

Top Citizen Science Project
Austrian Science Fund, FWF 028
Principal Investigator: Priv.-Doz. Dr. habil. Machteld VENKEN

Talking Borders. From Local Expertise to Global Exchange

Final Report

Composition: Machteld Venken (with the cooperation of Sabine Hartmann, Enno Lindemann, Stefanie März, Manuel Neubauer, Mark Trafford)

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1. General Information

Talking Borders. From Local Expertise to Global Exchange - Citizen Science Experiment
(in the context of the Association for Borderlands Studies 2nd World Conference (10th to 14th July, 2018) -
Border-Making and its Consequences: Interpreting Evidence from the "post-Colonial" and "post-Imperial" 20th
Century): www.abs2018world.com

The project ran from April 2018 to March 2019 and was financed through the Top Citizen
Science Initiative of the Austrian Science Fund, Grant Number TCS 028.

Information on the set-up and execution of the experiment:

www.univie.ac.at/talkingborders

<https://web.archive.org/web/20181121090817/https://www.univie.ac.at/talkingborders/> (persistent link to the
archival copy of the site in the Wayback Machine)

On July 10-14, 2018, the Association for Borderlands Studies (ABS) held its Second World Conference in Vienna and Budapest. 448 participants from 49 countries attended the meeting, including renowned experts and practitioners, spanning all fields of the humanities and the social sciences. The ABS is the world's largest academic organization dedicated to the systematic study and exchange of ideas, information and analysis of international borders, and the processes and communities engendered by such borders. The Second ABS World Conference had as its central topic *Border-Making and its Consequences: Interpreting Evidence from the 'post-Colonial' and 'post-Imperial' 20th Century*, and was co-organised by the University of Vienna and the Central European University on the occasion of the 100th anniversary of the dissolution of the Double Monarchy.

The world academic conference of the Association for Borderlands Studies was turned into a site of scientific investigation itself, where citizen scientists met border scholars as equals for a cross-disciplinary (border/citizen science) experiment. In turning the 2018 ABS World Conference into a platform for a Citizen Science experiment, the Talking Borders project brought us to the applied dimension of border research:

'Border research then takes on an applied dimension, as we seek to discover, and promote, those mechanisms which enable borders to be opened, reducing the frictions and tensions of socially constructed difference. This is the desire to "overcome" borders through re-imagining them as places where people can meet, to overcome the social construction of spatial fixation (Van Houtum 2002). This is a major challenge of border research—to understand the functional impact and role of borders in a world which has become more spatially flexible, where territory and group affiliations and identities are undergoing a process of internal restructuring' (Newman (2003 p. 23).

This Citizen Science project asked:

1. What do borders mean to border scholars?
2. What do borders mean to young adults from the (ex-) Habsburg area?
3. What new knowledge does a global encounter between citizen scientists and border scholars reveal?

The Experiment consisted of two aspects:

- a. It gathered 43 face-to-face dialogues about the meaning of borders.
- b. It hosted a global digital café for 100 working days, where extracts from the dialogues were posted so that people could comment on them. The online page demonstrated how scientific knowledge on the global meaning(s) of borders is generated.

The project aimed to offer a solid empirical data basis for future research in border studies.

2. Project Flow Chart

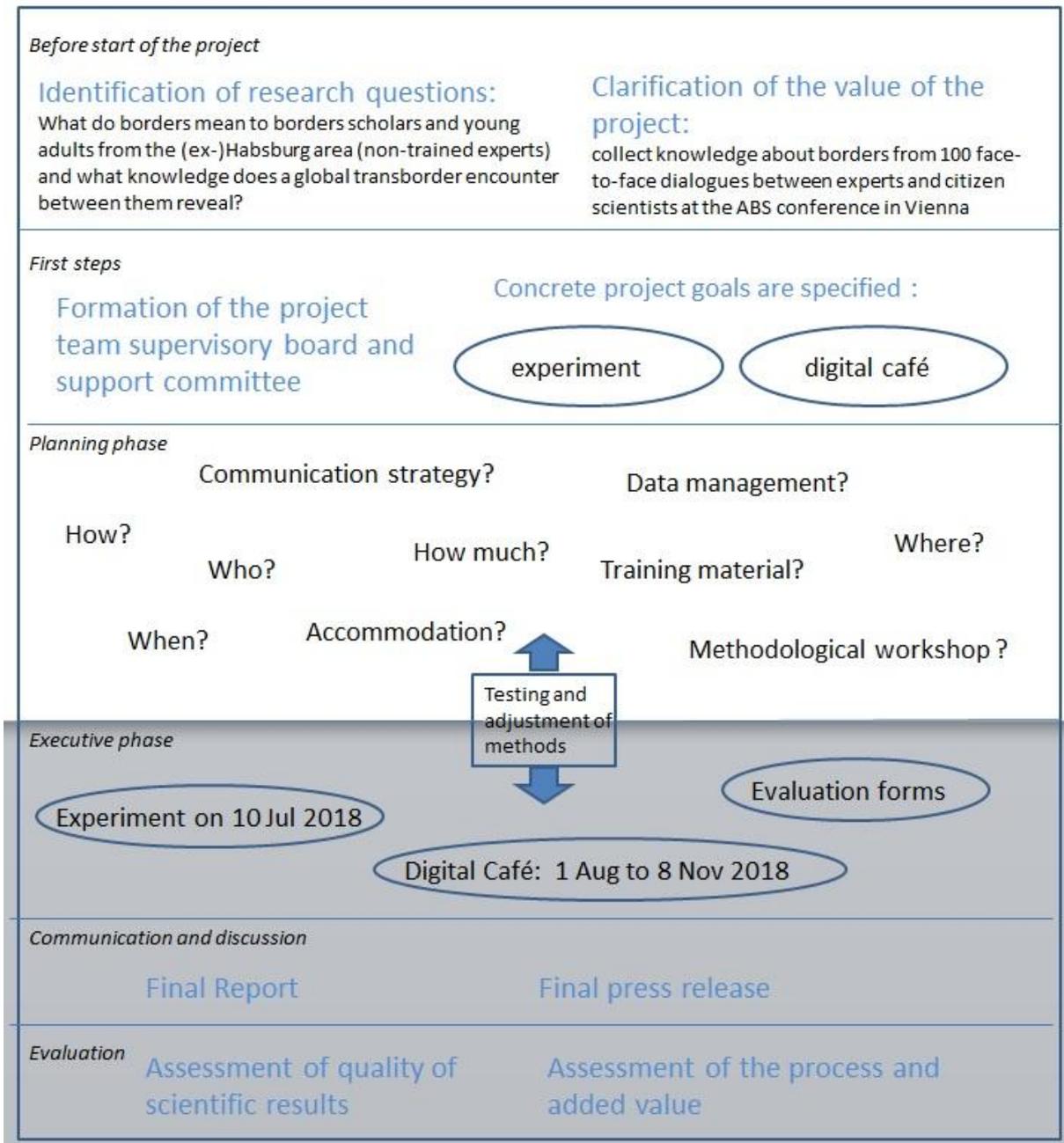


Figure 1: Project Flow Chart made by citizen scientist Stefanie März

3. Team

a. Principal Investigator

Machteld Venken, PhD

Priv.-Doz. Dr. habil. Machteld Venken was an Elise Richter Fellow at the Institute of Eastern European History, University of Vienna. She was the Project Leader of the FWF-funded Citizen Science Project *Talking Borders. From Local Expertise to Global Exchange*. She studies European history, migration, border regions, and children.

b. Organising Committee

Manuel Neubauer, M.A.

Manuel Neubauer holds a degree in contemporary history. He was employed at the event management of the University of Vienna.

Sabine Hartmann, M.A.

Website design & programming. Citizen science consultant.

Mark Trafford, M.A.

Freelance writer, translator and proofreader.

Stefanie März

Administrator for the Digital Café.

Enno Lindemann

Supporting the technical delivery of the experiment.

c. Scientific Advisory Board

Katharina Paul, PhD

Katharina T. Paul is a senior research fellow at the Department of Political Science, University of Vienna, and holds an Elise Richter grant awarded by the Austrian Science Fund (FWF). She studies the role of knowledge and evidence in policymaking, particularly in health and consumer policy.

Jussi Laine, PhD

Dr. Jussi Laine is Assistant Professor and Docent at the Karelian Institute (University of Eastern Finland) as well as the current Vice President of the Association for Borderlands Studies. He studies borders, cross-border co-cooperation, EU integration, ethics of borders, and geopolitics.

Prof. Emmanuel Brunet-Jailly

Emmanuel Brunet-Jailly is Professor at the School of Public Administration (University of Victoria, Canada) and President Elect of the Association for Borderlands Studies. He specializes in comparative politics, urban politics and governance, comparative urban politics and policies, and border cities and regions.

Prof. Philipp Ther

Philipp Ther is professor of Central European History and director of the Institute of East European History at the University of Vienna. His research interests include transformation history, social and cultural history of Central Eastern Europe, music and history, nationalism, ethnic cleansing, and theory of history.

d. Support Committee

Prof. Dr. Alexandra Schwell

Alexandra Schwell is a professor in Intercultural Communication at the University of Munich, Germany. Research interests include Europeanization, borders, political anthropology, emotions, and ethnographic methods.

Husnija Kamberovic, PhD

Husnija Kamberovic is a full Professor at the Faculty of Philosophy, University of Sarajevo. He studies Bosnian history.

Orlanda Obad, PhD

Senior Researcher at the Institute of Ethnology and Folklore Research, Croatia.

Mirko Petric, PhD

Senior Lecturer at the Department of Sociology of the University of Zadar.

Mojmir Stransky, M.A.

PhD candidate at the University of Vienna and History Teacher at the Comenius Secondary School in Vienna.

Mátyás Jaschitz

Mátyás Jaschitz is a geographer and director of planning at Central European Service for Cross-border Initiatives (CESCI) in Hungary. He studies borderlands, cross-border societies, territorial cohesion and cross-border planning.

Giulia Caccamo

Lecturer at the University of Trieste.

Tomasz Kosiek, PhD

Tomasz Kosiek is Assistant Professor at the Institute of History, University of Rzeszów, Poland. He studies Ukrainian-Romanian borderlands in Maramureș, the Ukrainian minority in Poland, and Polish identity in Lviv, Ukraine.

Lavinia Stan, PhD

Lavinia Stan is a senior researcher at the Oral History Institute, Babes-Bolyai University in Cluj-Napoca, Romania. She conducted, among others, oral history research on political emigration from Romania during the Cold War and, more recently, on the ways the Roma minority lived through and remember communism.

Biljana Šimunović-Bešlin, PhD

Biljana Šimunović-Bešlin is an Associate Professor at the Faculty of Philosophy, University of Novi Sad. She studies and teaches the political, social and cultural history of Yugoslavia and Serbia in the 20th century in a comparative perspective, as well as popular culture, historical biography of the 20th century, public and digital history.

Miha Kozorog, PhD

Miha Kozorog is an anthropologist at the University of Ljubljana and the Research Centre of the Slovenian Academy of Sciences and Arts. His research interests include space & place, landscapes, borders & borderlands, human-environment relations and tourism.

Marian Mudryi

Professor at the Ivan Franko National University of Lviv.

4. The Making of the Project ‘Talking Borders’

During the Spring Semester of 2018, the Principal Investigator taught a course for Bachelor Students in Education titled ‘Individuals and Development / Introduction to Scientific Methods’ at the University of Vienna. Nineteen students were engaged in preparing the experiment. They brainstormed and discussed how they wanted the project website to look. This process of requirement engineering resulted in a brief for the website programmer. Afterwards, they co-created the website of the citizen science project: <http://www.univie.ac.at/talkingborders/>.

a. Development of the project website

Sabine Hartmann was approached by the Principal Investigator in order to conceptualise and build the digital environment for the citizen science experiment. Sabine Hartmann has experience in working with citizen science (such as oral history), developing digital projects, and in building websites. With this background, she became an integral part of the development process.

The development of the public site was a straightforward information site about the citizen science experiment. For the Digital Café we discussed different options, such as using a Facebook page. But this was rejected as it would require every participant to have or open a Facebook account and it would also mean that all users would be traceable by their user names and profiles, and that the research data would be owned by Facebook. We needed a non-public discussion place behind a login, but did not want users to have to register with email addresses. So we decided to use random usernames and passwords that are already present in the database. Every user received a random set of credentials to use in the Digital Café. At the start of the face-to-face dialogues, each participant was assigned a random user name to make sure that the discussion was conducted pseudonymously. We know whether each individual user is a citizen scientist or a border scholar, as we created two groups of login credentials. All participants also signed an Informed Consent Form (a sample can be found in the attachment). The real names of the interview participants are known only to the members of the project team.

b. Materials made by citizen scientists

Materials made by citizen scientists can be downloaded from the website. These include:

- a video interview with the Principal Investigator
- a cartoon
- a project flow chart
- guidelines for a successful experiment

c. Citizen science ambassadors

The citizen scientists of the Bachelor course at the University of Vienna also acted as citizen science ambassadors for the other citizen scientists prior to their arrival in Vienna, mainly through emailing and, only in the case of mutual consent, WhatsApp.

5. Scientific Experiment and Research Materials

a. Try-out for Citizen Scientists: 66 Participants

Date: 9 July 2018, between 4 and 6 pm
Place: Juridicum, University of Vienna, Schottenbastei 10-16, 1010 Vienna
Floor & Room: Basement, Lecture Hall 10.

On the day before the experiment, a try-out session was organised for the 66 citizen scientists. It included a methodological introduction to interviewing (on the importance of free narration, asking questions, taping and transcribing). There was also time to test the equipment. As such, the project empowered citizen scientists for their further careers both through letting them participate in research and through offering them training.

b. The Scientific Experiment: 66 Citizen Scientists and 24 Border Scholars

Date: 10 July 2018, between 3 and 4:30 pm
Place: Juridicum, University of Vienna, Schottenbastei 10-16, 1010 Vienna
Floor & Room: Basement, Lecture Hall 10.

The experiment consisted of:

- Welcoming and introduction offered by Machteld Venken, PhD
- The experiment evolved around the question: ‘What does a border mean to you?’

43 face-to-face dialogues, either between citizen scientists and border scholars or between citizen scientists and citizen scientists, were gathered. The dialogue was structured as follows:

- 20 minutes free speech for the citizen scientist
- 20 minutes free speech for the border scholar
- 20 minutes free dialogue between the citizen scientist and the border scholar
- The interviews were taped and will form the basis for a scientific inquiry and science communication conducted by the project leader and her team.

c. Uploading transcribed fragments

As a first step after the face-to-face part of the experiment, the citizen scientists had to upload three transcribed fragments of the face-to-face dialogue. This was the first step of participants’ interaction with the Digital Café environment behind the login. When the participants used their login credentials for the first time, the page presented to them was as in Figure 2.

The fragments had to be uploaded individually. In order to make this work, we checked the uploads of each participant individually in the database on the conference site before they

were handed their certificate of participation.

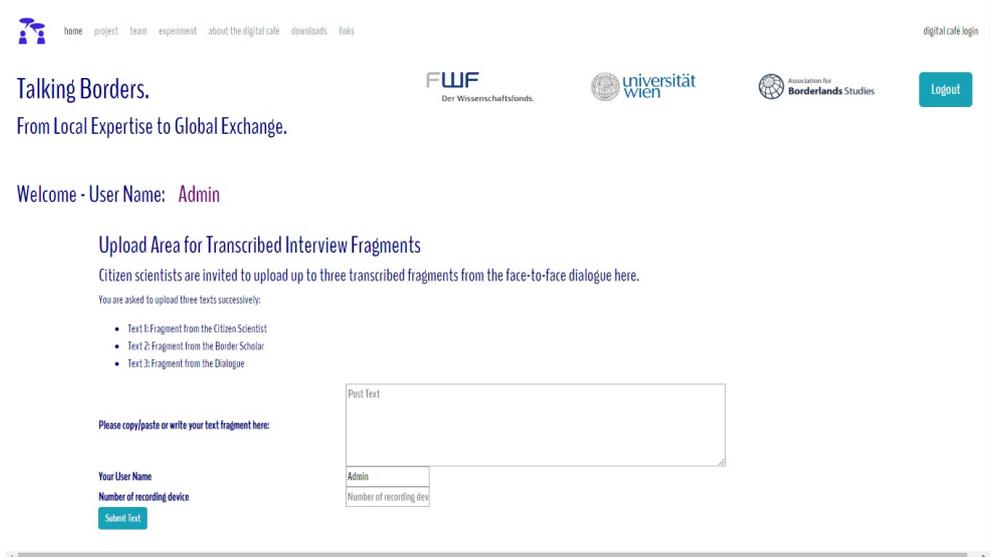


Figure 2: Page for the upload of text fragments.

d. Meetings at Embassies

All Citizen Scientists were invited to join a reception at the Polish Embassy on the evening of the 10th at 7:00 pm.

The Border Scholars and Citizen Scientists from Romania were invited for a meeting at the Romanian Embassy on 10th of July before noon.

e. Research materials

Within *Talking Borders*, the following data were gathered:

Talking Borders materials	Specifications
Recordings of face-to-face dialogues	39 dialogues, 1 free speech of a CS
Transcriptions of face-to-face dialogues	40
Website: www.univie.ac.at/talkingborders	co-created with citizen scientists
Motivation questionnaire for participation	8
Evaluation scientific experiment (questionnaire)	39
Essay citizen scientists: Who am I?	20
Essay citizen scientists: Am I a Citizen?	16
Essay citizen scientists: Conference Impressions	9
Selection criteria fragments Digital Café	1 document
Student research paper (by one citizen scientist)	1
Digital café list of posts and comments	1

Table 3: Research materials

The original audio recordings have been archived at the University of Vienna and can be consulted after obtaining the written consent of the Principal Investigator:

<https://web.archive.org/web/20181121090817/https://www.univie.ac.at/talkingborders/>
(persistent link to the archival copy of the site in the Wayback Machine)

6. Information about the face-to-face dialogues

a. Selection of participants

Our initial idea was to organise a historical re-enactment on the occasion of the 100th anniversary of the dissolution of the Double Monarchy, and to select 100 border scholars and 100 citizen scientists who would have a face-to-face dialogue.

* All border scholars are professional academics, who registered for the ABS World Conference 2018 online, and who, by clicking a box, expressed their eagerness to participate in a citizen science experiment. The participants at the World Conference in 2014 ranged from PhD students to full professors. Although 82 border scholars expressed their willingness to cooperate, when it came to carry out the scientific experiment, 24 border scholars participated. This may have to do with the fact that panel sessions were organized in neighbouring rooms at the same time (The program of the 2nd ABS World Conference can be downloaded here: www.abs2018world.com).

* All citizen scientists are either bachelor students in the humanities studying at border region universities within the ‘ex-Habsburg area’, or trilingual pupils from the highest years of the Comenius Secondary School in Vienna (either Czech-German-English or Slovak-German-English). Initially, the composition of the group of citizen scientists was to be based on the distribution of the population in the Double Monarchy, according to the data of the last available census from 1910. The ethnic composition of the population at this time is depicted in the following table (Rumpler 1997):

Mother tongue	Ethnic composition 1910 (percentage)	Composition of citizen scientists (total numbers)
German	23,9	24 (from Austria)
Hungarian	20,2	20
Czech	12,6	13
Polish	10	10
Ukrainian	7,9	8
Romanian	6,4	6
Croatian	5,3	5
Slovakian	3,8	4
Serbian	3,8	4
Slovenian	2,6	3
Italians	2	2
Bosnians	1,2	1
	99,7	100

Table 1: Data on mother tongue among inhabitants of the Double Monarchy in 1910, and composition of citizen scientists

The aforementioned census is flawed, as the citizens were asked about their mother tongue rather than about their place of origin. Furthermore, the methodology applied differed slightly

between Cisleithania, Transleithania and Bosnia, thus making the outcomes comparable only to a limited extent. While acknowledging these statistical distortions, we nevertheless considered these statistics the best possible source available to determine the composition of the participants for our project. Based on this source, we compiled the list of participants from the following institutions:

Country	Institution
Austria	University of Vienna
Hungary	Central European University
Czechia	Komensky School in Vienna
Poland	University of Rzeszów
Ukraine	Ivan Franko Lviv National University
Romanian	University of Cluj
Croatia	University of Zagreb, University of Zadar
Slovakia	Komensky School in Vienna
Serbia	University of Novi Sad
Slovenia	University of Ljubljana
Italy	University of Trieste
Bosnia	University of Sarajevo

Table 2: List of cooperating institutions

In order to recruit the citizen scientists, the team asked the assistance of scholars teaching bachelor students at universities in border regions. It took the project team a great deal of time to establish a network of suitable teachers at border region universities, who taught Bachelor students in the Spring Semester of 2018, and were willing to ask their students to participate in this project. The project team gathered informed consent forms of 82 citizen scientists prior to the scientific experiment. On the day of the scientific experiment, 66 citizen scientists were present. Although some were absent because of illnesses, the highest number of absences was counted among participants from Hungary, with only 5 of the intended 20 citizen scientists participating. An email from Professor Balazs Trencsenyi from the Central European University, received by the Principal Investigator on 19 June 2018, explained the reluctance among Hungarian students:

'I will try to ask around but I am sure you know that the government will pass tomorrow a law about penalizing support for migration, including participation in seminars, so you can imagine that less and less people are willing to do anything which has anything to do with borders. Today the pro-government weekly published a blacklist of scholars who study migration as well as gender studies with pictures, shaming them as pseudo-scientists.

In the meantime, the press is discussing Orban's successful phone conversation with Trump and his invitation by Merkel. He also openly told that he will not consider the request of the Venice Commission to drop the law. He is openly praised by Salvini as the future leader of Europe, and supported by Kurz and Seehofer as a close ally'.

b. Number of participants

* 66 citizen scientists:

Composition of citizen scientists

Austria	18
Hungary	5
Czech Republic	5
Poland	8
Ukraine	8
Romania	6
Croatia	4
Slovakia	3
Serbia	4
Slovenia	2
Italy	2
Bosnia	1
Total	66

Table 4: Composition of citizen scientists

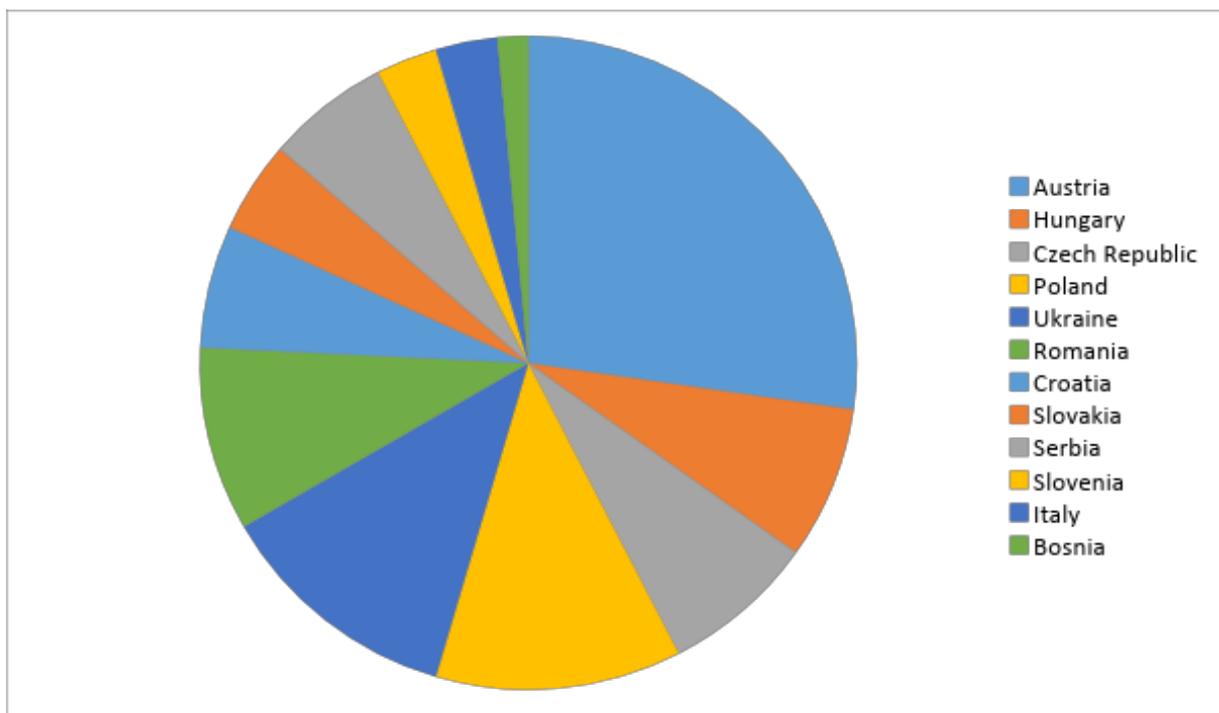


Figure 3: The 66 citizen scientists were recruited from universities in the following countries

* 24 border scholars:

Composition of border scholars

United Kingdom	3
France	5
USA	7
Poland	1
Finland	2
Italy	1

Germany	2
Hungary	1
Canada	1
Denmark	1
Total	24

Table 5: Composition of border scholars

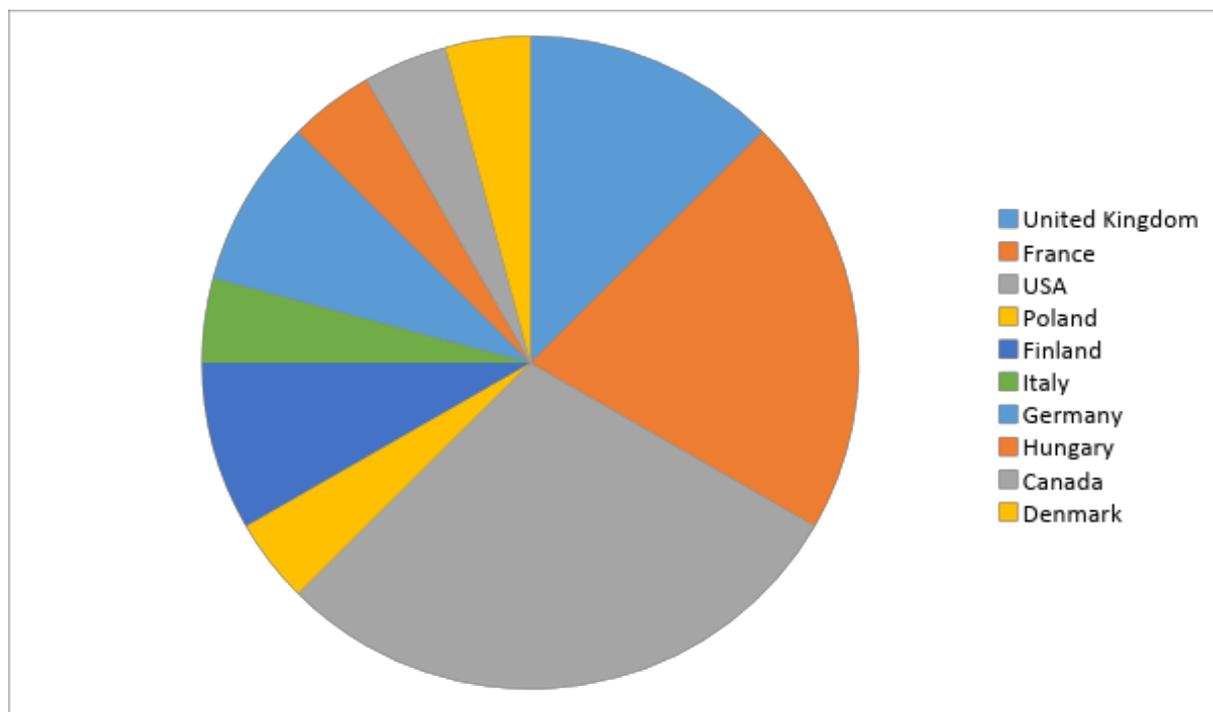


Figure 4: The 24 Border Scholars are working at universities in the following countries

c. Number of face-to-face dialogues

Face-to-face dialogues	Number
Total number of dialogues taken place on 11 July 2018	45
Total number of recorded dialogues	41
Total number of dialogues: CS-BS	23
CS-BS dialogue (only CS part recorded)	1
Total number of dialogues: CS-CS	19
Missing or Unsigned Informed Consent Forms BS	2 (Usernames: Flaminghost and Life)
Missing or Unsigned Informed Consent Form CS	1 (Username: Zerobot)
Total number of dialogues for research analysis	
Total number of dialogues: CS-BS	21
CS-BS dialogue (only CS part recorded)	1
Total number of dialogues: CS-CS	18
Total number	40

Table 6: Number of face-to-face dialogues

7. Preparing the Digital Café

a. Uploading digital files

After the experiment, the interview files (recorded on digital dictaphones) were uploaded into the digital experiment environment. The audio files were not used for the next stages of the experiment, but stored in a web folder. As a general safety measure, the upload checked if the file was an .mpeg3 .mp3 or .wav file. This was done on the day following the face-to-face experiment. A team member had admin user credentials and the admin login redirected him to this page:

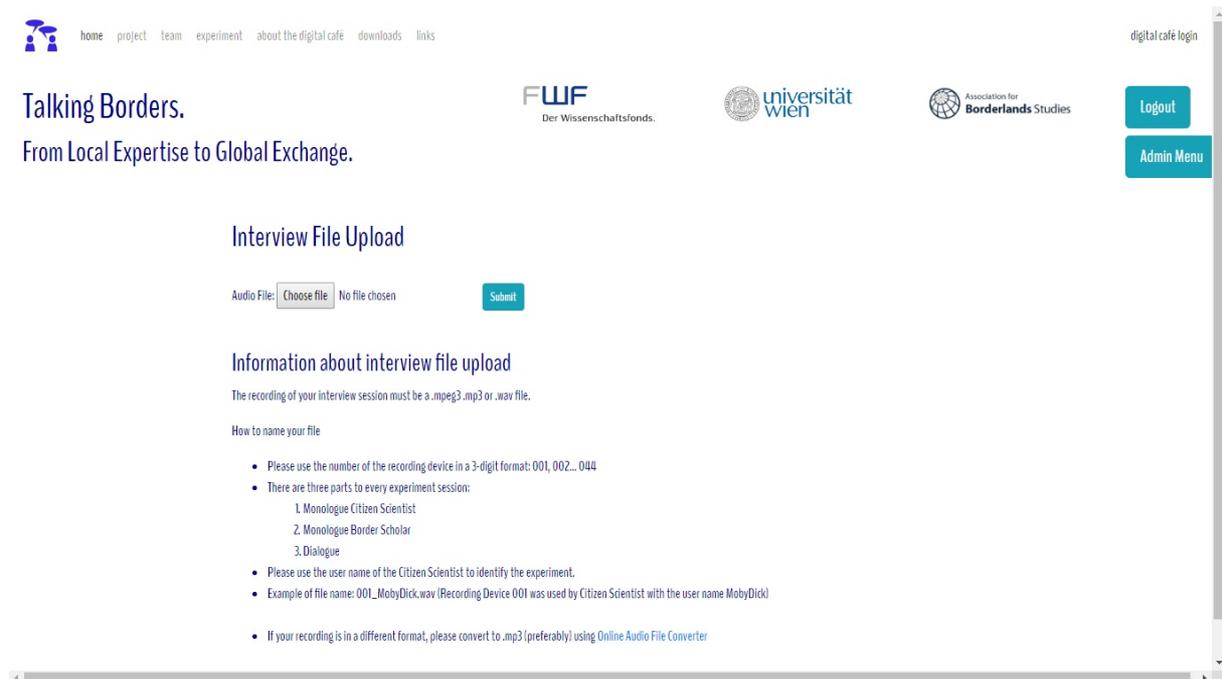


Figure 5: Webpage for the upload of audio files.

b. Preparing the Digital Café

In preparation for the digital discussion forum to open the Digital Café, an administrative team member read through all uploaded fragments and edited them. For this editing process, the Digital Café Admin used the admin menu:



Figure 6: Admin menu webpage.

There were 231 quotes uploaded. The Digital Café Admin could view and update the posts from this list view. We made the deliberate choice not to offer the options delete or add posts,

as all posts are interesting from the point of view of data collection. Some posts were not included in the selection for the Digital Café, but were not removed from the database. Also, all posts were entered by the interviewees directly after the face-to-face interviews, so there was no need to enter new items here.

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FWF Der Wissenschaftsfonds. universität wien Association for Borderlands Studies Logout Admin Home

ADMIN - POSTS
Welcome - User Name: NepAdmin

Post Id	Post Text	Discussion/Post	
		Active	Subject
34	CS: We had a class where we were talking about imaginary borders and physical borders. You know, imaginary borders like the borders in someone's life, like the border when you reach the age of 18, you know, or when you get married or maybe when you have children. Those are imaginary borders. And then there are physical borders like the borders between countries.	1	0.01 Update
77	CS: As for me, a border isn't just a line on a map. It is a complicated question, because a border is also mental, religious, in the economy, for example. As for me, I think borders are very important, because it is the area where one person and another can meet.	1	0.02 Update
21	When it comes to that genuine human contact and friendship, borders represent nothing, they suddenly become not important at all	1	0.03 Update
212	BS: One small river between Poland and Silesia (Bystrzyca) was a border. In the 20th century it wasn't there anymore but nevertheless people felt divided. Polish people say: My daughter will never marry somebody from the other side.	1	0.04 Update
74	Borders are physical and psychological markers that separate the area of personal control and the privacy of subjects and determine the rules for interaction between them. It is the deformation of the boundaries of psychological space that determines the weakening of the psychological sovereignty of the individual.	1	0.05 Update
116	CS: Borders can be constructed, as in the case of nations - a lot of the time those borders are meeting landmarks. But most of the time I think they're constructed. There are borders not only related to countries but also personal borders or psychological borders.	1	0.06 Update
66	CS: I would like to summarize those things that affect someone's perception of borders as context, because, if we want to understand why someone thinks something or in some way about borders, we need to understand where he comes from, what time we are talking about.	1	0.07 Update
155	BS: But you are a Muslim so a lot of Hungarian people in the countryside feel that this is a strong border, but in reality it is not a strong border. We can speak with each other, we can be friends. It shouldn't be a strong border.	1	0.08 Update
123	I also think that you can study borders from many perspectives, such as political, which is probably the most significant for people today. Another perspective can be how borders affect people socially and psychologically. I believe that conferences and research, like this one in which we are participating, are needed.	1	0.09 Update
331	BS: I think I have a lot of experience just as a person in this world or as a professional. I also pick up on a kind of paradox that borders divide and unite. So on the one hand, there are different countries with their own laws and culture. For example, the differences between USA and Mexico, not so economically developed in the case of Mexico, but powerful and wealthy in the case of the USA. On the other hand, a border is an INVITATION to cross, it is a barrier. You have to deal with different customs.	1	0.10 Update
41	CS2: Nowadays we perceive borders differently from how our parents and grandparents did, because my grandparents and parents grew up under communism and they could not travel like we can now, they had some limitations and they could only travel to some countries, they had to wait until their application to travel was approved and there were thorough border controls to prevent smuggling.	1	2.01 Update
201	I think that borders are for us something different than for our grandparents. After the Second World War, the borders were guarded. Today the Schengen area allows us to cross borders easily and comfortably. I think it's good but this has its drawbacks too, for example, uncontrolled refugees. Borders are important but less so than in past.	1	2.02 Update

Figure 7: Admin page for the administration of posts.

Individual posts could be edited in this view. The field post category was used to enter the thematic group and the order of the post within that group.

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Update Post

Post Text: Borders are physical and psychological markers that separate the area of personal control and the privacy of subjects and determine the rules for interaction between them. It is the deformation of the boundaries of psychological space that determines the weakening of the psychological sovereignty of the individual.

Discussion Active: 1
Post Category: 1.05

Save Changes Back

Figure 8: Page for the administration of a single post.

c. Categories

One hundred fragments were chosen by the project team to be posted in the digital Café from 1st of August 2018 to 8th of November 2018. These fragments are referred to as posts. The project team categorized the posts into nine categories:

- 1: Physical vs mental borders (10)
- 2: Now vs then (10)
- 3: Similarity across borders (5)
- 4: Pro border (11)
- 5: Against borders (10)
- 6: Various types of borders / Role of borders in different contexts (14)
- 7: Influence of borders on personality / personal life (12)
- 8: Borders in Europe (15)
- 9: Transgressing Borders / Recognizing their constructedness (13)

Table 7: Categories in chronological order of posts from 1st August 2018 to 8th November 2018 with number of posts per category in brackets.

d. Motivation for the choice of categories

A total of nine thematic categories were created from the fragments of the face-to-face dialogues. Each category has between at least five, at maximum 15 quotes from the interviews.

Participants in the interviews often pointed out the dichotomy between physical and mental or psychological borders. Also in this vein, recognising the constructedness of borders and the transgression of them (category 9) can be seen as related to the first category. Both are about pointing out that borders have an impact on our individual as well as our societal reality.

Related to this topic is also the topic of similarity across borders (category 3), although this category is more about actual geographical and/or cultural similarities. Some participants e.g. mentioned that ethnic demarcation lines cannot be equated with actual national borders or that the Internet shows to them how similar people are across borders.

The contrast between 'now' and 'then' (category 2) serves to show how borders and their perception have changed over time. Some students recounted e.g. experiences of their grandparents and how our reality today, especially in Europe, is different from that of e.g. the Soviet Union.

Category 4 and 5 are about political opinions that participants expressed during the interviews, either for or against having strict border controls. These aspects were often related to the currently very prominent topic of immigration into the EU.

In category 6, quotes from the interviews show how borders can be perceived with totally different characteristics or consequences. In contrast to category 1, it does not just deal with the contrast between physical and mental borders but also with e.g. religious or political borders, or even borders within communities (fences).

Category 7 deals with the interviewees' individual experiences with borders (e.g. border crossings) and the impact that either the existence or non-existence of borders has on their lives or on their personality. In this vein, when those experiences were related to the EU/Schengen zone, the quotes will be in category 9, which deals with borders in Europe.

e. Motivation for the choice of fragments

In the entire corpus of fragments, a great deal more than the 100 chosen ones would theoretically be usable for discussion in the digital café based on the content alone. The reasons why these fragments were chosen were either related to the clarity of the statements or the constructiveness of the presented arguments.

As far as the clarity of the statements is concerned, which is especially relevant for the categories dealing with the diverse interpretations of the term “border”, these statements usually described very comprehensively how the contrast between various definitions or perspectives on borders shape our lives and our social framework in each country and across countries (e.g. in the EU, and in Western Europe compared to Eastern Europe, for example).

When it comes to making arguments, this was particularly relevant in the two categories “pro border” and “against border”. This is currently a highly controversial topic and the different positions existing in the debate are quite well represented in the comments in various shades (from softly pro border like quote 30 to strongly pro-border like 29, or from softly against borders like quote 42 to strongly against borders like 43). One could also argue that some quotes could fit into other categories (e.g. quote 37 would also fit into the category “various definitions of border”). Whenever quotes fitted equally well into two categories, the category that overall had fewer quotes was chosen.

In some cases, the transcribed quotes from the interviews lacked words or were marked with signs that indicated the transcribers did not understand something or left out parts. In those cases, the quotes were dismissed unless they made sense and fitted well into one of the categories.

8. The Digital Café

During the second stage of the project, the search for the meaning of borders was lifted out of the dialogical context and put into a global digital café. Extracts from the dialogues were posted on an online platform so that people could chat and comment on them. On that online platform, for 100 days, participants engaged in a joint search for the global meaning(s) of borders.

a. The digital outlook

When the Digital Café officially opened, the Digital Café Admin could use the Discussion Active field to post one fragment per day (by setting the value to 1). This fragment would appear at the top of the entry page the users would be redirected to from 1 August 2018 for 100 days.

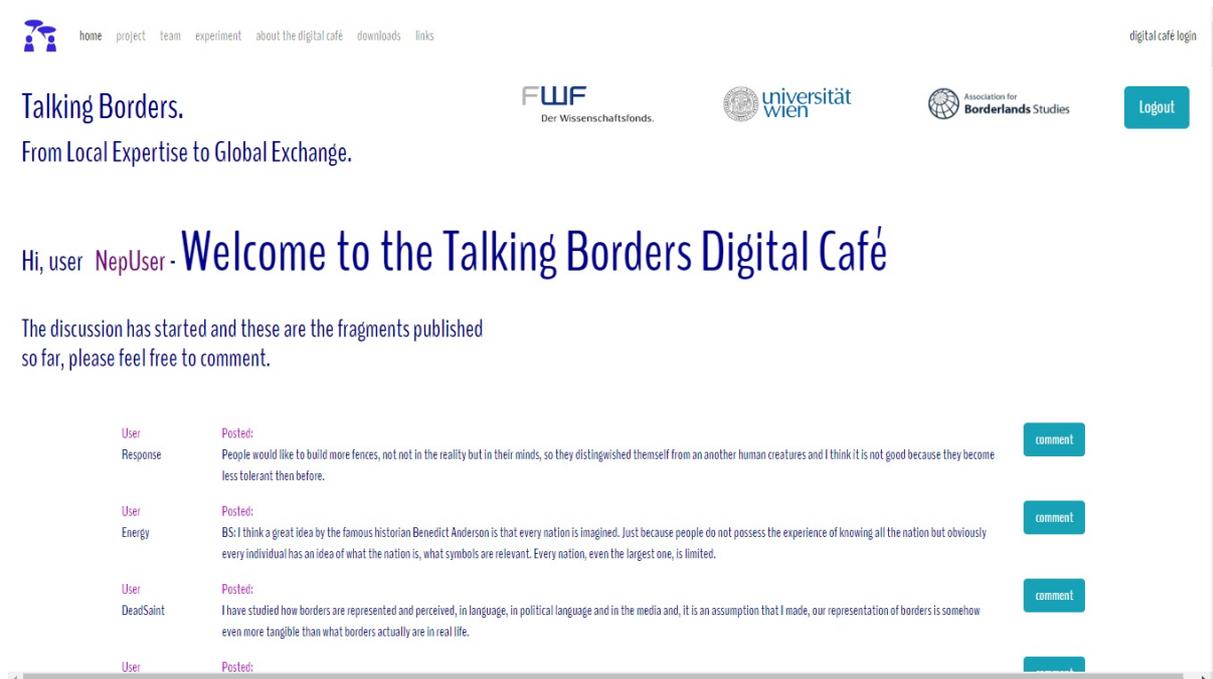


Figure 9: Overview page of the Digital Café.

At the bottom of the page we included discussion rules:

Discussion rules

To ensure that the digital café is a comfortable and safe place where knowledge and opinions can be shared anonymously, we ask all participants to read through and stick to the following forum rules:

Thematic reference:
 your contributions must relate to the topic of the digital café post and introduce relevant aspects. They may, of course, contain contrary points of view. The further your post moves away from the source topic, the more likely it is that it will be deleted. This also applies to questions and comments concerning forum moderation.

Respectful treatment:
 treat other participants or persons mentioned in posts with respect and consideration. Refrain from hostilities. Be careful not to denigrate or ridicule anyone. Avoid the corruption of names or derogatory comments about the appearance of people. Insults and threats, as well as statements that may damage a person's reputation or business, are expressly forbidden.

Factual reasoning:
 substantiate your opinion with comprehensible justifications, indicate sources, and respond to the arguments of other participants on a factual level. Please refrain from posting non-verifiable allegations or suspicions. Constructive criticism is welcome provided it is formulated in a respectful and factual way and uses concrete arguments.

Regulatory compliance:
 you must comply with laws and regulations in your postings. In particular, refrain from making statements that may be libellous, defamatory, knowingly false or inaccurate, in violation of the law or constitute hate speech. Calls for violence are not accepted in our digital café. You will be held responsible for your postings. Your data will be released by us to third parties or authorities if we are legally obliged to do so.

No discrimination and defamation:
 racist, sexist, misogynist, homophobic, anti-Semitic and other misanthropic contributions in which groups are condemned or vilified on a general basis are prohibited. It is the responsibility of the author to exclude such interpretations.

Adequate language:
 please formulate your contributions in clear, comprehensible language. Obscenities are not allowed. Content that may be unsuitable or offensive to minors is also not tolerated.

Do not disturb the discussion:
 avoid spamming (multiple postings with the same or similar content) and flooding the debate with a high number of posts).

No advertising:
 advertising and other promotional content is prohibited.

No personal data:

Figure 10: Discussion rules on the Digital Café webpage.

To enter a comment, you had to click to this view of the post of the day:

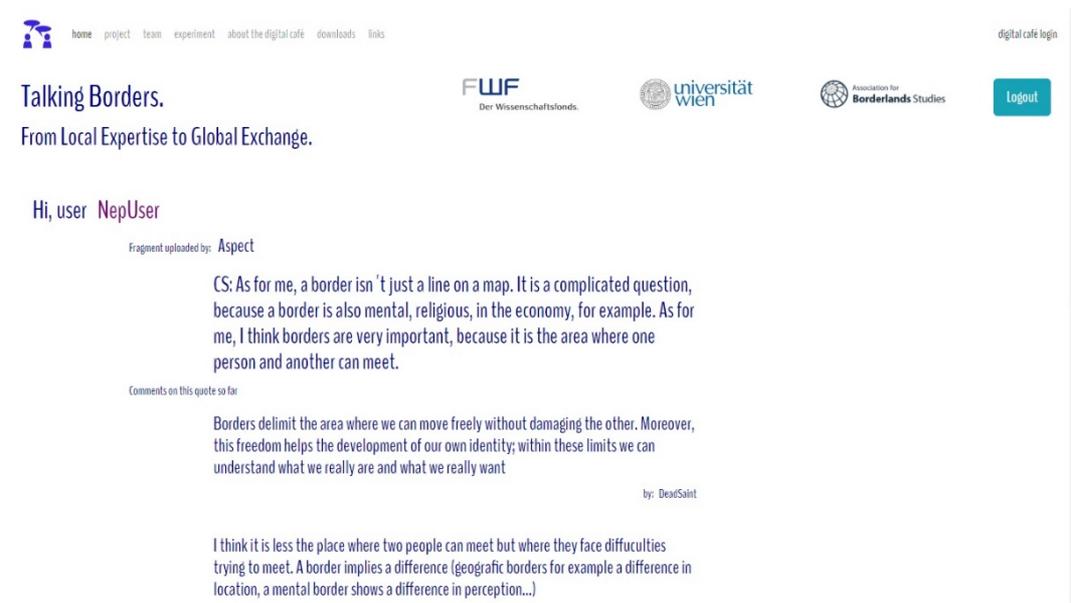


Figure 11: Page showing a published post with comments.

This view shows the original quote from an interview at the top in a large font. One can see who uploaded this text. Below, a list of comments can be read mentioning the user who commented.

The Digital Café Admin not only had to post one text fragment every day, but was also responsible for monitoring the discussion and could edit or delete comments in this admin list:



Figure 12: Overview page for the administration of comments.

Here we decided to offer the options to update (for spelling mistakes etc.) and delete (in case inappropriate comments were uploaded).

Here is the editing view:

The screenshot shows the 'Update Comment' page. At the top, there is a navigation menu with links: home, project, team, experiment, about the digital café, downloads, links. On the right, there is a 'digital café login' link. Below the navigation, the page title is 'Talking Borders. From Local Expertise to Global Exchange.' Logos for FWF (Der Wissenschaftsfonds), universität wien, and Association for Borderlands Studies are displayed. The main content area is titled 'Update Comment' and contains a text box with the following text: 'CS: We had a class where we were talking about imaginary borders and physical borders. You know, imaginary borders like the borders in someone 's life, like the border when you reach the age of 18, you know, or when you get married or maybe when you have children. Those are imaginary borders. And then there are physical borders like the borders between countries.' Below the text box, there are fields for 'Id of Fragment: 34', 'Comment ID: 14', 'Comment Text' (with a text area containing a question about 'Borders of the mind'), and 'User: 301'. At the bottom of the form, there are 'Save Changes' and 'Back' buttons. A footer at the bottom of the page reads 'Privacy Policy - University of Vienna'.

Figure 13: Page for the administration of a single comment.

b. The posting of fragments in the digital café

The fragments were posted one by one over the course of 100 days in a specially created Digital Café accessible for participants through the project website. The participants received the possibility to comment on these posts, and engage in a written online conversation about the content of the posts with other participants.

The first post from the first category was published on 1st of August 2018, and then every day a new post was published until the 8th of November. All participants were invited to comment their thoughts on these posts and discuss with each other. Before the start of each new category an email was sent to all borders scholars and citizen scientists who participated in the experiment informing them about the new category and encouraging them to post their thoughts. Until 10th of November, a total of 226 comments were posted in the Digital Café. Figure 14 depicts the average number of comments per category.

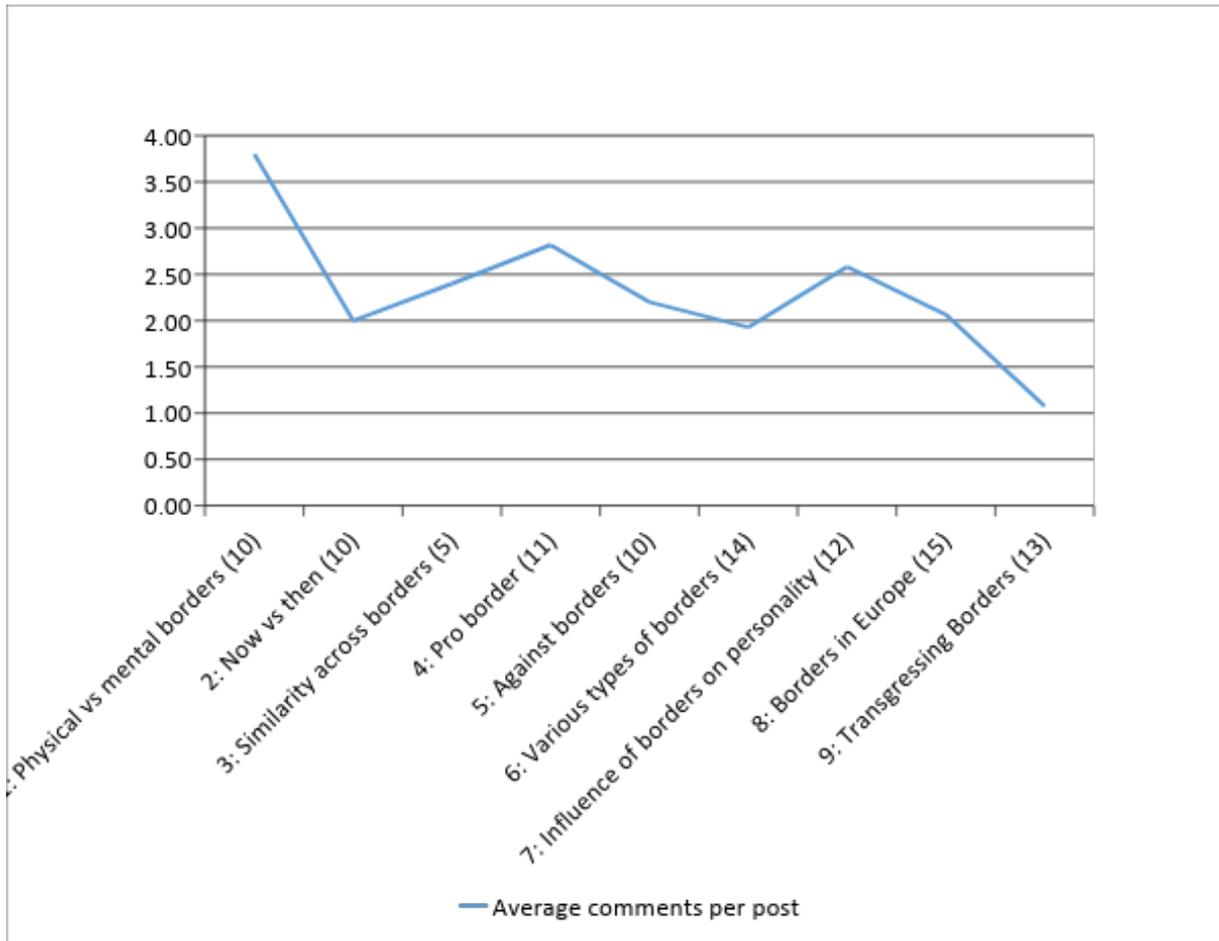


Figure 14: Average number of comments per post for each category, number of posts per category in brackets.

It can be seen that the number of comments was highest in the first category and then developed in the form of a wave, interest in the Digital Café clearly decreasing towards the end. Due to the decreasing number of posts in September (category 5 and 6), efforts were made by the team and support committee to recruit more citizen scientists to participate in the digital café. Subsequently, five new citizen scientists registered and the number of comments started to increase again, before decreasing towards completion of the project. The graph can also be interpreted regarding people taking special interest in a specific topic. From this perspective, the categories physical vs. mental borders, pro borders and influence on borders on personality/personal life triggered most comments. Four participants were especially active during the whole 100 days. They were awarded with a prize for their commitment and interesting thoughts. Unfortunately, it was rare that longer discussions developed as the total average number of comments was 2.23, which can perhaps be attributed to the format of the Digital Café which made it impossible to see where there were discussions going on. The language of the comments was without exception polite and appreciative. People were praising each other for their interesting ideas and encouraging each other with their hopes for the world. On some occasions a duplicate or empty comment had to be deleted from the digital café. No single post was deleted due to inappropriateness.

The overall number of comments was 207 (20 BS, 187 CS). Clearly, participants from Italy, Serbia, and to a lesser extent, the United Kingdom were the most active. The number of commentators was 18 (14 CS, 4 BS). Most commentators came from Serbia and Italy.

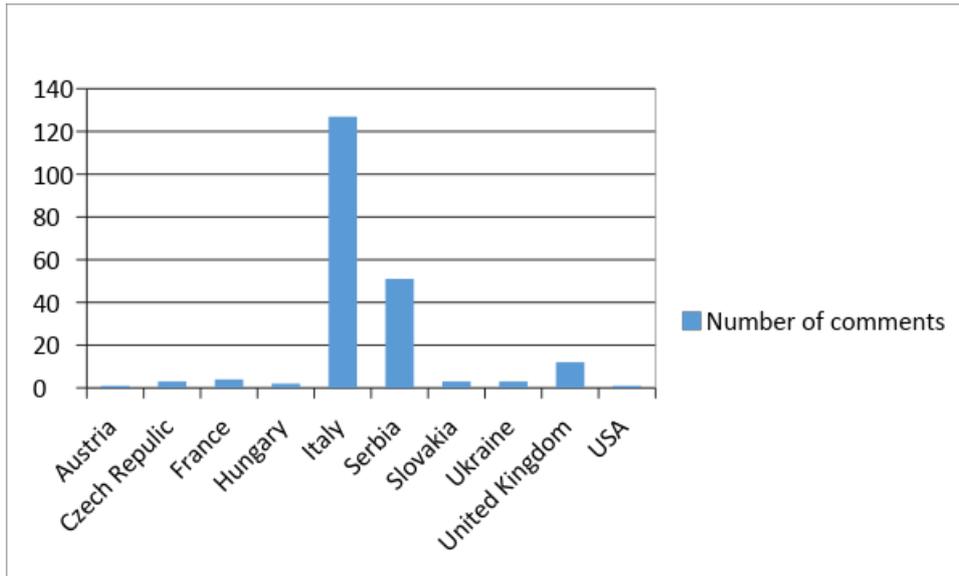


Figure 15: Number of comments in the Digital Café.

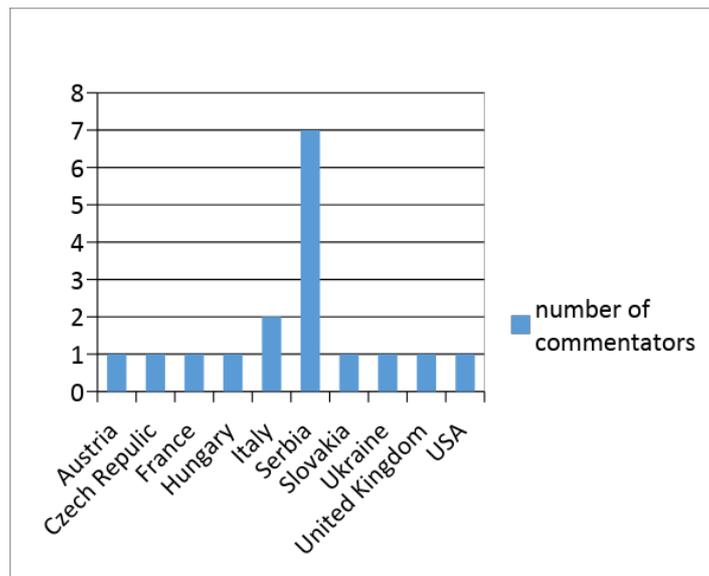


Figure 16: Number of commentators in the Digital Café.

9. Transcriptions

The transcriptions were produced using Wreally's transcription software (<https://transcribe.wreally.com/>)

Author of the transcripts: Mark Trafford

Wreally's transcription software, given a conversation between two native speakers in a relatively quiet environment, is able to produce 90% accurate transcriptions of what was said. However, these discussions often took place between two non-native speakers in a noisy environment where often the Dictaphone wasn't placed close enough to record clearly the conversation. The results were frequently incomprehensible. Thus, it was necessary to listen closely to the recordings in order to correct and shape the transcript that it be readable. The discussions between citizen scientists proved particularly challenging. The amount of background noise, the wildly varying levels of English, and indeed the lack of an older, more experienced border scholar to help shape the discussion, served as serious obstacles to the production of a satisfying text. Nevertheless, in spite of the occasional lacunae, as the speaker struggled to find the appropriate words or, indeed, external factors rendered their words inaudible, it was ultimately possible to capture an authentic exchange between people of different backgrounds discussing what borders meant to them. Meanwhile, I believe the dialogues between the border scholars and the citizen scholars constitute an invaluable resource for future study of this field. This is thanks to the range and breadth of areas discussed, the juxtaposition of backgrounds and levels of experience, and, perhaps most significantly, the sense that frequently both participants, as a result of this exchange, were coming to a new understanding of the subject of borders.

The aim of the transcription was to produce a readable, authentic record of the dialogues, to capture the voices of the participants, their rhythms and idiosyncrasies of speech. Thus their words are recorded as they were spoken, with the majority of grammatical and lexical errors, as well as any distinguishing verbal tics ('so to speak', 'you know', 'like', 'let's say') included. Errors were only corrected in very extreme circumstances when a speaker was having serious difficulty in making him or herself understood. Where this was done, the added word is included within parentheses. E.g. 'I had (gone) to the mountains.' Wherever possible, though, mistakes have been left unchanged. It is to be hoped that the judicious use of punctuation throughout the transcriptions will aid the reader in deciphering the meaning of what was originally said.

Unfinished words or sentences that were begun but unfinished have been excised. Where a speaker went back to correct him or herself, the corrected version of the sentence is the one that has been recorded. Where speakers discussed practical matters, such as how to operate the Dictaphone, the time left to speak, and so on, is briefly summarised in parentheses. E.g. (they talk in German about what to do next). When the utterance constituted a noise intended to indicate consent, disagreement or surprise, this has been recorded accordingly. E.g. "Ummm, not really." Utterances that did not interrupt the narration of the interviewee, but merely served to indicate, say, agreement, are not transcribed. Emotional, nonverbal expressions with a meaning are indicated between brackets. E.g. (laughs)

As might be expected, the participants frequently referred to a wide variety of places, local dishes, treaties, writers, etc. All realistic efforts have been made to track down these references. While practically all such references were identified in the BS-CS dialogues, it

proved logistically impossible to do so to quite the same extent for the CS-CS dialogues, partly for the reasons outlined above and partly due to the amount of time available to produce the transcription. Still, even in the case of the CS-CS dialogues, approximately 80% of these references have successfully been tracked down.

Where it proved impossible to identify such a reference, or where the recording was incomprehensible or inaudible, it is marked (unclear). Where an unclear word was hesitantly understood by the transcriber, the word is included in parentheses with a question mark. E.g. (Tijuana?). One solution to these lacunae might be for the participants themselves to have access to these transcripts and fill in the gaps.

The software produced broadly reliable timestamps for the dialogues. In the case of the BS-CS dialogues, this is every five minutes, whereas in the case of the CS-CS dialogues, due to the greater uncertainty as to what was said, this is every two minutes. In a couple of examples, the timestamps generated by the software are not as accurate as might be desired, but they should still prove useful.

10. Fazit

a. Data archivisation

To ensure that the project site and the research data are not lost in the future, from the beginning, we have thought about strategies for archiving them. The public site has been archived by the Internet Archive free service on the Wayback Machine. Secondly, the whole of the website including the Digital Café has been archived using webrecorder.io. The warc files are held by the web developer and the Principal Investigator. Thirdly, the site is archived with Phaidra (University of Vienna).

b. Data analysis

The FWF Top Citizen Science grant enabled the PI and the project team to conduct the scientific experiment and to run the Digital Café. The project team is currently considering applying for follow-up funding, during which the following aspects could be analysed:

a. Border Studies: How do border scholars from around the world explain their research to citizens with life experience at a border, but without a theoretical background in border studies? And how do citizen scientists react to the input of border scholars during the dialogue, and in the Digital Café?

b. Citizen Science and Borders: This angle of analysis would bring in the expertise of border scholars in reflecting on the limits of citizen science. Without downplaying the ‘general enthusiasm over citizen science,’ Riesch and Potter investigated ‘potential pitfalls’ of the discipline. They investigated scientists involved in citizen science projects and acknowledged that ‘the limits of what we can expect from public expertise and contributions (...) would much better drive methodological innovations as well as leave us in a better position to address potentially serious objections that are likely to be raised by the wider scientific community towards the use of publicly gathered data’ (Riesch/Potter 2014, p 116). *Talking Borders* made scholars who have indicated borders as their main category of scientific analysis participate in a citizen science project themselves and write down their evaluations

about that project. During a future analysis, it could be asked how the border is verbally drawn during the face-to-face dialogue and how it evolved during the further global conversation. The project may also come to draw attention to the limits of public expertise in the knowledge and information society of the 21st century, as well as the limits of the production and consumption of science.

c. History and Memory: A Preliminary Case-Study

One scientific article for an international peer-reviewed journal is currently being prepared:

Title: What does a border mean to you? Evidence from a historical re-enactment in citizen science regarding the Double Monarchy

Abstract: On the occasion of the 100th anniversary of the dissolution of the Double Monarchy, a citizen science experiment was hosted at the University of Vienna, during which 66 bachelor students in the humanities studying at different border regions' universities throughout the ex-Habsburg area met 24 border scholars participating in the Association for Borderlands Studies World Conference as equals in order to talk about the meaning of borders. In this article, light is shed on how these citizen scientists referred to the Habsburg past in their narratives, first during the initial part of their individual monologue addressed towards either a border scholar or another citizen scientist, later in interaction with their interlocutor, and at the end, in a Facebook-like Digital Café aiming to come to a collective understanding of borders among participants. In the end, how (and where?) was the border verbally drawn, and how did it evolve during discussions?

11. Outreach

Publication

Machteld VENKEN. Talking borders: From local expertise to global exchange, In: Florian Heigl, Daniel Dörler, Marlene Ernst (eds.) Austrian Citizen Science Conference 2018, p. 94-97. Open access: <https://www.citizen-science.at/literatur/rezensionen/item/410-proceedings-oesterreichische-citizen-science-konferenz-2018>

Machteld VENKEN. (In Preparation). What does a border mean to you? Evidence from a historical re-enactment in citizen science regarding the Double Monarchy.

Conference Presentations

1) Border Studies Meets Citizen Science

Round Table Discussion at the Association for Borderlands Studies World Conference, 11 July 2018

Organizer and Moderator: Venken, Machteld (University of Vienna)

Speakers:

1. Laine, Jussi (University of Eastern Finland)
2. Debu, Cristina (Citizen Science Ambassador, University of Vienna)

3. Kerschhofer-Puhalo, Nadja (University of Vienna)
4. With a video contribution of Virpi Kaisto (University of Eastern Finland) (youtube: <https://www.youtube.com/watch?v=hy6NPD7x0Is&feature=youtu.be>)

2) Talking Borders. From Local Expertise to Global Exchange. Panel: Citizen Science - Methodologie und Kommunikation in partizipativen Forschungsprojekten: Fourth Austrian Citizen Science Conference, University of Salzburg, 02.02.2018.

12. Attachments

- 1) Informed Consent (sample)
- 2) Transcription Rules for Citizen Scientists
- 3) Guidelines for a Successful Experiment