

FETPROACT-2-2014: Knowing, doing, being: cognition beyond problem solving

ACTION ACRONYM

**TIMESTORM**

ACTION FULL TITLE

**" MIND AND TIME: INVESTIGATION OF THE TEMPORAL  
TRAITS OF HUMAN-MACHINE CONVERGENCE"**

GRANT AGREEMENT NO:

**641100**



DELIVERABLE D1.6

**TIMESTORM DATA MANAGEMENT PLAN IN RELATION TO THE  
EU OPEN RESEARCH DATA PILOT**

DUE DATE

**JULY 1ST, 2015**

RESPONSIBLE PARTNER

**FOUNDATION FOR RESEARCH AND TECHNOLOGY HELLAS**

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# TIMESTORM Data Management Plan in relation to the EU Open Research Data Pilot

## 1 Data Management

TimeStorm intends to disseminate its results by disclosing them to the public. Following the article 29 of the TimeStorm Grant Agreement 641100, the current action supports the open access rules that apply in the Horizon 2020 framework.

In particular, Timestorm will provide on-line open access to scientific information that will be free of charge to the end-user and that will be re-usable. In the context of research and innovation, 'scientific information' can refer to (i) peer-reviewed scientific research articles (published in scholarly journals) or (ii) research data (data underlying publications, curated data and/or raw data). The Data Management Plan of TimeStorm with respect to the afore mentioned two categories of scientific information is further analyzed below.

### 1.1 [Open access to scientific publications](#)

All TimeStorm members intend to maximize open access (free of charge online access for any user) to the peer reviewed scientific publications relating to their results. In particular, the project beneficiaries will follow the "gold" open access model which assumes that an article is immediately provided in open access mode as published.

Along this line, the TimeStorm participants will:

- (a) deposit a machine-readable electronic copy of the published version or final peer-reviewed manuscript accepted for publication in the TimeStorm website and possibly to additional repositories for scientific publications, as soon as possible and at the latest one month after publication.
- (b) aim to deposit at the same time the research data needed to validate the results presented in the deposited scientific publications.
- (c) ensure open access to the deposited publication — via the repository.

### 1.2 [Open access to research data](#)

In addition to the open access on publications, TimeStorm supports the Open Research Data Pilot in Horizon 2020 which aims to improve and maximize access to and re-use of research data generated by projects. Regarding the digital research data generated in the action - these include mostly experimental data from human studies - the beneficiaries intend to:

- (a) deposit in a research data repository and take measures to make it possible for third parties to access, mine, exploit, reproduce and disseminate — free of charge for any user — the following:
  - (i) the data needed to validate the results presented in scientific publications as soon as possible;

- (ii) other data, including associated metadata, relevant to the conducted experiments and the gathered data;
- (b) provide information — via the repository — about tools and instruments at the disposal of the beneficiaries and necessary for validating the results (and — where possible — provide the tools and instruments themselves) to ensure they can be accessed, mined, exploited, reproduced and disseminated free of charge by future users.
- (c) support the visibility and dissemination of scientific data to ensure they are available to any third party within the international scientific community.

Currently, TimeStorm beneficiaries envision to produce three groups of data sets which will be handled as outlined in the following tables.

University Blaise Pascal  UBP	<b><i>Data set reference and name</i></b>
	Developmental data on time perception
	<b><i>Data set description</i></b>
	<p>The experimental data will refer to a computer task controlled via E-prime software where participants will be presented with stimuli durations presented in auditory or visual modality, and must judge the duration of these stimuli. In some experiments, the participants will be also given a small series of neuropsychological tests to assess their cognitive abilities.</p> <p>The data from each experiment will be formatted according to the re3data.org 2.2 XML Schema (<a href="http://www.re3data.org/schema/2-2/">http://www.re3data.org/schema/2-2/</a>) that is mainly a tabular structure which will include participants' age, their gender, and their responses (ex. percentage of long/same responses, Bisection Point, Weber Ratio) as a function of each experimental conditions.</p>
	<b><i>Standards and metadata</i></b>
	N/A
	<b><i>Data sharing</i></b>
	<p>The data will be submitted to the Dryad Digital Data Repository (<a href="http://www.datadryad.org/">http://www.datadryad.org/</a>). Data stored on Dryad are stored under a Creative Commons Zero (CC0) License. Additionally, data will be available for download from the website of the TimeStorm project (<a href="http://timestorm.eu/">http://timestorm.eu/</a>).</p> <p>Links to the data set will be registered to the re3data.org global registry of research data repositories.</p>
	<b><i>Archiving and preservation</i></b>
	<p>The dataset will be preserved in the Dryad Digital Data Repository for 5 more years after the end of the project. The relevant cost (currently estimated to 125 euros) will be covered from the TimeStorm budget. Every possible effort will be undertaken to further prolong the mentioned period.</p> <p>Additionally, they will remain available for download for at least 10 years after the end of the project in the official website of TimeStorm.</p>

University of Groningen	<b><i>Data set reference and name</i></b>
	Neural Markers of Global and Local Context in Interval Timing
	<b><i>Data set description</i></b>
	Using human behavioral and EEG testing paradigms, the University of Groningen will address effect of both global (i.e., the current block) and local (i.e., the most recent trials) temporal context on interval timing. Specifically, we will investigate why durations that are objectively equally long can be perceived as either shorter than veridical duration when this duration is longer than the mean of all durations, or vice versa. Hereto, we will collect behavioral and EEG data, and assess which frequency bands or ERP components differ when a particular duration is either subjectively perceived as shorter, or as longer.
	The data from each experiment will be formatted in standard ASCII CSV format, with an additional file describing the structure of the data files. Note that Van Rijn has extensive experience with creating large datasets that are accessible over longer periods of time (e.g., Baayen, Piepenbrock & Van Rijn, 1993)
	<b><i>Standards and metadata</i></b>
	UoG N/A
	<b><i>Data sharing</i></b>
	The data will be submitted to the Dryad Digital Data Repository ( <a href="http://www.datadryad.org/">http://www.datadryad.org/</a> ). Data stored on Dryad are stored under a Creative Commons Zero (CC0) License. Additionally, data will be available for download from the website of the TimeStorm project ( <a href="http://timestorm.eu/">http://timestorm.eu/</a> ).  Links to the data set will be registered to the re3data.org global registry of research data repositories.
	<b><i>Archiving and preservation</i></b>
The dataset will be preserved in the Dryad Digital Data Repository for 5 more years after the end of the project. The relevant cost (currently estimated to 125 euros) will be covered from the TimeStorm budget. Every possible effort will be undertaken to further prolong the mentioned period. Additionally, they will remain available for download for at least 10 years after the end of the project in the official website of TimeStorm.	

	<b><i>Data set reference and name</i></b>
	Effect of recent temporal context on time perception
University of Sussex	<b><i>Data set description</i></b>
	<p>Using typical human behavioural testing paradigms the University of Sussex (UoS) will extend on the influential paper by Jayazeri and Shadlen (2010) on the effect of recent temporal context. Initially, we will explore the capability of human temporal perception to maintain multiple distinct priors for temporal context, contingent on the sensory signal/content of sensory signal of origin. These basic experiments will involve a computer based task where human participants will be repeatedly presented with, for example, auditory stimuli presented over headphones, and must provide a report of the apparent duration. Building on these initial experiments we will build models of the underlying mechanisms of temporal perception and compare them with neurophysiological measurements obtained from electroencephalography (EEG).</p> <p>The data from each experiment will be formatted according to the re3data.org 2.2 XML Schema (<a href="http://www.re3data.org/schema/2-2/">http://www.re3data.org/schema/2-2/</a>) and will include the gender of participants, the number of experimental trials, and their responses in association to the actual (physical) durations they have experienced in each trial.</p>
UoS	<b><i>Standards and metadata</i></b>
	N/A
	<b><i>Data sharing</i></b>
	<p>The data will be submitted to the Dryad Digital Data Repository (<a href="http://www.datadryad.org/">http://www.datadryad.org/</a>). Data stored on Dryad are stored under a Creative Commons Zero (CC0) License. Additionally, data will be available for download from the website of the TimeStorm project (<a href="http://timestorm.eu/">http://timestorm.eu/</a>).</p> <p>Links to the data set will be registered to the re3data.org global registry of research data repositories.</p>
	<b><i>Archiving and preservation</i></b>
	<p>The dataset will be preserved in the Dryad Digital Data Repository for 5 more years after the end of the project. The relevant cost (currently estimated to 125 euros) will be covered from the TimeStorm budget. Every possible effort will be undertaken to further prolong the mentioned period.</p> <p>Additionally, they will remain available for download for at least 10 years after the end of the project in the official website of TimeStorm.</p>

## 2 References

- Baayen, R. H., Piepenbrock, R., & van Rijn, H. (1993). The CELEX lexical data base on CD-ROM. Philadelphia, PA: Linguistic Data Consortium.
- Droit-Volet S. (2013). Time perception in children: A neurodevelopmental approach. *Neuropsychologia*, 51, 220-234.
- Droit-Volet, S., & Zélanti, P. S. (2013). Development of time sensitivity and information processing speed. *PLoS ONE* 8(8): e71424. doi:10.1371/journal.pone.0071424.
- Droit-Volet, S., & Wearden, J.H. (2001). Temporal bisection in children. *Journal of Experimental Child Psychology*, 80, 142-159.
- Droit-Volet, S., Clément, A., & Wearden, J. (2001). Temporal Generalization in children. *Journal of Experimental Child Psychology*, 80, 271-288.
- Jazayeri, M., & Shadlen, M. N. (2010). Temporal context calibrates interval timing. *Nat Neurosci*, 13(8), 1020-1026. doi: 10.1038/nn.2590.