XR4DRAMA Data Protection Notice

Information for the processing of personal data in accordance with art. 14 GDPR

The purpose of this data protection notice is to inform data subjects about the processing of their personal data. Considering the technical nature of the module and limitations imposed by the research design (i.e., scale), it is considered that informing those data subjects directly would involve a disproportionate effort. For this reason, this information is made publicly available via the project's website in accordance with art. 14 GDPR and with its potentially applicable derogations (art. 14 (5) (b) GDPR), as an effort of enabling the data subjects to be informed about the data processing and to exercise their rights. This notice refers to the specific module of the XR4DRAMA responsible for collection of data from online sources.

Data will be collected from:
i. Social Media (e.g. twitter), where only specific values (e.g. tweet id, tweet text, language, tags, tweet URL stripped of the username, links to images/videos and metadata - e.g. video duration) will be collected

ii. Content from the surface web (text and audiovisual), where the relevant searches will be restricted to specific keywords as required by the nature of the research.

1. The Project

xR4DRAMA (EC Horizon 2020 Project XR4DRAMA, GA Nr. 952133) main objective is to create and enhance this situation awareness for those who are – remotely as well as directly – engaged in handling disasters, man made crises or public events or the aftermaths thereof in remote locations. The groups usually involved in such events range from first responders, local authorities and security forces to media companies and event planners. They all need to dive into the given situation, either by planning or executing a mission connected to the event at hand. In xR4DRAMA the proof of concept will focus on first responders and media companies before extending the use cases to other domains. xR4DRAMA aims at enhancing situation awareness through, especially, XR technologies in order to:

- facilitate the sourcing of all relevant information needed to plan necessary actions.
- create an „as if on site "experience of an environment (e.g., in VR) to anticipate the planned event or an incident as thoroughly as possible.
- create a joint understanding of an environment (a "distributed situation awareness") to be shared by team members, allowing for smoother communication and consultation.

- provide the possibility to continuously update the representation of the location (e.g., in VR) during the evolving incident/event in order to understand and potentially re-assess consequences of specific decisions.

xR4DRAMA will focus on collecting and representing streaming data from outdoors environments where crisis events are happening, as well as offline assets from the authorities, media production teams and from the web, in interoperable, collaborative, state-of-the-art AR/VR, mobile and web environments, where end-users will be able to connect, operate and interact on different situation awareness scenarios such as disaster management, media production planning etc. xR4DRAMA is bringing together different technologies, such as multimodal analysis, semantic web, extended reality and smart wearables with the goal to tackle problems in the domains of disaster management and media production planning related to interactive situation awareness in real-time, through a multimodal, reasoning-based decision support system. xR4DRAMA aims at creating a tool for multiple domains, from outdoor media production planning to disaster management. It can be used remotely and on site for an augmented and shared perception of a given situation, in order to facilitate more efficient and resource-saving planning as well as a frictionless implementation of the planned action.

XR4DRAMA solutions will be validated through two main Pilot Use Cases (PUCs) as follows:

a. **PUC1:** Disaster management: xR4DRAMA will implement a VR environment to train first responders, which can also be used during a real event scenario along with AR technologies to visualise the state of the area before the event and the DSS to guide the first responders.

b. **PUC2**: Outdoors media production: Using the xR4DRAMA toolkit, Media production companies (DW) create a first XR model based on available geographical data like maps, satellite imagery or preliminary 3D information (e.g. from Google or OpenStreetMap).

2. Data Controller

The Centre for Research & Technology – Hellas (6th km Harilaou - Thermi, 57001, Thermi-Thessaloniki, Greece) is the Data Controller. Each of the PUCs has a dedicated leader and DPO; for further details on the applicable DPO to your data request, please contact CERTH as the project's Coordinator.

3. Data Processing

The purpose of data collection in this project is to improve interactive situation awareness in real-time, such as the detection of environmental assets in the covered area, to easily detect the stress levels of the participating actors, to improve the team interaction with the help of audio and written language analysis and augmented reality, their co-presence in virtual environments, and the mission coordination from the headquarters through a multimodal, reasoning-based decision support system. The legal basis under which the data shall be processed is article 6(1)(f) GDPR. The legitimate interest of the controllers lies with the pursuit of scientific research

purposes confirmed by the European Commission. Such data will be collected by the social media crawling methods that will be tested in the context of the XR4DRAMA pilots.

What personal data is being processed?

The following categories of personal data publicly available on social media and/or the surface web will be collected and processed:

- Social media posts (i.e., tweets), including the language, textual content, hashtags, images/videos, whether the post is a reply to another post, as well as the number of retweets (in case of twitter) and the number of likes;
- Social media account information, including the username[1], description (if any from the user), location, as well as the number of friends, followers and favourites;
- Social media account interactions, including user mentions;
- Images linked to articles, posts, etc. found on the surface web

No special categories of personal data (art. 9(1) GDPR) are foreseen to be collected (at least not intentionally), nor data relating to criminal convictions (art. 10 GDPR). All data will be collected in accordance with the licences and terms & conditions of the data providers. All data will be gathered only from public accounts, with the permission defined by the social media platforms/Web forum communities and in compliance with the respective terms of use, including the ones referred explicitly to the terms of use on behalf of minors, thus in accordance with user expectation of privacy. All collected data will be pseudonymised. The names of users that posted a tweet or are mentioned inside a tweet are all encrypted with a cryptographic cipher and replaced with alphanumeric characters. Data minimisation will also be applied, i.e., only data that are necessary for the purposes of the project will be processed. Further, details are provided in the "What is the purpose of the processing" section.

What is the purpose of the processing?

All PUC pilots will include the validation of proof-of-concept tools that aim to design, implement and demonstrate a platform, to be used in two key sectors, in both of which the use of xR technologies is not mainstream: a) in disaster management, where the crisis management stakeholders in an urban or rural area will be enabled for collaborative management of crisis events and b) in media production, where production planning personnel will be able to acquire real-time situation awareness from production locations, even when these are difficult to approach, discovering the specific assets of the area, and maximising media production capabilities. The above data will be required for the duration of the project: (i) for scientific research purposes, (ii) to facilitate the functionality of other modules of the project, and (iii) for demonstration purposes.

Data security

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[1] All usernames collected from Twitter are pseudonymised before being stored. See section "What is the purpose of the processing?" for more details.

The xR4DRAMA project implements appropriate technical and organizational measures to ensure an appropriate level of protection against the risks arising from processing, such as accidental or unlawful destruction, loss, alteration, unauthorised disclosure or access. The data collected from identified social media will be pseudonymised. The username will be hashed during collection (implementing the privacy by design principle) based on a one-way cryptographic hash function (e.g., SHA 256), ensuring that from the derived hash value it is infeasible to obtain the original username, while the content of the social media posts will remain as is. In accordance with the data minimisation principle, only the parts of the social media posts that are deemed necessary for the project's objectives will be processed subject to a privacy-by-design technique, while the majority will be deleted immediately. All the personal identifiers (if any) from all the other data sources (surface web) will be removed (e.g., Photos blurring etc.) before being further processed, so that access to raw data with further links to personal data will not be possible. All data will be collected in accordance with the licences and terms & conditions of the data providers. All data will be gathered only from public accounts, with the permission defined by the social media platforms and in compliance with the respective terms of use, thus in accordance with user expectation of privacy. After the end of the project (October 2022), secure deletion tools will be applied by the members of the XR4DRAMA Joint Controllership agreement (see section "Will the collected data be shared?" for more details), that will make the data irretrievable.

Will the collected data be shared and who will be responsible for all of the data when this study is over?

The information collected will be jointly shared with members of the XR4DRAMA Consortium, in accordance with the project's consortium agreement and any interested party may contact the Project Coordinator Dr. Stefanos Vrochidis (stefanos@iti.gr) for further information. The collection and sharing of this data is necessary for the evaluation process and assessing the validity of the results, and using the results will help develop the XR4DRAMA solution. The collected personal data may be also disclosed: (1) to all partners of the Consortium, through a password protected system; and (2) if this is required to third parties for the fulfilment of our legal obligations or is necessary for the fulfilment of the above data processing purposes and is in compliance with the applicable legal framework. The information collected will be also used to contribute towards several journal and conference publications as well as scientific contests, in line with Twitter/Instagram Policy. When this study is over, CERTH/ITI will be the only one responsible for the information collected.

How long will data be stored?

The storage duration of the data in their pseudonymised form will be the duration of the project plus five (5) years after the end of the project [i.e., April 2023], to be available for demonstration in case of an inspection or an audit, as long as required to achieve the above purposes of processing, unless a longer retention period is required by law or for the establishment, exercise or defense of legal claims.

Will the collected personal data be used for other purposes?

Social media users' information collected in XR4DRAMA will not be processed for any other purposes outside of those specified in this document.

Will the collected data be processed by automated tools supporting decision-making?

Your data will be used for developing a proof-of-concept platform which involves automated tools processing the content gathered with the goal to support the platform operators in decision-making. Data collected from you will only be used to test the capabilities of the XR4DRAMA tools and you will not suffer any consequences of such automated processing supporting decision-making. After hashing of your account information, the researchers will not be able to trace back your data back to you.

What are your rights?

Your rights under GDPR are contained within articles 12-23 and 77. Some of your most important rights include:

- *Right to information:* you may request information about whether we hold personal information about you, and, if so, what that information is and why we are holding it. This information shall be provided within a reasonable period after obtaining the personal data, but at the latest within one month of receipt of the request.
- *Right to access:* you may request to receive a copy of the personal information we hold about you and to check that we are lawfully processing it.
- *Right to rectification*: you may ask us to rectify the information that we hold about you in case you consider that something is missing or is incorrect.
- *Right to erasure*: you may ask us to erase your personal data at any given moment without a specific reason.
- *Right to object*: you may request to stop processing delete or remove your personal data at any desired moment where there is no good reason for us continuing to process it
- *Right to data portability*: you have the right to request the transfer of your personal data in an electronic and structured form to another party or directly to you. This enables you to take your data from us in an electronically usable format and to be able to transfer your data to another party in an electronically usable format.
- Lodge a complaint with the Hellenic Data Protection Authority (https://www.dpa.gr).

Please note that the aforementioned rights may be restricted in the light of the GDPR (e.g. art. 89 par. 2) and the applicable national data protection legislation.

For the exercise of your rights and for any other data-related information you may contact us at m4d_ethics@iti.gr