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Manual for media diary software:
MeTag Analyze & MeTag App

Manual for MeTag Version 1.0.3
and MeTag Analyze Version 1.0
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## Table of Contents

- **Introduction** 4
- **Working with MeTag Analyze and the MeTag app** 5
  - 1 Creating a new project 5
    - 1.1 Adding a description to your project 6
    - 1.2 Adding inputs to your media diary 6
  - 2 Creating cases for the study and inviting them 8
  - 3 Collecting data via the MeTag app 13
  - 4 Handling Data in MeTag Analyze 16
Manual MeTag Analyze and MeTag app

Introduction

The purpose of MeTag Analyze and the accompanying MeTag app (which can be found in the app stores of Apple\(^1\) for iOS and Google\(^2\) for Android) is to provide researchers with a tool to collect and analyse media diaries. The data collection takes place via the above mentioned MeTag app on the participants’ smartphones. The data analysis is done via a web-based back-end app called MeTag Analyze which at the same time functions to start and end data collection projects. Media diaries as a methodical approach can be applied to a wide variety of different research purposes (vgl. Gershuny & Sullivan 1998, Jäckel & Wollscheid 2006 or Linke 2010). They can be used to research phenomena like media repertoires, time budgets allocated to particular media, patterns of interpersonal media communication and many other purposes. Media diaries can also be a pedagogical tool in media education to make someone aware of his or her media use. With such different purposes in mind, MeTag is built to support various kinds of research, ranging from standardized to non-standardized data collection. Since media diaries are produced over a period of time, they can offer insights into communicative process patterns that other methods can not.

If you want to get further information about the use of media diaries for media and communications research, please consult the following publications:


Please be aware, that MeTag is continuously developed as part of the DFG (Deutsche Forschungsgemeinschaft) funded project “The sustainable provision of software for cross-media practices and digital traces research. A ‘co-creation approach’ for developing an infrastructure model for the digital diary and sorting apps MeTag and MeSort“ (HE 3025/13-1).

This manual refers to version 1.0.3 of the MeTag app and version 1.0 of MeTag Analyze and is work in progress, which means that it will be continuously updated as MeTag is developed. Please consult the web page http://mesoftware.org/index.php/metag/ for updates. For any comments on this manual or on MeTag Analyze itself, please contact us via e-mail at metag@uni-bremen.de.

\(^1\) https://apps.apple.com/de/app/metag/id1478391926
\(^2\) https://play.google.com/store/apps/details?id=de.unibremen.metag&hl=de
Working with MeTag Analyze and the MeTag app

MeTag Analyze was tested using the web browsers Chrome, Firefox and Safari. The MeTag app is available for iOS and Android. When using the MeTag software we propose the following workflow, that will also be represented by the structure of this manual:

1. Creating a new project in MeTag Analyze
2. Creating cases for the study and inviting them
3. Collecting data via MeTag app
4. Handling data provided by cases

When first visiting our website at https://www.kommunikative-figurationen.de/metag/login you will find the login screen (see image 1), where you just enter your login credentials, consisting of an e-mail address and a password. If you are not a registered user yet, you can click on the “Register to use MeTag Analyze” link. Upon doing so, you can set an e-mail address and a password to use as your future login credentials. Alternatively, you can contact us at metag@uni-bremen.de and we will add you as a user.

![Image 1: Blank login screen of MeTag Analyze](image)

1 Creating a new project

Once you successfully logged in, you will see the home screen of MeTag Analyze (see image 2), where you can either left-click on the blue “+ New Project” button in the upper right corner or the blue “+ New Project” button in the now still empty section of your created projects.
1.1 Adding a description to your project

When you press the “+ New Project” button, your screen will change and you will be prompted with an empty form to fill out (see image 3). The field “Title” can contain the name of your project as it will later appear on your home screen, it is limited to 200 characters. In the field “Description” you can write a short summary of your project (max. 250 characters). For an example, see image 4.

1.2 Adding inputs to your media diary

Besides providing this more general information, you can also edit the data your media diary project is asking from the participants. Every media diary project you create in MeTag Analyze will always contain at least two inputs which every participant of a study has to provide:
1) The time of start and end of media usage and 
2) the medium that has been used.

In case of the medium, you can provide your participants with a list of predefined inputs they can choose from. This might be relevant if you are only interested in analysing certain types of media or very specific uses (see green rectangle in image 5). Alternatively, there is always a free text field where the participant can enter what kind of media he or she used.

Image 5: Adding inputs to your media diary project

If you need more data from your participants, you can add up to three additional inputs by clicking the “+” sign below “Number of additional inputs” and then set a name for each input. Furthermore, you can check a box to make this entry mandatory for your participants and also choose what type of format this input should have (see red rectangles in image 5). You can choose from:
- text: a free text field in which participants can openly answer,
- one choice: from a set of given answers participants can choose exactly one,
- multiple choice: from a set of given answers participants can choose several or
- scale: a scale from 1 to 5 stars participants can choose one value of.

⚠️ Caution: At this state of development, only lower case letters are possible for the entries into the “Answers” fields.
As an example project for this manual, we created a fictional project titled “Daily media use study” and entered the following description: “This example study researches the daily media usage of participants to demonstrate the functionalities of the media diary software” (see image 4).

We entered some very basic types of media we assumed, maybe based on previous research, participants might use daily – TV, radio, laptop, smartphone and book (see image 5) – and added overall three additional inputs. The first of which we named “Media content”. It is a mandatory input of the type “text”, so that participants can freely enter what exactly their media consumption comprised. They could for example specify what book they read or what they watched on TV (the exact handling of this input would then have to be part of the briefing on how to use the media diary prior to data collection). The second additional input is supposed to give some insight into the context of media usage and asks for possible companionship. To keep it simple, we selected the type “one choice” so that the participant only has to state whether he or she was with company or not, i.e. he/she watched TV alone or together with others (see also image 5). As the final input we selected the type “scale” to ask for the perceived enjoyment of the media use (see image 6).

Once you have made all the required settings, you can save the finished project by clicking the “Create Project” button at the bottom of the screen (see green rectangle in image 6). You will then be redirected to the home screen.

### 2 Creating cases for the study and inviting them

Once you created your project, it will appear in the “Projects you created” section of your home screen. It will show the title of your project, the login name of the person who created it, how many cases are assigned to it and the short description you provided when creating the project (see image 7). It will also give you the option to actually add cases to it, i.e. participants who keep that media diary for a certain amount of time.
To do so, first click the “Consult Project” button on your project (see image 7, marked by the red rectangle). Upon doing so, you can view your project in more detail. Once you have cases, you will find an overview of them at the tab “Cases List”, you can invite other researchers to your project under the “Invites” tab and you can edit your inputs (as long as you have not added any cases yet!) at the “Inputs” tab. That means that on the one hand you can add completely new inputs you may have forgotten at the initial creation of the project or on the other hand you can delete inputs that turned out to be unnecessary. You can of course also just alter existing entries (see image 8).

To now add one or more cases, i.e. participants who keep a media diary for a certain amount of time, just click on the green “Create Case” button at the top of the page (see red rectangle in image 8).

Upon doing so, the “Create a case” page will open and you can provide certain data for the case that should be created.

First there is the case name. Although this data can only be accessed by you (or researchers you invited to the project), we would recommend not using the actual name of the participant, but rather some other kind of identifier like a pseudonym or a case number to assure the anonymity of the participants.

In a second step you can set the duration for the data collection, i.e. how many days or weeks your participant should keep his or her media diary. Furthermore you have
the option to set the starting time of data collection to the time when the participant first logs into the mobile MeTag app or, by unchecking this option, set a certain date for the start of your collection period, independent of logins from your participants.

The time is measured by the following method: if you set a specific starting day and a duration, the system starts counting from midnight of the set starting day until midnight of the last day. This is the period your participants can enter and edit data. Similar to that, if the duration is set to start when the participant first logs in, it counts from this moment on until midnight of the last day of the set duration.

The third and last step consists of entering a valid e-mail address of the participant. He or she will then receive an automatically generated e-mail asking him or her to set a password for login into the MeTag app on his or her smartphone. If the participant is already in the system, e.g. by having participated in an earlier media diary project, no e-mail will be sent and he or she can just log into the app using the existing data.

CREATE A CASE

The duration start from the moment when the user log in in the app.
The user field define the login email in the app.

Case Name

Case01

Duration

7 day(s)  Estimated end: 4.2.2020

User

jane.doe@email.com

If the user is not registered, he/she will receive an email to set a password.
If the user was already registered, he/she will just need to log-in to see the new case.
Please check beforehand if the user was already assigned to a case with the same email.

Create Case

Image 9: Creating a case in MeTag Analyze

So, for our exemplary “Daily media use study” we created earlier, we still need participants. More specifically, we need their e-mail addresses. Once we recruited willing participants, we create a case in the project for each of these persons by clicking the “Create Case” button in the detailed view (see above and image 8). After that we can enter a case name, which in the example in image 9 ist just “Case01”, as this is our first case and we want to keep it as impersonal as possible.

Then we set the duration of data collection: We can choose between a measurement in days or weeks. Since we want to collect data over one whole week, we set the duration to seven days. Furthermore, we have the option to set a starting time. By checking the box below the duration
(and it is already checked per default), the seven days of data collection begin to count the moment participant “Case01” logs into the MeTag app for the first time. We could also set a specific starting date for data collection. To do that, we would simply uncheck the box and set a date. At last, we enter the participants’ e-mail address into the “User” textbox and click the “Create Case” button to finish.

Caution! At this state of development, each participant can only be assigned to one project at a time. This means if his or her e-mail address is new to the system, an e-mail will be sent to that address to set an account password. But if this e-mail address is already in the database, e.g. because that participant already used it for another MeTag project, no e-mail will be sent. The participant can use the data already used for the earlier project to log into the app. However, the participant can currently not use the same login data for two different projects at the same time. We advise to brief your participants accordingly.

Once you created a project (see section 1) and added cases to that project to provide you with data (see section 2), you are good to go. But you might be working in a team and want your team members to also be able to work on your project. In that case, you can invite them. To do so, go to the detailed view of your project my clicking the “Consult project” button as described above (see also image 7).

Then switch to the “Invites” tab mentioned above (see image 10) and just enter the e-mail address of the person you wish to work with you on the project. As before, an e-mail will be sent to that address to set a password and so create a MeTag Analyze login.

The person you created can view (and also delete!) cases and their data. However, he or she can not delete the project or invite other people to join it.
Some closing remarks on MeTag Analyze: To help you navigate between and inside your projects, there will always be a so-called breadcrumb trail at the top of the website (see image 11).

![Image 11: Breadcrumb trail]

That way you can always see where you are and find your way back to previous pages.

And more importantly, you should be aware that you will not be able to view the data collected by the participants until the period of data collection has ended. This is to ensure the biggest possible control of the participants over their data, as they are able to edit and delete any entry until the end of the duration of data collection you have specified when you created the case. However, in the detailed view of your project you can see whether participants are collecting data, i.e. entering entries into their diary, or not.

![Image 12: Two cases assigned to a project]

The example in image 12 shows two cases added to our “Daily media use” project. They are called Case01 and Case02, and you can see that Case01 already added two entries to their diary, whereas Case02 only added one (inside the red rectangles). A future version of MeTag will provide the option to send push notifications to participants to remind them of their media diary, if necessary.

To sum up, you now can create projects, add cases to these projects and invite other researchers to work on these projects and consult the data - but keep in mind: the data is only available once the period of data collection has ended.
3 Collecting data via the MeTag app

The MeTag app can be downloaded for Apple's iOS devices and all smartphones that run on Android via the respective app stores. Before data collection, all participants should install the latest version of the app on their smartphones. For iOS it can be found here:  
https://apps.apple.com/de/app/meitag/id1478391926  
For Android it can be found here:  

Upon starting the MeTag app, each participant gets greeted by the login screen (image 14), where he or she enters the e-mail address used to create him or her as a case for the project (see section 2, image 9) and his or her corresponding password. They can
also choose to check the „Remember e-mail?“ box so that it is no longer nessessary to enter the e-mail address every time the app is started. For security reasons the password will still be required though.

The first time the login was successful, there will be a message at the bottom of the screen reminding the participants of the duration of data collection and that they can not add or edit entries after that (image 13). This message will only appear once.

To create a new entry, participants simply tap the blue, circled „+“ at the bottom right of the screen. Then they can enter the data according to the inputs that were specified when creating the project. That means one input will always be the time of media usage, consisting of a starting time and an ending time. And another one will, since this is a media diary, always be the medium being used. This is a free text field, so participants can write there whatever they want. However, if at project creation certain media were specified, they will be suggested by the app automatically when participants start writing.

All other possible inputs - three at the maximum - are dependent on the setup of the project and therefore flexible. To save an entry, simply tap the „Add new entry“ button at the bottom (see image 15). The following example illustrates that:

Coming back to our example project we called “Daily media use study”, the participants we added as cases to keep a media diary would all download the MeTag app for their respective smartphones. After that they would login the way described above. To create an entry, they just tap the “+” in the lower right corner (see image 13) and can begin to provide the data specified during project creation. As mentioned earlier, this data will always consist of a) the time of media use and b) the medium being used. To set the time, participants simply provide a point in time the media usage started and one where it ended. Image 16 shows a participant having set the starting time to 9 o’clock on January 29th 2020 and the ending time to 12:59 on the same day, i.e. roughly four hours of media usage. The medium being used was a laptop - one of the presets set during project creation (see image 5). But since it is a free text field, the participant could have entered anything else, e.g. a medium not covered by the presets, like a magazine or a tablet computer.

The remaining three inputs for this example where all set to ‘mandatory’, so the participant has to enter something in order to save the diary entry. In the free text field of the input “media content”, he or she types “work stuff” - illustrating the need for good, clear instructions and briefings for the participants (see image 16). The input “companionship” only allows to choose one answer out of, in this case, two given ones. The participant chooses “I was with company during media use”. And lastly we included an input of a scale format to rate the enjoyment of the media use, which in this case gets rated with three out of five stars (see image 15).
Participants can also edit or delete entries they already created, as long as the period of data collection has not ended yet. To do so, you can just tap on an already existing entry, make the changes you wish to make and finish by tapping the „Update entry“ button. To delete existing entries altogether, just right-swipe over them to make the „Delete“ button appear and then delete the entry by tapping it (see image 18). To log out of the app after having finished, tap the three dots in the upper right corner to open the menu and tap the „Logout“ option. Here you can also check our privacy
policy, that can also be found on our website and when downloading the app from the app store (see image 17).

When data collection ends, participants can no longer add new entries, edit exiting ones or delete them. Upon trying to do so, a corresponding info message will appear. At that time, the collected data will become accessible in MeTag Analyze.

4 Handling Data in MeTag Analyze

Once data collection period has ended, you can view the data via the “Consult Project“ option in MeTag Analyze, where you will now have more options than before (see image 19).
MeTag offers three options to handle the collected data: you can 1) view a visualization of the entries participants have provided, 2) download them to further analyze them externally and 3) delete the case and all accompanying data.

To view a timeline visualization of each of the created inputs, simply click the „View Entries“ button available for every case. The diagram will - in this version of MeTag - show the characteristics of an input in relation to the time, e.g. at what time what medium was used (see image 20).

You can adjust the shown section of the timeline to „zoom“ on or out by shifting starting point and end point at the bottom of the diagram (see red rectangles in image 20).

![Image 20: Visualization of entries for input "Media"](image)

You can also download the diagram in different file formats. To do so, simply click the menu symbol at the top right of the visualization and choose one of the options (see image 21). You can view it in full screen or print it. And you can also export it as a PNG, JPEG or SVG image or in form of a PDF document.

![Image 21: Export options for diagrams](image)
Furthermore, you also have the option to directly download the collected data of each participant in form of a Microsoft Excel table. To do so, click the „Download“ button shown for each case once data collection has ended.

And lastly, you can delete the case and all corresponding data by clicking the red „Delete Case“ button. There will be a warning message and you will need to confirm the deletion. After doing so, the case and data will be deleted and can not be recovered, so consider carefully before choosing this option.

To sum up, you should now be able to create a project in MeTag Analyze (section 1), create cases or invite fellow researchers to this project (section 2) and train your participants in using the MeTag app for smartphones (section 3). Finally, you can view the collected data and export it for further use (section 4).

Should you encounter any bugs or problems when using MeTag Analyze or the MeTag app, feel free to contact us via e-mail at metag@uni-bremen.de. Further information about upcoming versions of this software or our other Software MeSort and, in the future, more tutorial material can be found on our website at http://mesoftware.org/.