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¹ https://pro.europeana.eu/project/europeana-dsi-4

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1. Executive summary

In the past months, we were able to increase the content quality on Europeana Collections as a joint effort between EF and DSI aggregators. Up until February 2019, we increased tier 2+ material by 0.5% and tier 3+ material by 0.9%. It is still a challenge to measure tier progress automatically. We expect that from August 2019 onwards we will not only be able to provide tier statistics for content but also for the metadata in the Europeana repository.

Most popular content (based on number of visits in the reporting period) was curated content while we saw a mix of newly created and content online for a longer period. Newly published content received traffic mainly from social media and direct traffic being a result of communication and dissemination activities. Longer published content performed well in search engines. We saw that content has potential for a long lifespan if it combines high quality content and a topic of high interest to users.

Participatory activities were successful with 3,000 documents transcribed about 400 new users registered on Transcribathon.eu. Our collaborations with third party platforms DailyArt, GIPHY, Wikimedia) are excellent ways to promote cultural heritage material to users with millions of impressions on these platforms in the reporting period.

Our content had about 111,5 million total impressions on social media (Facebook, Twitter, Pinterest, Instagram, GIPHY) and we gained thousands of new fans/followers. Facebook, Twitter and Instagram show the importance of context and timing and the ability to react to external events while designing and planning social media content. While at the moment social media generates around 5% of traffic, the potential is high and we expect an increase, especially during seasonal campaigns.

Our efforts in the education market are flourishing with 230 new learning resources with Europeana data as well as additional stories of implementation by teachers in the classroom. The Europeana MOOC (EN/ES/PT) was well-received and participants' testimonials confirmed the positive impact of this learning resource with regard to pedagogical innovation and capacity building. Teachers are very satisfied with the Europeana offer with an excellent NPS of 63.

The evaluation confirms the importance of our various activities that bring cultural heritage material to audiences both on Europeana Collections and in particular using external platforms to promote content, to increase awareness, and to generate traffic to Europeana Collections.

2. Introduction

Europeana Collections provides access to almost 58 million digitised items – books, music, artworks and more from thousands of European archives, libraries and museums. We aim to give access to cultural heritage material that can be used by others for enjoyment, education and research.

One of the key objectives of Europeana DSI-4 is to offer content that is of the best quality possible. We measure content quality based on the Europeana Publishing Framework². We also continually add new content to Europeana Collections.

Various communications and dissemination activities raise awareness of and promote Europena's cultural heritage material. We promote high quality content on Europeana Collections and thematic collections. The user can experience editorials on Europeana Collections' landing pages and browse through galleries, blogs and exhibitions.

Currently 41.5% (23,901,996 items) of our content allows for free reuse and 21.8% (12,569,017 items) for limited re-use. Resulting in about 63.3% of our content that is available for reuse.

We use social media as a means of sharing cultural heritage material with European Citizens in the promotion of Europeana Collections and to support seasonal campaigns. Through participatory activities such as Transcribathon and GIFITUP and collaborations with third party platforms we aim to encourage people to engage with cultural heritage content. We measure success on social media and third party platforms by looking at number of impressions.

Cultural heritage material is also re-used by our partners in education, research and creative industries. Educators use our content to create learning resources, researchers for their studies (e.g. digital humanities), and digital entrepreneurs, designers, and developers in their digital creations and apps. We measure the success in the education market by looking at learning resources created using Europeana data, number of integrations of Europeana data in dynamic learning environments, and the satisfaction of teachers using Europeana Collections and its offers. For the research market we aim for Europeana data to be used and implemented in research infrastructures, and for the creative industries market we measure success by the number of new works, products or services using Europeana content.

This document describes our efforts towards content supply including data publication, data quality improvements, and standardisation. This is followed by looking at engagement

² https://pro.europeana.eu/post/publishing-framework

on Europeana Collections, and particular on most popular content; the various cases of content engagement on external platforms (e.g. Transcribathon.eu and social media); and cases of content re-use in our markets education, research and creative industries. The time period covered in this report is 1 September 2018 until 31 May 2019 (since the start of Europeana DSI-4).

3. Content supply

Europeana Foundation (EF) and aggregator partners support existing and new content holders with the organisational and expert knowledge needed to prepare and ingest high-quality datasets in Europeana Collections. This is done through training programmes, support for mappings, and by promoting the uptake of multilingual vocabularies and of Europeana frameworks and guidelines. In the reporting period, the consortium organised and participated in 23 outreach events and workshops (directly and via aggregators).

During Europeana DSI-4 the aggregating partners worked to date with a total of 130 different institutions from more than 24 countries that will eventually affect more than 10 million records in Europeana Collections. In the reporting period, we have updated a total of 3.9 million records in 143 datasets. A lot of new data was contributions for the Generic Services projects Rise of Literacy and Migration in the Arts and Sciences. EF also worked on resolving broken links and on a solution to systematically detect broken links that develop over time after the data being ingested. In the past months, we were able to increase the content quality on Europeana Collections.

Achievements of the DSI aggregating partners towards improving data quality are reported every two months in the progress reports (B.2 deliverables). Key achievements of the DSI aggregating partners include improvements of the mapping of their data to EDM (from sources schemas like LIDO or EAD), linking to open data vocabularies (e.g. DBpedia, AAT, Geonames) to enrich the data and provide more context, fixing broken links and adding richer descriptions. Most of these type of achievements will be measurable with the implementation of the metadata component of the Europeana Publishing Framework.

It is still a challenge to measure tier progress automatically. Therefore, the impact of the recent data publication work on our tier statistics can not be shown. We are now reprocessing the datasets and will be able to report tier progress in a more systematic way from August onwards. In addition, the conceptual work on the metadata component of the Europeana Publishing Framework has progressed to the extent, that from August on we will not only be able to provide tier statistics for content but also for the metadata in the Europeana repository.

High quality content on Europeana Collections

Quality assured ³	September 2018	May 2019
% of data in tier 2 or higher as a % of the total	48%	48.5% (Feb 2019)
% of data is in tier 3 or higher as a % of the total (eligible for reuse)	23.1%	24% (Feb 2019)

Data publication in Europeana Collections is primarily driven by Generic Services projects and Digital Service Infrastructure (DSI) commitments. The release of data for projects like Rise of Literacy, Migration in the Arts and Sciences and Byzantine Art had a priority in the last months to meet the commitments of the projects. Current Generic Service projects including for example, Common Culture, Europeana Archaeology, Biodiv will also bring new data into Europeana Collections with the aim to improve the thematic collections. Contributions of Europeana DSI aggregators will always be a key element for planning publication work.

One way to prioritise data publication due to actual demand would be to contribute to the seasonal campaigns of EF. This requires a sufficiently long lead time in order to source and prepare relevant content and metadata. The topics for seasonal campaigns need to be agreed at least 9 months in advance to give aggregators and CHIs enough time to respond and source relevant content. Without a long term planning for such seasonal campaigns it will be very difficult to prioritise data publication due to actual demand and for aggregators and Cultural Heritage Institutions (CHIs) to select and prepare data for delivery.

The Common Culture project, started in January 2019, will help to achieve the objective of having a geographically balanced representation of data resources referenced through the Europeana platform. Most of the EU countries have an aggregator represented in the project and data quality plans are being developed with the aggregators to agree on the amount of the data that will be updated or added during the project. The project will also help supporting aggregators in countries that are underrepresented in Europeana Collections to date so they are enabled to provide more high quality collections from the CHIs in their respective countries in the future.

Frameworks and guidelines

Europeana frameworks and guidelines help towards standardisation of data and metadata to ensure interoperability and also towards licensing of cultural heritage material.

To manage data and deliver it in higher quality to our audiences, we've developed two sets of guidelines (tiers) of participation in Europeana. The content tiers were developed in 2015

³ Data quality is defined by the Europeana Publishing Framework. https://pro.europeana.eu/post/publishing-framework

and the metadata tiers added in 2018. In the past months, we continued to work on the metadata component and concluded the refined definition of the metadata tiers⁴.

The implementation of the RightsStatements.org rights statements - which make up half of the available rights statements⁵ data partners can use - continued to grow organically in the past months. This growth is driven primarily by translation efforts by partners within the Europeana Network. The number of translations covering Member State languages has risen to 11 in total (English, Polish, Estonian, Finnish, German and Spanish are operational, French, Finland-Swedish, Swedish, Lithuanian and Portuguese are in development).

4. Content engagement on Europeana Collection

On Europeana Collections the user can search for content via our search box, explore and search for content by theme via thematic collections, and access content by browsing through for example galleries, blogs and exhibitions.

Below are the top five items/record pages with most page views in the reporting period.

Top five items/record pages in the period between September 2018 and May 2019

Title	Page views
Liggende Venus met Amor en Anteros ⁶	2,796
Escultura sedente ⁷	2,385
Biography. Hilarion Rubio ⁸	2,273
Udslidt ⁹	2,162
Diego Abatantuono e la moglie Giulia Begnotti seduti accanto ad un bancone da bar ¹⁰	1,930

Four out of the top five results were accessed through organic search while the top one 'Liggende Venus met Amor en Anteros' received traffic mainly from Pinterest. This points to the value of Pinterest for promoting individual items to generate traffic.

https://www.europeana.eu/portal/it/record/08602/NonAVCreation_luce_it_IL_NonAVCreation_Master13339IT_IL_FT00001_0000494_1.html

⁴ https://pro.europeana.eu/post/publishing-framework

⁵ https://pro.europeana.eu/page/available-rights-statements

⁶ https://www.europeana.eu/portal/en/record/90402/RP_P_1904_1946.html

https://www.europeana.eu/portal/es/record/2022703/oai_euromuseos_mcu_es_euromuseos_MAECO_CE02904 3.html

⁸ https://www.europeana.eu/portal/en/record/91401/oai_ircam_fr_grove_24058.html

⁹ https://www.europeana.eu/portal/da/record/2063604/DEN_280_018.html

Exhibitions¹¹

Exhibitions are long-form narratives that aim to engage readers with their stories and top-quality imagery. Exhibitions are known to be excellent traffic generators, giving users a learning experience and ability to share it on social media.

In the period between September 2018 and May 2019 we published three exhibitions. User satisfaction is one of our KPIs. Exhibitions published so far under Europeana DSI-4 received an excellent NPS of 49¹² (average).

Most popular exhibitions (based on visits) in Europeana DSI-4 are listed in the table below:

Top three exhibitions in the period between September 2018 and May 2019

Title	Theme	Date of publication	Visits	NPS
Pioneers ¹³	Diverse	2019 (March)	32,559	67
Art Nouveau - A Universal Style ¹⁴	Art	2017 (February)	28,256	55 (based on survey 2017)
Faces of Europe - Baroque and Enlightenment ¹⁵	Art	2016 (September)	17,982	36 (based on survey in 2016)

Out of the three most popular exhibitions, only the top performing Pioneers was published in the reporting period. The three most visited exhibitions were all part of Europeana's annual campaigns or part of the in 2019, newly introduced seasonal concept. All these exhibitions benefited from extensive and dedicated promotional support. Content coming from campaigns and seasons has potential for a much longer lifespan if it combines high quality content and a topic with a big search volume (a topic that is of high interest to users and gets a high amount of searches executed for a specific keyword). The newly published exhibition received traffic mainly from social and direct sources being a result of communication and dissemination activities. The older exhibitions received most of the visits from organic search in Google, confirming the SEO potential of the editorials. As for every piece of curated content created, we do a keyword research and optimize titles, we expect that more content will achieve a more prominent position in Google search results over time.

¹¹ https://www.europeana.eu/portal/en/exhibitions/foyer

¹² A Net Promoter Score (NPS) that is positive (e.g. higher than zero) is felt to be good while an NPS of +50 is excellent.

¹³ https://www.europeana.eu/portal/en/exhibitions/pioneers

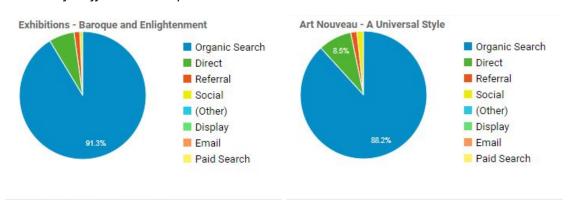
¹⁴ https://www.europeana.eu/portal/en/exhibitions/art-nouveau-a-universal-style

¹⁵ https://www.europeana.eu/portal/en/exhibitions/faces-of-europe

Sources of traffic to recently published exhibition



Sources of traffic to earlier published exhibitions



Galleries¹⁶

Galleries are curated sets of items based on a theme. Top five galleries based on numbers of visits are listed below.

Top five galleries in the period between September 2018 and May 2019

Title	Theme	Date of publication	Visits
European Landscapes and Landmarks ¹⁷	Art	05/09/2017	4,247
Keyboards	Music	24/05/2018	2,281
Autumn in Art	Art	24/09/2018	2,258
Early depictions of musical instruments	Music	19/06/2018	1,798
Art by female artists	Art	3/04/2017	1,739

¹⁶ https://www.europeana.eu/portal/en/explore/galleries

¹⁷ https://www.europeana.eu/portal/en/explore/galleries/european-landscapes-and-landmarks

'European Landscapes and Landmarks' was promoted on a regular basis on multiple occasions related to Europe and the European Union in the reporting period. Art by female artists was promoted during Women's History Month in March 2019. Each of the top performing galleries was featured as #GalleryOfTheWeek. Particular popular were galleries featuring artworks and musical instruments. As previously seen with exhibitions, galleries that are online for a longer period remain popular.

Blogs

Blogs are short editorial pieces that illuminate a particular topic - they can tell a story of individual artists, artworks or institution. Top five blogs are listed below.

Top five blogs in the period between September 2018 and May 2019

Title	Theme	Date of publication	Page views
Marco Polo – the man who brought China to Europe ¹⁸	Manuscripts, Maps and Geography	09/01/2014	6,574
The story of Monopoly: how Charles stole Lizzie's idea and made his fortune ¹⁹	Diverse	14/03/2019	5,435
Liberation skirts: how post-war upcycling became a symbol of female solidarity ²⁰	Fashion	03/05/2019	4,539
#5WomenArtists: celebrating female artists from across Europe ²¹	Art	08/03/2017	4,148
Francis Bacon, Shakespeare and Secret Societies ²²	Diverse	22/01/2013	4,063

Among the most popular blogs, we see a mix of newly created and recently promoted content and content we repromoted in relevant timing (e.g. #5 Women artist during the Women's History Month). Longer published pieces performed well in search engines. This

http://blog.europeana.eu/2019/03/the-story-of-monopoly-how-charles-stole-lizzies-idea-and-made-his-fortune/

http://blog.europeana.eu/2019/05/liberation-skirts-how-post-war-upcycling-became-a-symbol-of-female-solidar itv/

¹⁸ http://blog.europeana.eu/2014/01/marco-polo-the-man-who-brought-china-to-europe/

²¹ http://blog.europeana.eu/2017/03/5womenartists-celebrating-female-artists-from-across-europe/

²² http://blog.europeana.eu/2013/01/francis-bacon-shakespeare-and-secret-societies/

might be due to well known names in the title, a topic interesting for multiple potential audiences and that the item was findable through Google Search.

5. Content engagement on external platforms

5.1 Transcribathon.eu

Transcribathon.eu produces transcriptions of documents and send the text back to the providing cultural heritage institution, to make their contents more accessible. Currently, Transcribathon.eu transcribes stories and official histories of the First World War (Europeana 1914-1918).

Under Europeana DSI-4, we organised participatory events to promote the value of digital cultural heritage to European citizens. Five Transcribathons (either online or physical) were organised in cooperation with heritage institutions throughout Europe (Germany, Italy, Belgium, Austria, Romania). In the period almost 3,000 documents were transcribed and the platform gained about 400 new users. Main outcomes in Europeana DSI-4 are summarised in the table below.

Metrics from Transcribathon.eu comparing September 2018 with May 2019

Туре	September 2018	May 2019
Documents (pages available to be transcribed)	c. 38,9K	c. 52,1K
Documents completed	c. 11,3K	c. 14,2 K
Documents in progress	N/A	c. 15,5 K
Registered users	c. 1,6K	c. 2,0 K

5.2 Third party platforms

EF continues to collaborate with third party platform and apps to bring cultural heritage to new and wider audiences. We partnered with DPLA, Digital NZ and Trove organising the annual GIF IT UP competition now in its 6th year. Through a partnership with Dailyart we bring curated content to over 700,000 artlovers across the world.

DailyArt²³

Throughout the month of March, we published four paintings by women artists in the DailyArt app (over 700,000 users) and wrote four guest articles for the DailyArt Magazine featuring women. The four paintings presented in the app received over 1,4 million views.

Views of the paintings (by unique users) on the day of the publication

Title	Date	Views
Boy playing the Flute	03/03/2019	353,053
Out into the World	10/03/2019	373.490
A Funeral	17/03/2019	340.667
Portrait Group with the Artist's Father Amilcare Anguissola, Brother Astrubale and Sister Minerva	24/03/2019	344.404

Wikimedia

EF commenced its work to use selected blog posts and provide footnotes/references to Wikipedia articles (for example Iberians²⁴). This method serves to improve the quality of the third-party site while also increasing the reach of material available on Europeana Collections in compliance with the editorial policies of both. Under Europeana DSI-4 so far we used nearly all EF blog posts published within this period as references within English Wikipedia articles. Especially blogs written by network partners - are being consistently mined for references to improve Wikipedia articles. This increases the re-use of the information, its visibility, and its referral rate. Limited exceptions are for when the existing Wikipedia article is already peer-reviewed as very high quality (so as not to be seen as 'overwriting' existing community-generated content, or 'list' format blogs). The blogpost *National Feestrok* was used to create an entire new Wikipedia article²⁵, which when featured on the Wikipedia main page for a day received 12,000 views.²⁶

Content in the category 'Europeana' on Wikimedia generated 118,430,867 impressions so far under Europeana DSI-4.

GIF IT UP27

Since 2015, we organise annual GIFITUP competitions with the aim to increase our reach to new and wider audiences and to promote the engagement with Europeana content. We collaborated with international partners including DPLA (Digital Public Library of America),

http://blog.europeana.eu/2019/05/liberation-skirts-how-post-war-upcycling-became-a-symbol-of-female-solidar ity/ and Wikipedia entry: https://en.wikipedia.org/wiki/National_liberation_skirt

²³ http://www.dailvartmagazine.com/author/europeana/

²⁴ Europeana blog: http://blog.europeana.eu/2018/11/the-history-of-the-iberians/ and Wikipedia entry: https://en.wikipedia.org/wiki/lberians

²⁵ https://en.wikipedia.org/wiki/National_liberation_skirt

²⁶ Europeana blog:

²⁷ https://giphy.com/europeana

Digital NZ (New Zealand), Trove (National Library of Australia), and the leading online GIF site GIPHY to run and promote the competitions.

To date we have 300 GIFs created with Europeana content which generated about 81 million impressions on the GIPHY platform and various social media channels and messaging applications between September 2019 and May 2019. Given that many GIFs are being used on social media and in messaging applications (such as WhatsApp, Telegram, Facebook Messenger) to express emotions, majority of the most popular GIFs are the ones representing facial expressions such as smile, wink or eyeroll. While during the contest itself, the creativity and artistic value of the GIF is most important, during the rest of the year, the GIFs which express emotions perform the best.

5.3 Social media

We make strategic use of social media as a means of sharing cultural heritage material with European Citizens in the promotion of Europeana Collections and to support seasonal campaigns. Social media (e.g. Facebook, Pinterest, Instagram) enable us to place culture right where people are most likely to make use of it, reaching them in their online activities and via their communities of interest.

Our activities on social media are very successful with about 111,5 million total impressions on social media (Facebook, Twitter, Pinterest, Instagram, GIPHY) so far under Europeana DSI-4.

Facebook²⁸

We publish new posts on Facebook daily. During Europeana DSI-4 we gained about 2,876 new fans. Most popular posts in the reporting period based on impressions are listed below.

Top five most popular posts on Facebook in the period September 2018 and May 2019

Title	Туре	Date of publication	Impressions
Pioneers exhibition	Exhibition	12/03/2019	547,626
Women's Peace Party	Blog	17/03/2019	426,507
#5WomenArtists	Blog	01/03/2019	413,143
Madame de Staël	Blog	12/03/2019	366,601
Monopoly	Blog	14/03/2019	351,440

²⁸ https://www.facebook.com/Europeana/

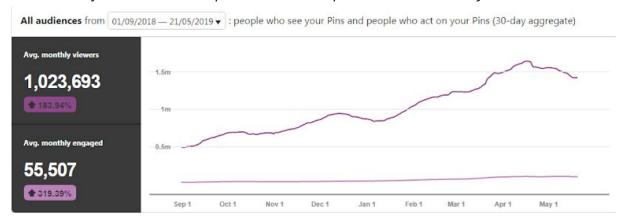
All the top posts were part of Women's History Month in March, a global initiative bringing attention to women's role in different aspects of history and society. This proves the importance of taking advantage of context and timing while designing and planning social media content. We can also see that the most popular content was exhibitions and blogs which is a result of our strategy of using Facebook as an entry point to Europeana Collections. In this way, the users not only discover and engage with the content featured in the post, but are invited to explore more curated content on Europeana Collections. This method doesn't work with simple records as the social media post provides context and usually contains more information than the record itself. During Europeana DSI-4, Facebook generated 76,573 visits to Europeana Collections which is equal to around 2,25% of total traffic. This number has a potential to grow along with an increase of available high quality curated content.

Pinterest²⁹

Several times a week we add pins on Pinterest. Boards showcase content related to themes such as time periods, artists, art & design movements, types of objects, and animals. During Europeana DSI-4 we could gain about 3,349 new followers. Currently, a user can access more than 10,000 pins organised in more than 270 boards.

Users on Pinterest are highly engaged with Europeana content with continually increasing monthly viewers and engaged users (see graph below). In May, Europeana content had about 1.4 million viewers and 97.8 thousand engaged users on Pinterest. It has to be noted that most engagement (pins and repins) of Europeana content happened on other boards than the Europeana's own boards. The high visibility of our content on Pinterest, the number of new followers gained on our profile, as well as the growth over time show that Pinterest is a valuable platform for cultural heritage material. Pinterest users by nature might be collectors of items searching for new pins towards their interests, which might motivate them to explore Europeana Collections further.

User metrics for Pinterest in the period between September 2019 and May 2019



²⁹ https://www.pinterest.de/europeana/boards/

In general, our users on Pinterest are mostly interested in home decor, design and crafts, art, and women's fashion corresponding to content we showcase on Europeana boards. Top items pinned from Europeana Collections by users are related to fashion, jewellery and design. Pinterest generated 40,510 visits to Europeana which is equal to 1.19% of total traffic to Europeana Collections. We expected this number to grow proportionally to the number of objects from Europeana pinned by users.

Twitter

We tweet from our account at least once per day, usually multiple times per day. We use Twitter to both engage the users with the content as well as keep in touch with the partners and stakeholders. During Europeana DSI-4 we gained 2,248 new followers.

Title	Туре	Date of publication	Impressions
#WomenInScience Day - Pioneers exhibition	Exhibition, a special day	11/02/2019	50,085
Josephine Baker	Blog (trending topic because of the upcoming birthday)	30/05/2019	34,427
Europeana turns 10/favourite thing about Europeana	blog	20/11/2019	30,807
Europeana turns 10/gallery about singing and dancing	#GalleryOfTheWeek	19/11/2019	28,835
Europeana turns 10 - online birthday party	celebration	20/11/2019	25,733

The best performing tweets were related to two topics - Women's History and Europeana turning 10. The top performing posts combined Europeana content with trending or important events which were relevant to several audiences. Twitter generated 10,371 equal to around 0,3% of total traffic to Europeana Collections.

Instagram³⁰

We have started our activity on Instagram in February 2019. The best performing posts are photographs by Julia Margaret Cameron and artworks related to Women's History Month. The presence of the Notre Dame photo within the Top 10 shows the importance of the context and the ability to react to external events. Top items had between 1,000 and 3,000 views.

³⁰ https://www.instagram.com/europeana_eu/

Since February, Instagram generated 304 visits to Europeana Collections while Instagram Stories generated 533 visits. Especially, as the platform offers very limited linking opportunities, we consider it a good result. The potential of the platform will be further explored through optimising our daily posts, and also through an extensive use of Instagram as part of seasons and in the promotion of exhibitions.

Most viewed Instagram posts



6. Content engagement in re-use markets

6.1 Application Programming Interfaces (APIs)

EF provides and develops multiple API endpoints for software clients to interact with the platform. The Europeana REST API allows users to build applications that use the wealth of cultural heritage objects available on Europeana Collections. We collect monthly usage statistics for the Europeana REST API³¹. From these statistics we derived two metrics to identify how many active users the Europeana APIs has: 1) Number of API keys that exceeded the average of 5 calls a day; 2) Number of API keys that were active for more than 5 days in each month.

Usage statistics for the REST API in the period September 2018 and May 2019

,	
	Number of API keys that
Period	

³¹ https://pro.europeana.eu/page/europeana-rest-api

	exceeded the average of 5 calls a day	were active for more than 5 days in each month
September 2018	66	65
October 2018	72	55
November 2018	71	74
December 2018	73	70
January 2019	76	70
February 2019	74	74
March 2019	69	72
April 2019	65	62
May 2019	75	71

Usage statistics for the REST API kept fairly stable in the reporting period. In this period we had in total 441 sign-ups/requests for the REST API key. The REST API has a stable usage with on average about 71 API keys that exceeded the average of 5 calls a day and on average about 68 API keys that were active for more than 5 days in each month in this period. All our APIs received a total of 47,415,116 requests in April and 57,082,503 requests in May.

6.2 Europeana Education

We embed relevant Europeana resources in various educational systems to increase awareness about the educational value of digital cultural data and to increase the use of digital learning resources with Europeana content in the classrooms and other educational projects. We work closely with three types of partners - governmental (Ministries of Education), commercial and noncommercial educational partners.

During Europeana DSI-4, we had one³² new integration of Europeana data in virtual learning environments (API integration on the Portuguese educational portal Direção-Geral da Educação (DGE). Through the collaboration with our key noncommercial partners EUN and EUROCLIO we developed 227 new learning resources with Europeana data. We evaluated the satisfaction rate with Europeana on the education market by surveying teachers using Europeana with an excellent NPS of 63.

³² http://erte.dge.mec.pt/europeana-pesquisar

Learning resources and metrics in the period September 2018 and May 2019

Туре	Amount	Metrics	Comments
Learning scenarios	159	See <u>Teaching with</u> <u>Europeana</u> detailed blog stats and Future Classroom Labs stats	From the Teacher Ambassadors, User Group and MOOCs combined
Stories of implementations (Sol)	16	See Teaching with Europeana detailed blog stats	Implementations of the learning scenarios in schools
Massive Open Online Course (MOOC) ³³	3 (EN/ES/PT)	English (EN) 3,011 registrations 627 certificates 55 countries 50 learning scenarios Spanish (ES) 371 registrations 34 certificates 7 countries 12 learning scenarios Portuguese (PT) 278 registrations 39 certificates 6 countries 20 learning scenarios	English MOOC satisfaction rate: 98% rated the overall value of the course as "Good" or "Very good" 95% would recommend the course to a colleague or a friend
Webinars Europeana Teachers Ambassadors	23	13 countries (Croatia, Italy, Greece, Hungary, European Schools/Belgium, Poland, Romania, Turkey, Portugal, Spain, Finland, Malta, France) 450+ teachers and ca. 8.000 students reached	Most attended webinars in Croatia, Italy, Greece, Hungary
Teach with Europeana blog ³⁴	1	16,586 pageviews 7,685 unique pageviews 2,050 unique visitors Average visit duration: 56 seconds	Google Analytics stats for the period 1 May till 4 June 2019. More details in the section below.

https://pro.europeana.eu/page/rerun-of-europeana-in-your-classroom-building-21st-century-competences-with -digital-cultural-heritage-1

34 https://teachwitheuropeana.eun.org/

Historiana Source Collections Historiana eLearning Activities	12	Top 5 countries per blog visits: Italy, Hungary, Portugal, Greece, United States Historiana 8,661 page visits Average visit duration: 5 min 14 sec Over 85% of the traffic comes from Europe. Top 5 countries are the Netherlands, Croatia, Turkey, Italy, Spain Source collections: 1,581 page views eLearning activities 962 views Search & Select (API) 2,673 queries	These stats are general stats for the whole Historiana website for the period 1 September 2018 - 31 May 2019.
Teacher Training Kit	1	30 downloads (v1.0) Updated version as of May 2019	For the reporting period 1 September 2018 - 31 May 2019
Total	227		

In addition to the above mentioned learning resources, we also received six school projects as a result of the joint HackCultura contest with the DiCultHer network, ICCU and INDIRE. The competition³⁵ ran between October 2018 and April 2019 and invited Italian students to create multimedia projects with Europeana content.

Teaching with Europeana blog stats

Most visited pages on the 'Teaching with Europeana blog' towards landing pages, learning scenarios and stories of implementation are shown in the table below. Comparing the number of visits with the number of page views we can see that in average users are engaged with 1-2 pages further viewed and an average time spend of almost one minute.

Most visited pages on the 'Teaching with Europeana blog'

³⁵

Pages	Total pageviews	Visits	Average time (in seconds)
LANDING PAGES			
Homepage ³⁶	2,928	1,303	58.80
Europeana Education Competition 2019 ³⁷	2,509	1,197	59.93
Learning Scenarios ³⁸	2,097	844	35.26
Stories of Implementation ³⁹	903	338	31.81
Updates ⁴⁰	367	176	33.69
LEARNING SCENARIOS			
In love with Africa (LS-IT-29) ⁴¹ , published April 2019	272	121	71.49
Oil in Ancient Egypt (LS-IT-35) ⁴² , published May 2019	262	127	37.32
STEM in Sports and Dance (LS-MT-33) ⁴³ , published May 2019	250	111	60.31
STORIES OF IMPLEMENTATION			
Implementation of The Power of Voice and Brush (SOI-TR-12) ⁴⁴ , published April 2019	129	64	51.04
Implementation of 'Changing role of women in early 20th century' (SOI-GR-13) ⁴⁵ , published May 2019	105	50	61.77

https://teachwitheuropeana.eun.org/stories-of-implementation/implementation-of-the-power-of-voice-and-brush-soi-tr-12/

https://teachwitheuropeana.eun.org/stories-of-implementation/implementation-of-changing-role-of-women-inearly-20th-century-soi-gr-13/

³⁶ https://teachwitheuropeana.eun.org/

³⁷ https://teachwitheuropeana.eun.org/updates/competition-results-2019/

³⁸ https://teachwitheuropeana.eun.org/learning-scenarios/

³⁹ https://teachwitheuropeana.eun.org/stories-of-implementation/

⁴⁰ https://teachwitheuropeana.eun.org/updates/

⁴¹ https://teachwitheuropeana.eun.org/learning-scenarios/in-love-with-africa-ls-it-29/

⁴² https://teachwitheuropeana.eun.org/learning-scenarios/oil-in-ancient-egypt-ls-it-35/

⁴³ https://teachwitheuropeana.eun.org/learning-scenarios/stem-in-sports-and-dance-ls-mt-33/

Implementation of The Power of Voice and Brush (SOI-HR-10) ⁴⁶ , published April 2019	96	40	53.64
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Users were also engaged by downloading files from the Teaching with Europeana blog (106 files between 1 May and 4 June).

Items downloaded most on the 'Teaching with Europeana blog'

Resource title	Number of downloads
Europeana Learning Scenario - Jobs in the Past ⁴⁷	19
Europeana Learning Scenario - In Love With Africa ⁴⁸	15
Europeana Learning Scenario - Europe and Me ⁴⁹	11

Europeana learning scenarios on Future Classroom Lab⁵o

The table below shows the number of visits to each of the 14 learning scenarios that were developed by the 13 Europeana Ambassadors from 18 December 2018 (time of uploading) to 31 May 2019. Many of the scenarios focused on the First World War, at least partly due to our efforts in featuring the Europeana 1914-1918 collection as useful learning resource.

Europeana learning scenarios on Future Classroom Lab and usage metrics

Resource title	Unique pageviews	Total pageviews
Vintage VR ⁵¹	220	240
Europeana Living Museum ⁵²	151	172
Time Travel Agency ⁵³	143	153
The Great War through children's eyes ⁵⁴	124	139

⁴⁶

https://teachwitheuropeana.eun.org/stories-of-implementation/implementation-of-the-power-of-voice-and-brush-soi-hr-10/

https://teachwitheuropeana.eun.org/files/2019/03/Europeana-DSI-4-Learning-Scenario-Sari-Hopeakoski-1.pdf http://blogs.eun.org/teachwitheuropeana/files/2019/01/LS_talian_UG_in_love_with_africa.pdf

https://teachwitheuropeana.eun.org/files/2019/03/Europeana-DSI-4-Story-of-Implementation-Geanina-Turcanu-Romania.doc

⁵⁰ The following data have been collected via the Future Classroom Lab repository analytics. http://fcl.eun.org/directory

⁵¹ http://fcl.eun.org/directory/details?contentId=1514

⁵² http://fcl.eun.org/directory/details?contentId=1512

⁵³ http://fcl.eun.org/directory/details?contentId=1513

⁵⁴ http://fcl.eun.org/directory/details?contentId=1510

Europe and me ⁵⁵	118	137
Birds are singing! ⁵⁶	103	111
Using arts to reconstruct a volcanic eruption ⁵⁷	85	90
Postwar Romania ⁵⁸	68	80
Letters & postcards from war times ⁵⁹	66	73
Migration Socratic Seminar ⁶⁰	63	71
Changing role of women in the early 20 th century ⁶¹	54	60
The power of voice and brush ⁶²	49	61
Life on the trenches – a VR experience ⁶³	44	53
Exploring and questioning philosophical ideas through images ⁶⁴	37	42

Institutional partners: ministries

EF established collaborations with Ministries of Education. Main outcomes of these collaborations include the representation of Europeana and selected Europeana resources on their national educational portals and API integration. Below some metrics for France and Spain.

Usage metrics of institutional partners: ministries

Website	Visitors	Visits	Pageviews
Ministry of France ⁶⁵			
Europeana space on Edutheque ⁶⁶	962	991	1148
Eduscol ⁶⁷	379	396	454
Ministry of Spain			

⁵⁵ http://fcl.eun.org/directory/details?contentId=1506

http://fcl.eun.org/directory/details?contentId=1508

⁵⁷ http://fcl.eun.org/directory/details?contentId=1509

⁵⁸ http://fcl.eun.org/directory/details?contentId=1511

⁵⁹ http://fcl.eun.org/directory/details?contentId=1507

⁶⁰ http://fcl.eun.org/directory/details?contentId=1505

⁶¹ http://fcl.eun.org/directory/details?contentId=1504

⁶² http://fcl.eun.org/directory/details?contentId=1502

http://fcl.eun.org/directory/details?contentId=1503

⁶⁴ http://fcl.eun.org/directory/details?contentId=1501

⁶⁵ The stats cover the period 9 January 2018 till 31 May 2019.

⁶⁶ https://www.edutheque.fr/utiliser/partenaire/europeana.html

⁶⁷ https://eduscol.education.fr/cid106409/europeana-et-edutheque.html

Procomun ⁶⁸	N/A	N/A	1,777

6.3 Europeana Research

We increased the awareness of researchers of Europeana data as a trusted source of cultural heritage and its use to develop new knowledge and insights from our past, or to create new research methodologies.

As of April 2019, CLARIN⁶⁹, the Europeana Research Infrastructure for Language Resources and Technology, made a new selection of Europeana content available in their Virtual Language Observatory⁷⁰ (VLO) portal. The selection includes 22 collections containing about 135,000 cultural heritage objects - among them books, periodicals and newspapers, manuscripts and speech audio - in over 10 languages.

For the period between 1 April and 31 May, Europeana records on VLO registered the following usage:

Records and usage metrics on VLO comparing Europeana records with general VLO metrics

Number Europeana records on VLO	Visits	Pageviews	Pageviews per visit	Visit duration
135, 234	33	91	2.76	7 min 12 sec
Total number records on VLO	Visits	Pageviews		Visit duration
1,014,143	2,211	5,146	2.33	2 min 39 sec

Comparing the usage metrics of Europeana records on the VLO register with the average VLO items we see a higher usage, especially with regard to visit duration. A very positive sign is that 60% of VLO visits (of Europeana records) translate into referral traffic to Europeana.

Referral traffic from VLO to Europeana Collections

Users	Visits	Visit duration	Pageviews
11	20	9 min 36 sec	93

⁶⁸ https://intef.es/recursos-educativos/procomun/

⁶⁹ https://www.clarin.eu/

⁷⁰ https://vlo.clarin.eu/

In this reporting period, the 2018 edition of the Europeana Research grants programme awarded three case studies on using Europeana data. The successful projects⁷¹ are:

- Europeana 1914-1918: AV Storytelling Data in a European Comparative Perspective by Dr Berber Hagedoorn, University of Groningen, NL
- Upgrading History. Diaries from the War Front by Dr Saverio Vita, University of Bologna, IT;
- Return to Sender: Mapping Memory Journeys in the Europeana 1914-1918 Postcard Archive by Dr Elizabeth Benjamin, Coventry University, UK.

In addition, "Quick war?"⁷², a research project that worked with Europeana newspaper content, was awarded with the second place during the Virtual Hackathon Series⁷³ organised by the Austrian Academy of Sciences in Vienna in February 2019.

6.4 Europeana Labs (Creative Industries)

Due to strategic priorities towards other markets our outreach to the creative industries professionals was rather limited and resulted in one new product using Europeana content developed during the reporting period - WWI video game '11:11 Memories retold'⁷⁴.

The game was developed by the French game design studio Digixart in cooperation with game companies Aardman and Bandai Namco and launched in November 2018. The game includes objects and stories from the Europeana 1914-1918 collection and allows players to explore the human side of the First World War in an interactive game narrative. '11-11: Memories retold' was an excellent collaboration that brought digital cultural heritage to the general public in the form of an immersive storytelling experience. Unfortunately, the game sellers - Aardman and Bandai - don't provide usage statistics about the game sales or usage in general. More information on why Europeana content was selected and how it was used can be found in the respective interview on Europeana Pro⁷⁵.

On 25 March we launched the Europeana STEM Challenge⁷⁶ which offers 20.000 EUR for the best educational videos using Europeana openly licensed content to teach STEM (science/technology/engineering/math) topics. The application period closed on 15 May with 24 applications from 17 countries. Winner(s) will be announced on 25 June and will deliver their educational video projects by latest 1 October.

⁷¹ https://pro.europeana.eu/post/meet-the-winners-of-the-europeana-research-grants-programme-2018

⁷² https://github.com/catb0y/TheQuickWar

⁷³ https://www.oeaw.ac.at/acdh/detail/event/acdh-virtual-hackathon-series/

https://pro.europeana.eu/data/11-11-memories-retold

https://pro.europeana.eu/post/the-different-individual-sides-to-history-human-aspects-of-ww1

⁷⁶ https://pro.europeana.eu/post/europeana-stem-challenge

7. Conclusion

In the past months, we were able to increase the content quality on Europeana Collections as a joint effort between EF and DSI aggregators. Up until February 2019, we increased tier 2+ material by 0.5% and tier 3+ material by 0.9%. It is still a challenge to measure tier progress automatically. Therefore, the impact of the recent data publication work on our tier statistics can not be shown. We expect that from August 2019 onwards we will not only be able to provide tier statistics for content but also for the metadata in the Europeana repository. A lot of effort went into improving content already available on Europeana Collections and by working on broken links. Generic Services provided and continue to deliver new content to Europeana Collections and strengthen the themes available on Europeana Collections. Our efforts towards standardisation progressed with refined definition of the metadata tiers and new translations of the RightsStatements.org rights statements.

Most popular content (based on number of visits) was content highlighted via our various communication and dissemination activities (e.g. top item received the most traffic via Pinterest or curated content). Most popular curated content (exhibitions, galleries and blogs) is a mix of newly created and content online for a longer period. Newly published content received traffic mainly from social media and direct traffic⁷⁷ being a result of communication and dissemination activities. Longer published content performed well in search engines. We saw that content has potential for a long lifespan if it combines high quality content and a topic of high interest to users. This confirms the SEO potential of editorials, when findable on Google search. This can be well known names in the title and a topic interesting to multiple audiences. As of our efforts to optimise the SEO potential of every piece of curated content created, we expect that more content will achieve a more prominent position in Google search results over time.

Our participatory activities were successful with five Transcribathons organised resulting in almost 3,000 documents transcribed about 400 new users registered on Transcribathon.eu. Our collaborations with third party platforms are excellent ways to promote cultural heritage material to users. Our guest contributions on DailyArt with four paintings presented in the app received over 1,4 million views, content in the category Europeana on Wikimedia generated over 118,4 million impressions, and GIPHYs created with Europeana content reached about 81 million impressions.

Our activities on social media are very successful with about 111,5 million total impressions on social media (Facebook, Twitter, Pinterest, Instagram, GIPHY) and many new fans/followers gained on Facebook, Pinterest, Twitter and Instagram. Facebook, Twitter and

 $^{^{77}}$ A visit is considered to be direct traffic if a user directly typed an Europeana Collections related URL, or if he had bookmarked the site.

Instagram show the importance of context and timing and the ability to react to external events while designing and planning social media content. The most successful posts on Facebook for example, were related to the Women's History Month in March. The high visibility of our content on Pinterest as well as the growth of viewers and engaged users over time show that Pinterest is a valuable platform for cultural heritage material for users interested purely in the visual aspect of our collections. In the past, we constantly reached and surpassed impressions and engagement KPIs on social media. The new editorial strategy and the introduction of seasons opened an opportunity of using the success on social media towards generating traffic. While at the moment social media generates around 5% of traffic, the potential is high and we expect an increase, especially during the seasons.

Europeana content was also accessed via Europeana APIs with over 57 million requests in May. Our main API, the Europeana REST API registered 441 sign-ups/requests in the reporting period and a stable usage with on average of about 71 API keys that exceeded the average of 5 calls a day and on average about 68 API keys that were active for more than 5 days in each month.

Our efforts in the education market are flourishing with 230 new learning resources with Europeana data as well as additional stories of implementation by teachers in the classroom. The Europeana MOOC (EN/ES/PT) was well-received with a total of 3,660 registrations and 700 certificates reaching about 55 different countries. MOOC participants' testimonials confirmed the positive impact of this learning resource with regard to pedagogical innovation and capacity building. The Europeana Teacher Ambassadors reached over 450 teachers and about 8,000 students with their 23 webinars. Overall, we can see a very high interest in the service we provide to educators and usage of our learning scenarios. Teachers are very satisfied with the Europeana offer with an excellent NPS of 63.

Europeana content is available on CLARIN's research portal, the Virtual Language Observatory (VLO) to increase awareness of researchers of Europeana data. Usage statistics showed a higher usage for Europeana records compared to the average use of VLO items, especially with regard to visit duration for Europeana content. A very positive sign is that 60% of the VLO visits translate into referral traffic to Europeana Collections.

In the period, we saw one major new commercial product using Europeana content - WWI video game '11:11 Memories retold'. The game includes objects and stories from the Europeana 1914-1918 collection.

The evaluation confirms the importance of our various activities that bring cultural heritage material to audiences both on Europeana Collections and in particular using external platforms to promote content, to increase awareness, and to generate traffic to Europeana Collections.