



PReparing **I**ndustry to
Privacy-by-design
by supporting its
Application in **RE**search

Deliverable D2.3
Web Portal

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Table of Contents

LIST OF FIGURES.....	3
LIST OF TABLES.....	3
DOCUMENT HISTORY	4
ABBREVIATIONS AND DEFINITIONS.....	5
EXECUTIVE SUMMARY	6
1 USAGE GUIDE	7
1.1 THE MAIN SCREEN	7
1.2 READING A PATTERN	8
1.3 SIGNING IN	9
1.4 EDITING THE PROFILE	11
1.5 ADDING A PATTERN	12
1.6 DISCUSSING A PATTERN.....	13
2 FURTHER PLANS	14

List of Figures

Figure 1 The main screen.....	7
Figure 2 Read view of a pattern	8
Figure 3 The sign in screen	9
Figure 4 The main page after signing in	9
Figure 5 Edit-view of the profile	11
Figure 6 Adding a new pattern	12
Figure 7 Discussing an existing pattern	13

List of Tables

none

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Abbreviations and Definitions

Abbreviation	Definition
PRIPARE	PReparing Industry to Privacy-by-design by supporting its Application in REsearch

Executive Summary

This document accompanies the online Web portal created by PRIPARE for the collection and evaluation of privacy patterns. In the document we describe the functionality and the operation of the portal. We explain various elements such as the main screen, how the login-process works, and how users can interact with patterns. User interaction includes reading patterns, creating new patterns, providing comments and editing existing patterns.

1 Usage Guide

1.1 The main screen

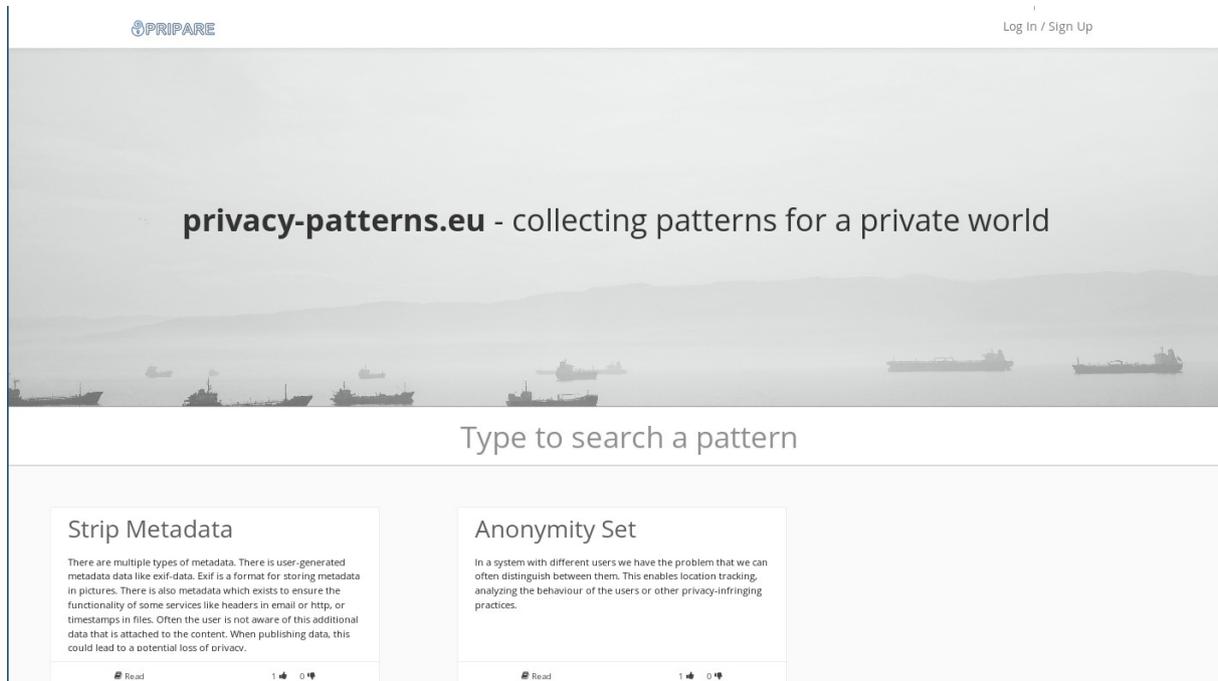
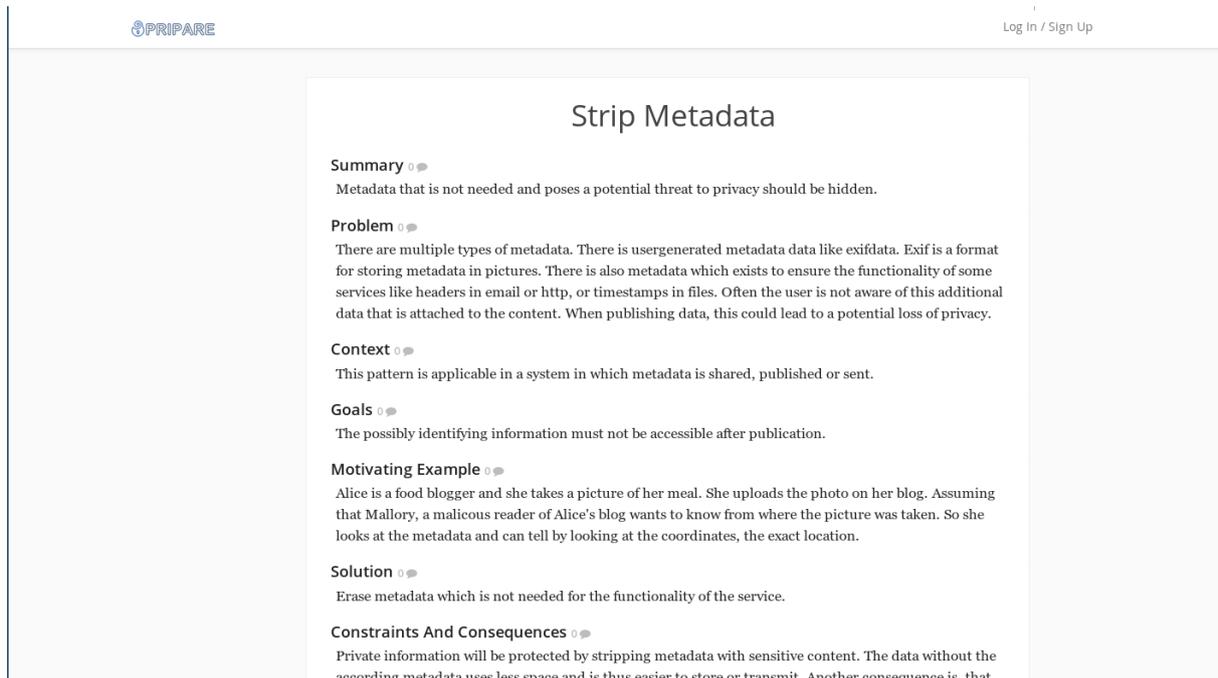


Figure 1 The main screen

On the main screen a collection of patterns is visible at the bottom. There is also a search box in the middle of the screen. The search bar is responsive; the patterns at the bottom adjust automatically as the user types.

For each pattern there is also the option to edit or read that pattern. Icons for upvotes and downvotes are visible on each pattern description. However, the user cannot vote until logged in. At the upper right corner of the screen there is a login button.

1.2 Reading a pattern



The screenshot displays the PRIPARE web application interface. At the top left is the PRIPARE logo, and at the top right are the links 'Log In / Sign Up'. The main content area is titled 'Strip Metadata' and contains the following sections:

- Summary**: Metadata that is not needed and poses a potential threat to privacy should be hidden.
- Problem**: There are multiple types of metadata. There is user-generated metadata data like EXIF data. EXIF is a format for storing metadata in pictures. There is also metadata which exists to ensure the functionality of some services like headers in email or HTTP, or timestamps in files. Often the user is not aware of this additional data that is attached to the content. When publishing data, this could lead to a potential loss of privacy.
- Context**: This pattern is applicable in a system in which metadata is shared, published or sent.
- Goals**: The possibly identifying information must not be accessible after publication.
- Motivating Example**: Alice is a food blogger and she takes a picture of her meal. She uploads the photo on her blog. Assuming that Mallory, a malicious reader of Alice's blog wants to know from where the picture was taken. So she looks at the metadata and can tell by looking at the coordinates, the exact location.
- Solution**: Erase metadata which is not needed for the functionality of the service.
- Constraints And Consequences**: Private information will be protected by stripping metadata with sensitive content. The data without the according metadata uses less space and is thus easier to store or transmit. Another consequence is, that

Figure 2 Read view of a pattern

When clicking on “Read” at a specific pattern, we see a read-only version of the pattern, together with existing comments. Users can login using the login button, whereas the PRIPARE logo at the upper left corner leads back to the main page.

1.3 Signing in

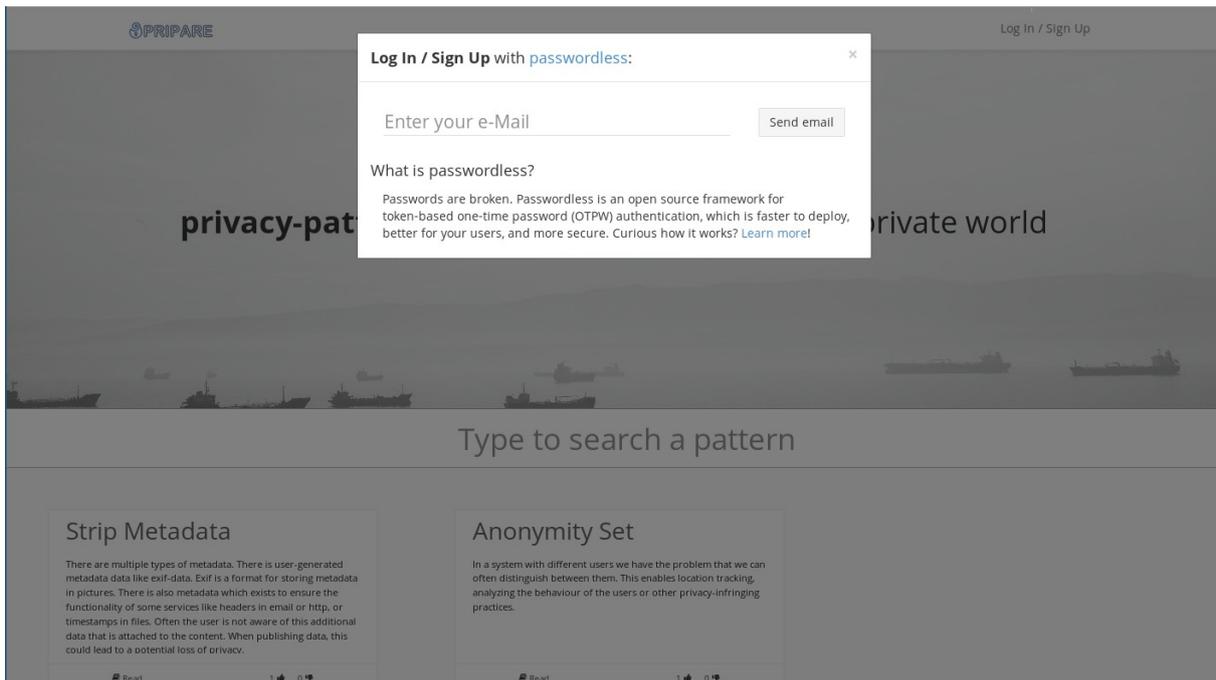


Figure 3 The sign in screen

In order to sign in, the users will be faced with a field where he/she is required to enter a valid E-Mail address. The user will then receive a link by email containing an access token. Once the user clicks on the link, he/she is logged in. We decided to use this login mechanism – passwordless – in order to avoid the requirement of saving user names and their passwords in other access mechanisms. Using this approach we aim to make the participation process easier.

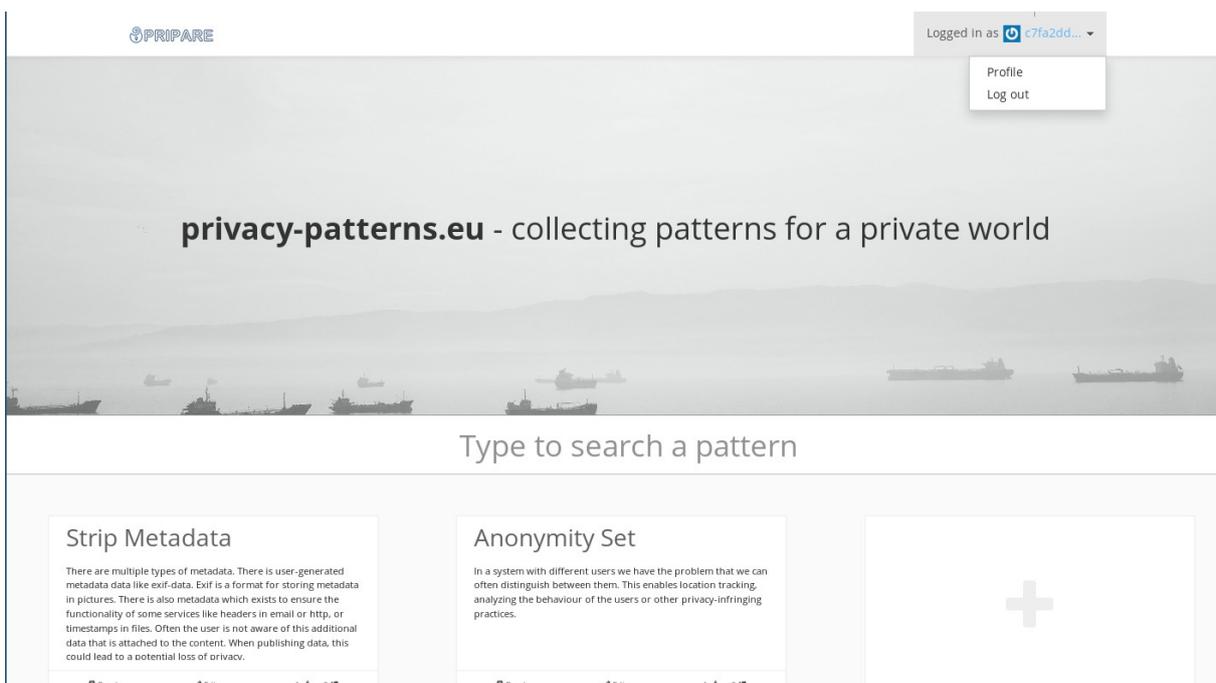


Figure 4 The main page after signing in

When logged in, the user can also edit patterns. To do this we have to click “Edit” on a pattern. Using the lower right “+” button, the user can add a new pattern.

In addition, the user can see a new bar on the upper right, where he/she can log out or edit their profile. When the user wishes to log in again, he/she has to type in the e-mail address to receive a new email with a login link. We decided to not use the e-mail address as the default username, because we consider e-mail addresses to be private. On the other hand we wanted pseudonymity, so that the users can build a reputation. We therefore decided to create a hash from the e-mail address which is used as the default username.

1.4 Editing the profile

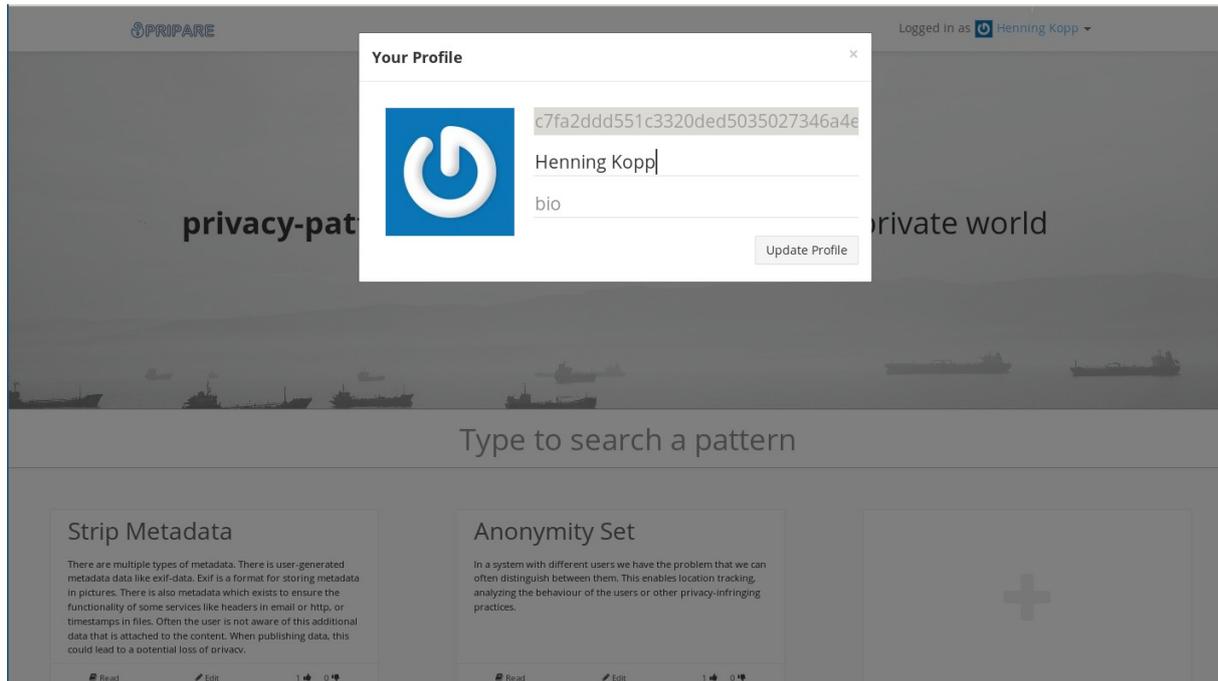
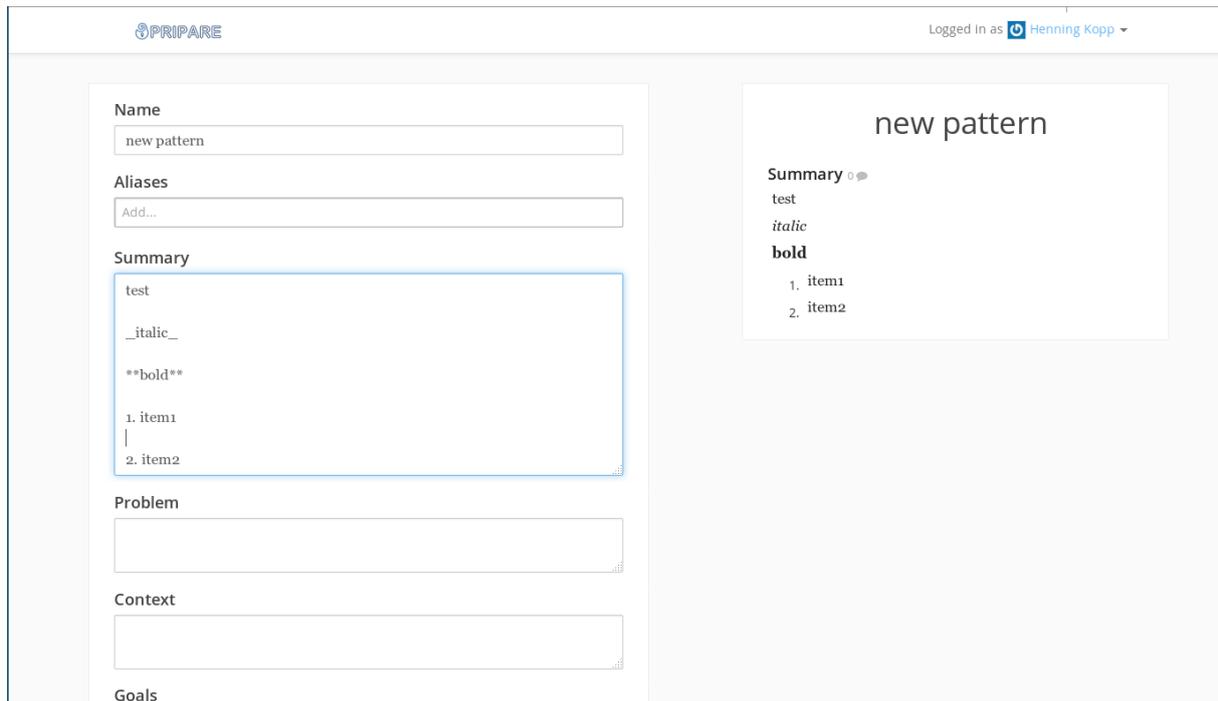


Figure 5 Edit-view of the profile

The username can of course be edited and the user can write a short bio. The user details can be seen in discussions. The web site supports using Gravatar service for user photos.

1.5 Adding a pattern



The screenshot shows the PRIPARE web interface for adding a new pattern. The page is split into two main sections. On the left, there is a form with several input fields: 'Name' (containing 'new pattern'), 'Aliases' (containing 'Add...'), 'Summary' (containing 'test', '_italic_', '**bold**', and a numbered list '1. item1', '2. item2'), 'Problem', 'Context', and 'Goals'. On the right, there is a preview window titled 'new pattern' showing the rendered output of the summary field: 'test', 'italic', 'bold', and a numbered list '1. item1', '2. item2'. The top of the page shows the PRIPARE logo and the user is logged in as 'Henning Kopp'.

Figure 6 Adding a new pattern

As mentioned earlier a user can start adding a new pattern, by clicking on the lower right “+”-button on the main page. The screen used for adding a new pattern is split into two sides. On the left the user can edit the different fields of the pattern, which can be viewed immediately on the right side. The Website supports Markdown syntax. So it is possible to have italic text via underscores or bold text via double-asterisks. Enumerations are also possible which are rendered immediately on the right side.

1.6 Discussing a pattern

Known Uses 0 ●

Anonymous Type I Remailer forward emails by modifying the message header and removing sender related information. Flickr.com give users the option to hide Exif data from public disclosure. The Anonymizer (<https://anonymizer.com/>) is a wellknown tool for anonymous web interaction. For example by using a proxy between a request sender and a recipient to strip header information like HTTP_USER_AGENT in packet headers because they contain metadata about packet senders.

Write a comment!

Tags

metadata

Related Patterns

protection-against-tracking

Supporting Patterns

anonymity-set onion-routing

Trl

TRL-9: actual system proven in operational environment (competitive manufacturing in the case of key enabling technologies; or in space)

General Comments

Write a comment!

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Figure 7 Discussing an existing pattern

For discussing a pattern there are two options. Figure 7 shows a read-view of a pattern with a logged-in user. At the bottom there is a field for general comments which concern the whole pattern.

In addition, for each individual element of the pattern there is a comment field. Comments can refer to previous comments, so the structure of the comments is essentially a tree.

2 Further Plans

By mid-January, PRIPARE partners have an internal project feedback phase, where the members will actively test the portal. The web portal will then be reset in order to integrate the feedback. By the end of January the portal will go live under the domain privacy-patterns.eu and will then be available for pattern collection and evaluation.