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**COLLABORATIVE EUROPEAN DIGITAL ARCHIVE INFRASTRUCTURE**

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Abstract:	<p>The WP4 team, in close collaboration with the WP8 team, used a table-based format for listing the Use Cases for the two CENDARI pilot domains (World War One and Medieval European Culture). This system gives a quick and comprehensive overview of all user cases and requirements from the two domains.</p> <p>The use cases were collected, in collaboration with WP8, from two CENDARI participatory design workshops with WWI and medieval historians; from textual descriptions of the researchers' contexts of use and research questions (user scenarios) and short lists of individual research activities (user stories); and from</p>



	<p>two prototype concepts that will serve as the focus of future implementation and development work within the project. These activities are described in further detail in Deliverable 8.1 – Functional Description: Portal and VRE.</p> <p>The CENDARI Domain Use Cases aimed to capture the different research practices in transnational history, challenges posed by the fragmentation of archival sources, and how a CENDARI research infrastructure can help address these challenges. The Use Cases are presented here.</p> <p>They feature 13 individual scenarios and descriptions, from which categorisations of functionality and examples have been extracted.</p> <p>At a later stage, the WP4 team plan to map the Domain Use Cases to new JIRA issues to track the progress in development.</p>
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Part One: User Stories from the Participatory Design Workshops

The following user stories were created from the results of the two participatory design workshops that were held with members of both domains (medieval and WWI history). These workshops involved the creation of video prototypes, which were later described with textual transcriptions. The video prototypes were used as the basis for creating the user stories.

(For more information about the creation of the user scenarios and user stories, please see the above section **User-Generated Functions from the User Stories.**)

Participatory Design Workshop 1 (October 2012, Paris)¹

The video prototypes created by researchers in World War I history during this workshop were used as the basis for the user stories, or brief descriptions of research activities.

User Story Id	As a (role)	I want to (something)	So that (benefit)	Reference to Source
US-1.1	researcher	View and browse the stacks in "closed stack" collections	I can discover valuable materials that I would not have thought to search for specifically.	"Shelf Screenshot" Video Prototype
US-1.2	researcher	Search for archives and information about their history in a particular city or region	I can do research on a certain city or region	"Archival Network by Location" Video Prototype
US-1.3	researcher	Visualize my searches	I can see which archives I have visited and how often, and where they are located	"Visualizing Search Paths" Video Prototype
US-1.4	researcher	Search for translations/transcriptions of documents in CENDARI	I can see what translations/transcriptions have already been done by other CENDARI users	"Crowdsourcing Translation of Documents," part 1 Video Prototype

¹ The outcomes of the first participatory design workshop were categorized as scenario 1.



User Story Id	As a (role)	I want to (something)	So that (benefit)	Reference to Source
US-1.5	researcher	Work with other researchers online to translate/transcribe a document	I can create a better translation/transcription	"Crowdsourcing Translation of Documents," part 2 Video Prototype
US-1.6	researcher	View/manipulate/navigate documents (enlarge, reduce, rotate, etc.) and select/highlight parts of documents and add annotations	I can create translations/transcriptions linked to the original document	"Crowdsourcing Translation of Documents," part 2 Video Prototype
US-1.7	researcher	Search for archives by type in a particular location	I can see what kinds of archives are available	"Geo-Search" Video Prototype
US-1.8	researcher	View documents and files according to chronology (temporal), using a timeline or location (spatial), using a map	I can understand and display the spatial or chronological relationships between documents	"Mapping of Documents and Files" Video Prototype
US-1.9	researcher	View a 3D projection of documents that are mapped over both time and location (both chronological and spatial)	I can understand and present the spatial and chronological relationships between documents	"Mapping of Documents and Files," Part 2 Video Prototype
US-1.10	researcher	Quickly export material from CENDARI	I can use it in a presentation	"Presentation Export Tool" Video Prototype
US-1.11	researcher	Export material with correct citation format included	I can use CENDARI material in a presentation or publication without having to figure out citation format	"Presentation Export Tool" Video Prototype



User Story Id	As a (role)	I want to (something)	So that (benefit)	Reference to Source
US-1.12	researcher	Create a schedule/calendar for how much time I will need for each archive, when the archives are open, and their contact details, national/religious holidays when they will be closed, etc.	I can plan my research trip efficiently	"CENDARI Voyager" Video Prototype
US-1.13	researcher	Link the results of my searches (archives I want to visit and when) to real-world information for planning (calendars, travel websites for airline fares and train reservations, hotels, etc.)	I can make the best use of my time and money to visit archives	"CENDARI Voyager" Video Prototype



Participatory Design Workshop 2 (Florence, January 2013)²

The video prototypes created by researchers in medieval history during this workshop were used as the basis for the user stories, or brief descriptions of research activities.

User Story Id	As a (role)	I want to (something)	So that (benefit)	Reference to Source
US-11.1	researcher	Annotate and comment, and search for other comments/annotations, on a manuscript image	I can share information about the manuscript	" Uncertainty " Video Prototype
US-11.2	researcher	Assign sections of a manuscript to different people and view sections they have completed	I can manage a collaborative group of people working on a text	" Collaborative Note Taking " Video Prototype
US-11.3	researcher	Search and browse resources in different ways (full-text, by source type, ...) and save and search search results	I can share search results with a group, comment on them, or receive notifications	" Knowledge Path " Video Prototype
US-11.4	researcher	View search results on many levels (document entry, image, shelf marks, secondary literature and bibliographies)	I can share search results with members of a group or the whole group	" Profiling Data: Private, Public, Share With " Video Prototype
US-11.5	researcher	Sign up for notifications ("keep me updated") on certain items, images, comments added by others, etc., on a regular basis (weekly, monthly, etc.)	I can automatically learn about changes to the items I am interested in	" RSS-Like Search/Receive Updates on Regularly Launched Searches " Video Prototype

² The outcomes of the second participatory design workshop were categorized as Scenario 11.



User Story Id	As a (role)	I want to (something)	So that (benefit)	Reference to Source
US-11.6	researcher	Use image-recognition software on scans of my handwritten notes to find similar passages or words that will help to figure out what difficult words are	I can read my own handwriting or other handwritten documents	"Assisted Translation with Context (Reading Your Own Handwriting)" Video Prototype
US-11.7	researcher	Explore the references and other manuscripts that are related to the one I am looking at	I can see the larger context of my manuscript and the other works that are connected to it	"Linking Document as Object in Network of People, Locations, Documents" Video Prototype
US-11.8	researcher	Save information and share references ("alerts") with other people	I can share information that is not directly relevant to me but is to someone I know	"Tracking Alerts and Sending to People" Video Prototype
US-11.9	researcher	Map and link together information about individual items that were lost from one archive, about scholars who studied them, about chronology and location of the items now	I can reconstruct a lost archive in a digital context	"Reconstruction of Lost Archives" Video Prototype
US-11.10	researcher	Track multiple forms of names (not just personal names)	I can create a list of variants that can be used in linguistic studies of dictionaries and biographical references	"Tracking Multiple Forms of Names (Not Only Personal Names)" Video Prototype



Part Two: User Scenarios and User Stories from Domain Researchers

The following user scenarios and user stories were created by researchers from the domains of medieval and WWI history. The user scenarios, or textual descriptions of the researchers' contexts of use and research questions, are designed to be non-technical and there are no formal format requirements. From these textual descriptions, short lists of individual research activities (user stories) are created which can at a later stage be mapped to technical options for implementation.

(For more information about the creation of the user scenarios and user stories, please see the above section **User-Generated Functions from the User Stories.**)

Scenario 2: The Urban-Rural Divide in Habsburg Austria and its Successor States, 1915-1918

My project examines how the rural-urban divide shaped Habsburg Austrian society's experience of the war from about 1915 (when food and food shortages became increasingly politicized) and to what extent that divide shaped the course of the Habsburg Monarchy's political dissolution in the fall of 1918. I will focus on provinces with large multiethnic urban centers that experienced food crises: Lower Austria (Vienna), Bohemia (Prague), Moravia (Brno), the Littoral (Trieste), and Galicia (Krakow). I exclude Lemberg/Lwów because it was under "enemy" (Russian) occupation for much of the war and Hungary because shortages were less acute there and because different administrative structures would make the comparison unsustainable. I am in the planning stages of a project that will investigate the social, political, and cultural divides between cities and their rural hinterlands during World War I. For centuries in Europe, the inhabitants of town and country differed from each other markedly in terms of economic activities, social structures, and mental universes. During periods of pre-modern societal trauma, the rifts between town and country could widen and open antagonisms sometimes appeared. I believe that World War I represented a traumatic period in urban-rural relations of a very special sort. While the old divisions between town and country had become quite blurred in the century leading up to the war—due to full emancipation and freedom of movement for peasants, industrialization and rapidly growing urban centers, as well as liberal reforms that imposed uniform legal codes, institutional structures, and rights on all state citizens—the wartime food crises brought them once again into sharp relief. In Habsburg Austria, where food shortages were especially acute, resentments and clashes between starving city dwellers and rural populations who, (though seldom much better off) were perceived as hoarding supplies, grew in importance. At the same time, however, ethno-national political divides and divides between "rich" and "poor"—both of which usually transcended the urban-rural divide—also grew sharper over the course of the war.

I want to answer the following questions: How did the administration and realities of rationing vary between cities on the one hand, and between urban centers and the rural areas of their provinces on the other? How did food protests—and other grassroots demonstrations





without party-political leadership—vary between these selected provincial capitals and within their largely rural provinces? To what extent were protesters' grievances cast in terms of urban-rural divides or in terms of other fault lines and antagonisms? How did inhabitants of these cities and their rural hinterlands experience and perceive the political dissolution of the monarchy in different ways, i.e. in terms of expectations and demands? To what extent did successor states—Austria, Czechoslovakia, Poland, Yugoslavia, and Italy—overcome, institutionalize, or exacerbate rural-urban divides?

In terms of research, I will first need to map the changing structures of rationing and the incidence of food protests and related disturbances over the course of the war. Secondary literature should provide ample data for this, though some kind of advanced visualization/mapping tool, charting changes and patterns through time and space, would greatly enhance the results of the comparison. Second, I will need to determine the nature of these protests and the experience of rationing in qualitative terms on the basis of close readings of primary sources. Reports from various authorities—municipal police, local gendarmeries, the Austrian War Ministry, the Austrian Ministry of the Interior—will be useful, but they must be selected carefully because of their sheer, unmanageable volume and read “against the grain” as such authorities were seldom consciously answering the questions I intend to address. Sources from various political-cultural milieux in which ordinary people were active and experienced privations—for example, the Social Democratic milieu for cities and the Catholic institutional-associational infrastructure of rural areas—should provide an important non-governmental perspective. Besides obvious sources such as newspapers, I could make productive use of less censored materials such as parish and ecclesiastical records, workers' diaries and memoirs, and letters. I foresee drawing on these primary sources to accomplish the third main research task: determining how the urban-rural divide featured in the political dissolution of the monarchy and the establishment of successor states.

In the event that I locate a particularly rich vein of primary sources that exists (in roughly consistent form, volume, and chronology) across at least two or three of the linguistic-geographical contexts in question, I would be interested in digitizing them and subjecting them to text-mining analysis. Specifically, I could measure the changing occurrence of terms like “country” in the discourse of city-dwellers and “city” or “town” (or the name of a city) in rural discourse. So as not to “insist into relevance” the urban-rural divide, I would measure the relative occurrence of such terms against other dividing categories such as the “nation” or “the rich.” Yet revealing conclusions could also emerge from measuring the occurrence of urban-rural vocabulary in combination with other categories, including various ethno-national ones (e.g. “Slovenes” or “Germans”), religious ones (e.g. “Jews”), class ones (e.g. “the masses”) and value judgments (e.g. “thieves”).



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-2.1	researcher	Find data about rationing, food supplies and food protests in several different geographic contexts	I can compare the intensity of privation and resistance to it in spatial and chronological terms	I want to generate a map that would reveal comparative food rationing (administrative-legal structures), food availability in (practically), and resistance to privation in precise chronological and geographic terms.	Scenario 2
US-2.2	researcher	Find the most relevant governmental sources that reported on urban-rural differences or friction	I can build a relevant source base for answering my questions	I want an online search function that will transcend nation-state data silos and give me search results in a number of languages with thematic relevance to my topic.	Scenario 2
US-2.3	researcher	Digitally integrate existing demographic and ethnic maps of the Habsburg Monarchy	I can see the extent to which urban-rural divides and ethnic divides overlapped	I want to mobilize existing and valuable research relevant to my research to ask and answer new questions in visual form.	Scenario 2
US-2.4	researcher	Digitize the most useful textual sources on urban-rural divides	I can text-mine these sources and see patterns	I want to measure the occurrence/usage of vocabulary relevant to my questions and relative to other key terms and categories of the era or in combination with them.	Scenario 2
US-2.5	researcher	Network with other scholars with expertise in this topic in various places	I can produce richer, more historiographically up-to-date work	I want a convenient and attractive online workspace where I can solicit help from (or be readily visible to) scholars working in various linguistic and national contexts and draw on their expertise.	Scenario 2



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Scenario 3: Researching on the alteration of the railway network in East Central Europe (1917-1923)

As part of a project, I need to analyze the alteration as well as the new construction of railway tracks in a particular region of East Central Europe (Lithuania and Poland) at the end of World War I.

What I need to have at the very beginning are maps of railway lines before the outbreak of World War I, of the construction of new railroad tracks under German occupation, and of railroad construction plans of Poland and Lithuania after their respective declarations of independence and the setup of traffic/infrastructure ministries. After finding these maps on external digital-humanities websites or directly within the system I am using, the challenge is to bring them in agreement regarding their scale so that I can create a map of track modifications and new constructions in the whole region.

The next step is to find timetables that make it possible to establish when these tracks were actually used, where the trains stopped, how long it took them to cross borders, etc. Once I have these timetables as scans, I could import the data via OCR. Then I could integrate this knowledge visually into the map that I have created at the very beginning, thus creating a map that allows me to easily see which were the most heavily used railway lines and what were the busiest railway hubs.

Moreover, I would want to know what these trains actually transported – persons, cargo, soldiers? The challenge here is to find documents that enable me to compare not only data between the two states, but also debates and discussions on the development of the railroad network. Rather than having to travel to the respective archives (which will be situated in at least three countries: Lithuania, Poland and Germany), I want to use a tool that helps me locate the archives and that ideally presents me with data on the relevant files in the archives. Thus, if I look at departments of a Polish Ministry, I want the system to help me locate the respective departments of the Lithuanian ministry (e.g. Polish customs department – Lithuanian customs department; Polish national rail headquarters – Lithuanian national rail headquarters) and also the equivalents of the German occupation regime during the war.

I would want to have a map of railroad constructions and train movements as well as comparable data and debates on the development and requirements of the railway network in two states, which serves as a valuable part of further studies on the establishment of statehood and territories in the region after World War I.



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-3.1	researcher	Find maps of railway lines	I can find historical topographical data	I want to find out what railway lines existed and which were newly constructed	Scenario 3
US-3.2	researcher	Change the scale of maps	I can bring maps into agreement	I want to combine several historical maps to generate a single map	Scenario 3
US-3.3	researcher	Find timetables of railway lines	I can see how railway tracks were used	I want to find out when railway tracks were used, where trains stopped and how they crossed borders	Scenario 3
US-3.4	researcher	OCR scan timetables	I can work with the chronological data		Scenario 3
US-3.5	researcher	Integrate chronological data into a map	I can visualize the use and topographical differences of a network	I want to have a map that shows me which railway tracks were the most heavily used, where the main railway hubs were, etc.	Scenario 3
US-3.6	researcher	Find equivalent institutions in different states	I can find comparable data	I want to find the Lithuanian equivalent to Polish transportation institutions (ministry, railway, customs, etc.)	Scenario 3



Scenario 4: The Orient in the Habsburg Imagination during the First World War

As part of the project, I wish to examine the ways in which the Ottoman empire and Islam were perceived by the political (liberal and Catholic) elites in the Slovenian lands of the Habsburg monarchy in the decade before the outbreak of the First World War. This is particularly important from the viewpoint of the political and military developments in the Balkans, which culminated in the Bosnian crisis (1908) and the two Balkan Wars (1912-1913). In order to establish the prevalent views of the Orient at that period, I would need to investigate the existing commercial, cultural, and network ties between the Habsburg monarchy and the Ottoman empire, and, above all, between Trieste and Istanbul as two of the most prominent cosmopolitan centers of the time. I would therefore need to employ newspaper sources in multiple languages, travelers' notes, private diaries and letters, as well as reports on trade, social exchange (migration) and common cultural projects. Given the transnational nature of this research, I would need a tool that would enable me to locate the relevant library and archival holdings in different countries (Italy, Austria, Slovenia). Moreover, it would be ideal if the tool could provide me with the translation of the description of the archival sources.

In the next step I wish to analyze the Catholic figures' (and politicians') views of Islam, especially in the light of the events after the Balkan Wars (the critical ruptures were the expulsion of the Greek Orthodox inhabitants from Izmir and Thrace; the killing or deportation of the Christian population in Anatolia). How did these developments echo in the Catholic Slovenian lands and in Vienna? I would need a map to visualize the actual deportations of the people (mass migration), the figures of the victims, and the tool that would enable me to see and employ the collection of official reports on these events. This implies both the state and the Catholic Church records.

In the framework of the First World War, I wish to investigate how the Ottoman alliance was interpreted by the Slovenian liberal and Catholic thinkers (politicians and intellectuals alike) in 1914. How did they expound the Muslim participation in the war? Were there any points of connection in the allied propaganda efforts? At this stage I would need a tool to help me locate and analyze propaganda material (images, footage) specific for each of the Central Powers. I would be interested in comparing these images with those produced by the Entente countries.

The opening of the Isonzo/Italian front in May 1915 also meant the arrival of the Muslim Bosnian soldiers to this (predominantly Catholic) theatre of war. What was the official stance of the Catholic Church towards these troops, and what can the popular reactions reveal us about the general perceptions of the Muslims? To address these issues I will examine the (arch)diocesan bulletins, prominent figures' diaries, parish chronicles, and newspapers. I need a tool that will give me an exact and reliable overview of archival sources in Italy, Austria and Slovenia.

I intend to integrate the (Catholic) soldiers' narratives about the Bosniaks into the broader exploration of the relation(s) between civilians and the military, and the reshaping of borderlines between the military and home fronts. I need a map showing me the location of the military



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operations, occupied slices of territory in the Isonzo region, and the list of the regional archives and museums along with their First World War holdings.

Finally, can I locate any particular monuments along the Isonzo that were erected by the Muslim soldiers during the war? How telling is the iconography of these monuments and how do they fit in the memory of the war? At this point I would need a map showing me these sites and the images that could be employed for further analysis.

Utilizing the on-line research platform and digitized sources along with precise information on the archival records would certainly make my research more efficient and transparent to other historians working on the First World War.





User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-4.1	researcher	Find relevant journals, diaries, letters, travelers' notes in several different languages	I can get perspectives of pre-FWW reports on the Ottoman empire and Islam; I would benefit from translation tools; maps; state and Church records online	I want to find out how the Orient was seen in the decade prior to the First World War, what commercial and cultural ties existed between Trieste and Istanbul, and how military actions and political shifts in the Balkans resounded in the Slovenian lands and the rest of the Habsburg monarchy	Scenario 4
US-4.2	researcher	Establish the leading Catholic figures' (and other politicians') views and sources of ideas on the Balkan and Ottoman affairs	I can discern their understanding of political and religious affairs; I need a tool to help me locate relevant library/archival holdings in different countries	I want to see the ways in which the Muslim political culture (agenda) was perceived in the Catholic Austrian lands	Scenario 4
US-4.3	researcher	Examine the Catholic figures' and other intellectuals' recorded reaction to the Ottoman alliance in 1914	I can see how the Muslim participation in the war was interpreted	I want to find out the major points of connections in the allied propaganda efforts	Scenario 4
US-4.4	researcher	See the (arch)diocesan bulletins, parish chronicles, local newspapers reporting on the Bosnian Muslim soldiers on the Isonzo	I can find the Church/Catholic stance towards them	I want to explain the official and popular reactions to the Muslim soldiers on the Italian front	Scenario 4



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-4.5	researcher	Integrate Catholic soldiers' narratives about the Bosniaks, especially after 1915	I can see whether the military view of them differed from the civilian; CENDARI platform will help me locate personal narratives, interviews, articles, photographs.	I want to have a picture of relations amongst the civilians and soldiers, military and home front	Scenario 4
US-4.6	researcher	See the place of the fallen Muslim soldiers in the memory of the war	I can analyze any specific iconography and locate memorials; I will need the images and maps with exact location	I want to find the points of juncture between the Catholic and Muslim cultural ambiances in the immediate aftermath of the FWW	Scenario 4



Scenario 5: Researching on Biographies of Political Activists (1914-1918) and Organizing the Sources via Holdings Descriptions and Research Guides

I want to conduct basic research on the biographies of political activists in the German occupation zones in World War I in East Central Europe. As this is part of a larger, comparative project on “Political activism under occupation in WWI” conducted with historians at other research institutions all over Europe; I want to make my finds accessible for them, too.

As sources I have decided to incorporate the following genres: diaries, administrative records and private correspondences. The respective archival holdings should all be accessible via the CENDARI platform.

In the entry of the Lithuanian Academy of Sciences, I find a large corpus of private correspondences of the later Lithuanian president Antanas Smetona. By clicking on the description of the holdings with my mouse, I add it to my “shopping basket.” In other archives in Lithuania and Germany, I find administrative records of the German occupations authorities on Smetona. I click on these and include them in my collection, too. I repeat the procedure for other political activists. Coming across unpublished diaries of some of them, I include these in my “shopping basket.”

For those holdings I have already examined in situ in the respective archives, I add detailed keywords to the holdings descriptions in order to make it easier for other people researching on similar topics to find them. This way I add to the holdings descriptions themselves.

I add a collection of published sources and secondary literature of relevance to the topic to my “shopping basket,” preferably with links to books.Google or other websites. These publications will be visible for other people if they view my “shopping basket,” but also if they come across the individual holdings on CENDARI which I have included in the “shopping basket.”

Visually, I organize the holdings in my “shopping basket” in a meaningful way by drag-and-drop and a number of visual tools, such as drawing arrows, etc. There is also a function that allows me to generate a visual arrangement of the holdings automatically on the basis of archive hierarchies and holdings descriptions (time, place, persons, etc.).

Ultimately, I write a research guide on my topic, giving context to holdings and sources and, if necessary, challenging the context provided by the archives in the descriptions. The guide can be read as a PDF document, but can also be accessed in total (or in the form of the relevant chunks) from the respective holdings descriptions.

I can chose whether to make my “shopping basket” public to all CENDARI users, or only to the colleagues I am working with (there could be an obligation to make a “shopping basket” public after a certain period of time, e.g. after three years). My colleagues at other research institutions



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can now access my “shopping basket” and the holdings in a meaningful and easy-to-read visual order. They can also easily find the research guide I have provided.

My colleagues and I can now add a superior level of a “shopping basket”, which comprises my “shopping basket” and research guide and those of colleagues in the same research group working on related topics such as “Political activists under Habsburg occupation,” etc. This meta-“shopping basket” can again be organized visually and the subordinate “shopping baskets” can be linked vertically and horizontally. This way it is possible to share insight into the sources and at the same time make archival planning of the participating research easier, as everybody in the group will know who needs to consult which archive.





User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-5.1	researcher	Organize holdings relevant to my research visually and thematically	I can send them to collaborators at other institutions	I am working in an international research project and want people to know what I am doing	Scenario 5
US-5.2	researcher	Add keywords to holdings descriptions	other research can find them more easily		Scenario 5
US-5.3	researcher	Add holdings to my private desk ("shopping basket")	I can keep track of my finds	I want to save my finds in order to use them at a later point of time and to share them with my collaborators	Scenario 5
US-5.4	researcher	Add secondary literature and published sources of my private desk	I know the state of research on the holdings I have found	I want to supplement the holdings I have found with relevant literature and sources I have found in library catalogues and on the internet	Scenario 5
US-5.5	researcher	Drag-and-drop the finds in my private desk	I can organize my finds visually	I want to organize my finds in clusters, lines or trees with respect to persons, time, space etc.	Scenario 5
US-5.6	researcher	Draw arrows and text fields	I can organize my finds visually	I want to make the relationship between my finds clearer	Scenario 5
US-5.7	researcher	Make my private desk (or parts of it) public	I can show collaborators what I have found	I want to send my collaborators my whole finds so that we can avoid redundancies and stimulate transnational aspects of our individual projects	Scenario 5



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-5.8	researcher	Include part of my private desk and of other people's private desks in a hierarchically higher "project field"	my finds and those of my collaborators can be organized	I want to synchronize my work with my collaborators and provide for a way to visually organize all our projects	Scenario 5
US-5.9	researcher	Link findings included in this "project field"	findings of the whole research group can be organized and structured in a meaningful way	I want to make the relationship between my finds and the finds of my collaborators clearer	Scenario 5



Scenario 6: The Works of Ramon Llull: A Crossing-Path between Cultures

The main goal of the project is to find information on the publication of Llull's works.

As part of the project, I want to be able to have a list of his works, with special focus on the Catalan and Arabic philosophical and theological production; the indication of the language and the place in which they were written; I want to know if, where and when the works were translated; in case of translations, I want to know by who were they made, the author? Someone else?

Llull used the Catalan language to write his first works of philosophy, and he continued to do that for all of his life, sometimes writing his works in Catalan and then translating them in Latin (personally or by means of collaborators). Sometimes he wrote first in Latin and then he gave a Catalan version. It seems that he composed his first philosophical works in Arabic- a language Llull planned to learn in order to better convert Muslims.

Learning foreign languages in order to carry on the missionary practice (through preaching and philosophical argument) was, from the beginning to the end of his life, one of the main goals pursued by Llull; in 1276 by concession of James II a college of languages for missionaries in Miramar was founded; in 1311, at the Council of Vienne, he presented a petition in this direction to the pope.

An important tool for the conversion of Muslim is the *Ars combinatoria*, invented by Lull after the so-called "Illumination of Randa Mountain." Through the use of graphics based on the rotation of geometric shapes (circles or triangles or squares inscribed) the fundamental structures of reality - identified with the divine attributes - are related to each other. By combination, the philosopher can conceive all the possible discourses around reality. The "*Ars combinatoria*" was first explained by Llull in the *Art abreujada d' atrobar veritat* or in the Latin version - *Ars compendiosa inveniendi veritatem* (1274). From 1275-76, Llull traveled in the European countries, especially Montpellier, Rome, Tunisi and Paris. The several and various experiences made by Llull have an effect in its philosophical production, which is like a boundary and a trait-d'union between different cultures.

I'd like to have a geo-chronological map in which to place Llull's works; for every work I'd like to be able to have chronological and bibliographical information: year of composition, language, translation, editions and related manuscripts (digitized, if available). With such tools, I could draw a line of development of Llull's philosophical production and see how it changes over time and space.

I want to make this data available in a public space, such as Cendari to encourage the exchange of ideas and information among specialists, in order to promote research on many levels, innovative and dynamic.





User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input- /Output data	Reference to Source
US-6.1	researcher	Find out how many works were written by Ramon Llull	I can reconstruct the literary, philosophical and theological production of Llull	I want to find all the works of Llull in which he employs the <i>ars combinatoria</i>	Scenario 6
US-6.2	researcher	Know in which manuscripts and institutions they are held	I can have an overview of the diffusion of Llull's works	I want to find how many Lullian works are held in German libraries	Scenario 6
US-6.3	researcher	Know in which languages the works are written	I can reconstruct the cultural profile of the author and see what kind of diffusion his Latin and vernacular production had	I want to know how many Latin and Catalan works Llull wrote	Scenario 6
US-6.4	researcher	Harvest biographical information on Llull with special focus on his travels	I can map chronologically and geographically Ramon Llull's travels	I want to know when Llull traveled to Italy	Scenario 6
US-6.5	researcher	Know what kinds of works are transmitted with Llull's works	I can outline the cultural context of the transmission of Ramon Llull's works	I want to know what other works are copied with the <i>Liber de amico et amato</i>	Scenario 6



Scenario 7: Manuscripts and Textual Tradition: A Digital Edition of Cassiodorus' *Institutiones*

My team has established a goal to produce a digital edition of Cassiodorus' *Institutiones*.

The *Institutiones*, considered the most important work by Cassiodorus, were written around 560 in Vivarium, a monastery with a relevant *scriptorium* founded by Cassiodorus himself. The manuscript held by the *scriptorium* were scattered in many countries and libraries.

The digital edition will record not only the critical text but also the manuscript tradition. In order to study the manuscript tradition I need an overview of where manuscripts are preserved today, I need to know where they have been written, when and how they moved. To do so, I have to find catalog descriptions of the manuscripts and to study the paleographical and codicological aspect of the manuscripts. To establish the critical text, it would be very useful to find digital images of the manuscripts and previous editions or at least to have precise information on how to request the microform and on the bibliography about the author, the work and the manuscripts.

The digital edition will provide:

- A map of where the manuscripts are held today and a map of where they come from originally with linked catalog information,
- A stemmatological analysis of the evolution of the text
- Images and transcriptions of the most important manuscripts that helped to reconstruct the text
- A timeline of the diffusion of the text



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-7.1	researcher	Get a list of all the manuscripts containing the <i>institutiones</i>	I have an overview of the diffusion of the text	I want to know if there are manuscripts that have not been considered by the previous editions	Scenario 7
US-7.2	researcher	Know when the manuscripts have been realized	I can realize a timeline that shows the continuity of popularity of the text	I want to find all the manuscripts of the <i>institutiones</i> realized within a century from the death of Cassiodorus	Scenario 7
US-7.3	researcher	Get the more information possible about the manuscripts: date and place of copy, history of the library where it comes from, bibliography, past editions of the text. I need catalog records, paleographic and codicological studies, images of the code and of the writing.	I have a base of knowledge to start the critical edition	I want to group the manuscripts by place of origin	Scenario 7
US-7.4	researcher	Have the possibility to compare the text of Cassiodorus with works by different authors	I can find the sources/model of his writing as well as find who used the <i>Institutiones</i> as a model	I want to see if the models that Cassiodorus uses for his other works are used also for the writing of the <i>Institutiones</i>	Scenario 7



Scenario 8: The Textual Corpus of Girolamo Savonarola

The main goal of the project is to integrate the corpus of Girolamo Savonarola's (1452-1498) works and all the available digital resources related to the author and his works. Having a portal that lists all resources relevant to a given subject and allows for direct and comprehensive searches is more effective than browsing the Internet

We can create a web site on the author, with the complete list of his works.

For each work of Savonarola we can give:

- Bibliographical references: if edited, old and recent editions, if not, related manuscripts; specific bibliographical references with a link to a general bibliography data-base. One can also link linguistic databases and dictionaries to data included in such bibliographical databases.
 - For every significant / recent bibliographical entry, we can give reviews and have information on the scholar author of the book/article: current position and institution, other publications, conferences, link to a personal web site.
 - Most relevant passages and quotations taken from the work
 - Images of title pages
 - Images related to the work and the author
 - We can provide a link, when available, to digitized incunabula and manuscripts, with metadata and indication of the institution (library/archive).
 - Information on the institution (library/archive): web site, address, type of institution (public/private), access requirements (letter of presentation), opening date and time.

The network of resources will also include a section devoted to the most relevant historiographical issues related to the author and his works: every member can:

- Sign in and have a personal space in which he can save his research records
- Share his research records with one or more colleagues
- Ask for comments from one or more colleagues and see other people's comments
- Propose reviews of recent books, news about seminars and conferences and research projects on Savonarola and related topics



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-8.1	researcher	Have two lists of Latin and vernacular works of Girolamo Savonarola	I can know which was the preferred language of Savonarola for his textual production	I want to know how many Latin works Savonarola wrote and to distinguish between treatises and sermons	Scenario 8
US-8.2	researcher	Have full information on the edition of Savonarola's works	I can find how many unedited works of Savonarola do exist	I want to know if there are unedited sermons from the 1494-98 period	Scenario 8
US-8.3	researcher	Search for recent publication on Savonarola and related issues	I can have an idea of recent researches and scholars who work on Savonarola	I want to know if there is some scholar working on the <i>Trattato circa el reggimento e governo della città di Firenze</i> (1498)	Scenario 8
US-8.4	researcher	Search if there are ongoing research projects on Savonarola and related issues	I can have information on current researches, on Savonarola and people involved in them	I want to propose a research project on the historiographical texts of the Savonarolian Florentine age (1490-1498), and I want to avoid overlap	Scenario 8
US-8.5	researcher	Search for comments and observations on a specific Savonarolian work and related bibliography	I can have a feedback from colleagues and scholars of my field of studies	I want to compare the results of my own researches with other scholars' opinions	Scenario 8



Scenario 9: The Bec Abbey: A Norman Abbey with offshoots in England

I want to investigate the relationship between the Bec-Hellouin Abbey, in Normandy, and other monasteries, priory, archbishopric and the kingdom of England, from its foundation to the XV century.

The abbey was founded in 1034, by Herluin a Norman Knight. With Anselm, the second abbot, Bec became a focus of 11th century intellectual life. Anselm left in 1093 to become Archbishop of Canterbury, as was the fifth abbot, Theobald of Bec. The life of the founder (*Vita Herluini*) was written by Gilbert Crispin, Abbot of Westminster. The followers of William the Conqueror supported the abbey, enriching it with extensive properties in England, like St Neots Priory, Goldcliff Priory in Monmouthshire as well as a number of other British foundations. The village of Tooting Bec, now a London suburb, is so named because the abbey owned the land.

I want to highlight the cultural and economic exchanges and the role that Bec held in the diffusion of the Norman presence in England, as well as the role of England in the life of the abbey.

As starting point, I have to track the remaining documents of Bec and of all the properties dependent from Bec, with special attention to documents of gift, sale or rent; taxes; and inventories of goods. Looking for documents, I have to remember that all the archives of the French abbeys and monasteries are now located in the Department or municipal Archives, while in England the situation is not so homogeneous (for instance, much documentation of Goldcliff Priory is now held by College Archives at Eton).

Then I also want to point out the names of people with a prominent role in this exchange: I want to know who they were, whether they were Normans, what relationship they held with Bec and with England.

In a second phase I would also like to investigate the life of the library of Bec, hopefully finding some evidence in the archive itself and in the manuscripts that have a proven origin and now are conserved in the major libraries of Europe. It would be interesting to verify if the people involved in the enrichment of the abbey were also important for the enrichment or the dispersion of the library.

Finally I would like to summarize the findings of my research in a map that relates the places most involved with Bec, and in a timeline, to visualize the time-span of the main activity of the abbey.



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-9.1	researcher	Find the documents about the pertinences of the abbey	I find out when and how the abbey got possession of them and I know the extension of the influence of the abbey.	I want to find out how the Bec Abbey got possession of Goldcliff Priory and what other territories the abbey held in England.	Scenario 9
US-9.2	researcher	Know who has been involved with the business of the abbey	I can get an idea of the influences external (mainly based in England) that ruled the life of Bec.	I want to know the role of the supporters of William the Conqueror in the enrichment of the abbey.	Scenario 9
US-9.3	researcher	Know the consistence of the library along the centuries and the way it increased (gifts, self-production, copy, acquisitions, etc.)	I can value the relevance of the library; I discover whether the people responsible for the enrichment of the library were the same as those relevant to the economic life of the abbey.	I want to compare the increment of the library with the economic enrichment of the abbey. I also want to know what kind of books were produced/taken/gifted to the abbey (were they Chronicles? Life of Saints? Can they tell us something about the interests and the political engagement of the abbey?)	Scenario 9
US-9.4	researcher	Know when and how the library ceased to grow and when and how many books left the abbey	I understand the moment when the abbey lost importance as cultural centre, so that I can establish if there is a connection with the political and economic context and in particular with the life of the people involved with the abbey.	I want to know if the political change in England caused the end of the success of the abbey.	Scenario 9



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User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-9.5	researcher	Put in a map all the relationships that have come out (people, possessions...)	I can visualize the widespread of the contacts of Bec.	I want to know if Bec maintained contacts only with the south of England or it had a wider range of connections.	Scenario 9



Scenario 10: Manuscript Collections of 15th Century Italian Preachers in European Libraries

As a medieval scholar interested in late-medieval preaching, I want to be able to find the most relevant collections of manuscripts and rare books held by European libraries, with a special focus on 15th century sermon collections.

My specific concern is to select sermon collections in which the presence of philosophical concepts is evident and well recognizable, especially related to the Aristotelian and Platonic traditions. The late medieval preacher can use many different doctrines to satisfy the spiritual needs of his followers, such as literary quotations, together with biblical passages, examples from everyday life and a prominent number of quotations and references to philosophical sources. It provides a new profile to the philosophical knowledge, more flexible and more suitable for diffusion even in less learned contexts.

The goal of my research is to find out how many Italian 15th century preachers employed philosophy in preaching activity; to select relevant collections of sermons (edited texts and unedited, i.e. preserved in manuscripts and incunabula): the relevance is not represented only by the number of the manuscripts within the collections, but even by the cultural significance of the sources. These data will allow me to conduct an analysis of the meaning of philosophical knowledge and its change in late medieval preaching.

From a research environment such as Cendari, I expect the possibility to search among the manuscripts held by European libraries, in order to find the most relevant collections of 15th century Italian sermons; to have information on authors and texts: date of composition, diffusion of the texts, language, the cultural context from which they come out; information on the author's life, the places where the preachers were active, and a geo-chronological map to trace their activity.

I'd like to have access to a set of related resources available on the web: digitization of sources, bibliographical databases, manuscript catalogues, and other research projects related to the study of late medieval preaching.

It would be interesting also to promote discussions among specialists of the same field of studies, in order to facilitate the integration and dissemination of data, news, and research perspectives; to share with one or more groups of specialists personal notes, partial transcriptions of manuscripts, questions and research hypothesis.



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-10.1	researcher	Find out how many collections of unedited sermons are held in European libraries	I can have information on what the kind of texts I can work	I want to publish the critical edition of 15th century Italian collections of sermons held in Italian libraries	Scenario 10
US-10.2	researcher	Search for philosophical concepts in 15th century sermons	I can track the diffusion of philosophical concepts in the preachers' environment	I want to have a list of Italian preachers who employed philosophical concepts and quotations in sermon collections	Scenario 10
US-10.3	researcher	Search for Aristotle quotations in 15th century sermons	I can have a survey on the use of Aristotelian texts and florilegia in late medieval sermons	I want to have information on the late medieval preachers that use Aristotle's texts and florilegia (such as the Auctoritates Aristotelis)	Scenario 10
US-10.4	researcher	Search for Plato's quotations in 15th century sermons	I can have a survey on the use of Platonic texts and fragments in late medieval sermons	I want to have information on the late medieval preachers that use Plato's texts and florilegia (such as the paragraph on the Timeus in Auctoritates Aristotelis)	Scenario 10
US-10.5	researcher	Search for classical, literary and philosophical quotations in late medieval sermons (Cicero, Seneca, Apuleio, Boethius)	I can have a survey on the use of classical texts and florilegia in late medieval sermons	I want to know which one is the classical author most quoted by late medieval preachers: Plato, Aristotle, Seneca, Cicero, etc.	Scenario 10



Scenario 12: Visualizing Great War Sources in Battle Zones³

The starting premise here is that territories close to the front lines of battle were affected by it in profound ways. Moreover, these territories often did not include capital cities, with their centralized administrations and archives, meaning that much of the local experience of the war was captured for the historical record by smaller regional, district, or “hidden” archives. Indeed, none of the capital cities of the great powers were located very close to prolonged fighting, with the partial exception of Paris. Yet historians have made relatively scant use of the smaller archives in these “battle zones.”

This is not to say that all of the important documentation on the territories affected directly by fighting was destined for local archives or remained there. Much important information collected for central administrations ended up in the centralized state archives—of the capital cities of warring states and/or those of postwar successor states that replaced the multinational empires of central and eastern Europe. Moreover, archival collections changed hands quite a bit in the immediate aftermath of the war.

Nonetheless, the ability to visualize archival institutions and holdings within a (user-) specified proximity (e.g. 10km, 20km, 50km, 100km) to the front—or radius from a specific battle, e.g. Verdun, 12th Battle of the Isonzo, Przemyśl, etc.—provides an interesting and novel starting point for transnational and comparative historical research. The researcher could first and foremost locate institutions and holdings in affected geographic regions and see them in a user-friendly interface. For the western front, these are mostly in France. But for the eastern, Italian, and Salonika fronts, the researcher would immediately see a cluster of relevant sources/institutions cutting across contemporary geopolitical boundaries. At the very least, this would challenge the historian to think beyond the narrowly national historiographical research in which much research continues to be framed.

Inevitably, there would have to be a temporal dimension to the visualization, as the fronts (especially those other than the western front) shifted dramatically during the war.

Depending on the richness of data on institutions and holdings, such a visualization scheme would open the door to a number of other historiographical and methodologically innovative approaches. Perhaps most obviously, the researcher could use the visualization as a jumping-off point to compare local experiences at varying distances from the front and determine if there is a correlative “effect.” A number of other interesting comparisons could be drawn on the basis of variations within this “front zone.” Some of the variables include state and

³ The outcomes of the second participatory design workshop were categorized as Scenario 11.



administrative structures, ethno-cultural and national composition, and topography. These can, of course, be visualized in ways that do not have a reference point in a specific battle or front.

Source-based data on holdings: As far as data on the “source type” exists (or is created) for collections/holdings—meaning, for example, police reports, juridical records, political party records, personal correspondences, parish records, etc.—the researcher could potentially open very rewarding avenues of research by searching by source type within a specified proximity to the front or battle. The same goes for data on the “historical state” (that the archival holding concerns) attached to, or excavated from existing holdings descriptions. For example, the researcher could search for Habsburg Monarchy police reports within 50km of the battle of Caporetto/Kobarid and immediately see the geographical locations of institutions/holdings in 3-4 contemporary states.

Interpretive data on holdings: Another productive way to search and filter results would be to search by themes/key words contained within, or added to, the holdings/collections descriptions. The visualization scheme could display queried transnational themes/keywords such as refugees, enlistment, piety, etc. in a way that codes for relevance (high, medium, low) based on the centrality or frequency of the theme/keyword in the description.

While “transnational” history and “comparative” history are difficult to disentangle from each other, this visualization tool would facilitate both approaches and highlight their intersections. The basic visualization itself would help comparative historians define the geographic units to be analyzed for similarities and differences. Furthermore, the holdings-specific elements “historic state” and “source type” would help comparative historians define their units of comparison with greater precision, via the display of relevant sources. Any visualization scheme that shows connected sources—based on proximity to the front, source type, state-administrative source creator, and transnational theme—spanning current geopolitical boundaries would be useful to transnational historians.



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-12.1	researcher	Find the archives that are close to where the front lines of battle were 1914-1918	I can know where I can begin to search for sources on how the front lines of battle affected local populations	I want to have a map that would allow me to display archives within a certain distance to the front or specific battle specified by me.	Scenario 12
US-12.2	researcher	Find the holdings/collections that are in these archives and deal with the period 1914-1918	I can build a relevant source base for answering my questions	I want to be able to view not only archives in the zone, but also potentially relevant collections in those archives.	Scenario 12
US-12.3	researcher	Filter the displayed holdings by source type and the historic state that created them	I can know where to start looking for similarities and differences--the bases of comparative research	I want to group sources according to two useful fundamental categories and set up bases for comparison. I would like to see this in a simple, but attractive visual format that integrates a map with rich data.	Scenario 12
US-12.4	researcher	Search the holdings by key words contained in the holdings descriptions	I can locate sources relevant to certain transnational themes, such as refugees, hunger,	I want this map-based visualization tool to display the incidence of my search query in specific locations and/or holdings. Within the search results, I want the visualization tool to encode and display several levels of relevance to my query, based on	Scenario 12



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			commemoration, enlistment, etc.	the frequency or centrality of a selected theme/keyword in the holdings description.	
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Scenario 13: Emergence and Recognition of New States in Eastern Europe at the End of World War I (1918-1921)

My main point in this project is to show how the course of what Churchill pejoratively called the “War of the Pygmies” in Eastern Europe after the November 1918 Armistice shaped knowledge on the region and how this knowledge in turn affected the diplomatic recognition of the emerging new states. Methodologically, this project focuses on international actors such as diplomats, businessmen, and journalists. With this project I aim to combine four categories in one single visualization: actors, discourse, frontline, and borders.

A challenge when working on the former peripheries of the Russian and Austrian Empires for this period of time is that it is very difficult to establish what regions were at which point of time under whose control. At first, I thus want to create a map in which I can visualize rough data on the development of the frontline. This cannot be very detailed due to the lack of sources, but I would want to visualize what cities were under what de-facto regime at what point of time. With a timeline, I can trace how the front moved, and I can attach notes such as “25 April 1919: Polish Army occupies Grodno; capitulation of 1st Belarusian Regiment”, or “November 1918: Self-governing parish committee set up in Perloja”, or “22 December 1918: German Army retreats from Minsk.”

As a second step, I want to map the travels of a number of international actors from the USA and Great Britain – mainly diplomats, businessmen, and journalists – who went to Eastern Europe and wrote reports, letters, or articles on the situation in the region. Basically, I want to see on the map where they were and for how long. Correlating this with the visualization of the front, I can much better evaluate how they experienced the emergence of state structures, business opportunities, or ethnic conflicts.

As a third step, I want to have a bar at the side of the map that displays excerpts I have made of a certain number of newspaper and journal articles published in the USA and Great Britain in this period of time – some (but not all) written by the actors I have mapped in the previous step. When moving the timeline, the bar at the side of the map with the quotations moves accordingly, so that I always have the five or six articles that were chronologically close to the events depicted on the map in view.

As a fourth step, I want to map borders and demarcation lines negotiated on the international stage (Versailles, Riga, League of Nations). Instead of drawing them myself, I would want to import digitized versions of original maps, alter their size according to the scale of the map and put them as transparencies over my map.

As a final step, I would want to visualize de-facto and de-jure recognition of the respective state formations by highlighting the final borders of the emerged state. By correlating these with borders on the maps I imported in step four and the frontline visualized in step one, it will be possible to highlight recognized but highly controversial and contested borders that would prove critical for the whole interwar period. This should also be correlated with respective international press articles on the sidebar.



With this visualization, I could make a contribution to fundamental research on the region (frontlines, power-vacuums, self-government) while at the same time shedding light on a rather specialized question, i.e. knowledge production by international actors and its influence on the formation of independent states in Eastern Europe.

User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-13.1	researcher	Combine four different categories in one visualization	I can create a map of actors, fronts and borders	I want to get a clearer, multi-layered picture of how new states emerged in Eastern Europe	Scenario 13
US-13.2	researcher	Enter geographical and chronological data on events and frontline movements	I can clearly see what military regime or self-government was at what point of time in what place	I want to have a map that shows roughly who had de-facto power in what region of Eastern Europe, and in what places were power vacuums	Scenario 13
US-13.3	researcher	Add a timeline	I can trace developments of the frontline	I want to have a timeline which I can use to trace developments of the front and correlate these with the movement of international actors and negotiated borders	Scenario 13
US-13.4	researcher	Add notes to places	I can explain reasons for the shifting of control over places at certain points of time		Scenario 13



User Story Id	As a (role)	I want to (something)	So that (benefit)	Test Case and/or Input-/Output data	Reference to Source
US-13.5	researcher	Enter data on the movement of a limited number of international actors	I can see who was where at what point of time	I want to see where diplomats, journalists, and businessmen from the USA and Great Britain travelled to in order to evaluate how they experienced the emergence of state structures, business opportunities, or ethnic conflicts	Scenario 13
US-13.6	researcher	Display my newspapers and journal article excerpts in a sidebar that also moves with the timeline	I can see what information on the region was disseminated abroad at what point of time	I want to see what was known on the developments in Eastern Europe abroad, how this changed with the events, and how the international actors in the region contribute to this	Scenario 13
US-13.7	researcher	Import scans of historical maps and modify their scale to fit the map I am working with	I can put these maps as transparencies over the map I have been working with	I want to visualize borders that were negotiated on the international diplomatic stage and correlate these with the actual front movements to show contested borders	Scenario 13