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Abstract:

This deliverable describes the final version of the SSH Training Discovery Toolkit (TDT) and the updates done to it through consultation with the SSH Training Community and the international training catalogue landscape since its launch. The TDT was initially launched in April 2020 and consists of an inventory of various learning and training materials that trainers in the Social Sciences and Humanities can use to develop and improve their training activities, including topics ranging from Research Data Management, Open Science to didactics. The TDT was updated in the second half of SSHOC project and contains more than 240 example items from more than 95 different sources.

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Executive Summary

This deliverable describes the final version of the SSH Training Discovery Toolkit (TDT) which was launched on April 20th 2020.¹ At the time of the launch in April 2020, the TDT highlighted 70 items from 41 different training sources. The TDT consists of an inventory of various learning and training materials that trainers in the Social Sciences and Humanities (SSH) can use to develop and improve their training activities.

The Toolkit at the time of writing² lists 243 example materials from over 95 different sources in various formats, such as slides, modules, videos, games and other items. Materials cover a range of topics including Research Data Management, FAIR data, text encoding, Open Science, and quantitative analysis, as well as didactics for better development and implementation of training activities. It should be noted that the items included in the TDT are examples from all the materials available at a given source. The TDT was meant to ease the discovery of training materials available at the various sources by means of highlighting items rather than providing an exhaustive list of all materials available.

This deliverable describes the updates and improvements that have been performed in the second half of the SSHOC project. After the launch in April 2020, the TDT was further developed in collaboration with the SSH Training Community³. It was presented and evaluated during the SSHOC Train-the-Trainer Bootcamps⁴. Curation sprints were performed to update metadata of existing resources and add new resources that have been suggested by the community. In addition to the content extension, the metadata of the TDT has been evaluated and metadata fields, as well as controlled vocabularies, used were adjusted. This was done to align with the recommendations of the international community on minimal metadata and best practices for describing training materials.

Note on the terminology

Please note that, while the original title of the toolkit mentioned in the grant proposal and agreement was “SSHOC Train-the-Trainer Toolkit” rather than “SSH Training Discovery Toolkit” (TDT), the latter was adapted in the course of the project, as it more accurately describes the content and use of the toolkit. The TDT is directed at SSH trainers, but next to train-the-trainer materials, it also contains information on other learning and training materials available that can be used in multiple disciplines for the SSH community. Moreover, the main purpose of the TDT is the discovery of these materials. Therefore, the

¹ The Training Toolkit can be accessed at <https://training-toolkit.sshopencloud.eu/> [accessed February 15th 2022]

² The information presented in this deliverable was collected from <https://training-toolkit.sshopencloud.eu/> in February 2022. [accessed February 15th 2022]

³ More information on the SSH Training community is available here: <https://www.sshopencloud.eu/ssh-training-community> [accessed March 14th 2022]

⁴ A list of the Bootcamps and more background is available in Deliverable D6.12 <https://doi.org/10.5281/zenodo.5734300> [accessed February 15th 2022]

name that is used in this deliverable as well as in the related milestone is Training Discovery Toolkit. This is also what has been used on the SSHOC website and in the communications of the outcome.

Abbreviations and Acronyms

CESSDA	Consortium of Social Science Data Archives
CLARIN	Common LAnguage Resources and Technology INfrastructure
DARIAH	Digital Research Infrastructure for the Arts and Humanities
EOSC	European Open Science Cloud
ETHRD-IG	RDA Interest Group on Education and Training on Handling Research Data
FAIR	Findable, Accessible, Interoperable, Reusable
IASSIST	International Association for Social Science Information Services and Technology
LIBER	Ligue des Bibliothèques Européennes de Recherche – Association of European Research Libraries
OpenAIRE	Open Access Infrastructure for Research in Europe
RDA	Research Data Alliance
SSH	Social Science and Humanities
SSHOC	Social Sciences and Humanities Open Cloud
TEI	Text Encoding Initiative
TDT	Training Discovery Toolkit
WP	Work Package
MoU	Memorandum of Understanding

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1. Introduction

Task 6.4 of SSHOC Work Package 6 concerns the building of expertise within the Social Sciences and Humanities (SSH) training community. One of the key outcomes of this task and a milestone in the project (MS41) is the final version of the SSH Training Discovery Toolkit (TDT).⁵ The TDT was designed to aid trainers in the SSH in finding materials that they can utilise in their training activities. While many organisations offer educational materials for trainers in the SSH, it is often difficult to find these materials. Therefore, the TDT was developed to provide a curated inventory of reusable training materials on relevant topics that SSH trainers can find, access and reuse. It should be noted that the TDT was developed to ease the discovery of training materials available at the various sources through highlighting example items available at a given source. The TDT was not meant as a tool providing an exhaustive list of all the available materials.

The SSH Training Community, described in more detail in the *Deliverable 6.10 Report on the SSHOC Training Community*⁶ as well as the *Deliverable 6.13 Report on the SSH Training Community*⁷ was an important target audience for the TDT. Its members played an important role in the collection of feedback and the performed additions of content and metadata improvements that were done after the first launch of the TDT. In particular, the TDT was presented at the SSHOC Train-the-trainer bootcamps and discussions and suggestions from these and other events shaped its further development. The bootcamps are described in detail in *Deliverable 6.12 Report on Train-the-trainer Bootcamps*.⁸

This deliverable describes the further development and final version of the TDT. The TDT is an online inventory in which information is collected about a range of learning and training materials available to SSH trainers from various sources, including SSHOC partners, the SSHOC project itself, as well as identified training nodes. Training nodes were identified as organisations that foster coordinated and cross-disciplinary training across the SSH domains. The materials initially included in the TDT came from these identified training nodes and included for instance EOSC-Hub⁹ and OpenAIRE,¹⁰ as well as SSHOC partners like CESSDA¹¹ or DARIAH.¹² Over the second half of the project additional materials from these nodes as well as from other organisations providing training in the SSH were added to the TDT.

⁵ The Training Toolkit can be accessed at <https://training-toolkit.sshopencloud.eu/> [accessed February 15th 2022]

⁶ D6.10 is available at <https://doi.org/10.5281/zenodo.3875985> [accessed March 28th 2022]

⁷ D6.13 is available at <https://doi.org/10.5281/zenodo.5837119> [accessed March 28th 2022]

⁸ D6.12 is available at <https://doi.org/10.5281/zenodo.5734300> [accessed March 28th 2022]

⁹ The EOSC-Hub project ran from 2018-2020 <https://www.eosc-hub.eu/> [accessed February 15th 2022]

¹⁰ Information on OpenAIRE is available at <https://www.openaire.eu/> [accessed February 15th 2022]

¹¹ CESSDA - Consortium of European Social Science Data Archives <https://www.cessda.eu/> [accessed February 15th 2022]

¹² DARIAH - Digital Research Infrastructure for the Arts and Humanities <https://www.dariah.eu/> [accessed February 15th 2022]

The TDT contains materials from a range of topics including Research Data Management, FAIR Data, Open Science as well as materials on training development and didactics. Trainers can find various types of materials, including, for instance, modules, workshops, slides, videos, exercises and games. Importantly, the TDT covers materials that are relevant across disciplines, for instance, educational materials on Research Data Management or FAIR data, as well as materials specifically designed for the SSH community and their training needs.

The TDT was continuously improved from the first iteration using a Drupal-based application (for more information about the development of the initial version, please see *Deliverable 6.9 SSHOC Trainer Toolkit (draft)*¹³. In the following section, the activities undertaken to update and improve the TDT after its initial launch are described in detail. The next section will describe the curation, updating and improvement of existing and new entries to the TDT (section 2.1); revisions of the TDT interface (section 2.2); and changes to the data model and the improvements of the metadata provided in the TDT (section 2.3). Section 3 of this deliverable provides an overview of the materials available in the TDT at the time of writing. Finally, the last section of this deliverable describes the sustainability plans of the TDT.

2. Updates and Improvements of the Training Discovery Toolkit

2.1. Community-based revisions and update

The development of the TDT continued after its launch. The TDT was presented to the wider community and in particular within the SSH Training community on various occasions to promote its use and gather feedback for its iteration.

Feedback from the SSH Training Community

The SSH Training Community is one of the key outputs from the SSHOC Training-related activities. The community is described in more detail in *Deliverable 6.10 Report on the SSHOC Training Community*¹⁴ as well as *Deliverable 6.13 Report on the SSH Training Community*. The goal of establishing an SSH Training Community was to build expertise, while at the same time making the best possible use of resources, which already exist within the SSHOC partner network. The SSH Training Community was hence the main target audience that the team wanted to serve and address with the TDT. Its members played an important role in the collection of feedback on the TDT after it was launched. The SSHOC task 6.4 team engaged the Community in multiple ways: The TDT launch was communicated with the Training

¹³ D6.9 is available at <https://doi.org/10.5281/zenodo.3824754> [accessed March 28th 2022]

¹⁴ D6.10 is available at <https://doi.org/10.5281/zenodo.3875985> [accessed March 28th 2022]

Community through our discussion email list and during our monthly Training Community calls. SSHOC task 6.4 encouraged members to discover the TDT, use materials and also promote its use in their respective communities on various occasions. Especially welcome was the proposal of new materials for the TDT through our dedicated feedback form that was distributed and listed on the TDT website. Importantly, the TDT was also presented at multiple events including dedicated SSH train-the-trainer bootcamps, described in the next section.

SSHOC Train-the-Trainer Bootcamps

SSHOC organised Train-the-Trainer Bootcamps targeting SSH trainers from the SSH Training Community and beyond. Due to the COVID pandemic, the bootcamps were held online rather than face-to-face as initially planned. The event series started with a Mini Bootcamp where SSHOC specifically focused on the Training Discovery Toolkit that was held in June 2020. The other bootcamps were organised for different SSH communities. These included Librarians (SSHOC Train-the-Trainer Bootcamp for Librarians at the LIBER Annual Conference 2020, June 2020); Humanities (SSHOC Train-the-Trainer RDM Bootcamp jointly organised by SSHOC and DARIAH, February 2021); and Social Science scholars (SSHOC Open Science and Research Data Management Train-the-Trainer Bootcamp at IASSIST 2021, May 2021). During the Bootcamps the TDT was introduced, and various use cases were presented on how training materials can be discovered for different purposes. The team encouraged discussions on the TDT and came up with suggestions for additional materials that could be included. A detailed description of the bootcamps and their programme is available in *Deliverable 6.12 Report on Train-the-trainer Bootcamps*.¹⁵

Curation of existing and new materials

The TDT was launched with content that was curated by the task 6.4 partners. After its launch, the requests for new entries were handled by the team and after a while collected in a document with suggested changes. The first major update of the TDT was executed through a curation sprint in the spring of 2021. The sprint was kicked off by a virtual meeting of the members of SSHOC task 6.4 where the planning for the sprint was discussed. Documentation about the update process and guidelines for reviewing and curating existing and new sources were shared and discussed. Suggestions for new materials were divided among the task members who extended the TDT over a period of a few weeks after the initial kick-off meeting. Suggestions for new materials were based on new developments of training materials within the SSHOC project and at partner organisations, as well as on feedback received from the community at the bootcamps and other events. In addition, the TDT web page also includes a feedback form through which visitors can report bugs or missing information and suggest new materials to be included in the TDT. These suggestions were addressed in the curation sprint.

As before, each source was assigned a curator. The curators were partners involved in task 6.4 responsible for describing the source and, where relevant, adding and describing specific items for the sources which were considered to be of particular interest for the SSH trainer community. In line with

¹⁵ D6.12 is available at <https://doi.org/10.5281/zenodo.5734300> [accessed March 28th 2022]

our previous guidelines, the aim was to include new sources which provide a variety of training materials of interest to trainers in the SSH community. For each source, one to three items were then selected to present a reflection of the materials available at a given source. As before, the aim was not to provide a comprehensive overview of all items available at a given source, but rather to highlight a few items that are of particular interest.

After the sprint in spring of 2021, the TDT was updated in intervals by evaluating suggestions for new entries. Where deemed appropriate, curators added the suggestions to the TDT. A special case has been the request from the CLARIN community to add two collections of references to training materials that were collected at a CLARIN call and within the context of the Upskills project. The first collection consisted of 10 references to training materials that all fit nicely in the TDT and were added. The second collection of 275 references was not a straightforward match, as the TDT does not aim to provide a comprehensive overview but rather highlights. Thus, a selection of the collection was created that could be added to the toolkit. Moreover, quite some curation had to take place, as the information on the references was not as complete as the TDT requires and there were issues with some entries, such as learning content not being accessible. It was decided that the large collection would be added in the last curation sprint, which is planned for March 2022 just before the project is finished. During this sprint, the content of the TDT will be checked, e.g. for dead links, and for missing metadata which might have resulted from changes in the data model (new data fields) and the controlled vocabularies. SSHOC task 6.4 plans to add highlights of the second CLARIN collection and to enrich the content of the TDT. As this sprint will take place after this report needs to be finalised, the number of sources and items may still increase, and the metadata currently presented in the TDT will further improve.

Since the previous report, the curation of existing and new entries has resulted in a collection of 243 items from 97 sources. Section 3 below gives a detailed overview of the content of the TDT.

2.2 Revision of the interface

Through the community consultation and the feedback form available on the TDT website, SSHOC task 6.4 also received feedback on the interface and how the user experiences could be further improved. This section goes through the changes made based on this feedback.

About page

Based on the feedback, a more elaborate “About” page was included in the TDT. The page¹⁶ describes the goal and development of the TDT, and includes a list of frequently asked questions. It also contains the link to the feedback form, where users can report bugs or suggest changes or additions. In addition, the page will provide information about the Schema.org implementation (see section 2.3 below) and a link where the metadata of the toolkit can be harvested in Schema.org format.

¹⁶ About page of the TDT: <https://training-toolkit.sshopencloud.eu/about> [accessed February 15th 2022]

Search by organisation

The feedback that was received indicated that there was a need to search for training materials related to a given organisation. Therefore, the field "organisation" was added to every entry and included in the facets in the TDT interface. Organisations are distinguished from the sources. Sources were seen as the "point where individual training materials are from (e.g. project, collection, part of an organisation)" and organisations were the legal entities affiliated with a given project or collection. The organisation was added to the search bar on the right-hand side allowing users to select sources or items related to a particular organisation.

Displayed information on the first page

It was decided to simplify the information that is presented to the user on the first page of the TDT. Initially, the page of the TDT displayed the sources and the items underneath each other. The updated page only displays the sources while the items are visible on the source pages and through the search bar on the right-hand side. The overview of the sources on the first page provides the title, description, and organisation of a given source which were found to be the most relevant information for a user entering the TDT.

Removal of collection

As discussed in the previous deliverable on the TDT, the interface and entries of the TDT were based on a wider collection of learning resources performed in the SSHOC project. In the initial version of the TDT, all entries were included in the toolkit. Entries that were relevant to trainers or data stewards received a special collection tag "Training Discovery Toolkit" while other entries were still visible to users. The community consultation showed that this presentation was quite confusing, and therefore it was decided to remove entries not relevant to trainers completely from the interface, making the use of the collection tag obsolete. Before the end of the project, the collection tag will not be shown anymore in the TDT.

Harmonisation of terms and descriptions

During the curation sprint, the topics and licences that curators had assigned to particular sources and items were harmonised. Based on the community feedback and our experiences from the curation sprint the metadata fields and vocabularies were revised as well. The final data model, metadata fields and vocabularies included in the TDT are described in the following section.

2.3. Revision of the data model and Improvements of metadata

The initial updates of the Training Discovery Toolkit mainly concerned updating and improving the content as well as some changes to the interface mentioned above. Another important update that was performed was the revision of the data model to align it with international recommendations on the

description of learning resources. Moreover, task 6.4 mapped the metadata fields in the TDT to Schema.org to enhance discoverability and also to allow users to download the metadata of the TDT in a standardised format.

RDA-IG ETHRD Focus group on minimal metadata for learning resources

Since 2019 task 6.4 participated in the work of the RDA focus group on minimal metadata for learning resources of the RDA-Interest Group ETHRD (Education and Training on Handling Research Data). In the autumn of 2021, a first draft proposal of the minimal metadata for learning resources was published.¹⁷ The FAIRSFAR project initiated the training resource metadata testbed wherein the minimal metadata set and data dictionary created by the RDA focus group was tested against a short list of learning resources taken from websites, repositories and catalogues such as the TDT. The outcomes of the testbed were reported and discussed in a workshop on 19 January 2022¹⁸. Since October 2021 task 6.4 has been working on an update of the data model of the TDT that is better aligned with the RDA minimal metadata set. This work improves the interoperability with other catalogues for learning resources at a later stage when these other catalogues are also expected to follow the recommended minimal metadata and the implementation of a metadata application profile. At the time of writing this report, the metadata application profile was not yet ready and therefore the TDT implemented a mapping with schema.org that is reported below.

Additional fields

The RDA Focus group had identified a couple of fields that were not present in the data model of the first release of the TDT. These fields were:

- Learning Outcomes
- Access costs
- Expertise Level
- Access conditions

To align the TDT model with these recommendations, these three fields have been added to our metadata model (see Table 1 and Figure 2 below). In the curation sprint of March 2022, one point of attention will be to populate these fields with information from the existing sources.

Implementing Schema.org

To improve the interoperability of the TDT's metadata and the discoverability of the learning resources by search engines such as Google, Schema.org was implemented in the TDT. As a first step, a mapping

¹⁷This group, part of the RDA Education and Training on Handling of Research Data Interest Group (ETHRD IG), is now finalising a recommendations document - see <https://rd-alliance.org/groups/education-and-training-handling-research-data.html> for updates.

¹⁸ Report available at <https://doi.org/10.5281/zenodo.6225226>

was created between the TDT data model and Schema.org. This mapping is provided in Table 1 below. Based on this mapping, Schema.org was implemented on the TDT website. Users can see the metadata of the items mapped to Schema.org in JSON format by clicking on the Schema.org link on the item page (see Figure 1). Before the end of the SSHOC project, task 6.4 aims to also implement the same for the sources in the TDT. In addition to allowing users to view individual entries in a standardised format, the entire metadata of the TDT is also available. The information from all items can be downloaded,¹⁹ and the download link will also be made available on the About page of the TDT. Before the end of the SSHOC project, a similar link will be made available for the source information.

[A] Item Field Training Discovery Toolkit	Schema.org property [type]
Title	name [Thing]
Basic description	Description [Thing]
Access point	url [Thing]
Source	provider [Thing > CreativeWork]
Licence	licence [Thing > CreativeWork]
Languages	inLanguage [Thing > CreativeWork]
Created	dateCreated [Thing > CreativeWork]
Last updated	dateModified [Thing > CreativeWork]
contributors/authors/creators	author [Thing > CreativeWork]
Contrib name	name [Thing > Person]
Contrib email	email [Thing > Person]
Contrib orcid	identifier [Thing > Person]
Contrib links	Identifier [Thing > Person]
Intended audience V	name [Thing > Audience]
Disciplines	educationalAlignment; alignmentType; targetName; targetURL [Thing > CreativeWork]
Format	learningResourceType [Thing > LearningResource]
Curated topics	teaches [Thing > LearningResource]
Topics	keywords [Thing > CreativeWork]
Learning outcome(s)	teaches[Thing > LearningResource]
Free access	isAccessibleForFree [Thing > CreativeWork]
Access condition	conditionsOfAccess [Thing > Property]

¹⁹ The download link for all items is https://training-toolkit.sshopencloud.eu/export-items-schema-org?_format=json [accessed 17th February 2022].

Expertise Level	educationalLevel [Thing > LearningResource]
Access Conditions	conditionsOfAccess [Thing > CreativeWork]

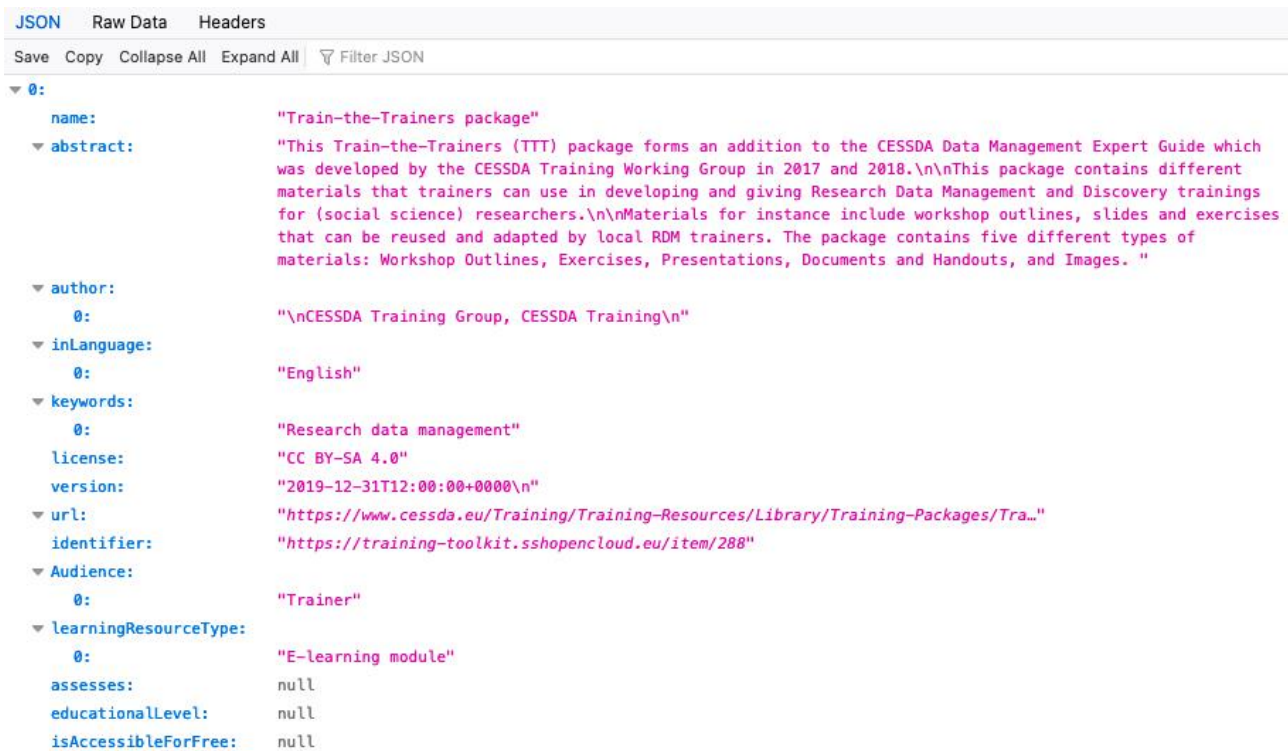
[B] Source Field Training Discovery Toolkit	Schema.org property [type]
Title	name [Thing]
Basic description	Description [Thing]
Access point	url [Thing]
Curator	-
Responsible organisation	name; email; identifier [Thing > Organization]
Contact	name; email; identifier [Thing > Organization]
Harvesting	url [Thing > Intangible > Service > WebAPI]
Licence	licence [Thing > CreativeWork]
Languages	inLanguage [Thing > CreativeWork]
Created	dateCreated [Thing > CreativeWork]
Last updated	dateModified [Thing > CreativeWork]
Extent	materialExtent [Thing > CreativeWork]
Intended audience V	name [Thing > Audience]
Disciplines	educationalAlignment; alignmentType; targetName; targetURL [Thing > CreativeWork]
Status	creativeWorkStatus [Thing > CreativeWork]
Format(s)	learningResourceType [Thing > LearningResource]
Curated topics	teaches [Thing > Learning resource]
Topics	keywords [Thing > CreativeWork]
Access Conditions	conditionsOfAccess [Thing > CreativeWork]

Table 1: Mapping Item (A) and source (B) fields to Schema.org²⁰

The implementation of Schema.org improves the discoverability and interoperability of the TDT, increasing its attractiveness as a tool for research infrastructures to invest in, and making sure the tool will be a sustainable result from the project. Moreover, the metadata can in this way be harvested by

²⁰ Saldner, S., Illmayer, K., Braukmann, R., Leenarts, E., Durco, M., & Wehmeyer, J. (2022). Mapping SSH Training Discovery Tool (TDT) metadata to Schema.org. Zenodo. <https://doi.org/10.5281/zenodo.6379660> [accessed March 28th 2022]

others in a standardised format. The mapping between the TDT fields and the Schema.org properties in Table 1 is published on Zenodo to provide a reference for anyone interested in re-using the metadata of the TDT.²¹



```

JSON Raw Data Headers
Save Copy Collapse All Expand All Filter JSON
0:
  name: "Train-the-Trainers package"
  abstract: "This Train-the-Trainers (TTT) package forms an addition to the CESSDA Data Management Expert Guide which was developed by the CESSDA Training Working Group in 2017 and 2018. This package contains different materials that trainers can use in developing and giving Research Data Management and Discovery trainings for (social science) researchers. Materials for instance include workshop outlines, slides and exercises that can be reused and adapted by local RDM trainers. The package contains five different types of materials: Workshop Outlines, Exercises, Presentations, Documents and Handouts, and Images. "
  author:
    0: "\nCESSDA Training Group, CESSDA Training\n"
  inLanguage:
    0: "English"
  keywords:
    0: "Research data management"
  license: "CC BY-SA 4.0"
  version: "2019-12-31T12:00:00+0000\n"
  url: "https://www.cessda.eu/Training/Training-Resources/Library/Training-Packages/Tra..."
  identifier: "https://training-toolkit.sshopencloud.eu/item/288"
  Audience:
    0: "Trainer"
  learningResourceType:
    0: "E-learning module"
  assesses: null
  educationalLevel: null
  isAccessibleForFree: null

```

Figure 1: Screenshot of the metadata mapped to Schema.org and presented in json format. The example is taken from the Train-the-trainer package item

Controlled vocabularies

The TDT has a number of closed vocabularies as well as open fields curators use to describe the sources and items.

²¹ Ibid.

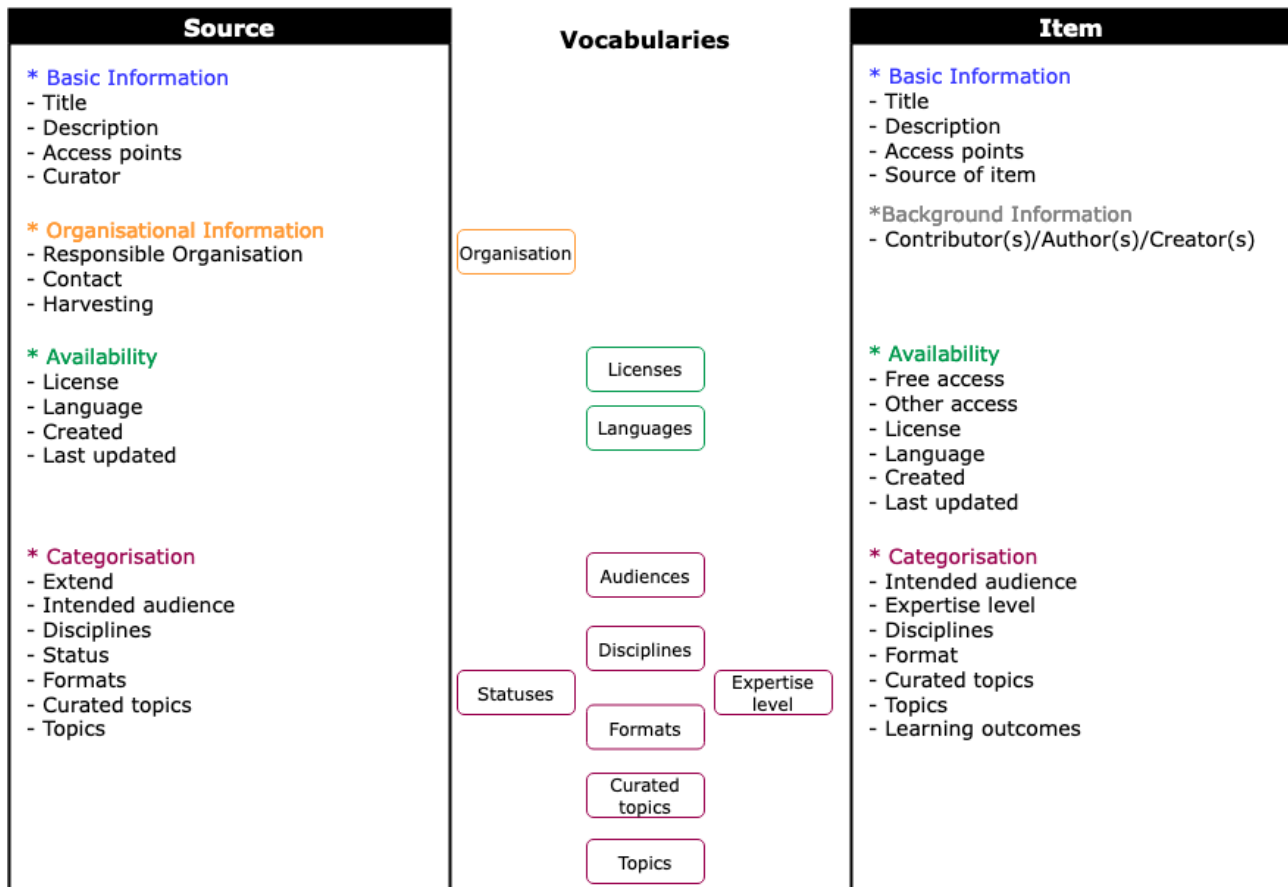


Figure 2: Data model for sources and items in the TDT

Based on the feedback received, the vocabularies and terms were revised to better facilitate the search in the TDT. The closed vocabularies and open fields that were used for these descriptions are listed in Table 2 and Table 3 respectively. Closed vocabularies contained a set of terms the curators could select, whereas open fields were free-text fields that curators could use to describe the sources and items. While the initial version of the TDT did not make use of existing controlled vocabularies, the options for including existing vocabularies was assessed for the updated version of the TDT. For two vocabularies suitable existing vocabularies were identified and will be implemented in the TDT before the end of the SSHOC project: Languages and Disciplines. These vocabularies were open fields in the initial version of the TDT are now being replaced by the existing controlled vocabularies, ISO 639,²² and ÖFOS²³ respectively.

For licences, SPDX was identified as a potential candidate. However, the licences of the learning materials included in the TDT are not always detailed enough to properly match with the list published by SPDX. We, therefore, decided to keep the licence list an open field as it was in the initial version of the TDT.

²² Information on the ISO639-1 standard: <https://www.iso.org/standard/22109.html> [accessed February 17th 2022].

²³ Information on the ÖFOS 2012 vocabulary: <https://vocabs.acdh-dev.oeaw.ac.at/oefos/en/> [accessed February 17th 2022].

However, where possible, URIs from the SPDX list will be added to the terms in the licence list used in the TDT.

For the formats, a detailed assessment of existing vocabularies was executed (see Appendix 2) which led to the conclusion that at the time no suitable list was available to replace the formats list of the TDT. Instead, the list of formats was updated based on the feedback received.

The revisions led to a list of seven closed vocabularies (i.e. a set list of terms the curators could select from), two of which are based on existing vocabularies. The other five vocabularies will be published through the SSH Vocabulary Commons²⁴ before the end of the project. This way, future initiatives will be able to more easily find and browse the vocabularies used in the TDT allowing re-use and integration into future catalogues.

Closed vocabularies	Description
Curated topics	A list of terms selected from the full list of topics which curators described for the sources and items. ²⁵
Formats	Learning resource types like handout, evaluation, course, online guide, event materials, e-learning module, blog, educational game, etc. (see Appendix 2)
Audiences	The kind of scholars the material is intended for. For the Training Toolkit the audience are trainers, and in some cases also data stewards. We used a subset of the SSHOC audience vocabulary .
Statuses	Tentative indication of the stage in the lifecycle of a source i.e. is it a prototype still in development, or rather a legacy resource that is in danger of disappearing. We use the SSHOC Status of training resources vocabulary
Expertise Level	Choice between beginner, intermediate and advanced. The Expertise level for training resources vocabulary is used.
Disciplines	Scholarly disciplines for which given material primarily applies, mostly taken as indicated by the sources. The TDT uses the Austrian Fields of Science and Technology Classification 2012 (ÖFOS 2012)
Languages	Language of the content of the material. The TDT will use the list based on the ISO 639-1 standard

Table 2: Closed vocabularies used to describe the sources and items

²⁴ The SSH Vocabulary Commons is available here: <https://vocabs.sshopencloud.eu/vocabularies/en/> [accessed February 17th 2022]

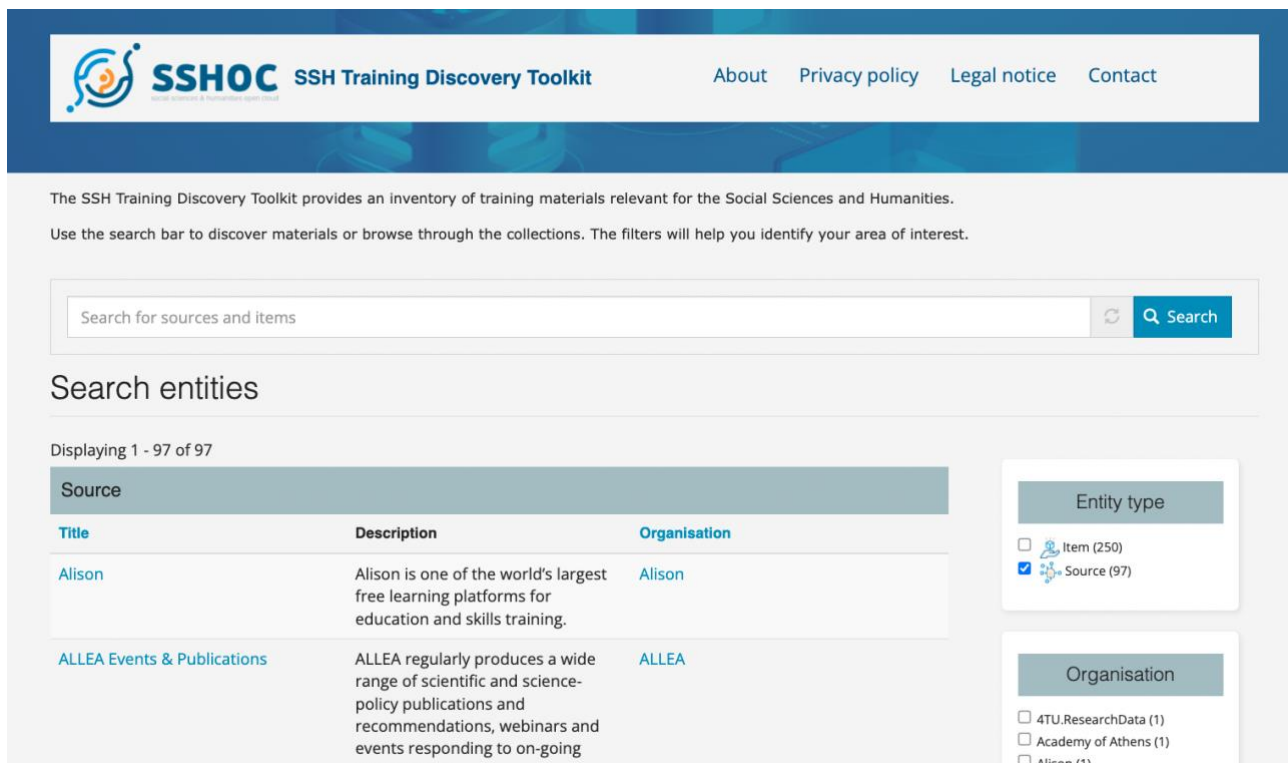
²⁵ The vocabulary will be made available through the SSH Vocabulary Commons (<https://vocabs.sshopencloud.eu/vocabularies/en/>) before the end of the SSHOC project.

Open fields	Description
Organisation	Legal entities responsible for providing (maintaining and curating) a given source. Where possible a Research Organisation Identifier (ROR) was added to identify the organisation.
Topics	Keywords describing what a training material is about. As opposed to “curated topics”, this field is meant to collect keywords in an open manner as they are applied in the individual sources and items.
Licenses	License formulating the conditions of (re-)use of the material, e.g. Creative Commons Attribution. Ideally, this should be an unambiguous reference (URL) to a license definition. Where possible the TDT licences were mapped to the SPDX license and the corresponding URI was added to the metadata.

Table 3: Open fields used to describe the sources and items

3. Content of the Training Discovery Toolkit

The Training Discovery Toolkit was first released on April 20th, 2020 and continues to be available at training-toolkit.sshopencloud.eu. In the previous deliverable, it was reported that 70 items and 41 sources were included in the Toolkit. At the time of writing this report, it consists of 243 items from 97 sources (see appendix 1).²⁶



The SSH Training Discovery Toolkit provides an inventory of training materials relevant for the Social Sciences and Humanities. Use the search bar to discover materials or browse through the collections. The filters will help you identify your area of interest.

Search for sources and items

Search entities

Displaying 1 - 97 of 97

Title	Description	Organisation
Alison	Alison is one of the world's largest free learning platforms for education and skills training.	Alison
ALLEA Events & Publications	ALLEA regularly produces a wide range of scientific and science-policy publications and recommendations, webinars and events responding to on-going issues and de...	ALLEA

Entity type

- Item (250)
- Source (97)

Organisation

- 4TU.ResearchData (1)
- Academy of Athens (1)
- Alison (1)

Figure 3: Screenshot of the main page of the toolkit

The main page of the Training Toolkit lists all the sources in the middle of the page, including their title and a brief description as well as the associated organisation. The organisation information was added to the metadata to allow users to find sources and items associated with a particular organisation. On the right-hand side, the user has the option to select an organisation as well as the intended audience and filter sources or items based on language, curated topics, topic, discipline and format (see Table 2 and 3). The user also has the option to search the Toolkit with a free text search field located at the top of the page. When the users select a given source, they can view the source description and all the metadata that has been provided by the curators as shown in Figure 4. On the right-hand side, the user can find the link to the external access point of the source.

²⁶ The numbers of sources and items in the TDT were collected on February 28th, 2022.

CESSDA Data Management Expert Guide



Source

The Data Management Expert Guide is designed by European experts from the CESSDA [Training Working Group](#) to help social science researchers make their research data Findable, Accessible, Interoperable and Reusable (FAIR).

The guide is written for social science researchers who are in an early stage of practising research data management. With this guide, CESSDA wants to contribute to professionalism in data management and increase the value of research data.

The guide leads through the research data lifecycle from planning, organising, documenting, processing, storing and protecting data to sharing and publishing them. Taking the whole roundtrip will take approximately 15 hours.

Particular specialties of the guide is a focus on European diversity (for example in data protection legislation, research ethics, research funder DMP requirements, etc), developing a Data Management Plan as you progress through the guide, and topical expert tips.

Responsible organisation

[CESSDA ERIC](#)

Disciplines

[Social Sciences](#)

Access points

<https://www.cessda.eu/Training/Training-Resources/Library/Data-Management-Exper...>

Collections

Training Discovery Toolkit



Items

Choose collection

Title	Description	Collections
Archive and Publish	<p>High-quality data have the potential to be reused in many ways. This chapter explores options for archiving and publishing data as a strategy for FAIR data, considering repository solutions, access, use and citation of data.</p> <p>Focus on:</p> <ul style="list-style-type: none"> • the difference between data archiving and data publishing • the benefits of data publishing • different data publication services, such as data journal, self-archiving, a data repository • selecting a data repository which fits your research data's needs • ways to promote published research data • relevant DMP questions on these topics 	Training Discovery Toolkit


Figure 4: Screenshot of a source page of the TDT.

The example illustrates the page for the CESSDA Data Management Expert Guide where users can find an overview of the related items for this source.

At the bottom of a source page, all of the items belonging to that source are listed. Items are presented similarly to the sources, but in addition to the access point, the information on the right-hand side also includes the source to which a certain item belongs. In addition, the curators have added a link to the metadata of the item mapped to Schema.org which is available in JSON format. The user can access this information on the item page as well. An example of an item in the Training Toolkit is presented in Figure 5.

Train-the-Trainers package

View
Edit
Delete
Revisions


Item
✎

This Train-the-Trainers (TTT) package forms an addition to the CESSDA Data Management Expert Guide which was developed by the CESSDA Training Working Group in 2017 and 2018.

This package contains different materials that trainers can use in developing and giving Research Data Management and Discovery trainings for (social science) researchers.

Materials for instance include workshop outlines, slides and exercises that can be reused and adapted by local RDM trainers. The package contains five different types of materials: Workshop Outlines, Exercises, Presentations, Documents and Handouts, and Images.

Format
E-learning module

Language
English

License: [CC BY-SA 4.0](#)


Intended audience
Trainer

Disciplines
Social Sciences

Curated topics
Research data management

Access point
<https://www.cessda.eu/Training/Training-Resources/Library/Training-Packages/Tra...>

Source of item
[CESSDA Data Management Expert Guide](#)

Collections
Training Discovery Toolkit 

[schema.org \(JSON\)](#)

Figure 5: Screenshot from an item page of the Training Toolkit.

The example shows the train-the-trainers package from the CESSDA Data Management Expert Guide.

3.1 Content Overview

This section provides an overview of the types of materials that users can find in the TDT. In particular, the content in terms of their identified language, curated topic, discipline and format is described. It is important to know that one source or item in the Training Toolkit can be assigned multiple languages, topics, disciplines and formats.

Language

By far, most of the materials in the Training Toolkit are available in English. However, the Training Toolkit also covers items in other languages such as German, French, Dutch, Greek, Italian and Spanish.

Curated topics

Figure 6 gives an overview of the distribution of curated topics of all materials (sources and items combined) in the Training Toolkit. By far, most of the materials are related to Research Data Management. The Toolkit further covers many materials regarding other SSH-related topics, such as didactics or quantitative data analysis. It should be noted that the list of curated topics was reviewed and

adapted, and that new terms were added. As the last curation sprint is still planned, the new terms may not have been added to all relevant items or sources.

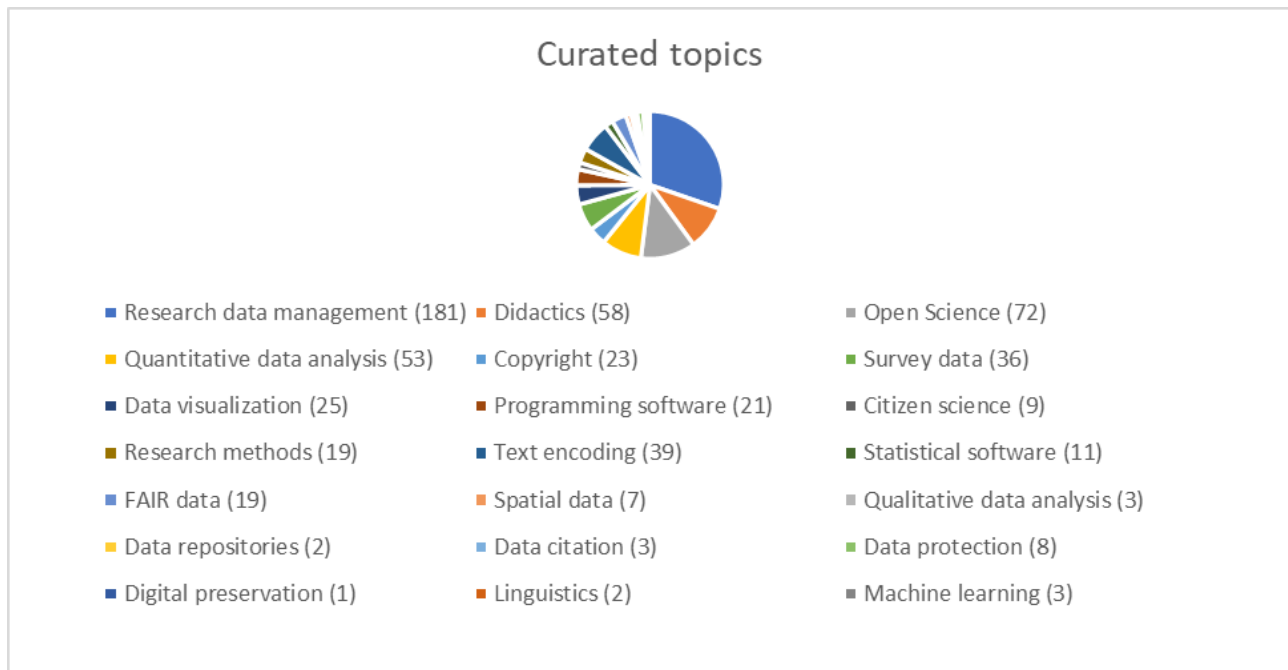


Figure 6: Pie-chart displaying the number of materials (sources and items combined) in the Training Toolkit from a particular curated topic.

Discipline

Initially, the element *discipline* was used as an open field to which curators could add disciplines. In the final version of the TDT, a controlled vocabulary published by ÖFOS is being used instead (see Table 2). Many materials in the Training Toolkit cover more than one discipline because they cover more generic topics such as Research Data Management and Open Science—which are related to multiple disciplines. Besides items labelled as relevant for all disciplines, the disciplines most often applied by the curators are *Social Sciences* (35), followed by *Digital humanities* (16) and *Computational Linguistics* (14).

Formats

Figure 7 gives an overview of learning resource types (formats) of the items in the TDT. Most of the TDT items were considered as *units or lessons*, followed by *e-learning modules*. The Toolkit also contains a number of *webinars* and several *games* that trainers can use in their training activities. It should be noted that the revised lists of formats contain new terms that were not present during the ingest of the legacy metadata. One of the actions of the final curation sprint held in March 2022 will be to tag legacy metadata with these new terms where appropriate.

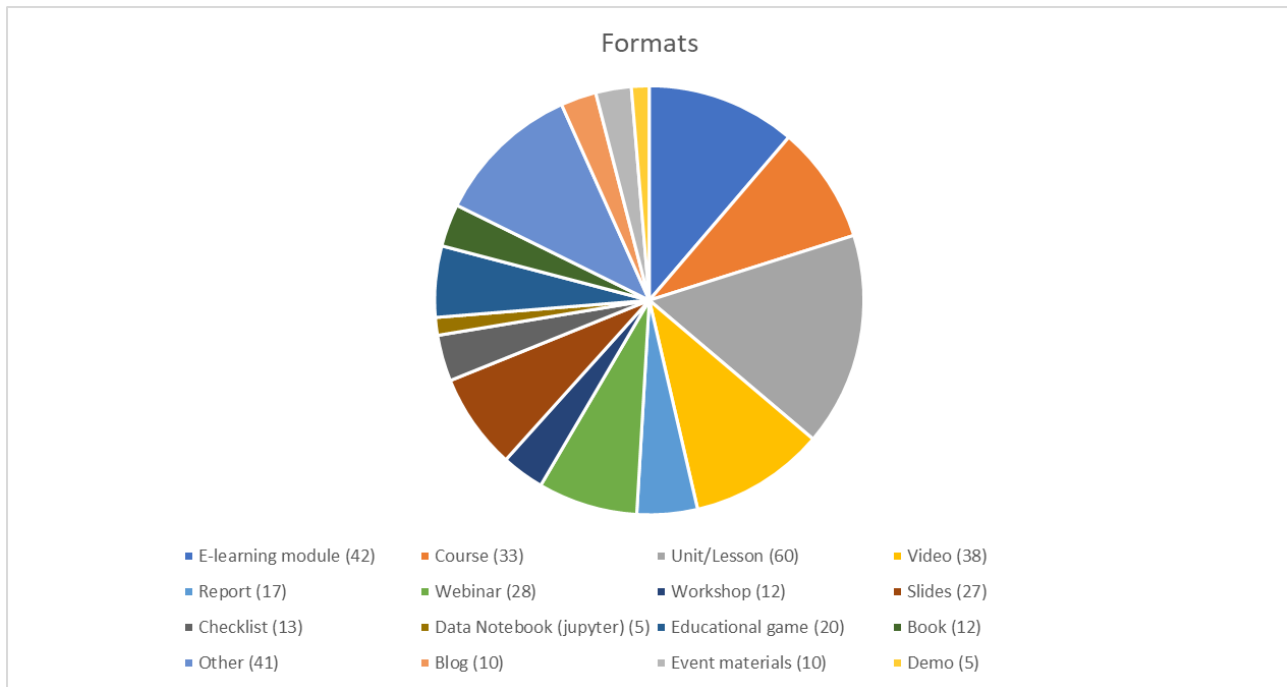


Figure 7: Pie-chart displaying the number of items in the TDT from a particular format.

3.2 Usage of the TDT

The graph in Figure 8 shows the number of unique visitors to the TDT in the period between September 2020 and February 2022. Please note that although the TDT was launched earlier in 2020, we do not have any visitor numbers of the period before September 2020 as the Matomo system was not yet set up properly before that time. The graph shows a relatively stable number of 214 unique visitors on average per month.

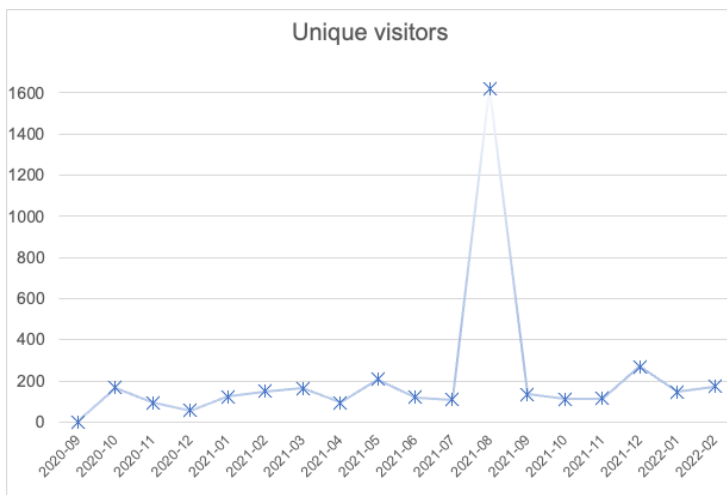


Figure 8: Graph displaying the number of unique visitors per month to the TDT website.

The graph also shows that there is a peak of visits in August 2021 where within five days (between 25th and 29th of August 2021) the TDT had an average of 309 visitors each day. The reason for this sudden increase in the number of visitors is unknown, but we suspect that this activity is due to a web scraping script that was executed on the TDT but interpreted by Matomo as visitors.

Figure 9 shows an overview of the location of the visitors to the TDT. Unsurprisingly most visitors (85%) came from Europe. This is followed by visitors from North America (10%) and Asia (4%), whereas other locations only account for very few of the TDT visitors.

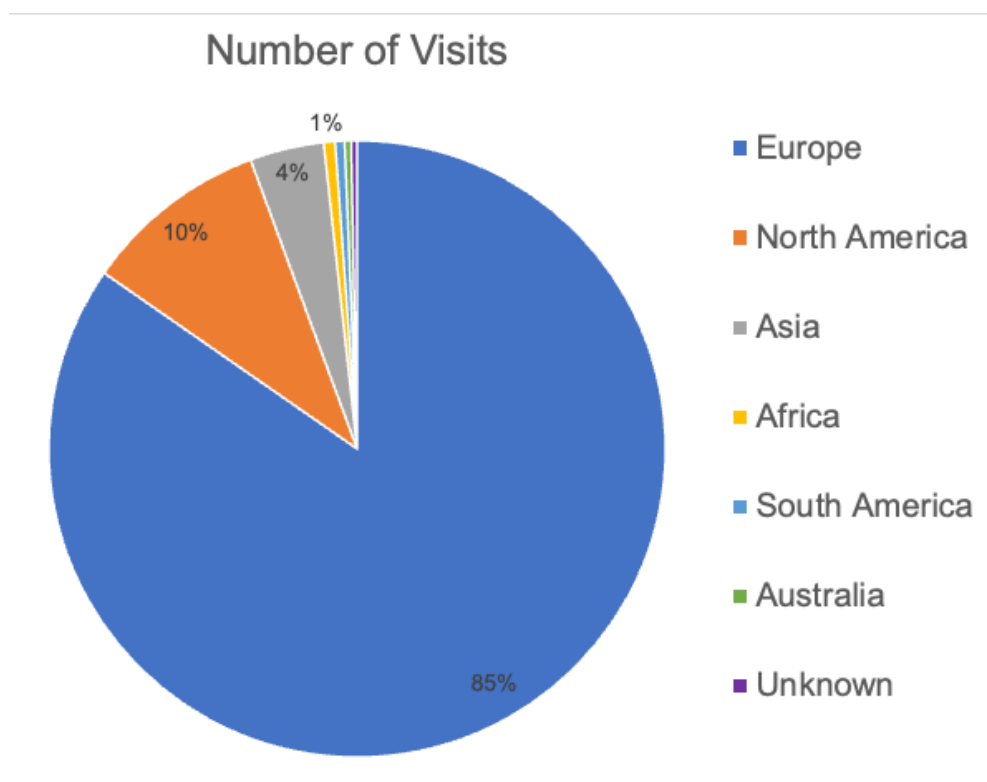


Figure 9: Pie-chart displaying the number of visits to the TDT website from different continents.

4. Sustainability plans for the TDT

The TDT was developed as part of the SSHOC project to provide trainers with an inventory of relevant training materials that they can re-use. The TDT remains of value even after the SSHOC project ends and the team would therefore like to provide a long-term sustainability plan and solution. For a sustainable tool two main categories of activities need to be secured; the technical activities and the content-related activities:

- **Hosting and technical maintenance** including changes in the data model and controlled vocabularies. Currently, the TDT is hosted and maintained by the Austrian Academy of Sciences/DARIAH. The controlled vocabularies are fixed lists and maintained in the TDT.
- The **active curation** and addition of new items is a time-consuming activity that was done by a dedicated team during the SSHOC project.

Several sustainability scenarios have been explored by the T6.4 partners and technical representatives of the research infrastructures DARIAH and CESSDA. A decision was made in February 2022 towards the preferred sustainability scenario to be pursued with regards to the TDT. When it comes to hosting, initially the TDT will remain a separate service hosted by the Austrian Academy of Sciences/DARIAH and curated by the SSHOC consortium, which plans to remain a collaborative network currently establishing a Memorandum of Understanding (MoU) amongst the partners. In the longer term, there are plans for the TDT to be fully integrated and merged with the SSH Open Marketplace. This will be achieved by extending the metadata available in the SSH Open Marketplace to cover metadata specific for learning resources. Furthermore, several research infrastructures and institutions in the SSH are creating learning resource catalogues that will be available for harvesting by the SSH Open Marketplace, as well as the EOSC Training catalogue, which is currently developed by the EOSC Future project. This means that in the future the TDT will follow a path towards the EOSC ecosystem through the SSH Open Marketplace. In the meantime, the TDT can already be listed as a tool in the EOSC. For the TDT it is important for materials to be identified to target trainers or educators, or to be available for reuse by trainers or educators.

In terms of curation, the proposition is that, in order to maintain the quality of the TDT, a curation team consisting of representatives of trainers in SSH to make the toolkit also content-wise a valuable tool after the SSHOC project. This will have as a starting point a collaboration of (some of) the SSH ERICs. This collaboration will be specified through and annexed under the SSHOC MoU. In the context of the agreed scenario, the effort for each of the activities is currently being updated and reviewed by the interested parties.

Apart from the maintenance and continuous curation of the TDT, task 6.4 is promoting the sustainability of TDT related outputs and experiences through the following actions and recommendations:

- **Sharing the metadata and making sure the collection is preserved:** An export of the metadata available in the TDT is available on the TDT page mapped to Schema.org

in json format.²⁷ The mapping of the TDT metadata to Schema.org (Table1) is published on Zenodo.²⁸ This can be used as a reference for other projects and catalogues, even if the TDT is not accessible as a separate tool anymore. If the TDT becomes unavailable the metadata could be preserved by depositing the export to Zenodo or another repository.

- **Sharing the challenges the team of task 6.4 has encountered creating the TDT with other catalogue developers:** An action performed by organising (on behalf of the Community of Practice of training coordinators)²⁹ the workshop “The RDM Training & Support catalogue landscape” (Leenarts et al., 2021)³⁰ at the Open Science FAIR (September 2021), and publishing a blog on this workshop.³¹
- **Participating in the RDA Education Training on Handling Research Data - Interest Group (ETHRD-IG) task force** for minimal metadata for learning resources from 2020 till now.³²
- **Participating as a testbed in a FAIRSFAR WP6 test in 2021** on the used metadata for learning resources and the foreseen challenges to implementing the minimal metadata on learning resources recommended by the RDA ETHRD - IG.
- **Participating in the workshop Harmonising Training Resource Metadata for EOSC Communities** (Newbold et al., 2021).³³
- **Sharing experiences with EOSC Future WP9/task 9.3 who is creating the EOSC Knowledge Hub** wherein the EOSC Training catalogue resides, within multiple meetings.
- **Sharing experiences and recommendations in an upcoming paper** by the community of practice of training coordinators task force on FAIR training materials, on use cases of promoting FAIR training materials.

²⁷ The information about the items is available at https://training-toolkit.sshopencloud.eu/export-items-schema-org?_format=json, [accessed February 15th 2022]. Before the end of the project, SSHOC task 6.4 aims to also provide a link to the source information which will be listed on the About page of the TDT at <https://training-toolkit.sshopencloud.eu/about>. [accessed February 15th 2022]

²⁸ Saldner, S., Illmayer, K., Braukmann, R., Leenarts, E., Durco, M., & Wehmeyer, J. (2022). Mapping SSH Training Discovery Tool (TDT) metadata to Schema.org. Zenodo. <https://doi.org/10.5281/zenodo.6379660> [accessed March 28th 2022]

²⁹ The blog post is available at: <https://www.openaire.eu/cop-training>. [accessed February 15th 2022]

³⁰ The report is available at <https://doi.org/10.5281/zenodo.5564865>. [accessed February 15th 2022]

³¹ The blog post is available at <https://www.openaire.eu/blogs/the-rdm-training-support-catalogue-landscape>. [accessed February 15th 2022]

³² Information on the RDA group is available at: <https://www.rd-alliance.org/group/education-and-training-handling-research-data-ig/wiki/ethrd-ig-focus-group-materials>. [accessed February 15th 2022]

³³ The workshop information is available at <https://doi.org/10.5281/zenodo.4769468>. [accessed February 15th 2022]

5. Conclusion

This deliverable describes the final version of the SSHOC Training Discovery Toolkit that was released on the 20th of April 2020. The TDT was further developed throughout the lifecycle of the SSHOC project. The TDT provides an inventory of materials for trainers in the SSH where they can find learning and training resources for re-use in their training activities. The TDT at the time of writing contains more than 240 items from more than 95 sources covering a variety of topics and material types. Since its launch, the TDT was extended with regard to content, but also significant work has been done to improve the metadata and its interoperability and vocabularies used in the TDT. While the SSHOC project is coming to an end, trainers will continue being able to discover learning resources through the TDT. The collected materials will remain available through the TDT initially and will be merged into the marketplace eventually.

6. References

- Braukmann R. & Leenarts E. (2020). SSHOC D6.9 SSHOC Trainer Toolkit (draft) (v1.0). Zenodo. <https://doi.org/10.5281/zenodo.4558299>
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- Saldner, S., Illmayer, K., Braukmann, R., Leenarts, E., Durco, M., & Wehmeyer, J. (2022). Mapping SSH Training Discovery Tool (TDT) metadata to Schema.org. Zenodo. <https://doi.org/10.5281/zenodo.6379660>

7. Appendices

7.1 Appendix 1: Overview of sources and items available through the Training Discovery Toolkit

Sources of the Training Toolkit	Items
Alison	0
ALLEA Events & Publications	1
Australian Research Data Commons Training Materials	1
Belmont Forum e-Infrastructures & Data Management Toolkit	2
CESSDA Data Management Expert Guide	8
CESSDA Resource Directory	3
CLARIN Depositing Services	13
CLARIN Knowledge Sharing	1
CLARIN Legal Information Platform	3
CLARIN Resource Families	17
CODATA/RDA Schools of Research Data Science	3
Computing & Library Services (CLS)	1
Copyright Guide at the University of Sussex	1
CORBEL and EOSC-Life joint webinar series	2
Coursera	1
Cranfield Online Research Data (CORD)	1
Danish e-Infrastructure Cooperation (DeiC)	1
DANS Training	1
DARIAH-Campus	10
Data Carpentry	2
Data management support for researchers	2

Data Observation Network for Earth (DataOne)	1
DCAF	1
DDI Training Material	0
DelftX - Free online courses from Delft University of Technology	1
DigCurV - Digital Curator Vocational Education Europe Project	1
Digital Curation Centre	3
Digital Preservation Coalition	3
Digital Preservation Education Working Group	1
Dutch Digital Heritage Network: Training and Education	1
edX	3
EHRI Training	2
EOSC Hub Project Training Materials	3
ESS EduNet	4
EOSC-Synergy Training Platform	5
Erasmus University Rotterdam	1
European Commission Open access & Data management	1
FAIRsFAIR	11
FD Mentor	1
FOSTER Open Sciences: Courses	6
GESIS Notebooks	2
GESIS Training	3
Harvard University: online courses	1
IASSIST Community Webinars	1
ICPSR Teaching & Learning	3
IIIF - International Image Interoperability Framework	2
INASP	1
JISC	1
Journal of Open Source Education	2
Leadership & Skills Building - LIBER	1
Learning Hub	0

LFT	1
Library Carpentry	2
Luxembourg Centre for Contemporary and Digital History	1
Masaryk University	1
MOOC Delivering Research Data Management Services	3
National Coordination Point Research Data Management: RDM Advice and Tips	3
New Mexico Broadband Program	1
NHS Education for Scotland	2
ODI: open data institute	2
Open Book Publishers	1
Open Education Resources	1
OpenAIRE Training and Support	8
OpenScience MOOC	2
Orion Open Science project	2
PARTHENOS Project	7
RDA Trainings & Webinars	1
RDM services @ Library & Information Service	1
Research Data MANTRA	2
Research Data Netherlands (RDNL) Support	1
School of Simulation and Visualisation at The Glasgow School of Art	1
SERISS Project	4
Social Sciences and Law - University of Bristol	1
Software Carpentry	0
SSHOC Training	2
SURF e-learning courses	1
TeSS (Training eSupport System)	2
The Carpentries Workshops	1
The Library Advisory Group (LAG) at the University of Essex	1
The new social learning blog	1

The Survey of Health, Ageing and Retirement in Europe (SHARE): Special Data Sets	1
Training catalogue ENVRI	4
Training Courses European Social Survey (ESS)	0
UK Copyright Literacy	2
UK Data Service: Data Skills	2
UK Data Service: Manage Data	8
UK Data Service: Secure Lab	3
UK Data Service: Survey and Census Data	6
UK Data Service: Teaching with Data	10
University of Groningen	1
University of Helsinki	3
University of Ljubljana	1
University of Parma	1
University of Sheffield	1
University of Siena	1
UNODC	1
Wikiwho	2
Total items of all 85 sources	243

Table A1: TDT Sources

7.2 Appendix 2: Learning Resource Types - SSHOC Training Discovery Toolkit

The TDT contains a fixed list Format metadata field which contains an unpublished controlled vocabulary for learning resource types. In early 2022, this list was reviewed and the fixed list was expanded with more options. Although it would have been preferable to replace the list with a published controlled vocabulary for learning resource types, no such list was found. Below is an overview of vocabularies found for learning resource types in current catalogues.

SSHOC TDT Learning Resource Types (field Formats):

- Audio
- Blog
- Book
- Checklist
- Course
- Data Notebook (Jupyter)
- Demo
- E-learning module
- Education game
- Evaluation
- Event materials
- Exercise
- Handout
- Image
- Online guide
- Other
- Report
- Slides
- Software
- Survey
- Tool
- Unit/Lesson
- Video
- Webinar
- Workshop

Overview Learning Resource Type Vocabularies

Most of the sources listed below have images of their respective vocabularies below this table.

Source nr	Source	Content	Comment regarding SSHOC TDT
1	COAR	Resource types for repositories, so not focused on learning resources	Not Applicable, as not focused on learning resources
2	LRMI	Mentioned in RDA group. Still in development, can't find the vocabulary, potentially the ideal fit for learning resources	can't find the vocab. ideal fit potentially
3	NSDL	Mentioned in RDA group. List of instruction materials seems like a good fit for learning resource types. How many are using it already? see below image	overlap with our list, maybe too many to integrate -could we consider? Not enough on online learning en niet gepubliceerd.TBD
4	CESSDA	Resource directory Zotero Item types not focused on learning resources	Not Applicable
5	DARIAH Campus	Links to an example. The fixed list is nice and short: <i>audio, event, pathfinder, slides, training-module, video, webinar-recording, website</i> . Does not reveal any information on the training resource content, focuses on the format	not enough information on the content of the learning resource
6	TeSS	Focused on learning resources. Mixes format and type (like the TDT), seems like a list that has grown from free text to fixed list?	quite extensive, could be a candidate for TDT but does not have the nice focus on content like NDSL
7	EOSC Pillar Training Catalogue	Focused on learning resources. Mixes file format and resource type (like the TDT), seems like a list that has grown from free text to fixed list.	Contains less options than the TDT format list
8	EOSChub	Focused on learning resources. Mixes file format and resource type (like the TDT), seems like a list that has grown from free text to fixed list.	Focuses more on file format than on learning resource type. In the SSHOC TDT we would like to focus on the

			instructional type of the learning resource
9	ENVRI-FAIR	Focused on learning resources. Mixes file format and resource type (like the TDT), seems like a list that has grown from free text to fixed list.	Seems not better than the TDT format list
10	Zenodo	Well thought of, short list of resource types	Not focused on learning resource types
11	CLARIN	Online course, video lecture(s), Slides, Educational game, Other	Short list but does not offer enough granularity on educational types
12	CESSDA	New CESSDA training catalogue	Nice split between formats and types. Short list. A bit shorter than the TDT list, could be implemented by TDT, but we think we would like to see more granularity types

Table A2: Overview Learning Resource Type Vocabularies

Sources - including images

1. COAR https://vocabularies.coar-repositories.org/resource_types/
2. LRMI Learning resource types
https://github.com/dcmi/lrmi/tree/main/lrmi_vocabs/learningResourceType work in progress
3. NSDL <https://wiki.ucar.edu/display/nsdl/docs/Type> instruction material

- **Instructional Material** - resource or learning object including
 - **Activity** - non-laboratory material designed to stimulate learning
 - **Annotation** - a comment, review, graphic, question, or other reaction
 - **Case Study** - resource offering intensive analysis of a specific case
 - **Course** - a set of teaching materials (generally for an extended period of time)
 - **Curriculum** - a program of study which may or may not be implemented
 - **Demonstration** - a resource that exposes the nature of a process or phenomenon, different from **Simulation** in that demonstrations have real objects
 - **Experiment/Lab Activity** - a scientific procedure (see [iLumina Dictionary])
 - **Field Trip** - excursion to a place to gain firsthand information
 - **Game** - an interactive environment in which participants learn a skill
 - **Instructional Strategy** - a guideline, pedagogical approach, or method
 - **Instructor Guide/Manual** - resource for teachers including materials development, assessment, and additional resources
 - **Interactive Simulation** - a representation of a system or process with user-defined outcomes (use for: applet, mathlet)
 - **Lecture/Presentation** - audio or text record of a lecture or a discussion group about a topic
 - **Lesson/Lesson Plan** - resource to support student learning including learning objectives, and procedures
 - **Model** - a mathematical or physical construct intended to represent a process or phenomenon
 - **Problem Set** - series of tasks or questions posed to students
 - **Project** - individual or group activity or problem that requires a significant amount of time and effort
 - **Simulation** - imitative representation of a system, process, or phenomenon (different from a **Demonstration**, which employs real objects)
 - **Student Guide** - resource for learners to help facilitate learning
 - **Syllabus** - plan showing the structure of a particular course, including sequence, and course calendar [iLumina]
 - **Textbook** - resource providing comprehensive material on a topic
 - **Tutorial** - resource that provides guided information on a topic
 - **Unit of Instruction** - a set of teaching materials for a specific unit

4. Zotero item types - used by CESSDA Resource directory

https://www.zotero.org/support/kb/item_types_and_fields#item_types

Item Type	Description
Artwork	A piece of artwork (e.g., an oil painting, photograph, or sculpture). Also use this item type for other types of images or visual items (e.g., scientific figures).
Audio Recording	Any form of audio recording, including music, spoken word, sound effects, archival recordings, or audio-based scientific figures.
Bill	A proposed piece of legislation.
Blog Post	An article or entry posted to a personal blog website. For online articles published as part of a larger online publication (e.g., NYT Blogs), using <code>Magazine Article</code> or <code>Newspaper Article</code> generally yields better results.
Book	A book or similar published item. For government documents, technical reports, manuals, etc., use <code>Report</code> instead. This item type can also be adapted to fit many types of unusual items.
Book Section	A section of a book. Usually chapters, but also forewords, prefaces, introductions, appendices, afterwords, comments, etc.
Case	A legal case, either published or unpublished.
Conference Paper	A paper presented at a conference and subsequently published in a formal conference proceedings publication (e.g., as a book, report, or issue of a journal). For conference papers that have not been published in a proceedings, use <code>Presentation</code> .
Dictionary Entry	An entry published as part of a dictionary.
Document	A generic document item. This item type has a poor selection of fields and poor support in citation styles, so it should generally be avoided.
Email	A message sent via email. This type could also be used for other forms of personal communication.
Encyclopedia Article	An article or chapter published as part of an encyclopedia.
Film	A film or motion picture. Generally, use this type for artistically-oriented films (including fictional, non-fictional, and documentary films). For other types of video items, use <code>Video Recording</code> .
Forum Post	A post on an online discussion forum. Also use this type for items such as Facebook posts or tweets.
Hearing	A formal hearing or meeting report by a legislative body.
Instant Message	A message sent via an instant message or chat service. This type could also be used for other forms of personal communication.
Interview	An interview with a person, including recordings, transcripts, or other records of the interview.
Journal Article	An article published in a scholarly journal (either print or online).
Letter	A letter sent between persons or organizations. This type could also be used for other forms of personal communication.
Magazine Article	An article published in a non-scholarly, popular, or trade magazine (either print or online).
Manuscript	An unpublished manuscript. Use this type for both historical documents and modern unpublished work (e.g., unpublished manuscripts, manuscripts submitted for publication, working papers that are not widely available). Can also be used for other forms of historical or archival documents. This item type can also be adapted to fit many types of unusual items.
Map	A map. Also use this type for geographic models.
Newspaper Article	An article published in a newspaper (either print or online).
Patent	A patent awarded for an invention.
Podcast	A podcast (an episode of an audio or video program distributed online, often via subscription).
Presentation	A presentation made as part of a conference, meeting, symposium, lecture, etc. This item type refers to the presentation itself, not a written version published as part of a conference proceedings (use <code>Conference Paper</code> for such published versions).
Radio Broadcast	An audio broadcast, such as a radio news show, an episode of a radio entertainment series, or similar. Includes broadcasts from online radio stations and audio broadcasts archived online (cf. <code>Podcast</code>).
Report	A report published by an organization, institution, government department, or similar entity. Also used for working papers and preprints distributed through institutional repositories or preprint servers. This item type can also be adapted to fit many types of unusual items.
Software	A piece of software, an app, or another computer program.
Statute	A law or other piece of enacted legislation.
Thesis	A thesis submitted as part of a student applying for a degree (either published or unpublished).
TV Broadcast	An episode of a television series.
Video Recording	A video recording. Use this type for general video items that do not fit into one of the more specific video item types (e.g., <code>Film</code> , <code>TV Broadcast</code>), such as YouTube videos or video-based scientific figures.
Webpage	An online page of a website. When possible, use one of the more specific item types above (e.g., <code>Magazine Article</code> , <code>Blog Post</code> , <code>Report</code>).

5. DARIAH Campus - content types. Asked Vicky for the list: audio, event, pathfinder, slides, training-module, video, webinar-recording, website
 example: <https://campus.dariah.eu/resource/posts/eosc-onboarding>

6. TeSS

Resource type	
Tutorial	101
Video	97
Slides	50
Talk	49
e-learning	49
Webinar	41
Slidedeck	29
Documentation	27
Training materials	26
course materials	26
Presentation	24
Scripts	18
Exercise	17
Handout	17
Poster	14
PDF	13
Slideshow	13
Jupyter notebook	6
Life Sciences Literature Da...	4
online modules	4
slideck/ presentation	4

7. EOSC Pillar training catalogue

Types
Guidelines (31)
Course (28)
Website (24)
Tool (20)
Video (20)
List (4)
Tutorial (4)
Checklist (3)
Handout (2)
Game (1)

8. EOSCHUB resource types

- Any -
Blog
Deliverable
GitHub repo
Jupyter Notebook
Manual
Others
PDF
ppt
Source code
Training Module
Video
Videos
Website
Wiki
Google presentation
Google spreadsheet
Google Text Document
DOC Word document
XLS Spreadsheet document
PPT Power Point presentation

9. ENVRI-FAIR resource type

-

Exercise

Simulation

Questionnaire

Diagram

FAQ

Figure

Graph

Index

Slide

Table

Narrative text

Exam

Experiment

Problem statement

Self assessment

Lecture

Video

Webinar

10. Zenodo upload type:



11. CLARIN list of resources: Online course, video lecture(s), Slides, Educational game, Other

12. CESSDA Training Catalogue

Classification of materials (Type & Format)

Types of material

- *Presentation*
- *Poster*
- *Publication*
- *Lessons/Course*

- *Short guide*
- *Podcasts*
- *Information sheets*
- *Exercises*
- *Game*
- *Software*
- *Other*

Format of material:

- *Text*
- *Slides*
- *Image*
- *Audio*
- *Video*
- *Webpage*
- *Interactive resource*

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