



## **Recognition and Enrichment of Archival Documents**

### **D5.6.**

## **Mobile crowd sourcing tool**

Delivery of HTR benefits via the web

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Distribution:

<http://read.transkribus.eu/>

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**READ**  
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## Executive Summary

This document gives an overview of progress on the foundational elements of the web user interfaces in general evidenced by the “Transkribus-web” website.

### 1. Introduction

Transkribus-web is a general term used to describe the presentation of the transkribus functionality to people via a web browser as distinct from the Expert client desktop application (Transkribus-X).

#### 1.1. Building on the Web UI foundation

The second year of the project has built on the foundations laid in the previous year and described by the diagram below. This work has led to a beta release of the “My Collections” web user interface.

After a series of meetings to discuss feedback from project partners with particular reference to the “User community” represented by NAF and UCL a number of changes to the website architecture were proposed and implemented.

The development of a collection index with an increased amount of metadata was prioritised over the development of more features for the dashboard app. Also a decision was made to develop the edit and view interfaces as a single app which would present the documents with an edit option available as determined by the status of the document and the role of the user.

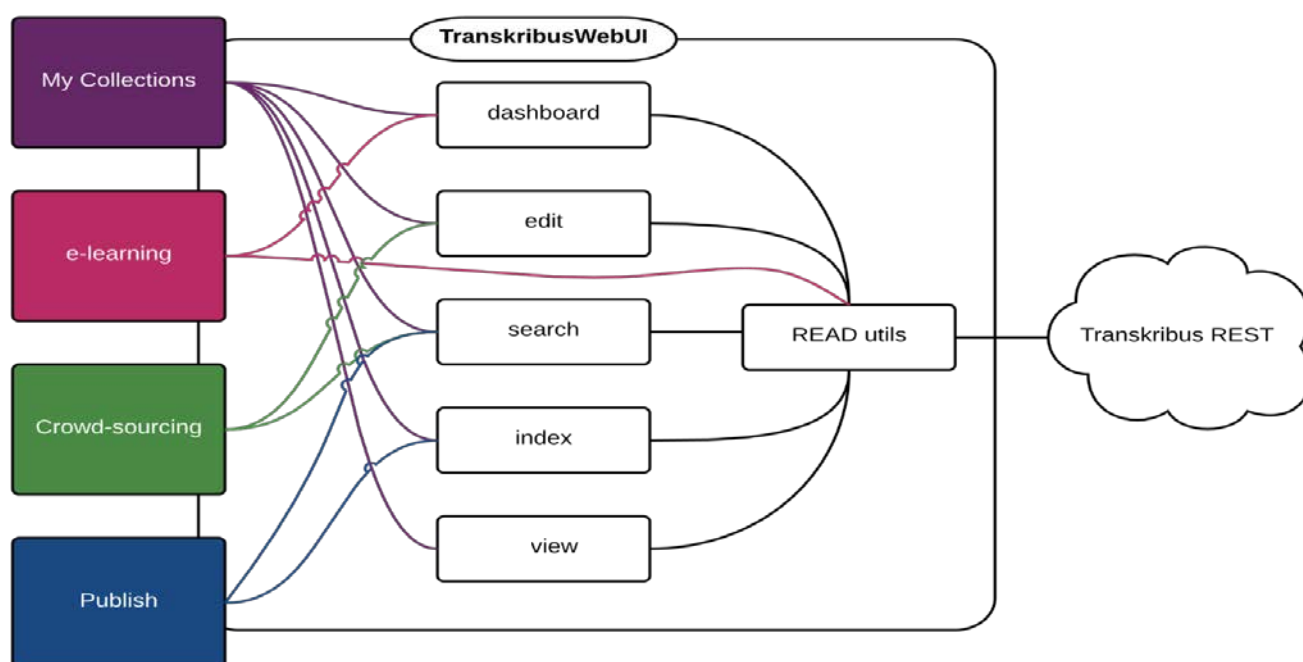


Fig 1 – Web UI basic architecture diagram – The view and edit apps have been merged into one

## 2 My collections

The released “My Collections” website provides the following

- An index of collections and documents
- A full-text search tool for documents and pages
- View/Edit of documents with four distinct interfaces

Below follows a description of these elements from the point of view of the user.

### 2.1 Collection index

Once a user has logged on to Transkribus-web they can browse the collections associated with their account. Thumbnails of a selected page from the collection, the title and descriptive text are displayed alongside the number of documents in a collection and the user’s role in relation to the collection. Collection statistics and “quick links” to the page that the user was last working on are also present on each row.

Image	Collection Title and description	No. of Docs	My Role	Stats
	<b>openDocs</b> (6903) created by S.Andi@web.de Page 1 of Einwohnerbuch für Burg 1939 last saved on 2017-11-12 <a href="#">Go to your last saved page in this collection.</a>	1	CrowdTranscriber	New 100%
	<b>CrowdProjectTestCollection</b> (6902) Test collection for crowd sourcing projects Page 1 of TEST_Realkat_duplicated last saved on 2017-10-20 <a href="#">Go to your last saved page in this collection.</a>	2	Owner	New 21% In Progress 57% Done 14% Ground Truth 7%
	<b>My crowd sourcing collection</b> (6476) created by rory.mcnicoll@gmail.com	1	Owner	New 100%
	<b>Brussels WebUI Demo</b> (5163)	3	Owner	New 96%

Fig 2 – Collections table

The next level of the index lists the documents within a collection. Information is presented in a similar way to the collections list, with more statistics on the readiness for transcription, the progress of transcription and metadata tags. The last saved quick link is joined by links that take the user directly to one of the four “interfaces” available from the View/Edit app. Collection level metadata is presented near the top of the page.

Transkribus-web

My Collections

Published collections

Transcription training

Crowd-sourcing

This is version mc-v0.03 (16/11/2017). View milestone on [GitHub](#) · Report a bug, Request a feature.

My Collections / WebUITestCollection 2305

Search

15 documents, 3889 words.

Tags : 15 people, 4 dates, 234 abbreviations, 78 others

Showing 1 to 10 of 15 entries



Page	Views	Document title and description	pp.	Stats
	<a href="#">Image</a>	<b>Reichsgericht I.-ZvS_1903_2.+3.Q_duplicated</b> (28650)	7	<b>Available for editing</b>
	<a href="#">Line by line</a>	20th century German kurrent script.		Lines 198
	<a href="#">Side by side</a>	Page 1 last saved on 2017-11-10		Words 1548
	<a href="#">Text</a>	Go to your <a href="#">last saved page</a> in this document		<b>Status of pages</b>
				In Progress 86%
				Done 14%
				<b>Tags</b>
				People 15
				Dates 3
				Abbreviations 3
	<a href="#">Image</a>	<b>Topelius_duplicated</b> (26457)	2	<b>Available for editing</b>
	<a href="#">Line by line</a>	Page 1 last saved on 2017-10-23		Lines 101
	<a href="#">Side by side</a>			Words 357
	<a href="#">Text</a>			<b>Status of pages</b>
				New 50%

Fig 3 - Documents table

At both collections and documents levels the presentation of the index lists are paged and the page length is configurable by the user. Where possible the lists can be sorted by column.

## 2.2 Full text search


Transkribus-web				My Collections		Published collections	Transcription training	Crowd-sourcing	This is version mc-v0.03 (16/11/2017). View milestone on <a href="#">GitHub</a> Report a bug. Request a feature.	
						Search				

**Search Results**

25 pages were found when searching for **January**


Displaying results 0 to 10

1 2 3 Results page size...



hca1371sample: page 1

Goulden Eagle, whereupon they sett out from Callice upon the 26.th day of **January** Last new style, And upon the 30.th day of **January** last past according to the new stayle or style of ffrance, the said two



ms158\_b1f005\_006: page 1

might be an early form, but it never occurred to me that peas were available in **January** the date of the




Fig 4 – Fulltext search results

On all pages a search box is available for users to search existing transcripts for certain strings. The results are presented as pictured above with paged lists of results. Each result represents a page in a document that contains the search term. The document title and page number are presented along with the context of the “hit” for that term and a thumbnail of the page. Clicking on a search result will take the user to the View/Edit app for that page.

## 2.3 View/Edit document

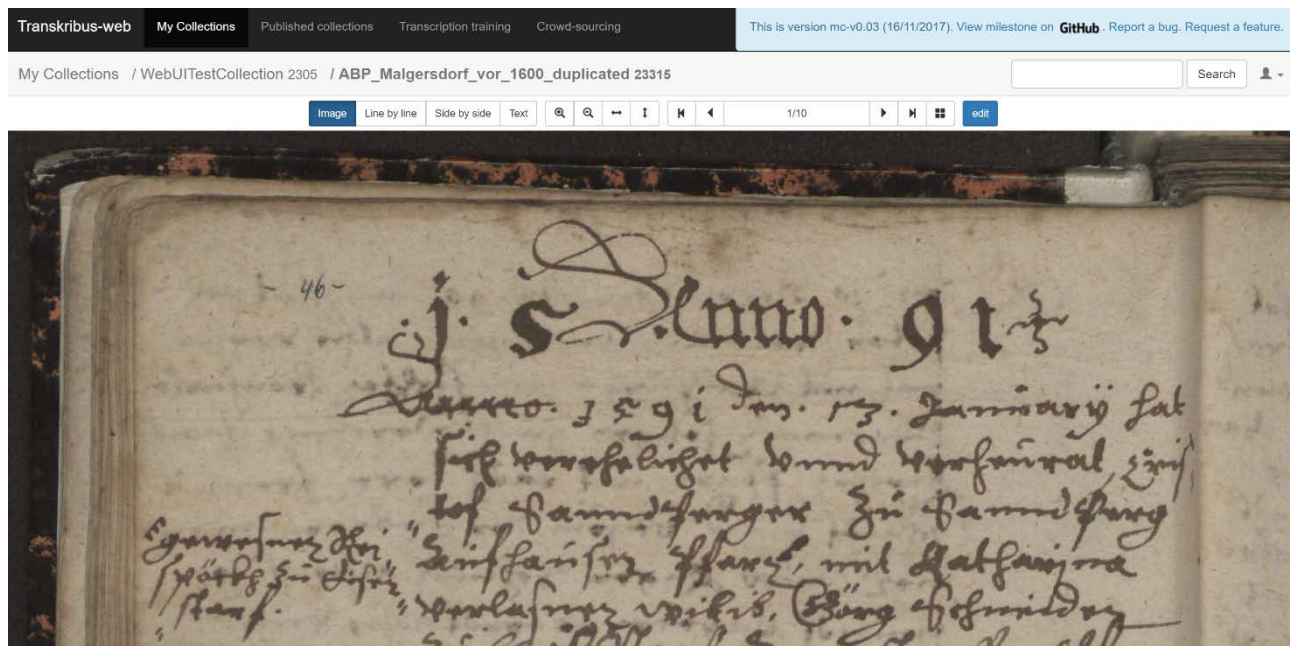


Fig 5 - The image interface in view mode.

Once a document or page is selected either via the index or a search result, the user will access the view/edit app. If no page is specified in the request the first page will be shown. The image is given as much of the page estate as possible.

The View/Edit app operates in two modes and presents the document content using four interfaces. Before describing modes and interfaces in more depth we will describe the navigation and zoom functionality.

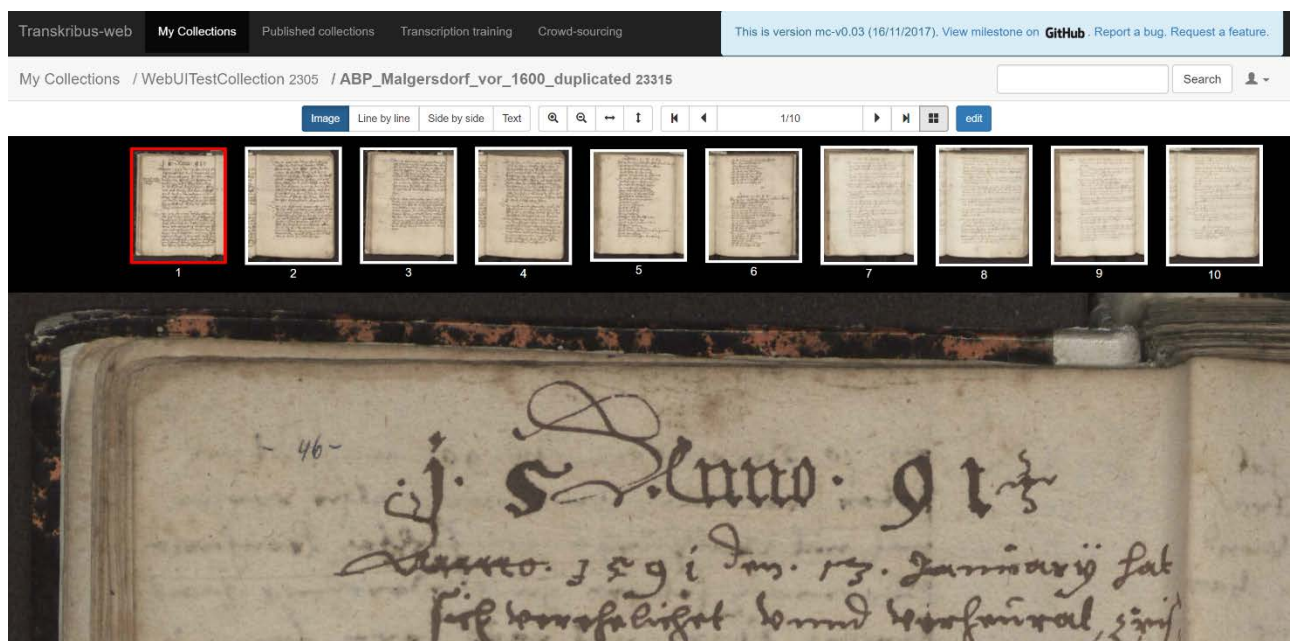



Fig 6 - Image interface in view mode with thumbnail ribbon

The user can navigate the document by using the arrows to go to first, previous, next or last pages. An indication of the page being viewed and the total number of pages is presented in a “jump to” input field that also allows the user to specify the page they wish to view by number. Lastly a thumbnail “ribbon” is available so that the user can find a page and move to it using the thumbnail for reference.

The images can be zoomed in and out by using the icons  or by using the mouse-wheel or trackpad scroll functionality. In addition to this zoom reset buttons allow the user to make the page image fit to width or height of the browser window.

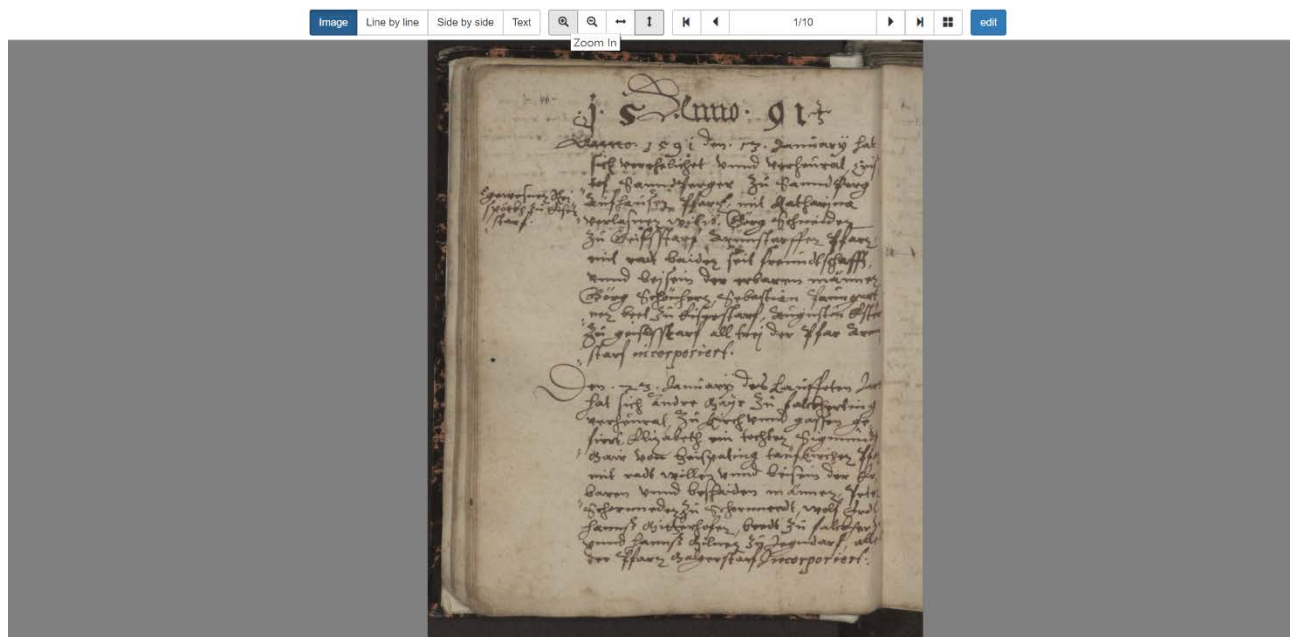


Fig 7 - Detail of image interface in view mode after using “fit to height” button.

## 2.4 Mode, Page status and workflow

The modes are “view” and “edit” and the user can toggle between these modes using a button on the page assuming that the combination of their collection role and the page status allows them access to edit the transcript. If they do not have the required permissions for access the mode toggle button is present but disabled.

Another important factor that dictates how the pages are presented to the user is the page status. The page status options are the same as those used by the Transkribus-X client.

**New** – All pages will have this status initially after ingest. A page cannot be returned to the “New” status.

**In Progress** – This allows all users to communicate that the transcription of this page has started but is not yet complete.

**Done** – This allows all users but especially transcribers and crowd transcribers to communicate that they are finished transcribing a page.



**Final** – A reviewer of the collection can use this status to communicate that transcription is regarded as finished

**Ground Truth** – A transcript of sufficient quality can be identified as ground truth to be used for future training.

The permissions for user access to the edit mode for a page dependent on status are laid out in the table below.

**Y** = Can edit, **N** = Cannot edit

	Reader	Crowd Transcriber	Transcriber	Editor	Collection owner	Administrator
New	<b>N</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
In Progress	<b>N</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
Done	<b>N</b>	<b>N</b>	<b>N</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
Final	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>Y</b>	<b>Y</b>
Ground Truth	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>Y</b>

Fig 8 – Edit permissions

The ability of the user to change the page status will depend on the role of the user and the current page status.

**A** = Automatic, **Y** = Can change to this status, **N** = Cannot change to this status

	Crowd Transcriber	Transcriber	Editor	Collection owner	Administrator
New	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>	<b>A</b>
In Progress	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
Done	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
Final	<b>N</b>	<b>N</b>	<b>Y</b>	<b>Y</b>	<b>Y</b>
Ground Truth	<b>N</b>	<b>N</b>	<b>N</b>	<b>Y</b>	<b>Y</b>

Fig 9 – Status change permissions

Below is an example of an editor viewing a page with the “line-by-line” interface in edit mode. Their role dictates that they can set the page status to “In progress”, “Done” and “Final”. They do not have permission to set the page status to “Ground Truth” and are not given the “New” option as this is for pages that have not yet been presented to the edit interface and is set automatically on ingest.

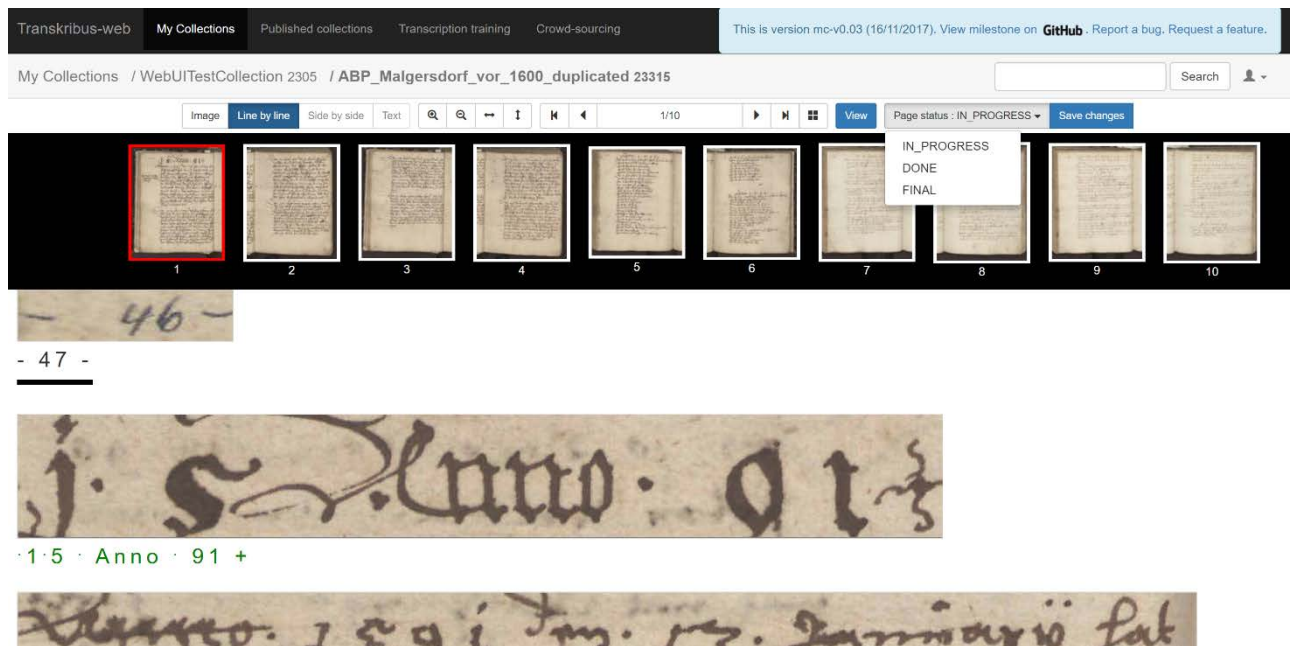


Fig 10 – Status change options for an editor (in line-by-line interface)

## 2.5 Interfaces

Four interfaces have been developed to present users with a choice of views of images and text. These are:

**Image** – The page image is displayed across the width of the screen and text can be added or edited using a movable dialog box that is displayed under the line which the user is focusing on.

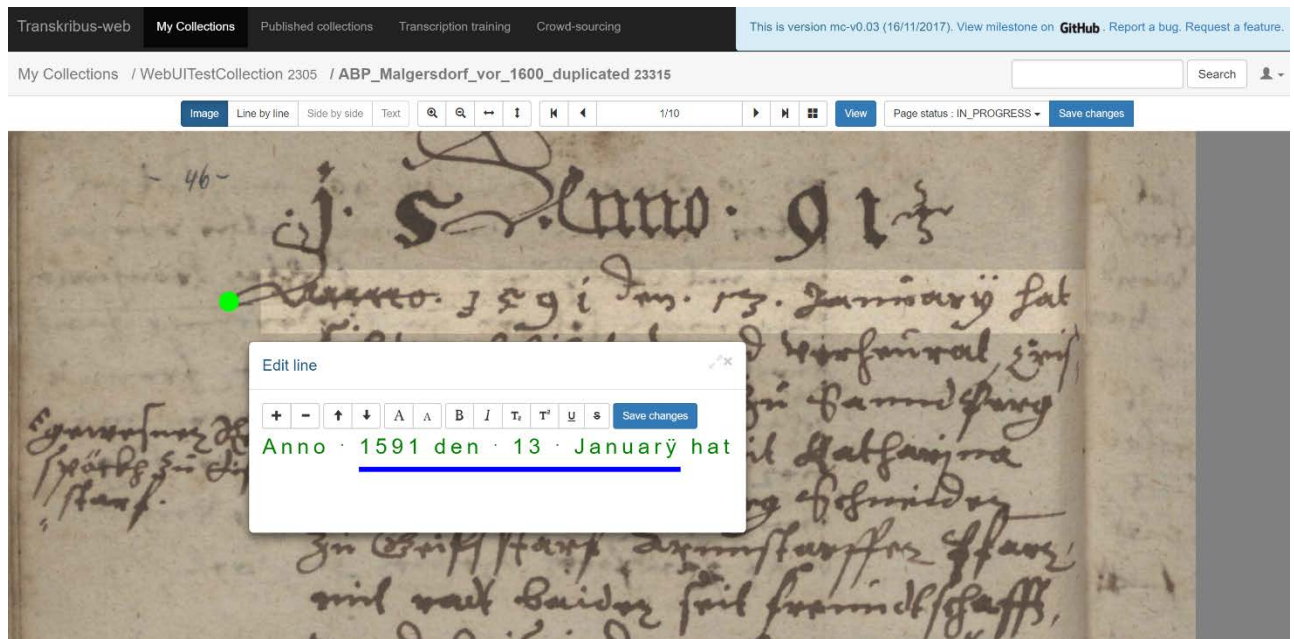


Fig 11 – Editing a transcript with the image interface

**Line-by-line** – Each segmented line is displayed separately. For each line a segment of the image displayed the text is displayed underneath (as displayed in Figure 9)

**Side-by-side** – Half of the screen is occupied by a single block of transcript text (or box in which to enter it) and the other half displays the full page image.

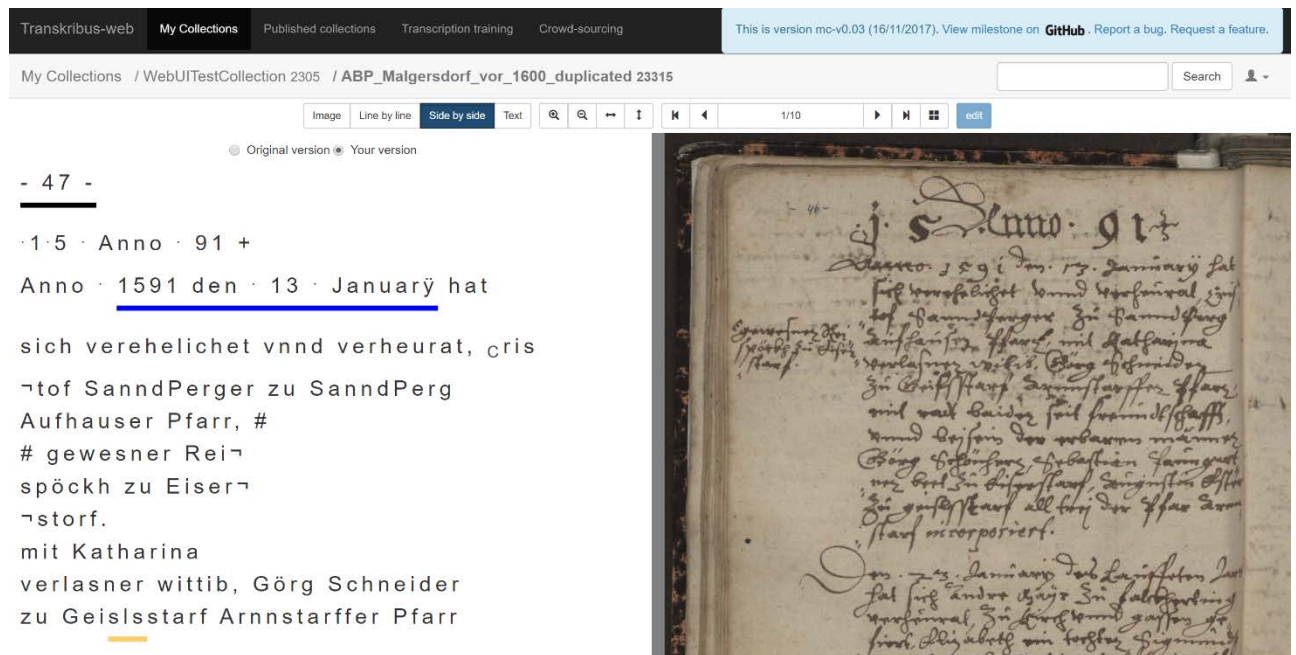


Figure 12 – Side by side view

**Text** – The transcript text is displayed across the screen and a line segment of the image is only available when the user hovers over the relevant section of text.

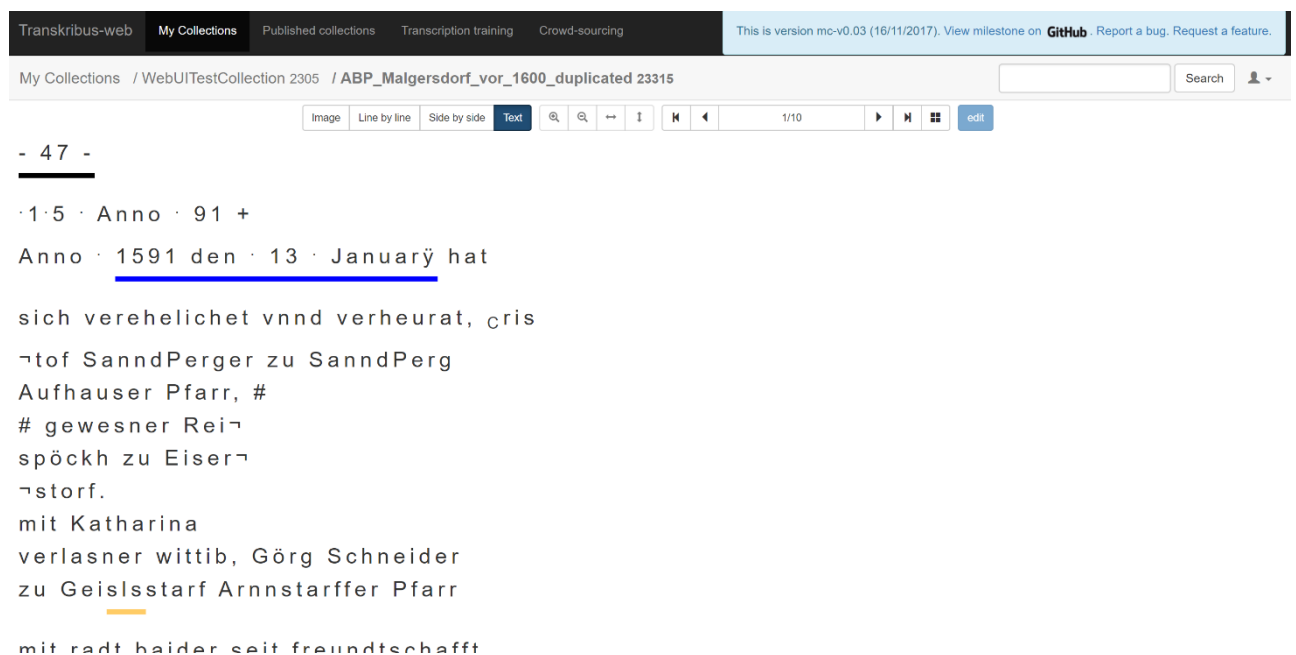


Figure 13 – Text only view

### 3 Development management

Web UI working group holds weekly development focused meetings. Regular meetings with also with involving the project partners who best provide insight into the Transkribus-web user community. Regular deployment of code to <http://transkribus.eu/readTest/> allows all partners to

perform user acceptance testing and provide feedback. Github issues are used to record and track issues and the development workflow is managed using waffle.io.

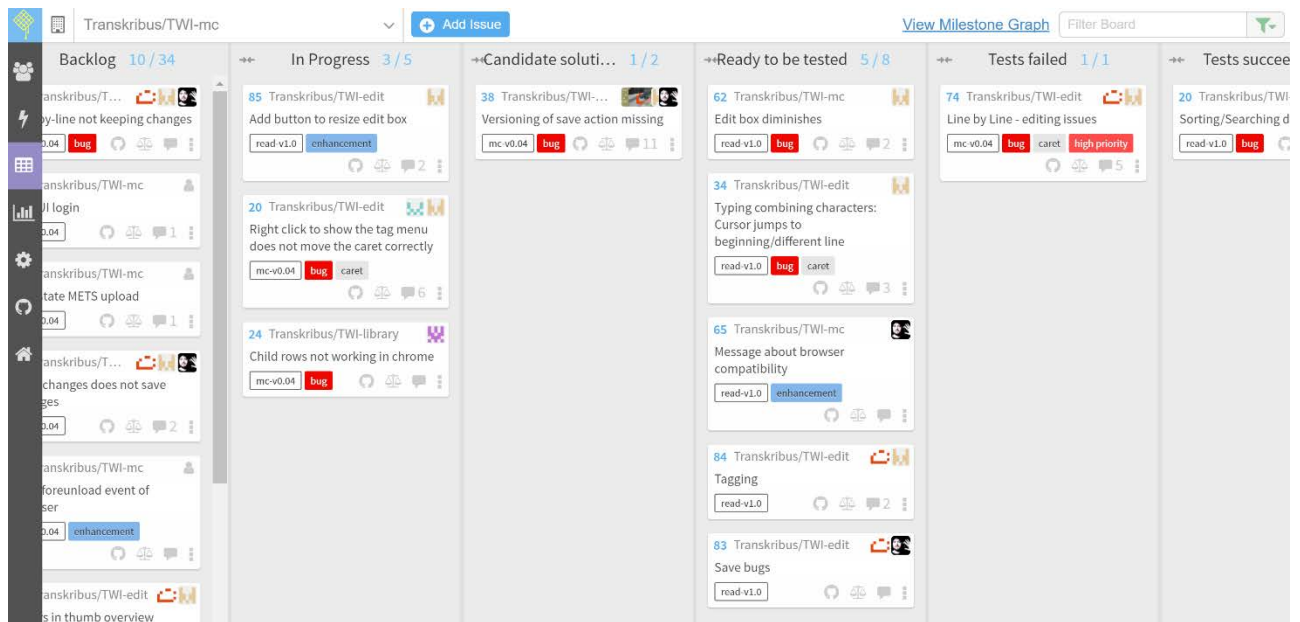


Fig 14 – Github issues on waffle.io

Issues and solutions are identified (Backlog) and selected for development (In progress), to a shared code repository (Candidate solution ready), and on to deployment on UAT infrastructure (Ready to be tested). All project partners are able to test new solutions and report on success or failure. During the working group meetings priorities are discussed and set, these are based around development milestones with clearly defined development goals.

#### 4 Beta release of Transkribus-web


A beta release of transkribus-web has been made available to an invited group of public users, drawn from the transkribus user group. The beta can be found at <http://transkribus.eu/read/>. The beta was released at the end of 2017 with only the most stable elements of the interface available. The planned addition of subsequent features are communicated to users in a non-technical manner via the transkribus-web site. Feedback from the closed beta is collected, collated and reported back to the Web UI working group.

## 5 Next phase of work

Significant progress has been made in the past year in stabilising the functionality of presenting pages for transcription, correcting editing and tagging. Being able to robustly present the transcription editing interface is a key component of subsequent project deliverables. Ground work and prototyping of a project and message management system is already underway. This will allow single collections to be made available as part of crowd-sourcing projects. Such projects have key dates for targets and project messages to enhance communication with the crowd-transcriber community.

[Crowdsourcing](#) [About](#)

### CrowdProjectTestCollection



Test collection for crowd sourcing projects

[Unsubscribe from this project](#)

#### Project schedule

**Project aim**  
test

**Milestone - First Milestone** (27th July 2017)

**Due date** : 10th July 2017


Start of project


#### Project News

**First Message (27th July 2017)**  
It's good to have you all on board

**First pages (2nd August 2017)**  
First pages are completed

#### Documents





TEST Realkat duplicated

Fig 15 – Presentation of single collection with project aim, milestones, key dates and project news