**

- Number of users per course (enrolments/Completed/Not Completed) :

Course name	Course enrolments	Completed	Not completed
Basics of Digital Government Transformation	179	26	153
Entrepreneurship	179	30	149
Ethics and soft skills	179	31	148
Explore 25+ Modules	0	0	0
Gov 1.0: Foundations of Digital Government	213	37	176
Gov 2.0: Digital Governance and Engagement	179	33	146
Gov 3.0: Towards data-driven and evidence-based decision and policy making	179	31	148