

Dwelling with feminicide data

Digital methods for feminist research

Helena Suárez Val

Independent Scholar, Uruguay

✉ ladelentes@gmail.com

Abstract

This paper presents an innovative digital research methodology that imbricates feminist, participatory, and computational epistemologies to research the role of data in social contestation. Focusing on the social media conversation about feminicide, specifically on Spanish-speaking Twitter (now X), the study examined a dataset of 2.86 million posts to find which emotions and actions are involved in encounters with data, surfacing the “affective politicality” of data. The research is grounded on digital methods and develops through moments—personal and collective, human and computational, extended and focused—of “dwelling with data” across different research scenes. The contribution of this methodological reflection is to showcase a feminist mode of digital social research that integrates participation, encounter, emotion, and ethical commitment in the production of knowledge about and with the digital.

Keywords: digital methods; Twitter; X; data; feminicide; feminist methodology

1. Introduction

This paper presents an innovative methodology for the study of data and social media conversations. As a contribution, it stands alongside scholarship seeking to reimagine digital social research from intersectional feminist perspectives, focusing on embodiment, reflexivity, and response-ability (see for example, De Vuyst, Geerts, and Rahbari 2022; Özkula et al. 2024). It is an approach situated in/from Latin America and that draws on feminist and liberatory epistemologies, and emerging fields such as digital sociology, digital humanities and feminist and/or critical data studies. The objective is to contribute to the advancement of digital social research, exemplifying a mode of feminist enquiry that mobilises computational and interpretive digital methods, and puts participation, encounter, emotion, and an ethico-political commitment to the object of study at the heart of our knowledge production practices (Puig de la Bellacasa 2011).

To allow the reader a closer view of the methods, the paper does not follow the classic problem-methods-discussion structure. Instead, I present a methodological reflection that shows how an approach that imbricates computational, participatory and feminist epistemologies materialised through different moments of “dwelling with data” (a notion I borrow from Brianna Wiens and colleagues (2020)). To situate the reader, I begin by briefly outlining the research problem: the doings of feminicide data

circulating on social media. The following section locates the methodology developed to approach the research questions within the context of computational, participatory, and feminist research. I then show the insights and findings accessed through this mode of research. The paper concludes with a call for a practice of digital social research that is feminist, participatory, and committed to social justice.

2. The research problem

Violence against women is (and must be) a global concern, and femicide, the gender-related murders and other violent deaths of cis and trans women and girls, are especially alarming. (ONU 2023; UNODC 2023). The women's and feminist movement, with Latin America at the vanguard, has mobilised various strategies to counter the violence, including a long history of quantifying it to understand and make it visible. In the current context of increasing datafication, and driven by the accessibility and ease of use of digital tools, more and more activists are adopting (and adapting) data practices as a means to address and counter femicide. My own work, *Femicidio Uruguay*¹, constitutes one of many examples (see D'Ignazio 2024)—of the activist practice of converting human lives (and deaths) into data to achieve a social change objective, a process I conceive as *strategic datafication* (Suárez Val 2023).

Strategic datafication not only involves making data about a social issue, but also putting them into circulation, both as part of more targeted lobbying actions (for example, delivering reports to state institutions) and of broader processes of raising visibility and public awareness for an issue. In this last sense, social media—where violence is one of the main topics in the conversation about gender-related issues in Latin America (Batista et al. 2017)—are one of the scenarios where activists mobilise data on femicide.

While the usefulness of gender-related violence data for research, action, or evidence-based public policy is undeniable, it is less clear what these data do beyond evidentiary uses, for example, when mobilised in the (digital) public sphere. Furthermore, there is an open discussion about the role of social media in processes of social change, from arguments that identify virtual spaces as a scenario for political interventions that can challenge power and be socially transformative (Fuentes 2019), to perspectives that consider that the logic of “communicative capitalism” underpinning social media spaces can lead to a profound depoliticisation (Dean 2005). In addition, violence against women and girls that takes place in and through digital contexts, including social media, is an ongoing and growing problem (Cerise et al. 2022). These considerations raise the strategic question, for those of us who datafy femicide or other social issues, of whether (and where, and how) to distribute the data on social media, where data become one more contribution to the circulating data stream (Dean 2005, 58).

Data can be “potent rhetorical tools” (Drucker 2017, 913) that do powerful “persuasive work” (Kennedy et al. 2016). This work is carried out not only by the discursive and visual elements of data arrangements (Suárez Val 2021b), but also the emotions and affects² that are involved in encounters with data as “vital components of making sense of [them]” (Kennedy and Hill 2018, 830). In this sense, arrangements of femicide data—in spreadsheets, graphs, maps, etc.—constitute “affect amplifiers” (Suárez Val 2021a). They are artefacts where feminist emotions in response to the violence are transmuted through practices of datafication, and are projected into the public sphere in hopes of modulating the affective (and political) atmospheres around gender-related violence. But what happens in concrete when femicide data enter into wider circulation? Do they mobilise us—in both senses of moving (emotion and affect) and leading to movement (action)—towards the ultimate goal of ending violence against women?

¹ <https://femicidiouruguay.net>

² In the theoretical discussion on this matter, I align myself with the proposals of destabilising the emotion/affect binary (for example, Anderson 2009; Wetherell 2013). I understand emotion and affect as mutually intertwined, in the sense that “emotions involve bodily processes of affecting and being affected” (Ahmed [2004] 2014, 208) and that affect can be conceived as “the intensity with which we experience emotions [...] and more important, the urgency to act upon those feelings” (Papacharissi 2016, 311).

With the purpose of contributing to the development of strategies for the public mobilisation of femicide data, I set out to explore *the role of data in the social media conversation about femicide* (Suárez Val 2023).

3. Computational, participatory and feminist research

Consider this scene. You log on to Twitter (now X), and start scrolling through your feed.

A tweet pricks your eye. It is an illustration of a woman. She sits in the centre of the image, looking directly at you. She is holding a sign that says “#WeHaveOtherData”. Behind her, the purple background is covered in outrageous statistics about gender-related violence and about (a lack of) appropriate investigation of femicides in Mexico. The text of the tweet is just three hashtags: “#WeHaveOtherData #femicide #Mexico”.

You scroll on and amidst the infinite stream of news, promoted content, product placements, and memes, another tweet makes you gasp. This one is just text. It reads: “If the statistic of one femicide every 30 hours doesn’t move you AT ALL, then you are part of the problem”.

You have just had two encounters with femicide, and with femicide data, on Twitter.

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To understand the role of data in the public conversation about femicide, it is necessary to examine what I call their *affective politicality*: the unexpected ways in which data can participate in inspiring, supporting, or sustaining personal and collective actions that hope for social change, where emotions and affects play a key role (Suárez Val 2023). Discovering these “unexpected ways” requires zooming in on the encounter with data, which I understand (sociologically) as a *situation*: “the moment when the introduction of a new entity into social life disrupts habitual ways of doing” (Marres 2020, 8).

The situation under analysis in my research was the *encounter with femicide and with femicide data* conceived as an occasion to be or “to learn to be affected, meaning ‘effectuated’, moved, put in motion by other entities, humans or non-humans” (Latour 2004, 205). As an activist who distributes femicide data in social media, I wanted to understand how this might unfold where such data can be encountered in posts, publications, or tweets. The specific research question that interested me was, what emotions and what actions are involved (and how) in the situation of encountering femicide data on Twitter?

It is increasingly recognised that affective reverberations or resonances are an important topic in the study of the Internet (Paasonen 2019, 7–8; see also Kuntsman 2020), and Twitter has proven fertile ground for examining the intersection between social mobilisation and emotions. Twitter presented an ideal setting to carry out this research, due to its potential to “reveal the social” (Brownlie and Shaw 2019, 105), but also for its role *in* social life (Marres 2017, 38). In a practical sense, although its terms of use and application programming interface (API) are constantly changing, at the time the research was carried out Twitter allowed for the collection of large information-rich datasets, which could be explored using qualitative and quantitative methods (Bruns 2018). On the other hand, although femicide data also circulate on other social platforms and applications, in Latin America, Twitter has been a powerful space to articulate issues related to gender and spread feminist hashtags with a transnational dimension, including the emblematic #NiUnaMenos against gender-related violence and femicide (Belotti, Comunello, and Corradi 2020). My research thus contributes to a growing corpus on feminist activism and Twitter (for example, Belotti, Comunello, and Corradi 2020; Chenou and Cepeda-Másmela 2019;

Laudano and Aracri 2022; Núñez Puente, D’Antonio Maceiras, and Fernández Romero 2019; Sued and Hernández Garza 2023).

When designing the project, I sought to develop a methodology that would allow me to identify opportunities for encounters with femicide data on Twitter, meaning tweets³ related to femicide where data play a role, and to visualise and examine what (political) emotions/affects are involved and what personal and collective actions are organised or mobilised in such encounters. The main scenario for the research was a set of 2.86 million tweets, collected between September 2020 and March 2021. However, I also sought for the research to become a kind of intervention: an occasion to generate encounters between the community of practice that addresses and counters the issue of femicide with data, and to be affected by the data. Therefore, I also created collective, participatory scenarios for the research to unfold.

Since the main object of study is a social “Big data” dataset, the present investigation could be situated within data studies (Kitchin and Lauriault 2014; Leurs 2017; D’Ignazio and Klein 2020), digital sociology (Marres 2017), digital humanities (Fiormonte, Chaudhuri, and Ricaurte 2022), or computational social sciences (Shugars 2023; see also Aguilera Ontiveros and Abrica Jacinto 2022). These disciplines share an approach to the digital “that is both critical and creative, and engages with the changing roles of technology and knowledge in contemporary social life” (Marres 2017, 3). They also have in common the goal of solving real-world problems and, in many cases, of actively contributing to social change, which is why they often work in collaboration with communities and activists.

Like activism, digital studies are also characterised by a strong orientation toward participation, where technologies come to “[reactivate] older, participatory approaches in social enquiry” by enabling alternative configurations for interaction (Marres 2017, 31). On the other hand, since the development of participatory action research (PAR) in the 1970s (Fals Borda 2009), participation and intervention are deeply embedded in the DNA of Latin American social science research.

The methodology that I present in this paper, inserted as it is in these genealogies, is aligned with feminist PAR that explicitly aims at social change, centres the diverse experiences of women and gender dissidents, connects theory with practice, recognises the situatedness of analyses, and involves multiple perspectives (and disciplines) by collectivising the knowledge production process with interested communities (Biglia 2007).

And, of course, entangled in all methodological decisions is my own positionality as a Latin American researcher and anti-femicide feminist activist, which shapes how I “ask research questions, approach field sites, share/disseminate knowledge, and [how I] read and interpret data” (Özkula et al. 2024, 3).

4. Dwelling with data

When I started recording cases of gender-related murders of women in Uruguay in the form of a spreadsheet and a map (with Google Apps, now Workspace), I started a daily sharing my life with femicide data that persists today. And when I began studying my own (and my peers’) activist data practices as a researcher, this coexistence took on a different quality, as the methods, technologies, and platforms—such as spreadsheets, mapping, or social media—at the core of my activist work were reconfigured as research objects and tools.

The notion of “dwelling with data”, as developed in Shana MacDonald, Brianna Wiens, and colleagues’ ongoing work on research methods for feminist digital humanities (see Wiens et al. 2020; Wiens and MacDonald 2024; Wiens 2021), fit well with my own experience of attending to and caring for data that is both an activist strategy and an object of study. The authors write (Wiens et al. 2020, 11):

³ I maintain the nomenclature in use during data collection, where a “tweet” is a publication generated by an account on the social media platform currently called X (x.com), with up to 280 characters and which may include attached images or videos.

Dwelling with data involves paying close attention to “the specificities of space that are overwritten by dominant perceptions and uses of it”; collecting potential data in those spaces as a “means of investigating...material vibrancy”; practicing a reflexive inquiry that “pause[s] between analysis and action... to situate...embodied experience as an index of whatever investments [we] may hold”; and remediating to signal how our research actions have framed the materials being presented.

The research I am presenting here is based on my own ethico-political and affective commitment to femicide and femicide data—my “matter of care.” (Puig de la Bellacasa 2011). The methodology and analysis strategies evolved in different moments—personal and collective, human and computational, extended and focused—of dwelling with data in the various “research scenes” that were configured through the events, actions, and conflicts that unfolded during the creative research process (Wiens et al. 2020, 12). It is in these scenes that the feminist and participatory epistemologies that guided this research materialised.

At the core of the research were digital methods for Internet research, which repurpose the affordances of online devices to investigate them (Rogers 2013). For example, using Twitter’s application programming interface (API) to study the conversation about femicide on Twitter. Because they require the participation of computational (non-human) “actors”, digital methods are always a “collective accomplishment” (Marres 2017, 41). But following a feminist principle of “embracing pluralism” (D’Ignazio and Klein 2020), I sought to open my research to other (human) actors. Interspersed with solo work with the non-human collaborators (programming code, examining spreadsheets, or writing texts such as this one), I carried out workshops, talks, and peer consultations. I thus invited other committed people (activists, students, researchers) to participate in all phases of the research, from the design of data collection, the interpretive moments, to the analysis.

To show how the methodology materialised, in the next sections I outline some of the research scenes and main findings. The data moved to a different support (was remediated) in each scene (for example, from Twitter to a spreadsheet, from there to graphic visualisations and, finally, to these pages) where various methods, technologies, and participants dwelled with the data. By recontextualising the data, each scene influenced and expanded our understanding of the data and their doings (Wiens et al. 2020, 12). In this sense, this paper configures yet another research scene, one where the reader participates by encountering, interpreting, and analysing femicide data in this new support.

4.1 First scene: collaborating with activists to find femicide-related content on Twitter

T-CAT (Twitter Capture and Analysis Toolset) is a set of tools designed by the Digital Methods Initiative (see Borra and Rieder 2014), which uses Twitter’s API to identify (in real time) and analyse tweets that match a given search query, that is, a list of words or phrases. To prepare a list of terms that would capture the conversation about femicide on Twitter, I started from my own knowledge as a researcher and activist and as a participant in this conversation, and I then involved my peers: other activists from different Latin American countries (Brazil, Colombia, Mexico), consulting them about the most relevant terminology in their contexts. The aim was to get a relevant set of Spanish words and phrases that would act as indicators of the conversation around Twitter in the continent.

The final list (see Table 1) included *terms or combinations of terms related to femicide as a category* (for example, “femicide” or “femicide”, but also “misogynist murders”, “femicidal violence”, “homicide woman gender”), including those that name lethal gender-related violence against trans women (for example, “transphobic murders”), and hashtags that have been used in relation to activism against femicide in the region (for example, “#NiUnaMenos”, “#VivasNosQueremos”, “#AlertaFeminista”). These indicator terms served to demarcate the thematic space of femicide and as search agents to detect tweets that could become a site for the analysis.

Between September of 2020 and March 2021, T-CAT captured a dataset of 2.86 million tweets (including replies and retweets) that matched the search query: a situated snapshot of the conversation about femicide in Latin America.⁴

Table 1. Terms for capturing and filtering tweets in T-CAT.

Search terms to capture tweets Femicide_Data ('asesinatos de pareja', 'asesinatos machistas', 'asesinatos misóginos', 'asesinatos transfóbicos', 'homicidios transfóbicos', 'violencia feminicida', AlertaFeminista, AltoALosFeminicidios, asesinatos mujeres género, BastadeFemicidios, CuantasMás, femicidio, femicidios, femigenocidio, feminicidio, feminicidios, FemicidiosEmergenciaNacional, homicidios mujeres género, MachismoMata, NiUnaMás, Niunamenos, NoEstamosTodas, NosotrasTenemosOtrosDatos, PandemiaDeLaViolencia, ParenDeMatarnos, StopFeminicidio, TocanaUnaTocanaTodas, transfemicidio, transfemicidios, transfeminicidio, transfeminicidios, travesticidio, travesticidios, ViolenciaMachista, VivasLasQueremos, VivasNosQueremos)
Terms to filter tweets that refer to data dato OR estadística OR cifra OR índice OR número OR gráfica OR tasa OR porcentaje OR por ciento OR cantidad OR infografía OR mapa OR mapeo OR línea de tiempo OR visualización OR aumento OR incremento OR monitoreo OR registro OR tabla OR observatorio OR censo OR padrón OR planilla OR patrón OR 📈 OR 📉 OR 📊

4.2 Second scene: searching for data in the conversation about femicide on Twitter

In the next research scene, I set out to explore how data made an appearance as an “actor” in the situation under study. T-CAT allows the use of queries to filter the captured dataset, so, to detect the presence of data in the tweets, I started working on a second list of search terms (see Table 1). Here began a more intense dwelling with the research object.

Rather than following the previous method of choosing query terms from my experience and in consultation with other activists, I decided to start working, or dwelling, with the dataset. To find out how data are encountered in the Twitter conversation, I followed an iterative process of reading random samples of 1,000 tweets at a time, identifying which words or phrases indicated the presence of data, and repeating the process until I found no more new terms. The terms I recorded refer to *data in their quantitative or aggregate formats* (for example, “number”, “rate”), *data visualisation* (for example, “graph”, “map”, the *emoji* for increase 📈 and decrease 📉), or *data collection methods* (for example, “observatory”, “census”, “monitoring”). While I consider data broadly as “units or morsels of information” whose “aggregative quality [...] helps to lend them their potential power, their rhetorical weight” (Gitelman and Jackson 2013, 1,8), the selection reflects the strong association of the notion of data with numbers and graphical representation, with their abstract and aggregative qualities (Gitelman and Jackson 2013, 6).

Filtering the dataset with T-CAT using the resulting search query (see Table 1) returned a subset of 160,895 tweets (including replies and retweets) that matched the selected data-related terms. I call these tweets “data-inflected”. Here the “inflected” sound metaphor reflects that, although a mention or reference to data appears in the text, data (or even specifically the femicide data) are not necessarily the central topic of the tweet. Rather, if “to inflect” is to “vary the intonation or pitch of (the voice), especially to express mood or feeling” and to “influence or color (music or writing) in tone or style” (‘Inflect’, n.d.), then, in these tweets, data inflect the voice(s) in the conversation about femicide, potentially influencing the tone and style, and which moods or emotions are expressed and/or how.

⁴ Although the lists of terms respond to the Latin American context, conversations from other Spanish-speaking regions were also captured.

For reference, here are two examples of femicide-related tweets that are not data-inflected, followed by the two data-inflected tweets we saw in the vignette that began the previous section:⁵

RT @username We need more politicians and candidates to speak up against femicide

🐼 #MyFriendWakeUp from @username is a campaign against femicides 🚫 that aims to encourage men to identify and question machista mandates and construct new masculinities 🗣️📱📺 @username [link]

[image] #WeHaveOtherData #femicide #Mexico

If the statistic of one femicide every 30 hours doesn't move you AT ALL, then you are part of the problem

A limitation of this approach is that a textual reference is required for the computational actor (T-CAT) to correctly identify relevant tweets. In the examples above, terms that matched the search query are underlined. Tweets that do not include at least one of the terms in the search query in the text part, are not captured. When it comes to identifying the presence of data in the Twitter conversation about femicide, this would exclude, for example, tweets that attach a graph or an infographic, or that share “morsels or units of information” (such as the names and ages of women who were victims of femicide), but do not include data-related terms (as defined in the search query) in the text.⁶

With this caveat, the number of data-inflected tweets in the dataset was one of the first findings: data do not have a strong presence in the conversation about femicide taking place on Twitter. Of the total tweets collected in the period, less than 6% were inflected by data. The relatively low prevalence of data in the conversation about femicide echoes the insistence of activists who work with femicide data that “they are not numbers, they are women”.

4.3 Third scene: observation of the rhythm of femicide on Twitter and the participation of data.

In a region where on average at least 12 women are murdered every day in gender-related attacks (CEPAL 2016), the rhythm of femicide reverberates through Twitter with alarming regularity. The visualisations below show the rhythm of femicide on the platform: the daily number of tweets (including replies and retweets) related to femicide in the period under study (Graph 1) and the daily percentage of these that are data-inflected (Graph 2), obtained from the analysis with T-CAT.

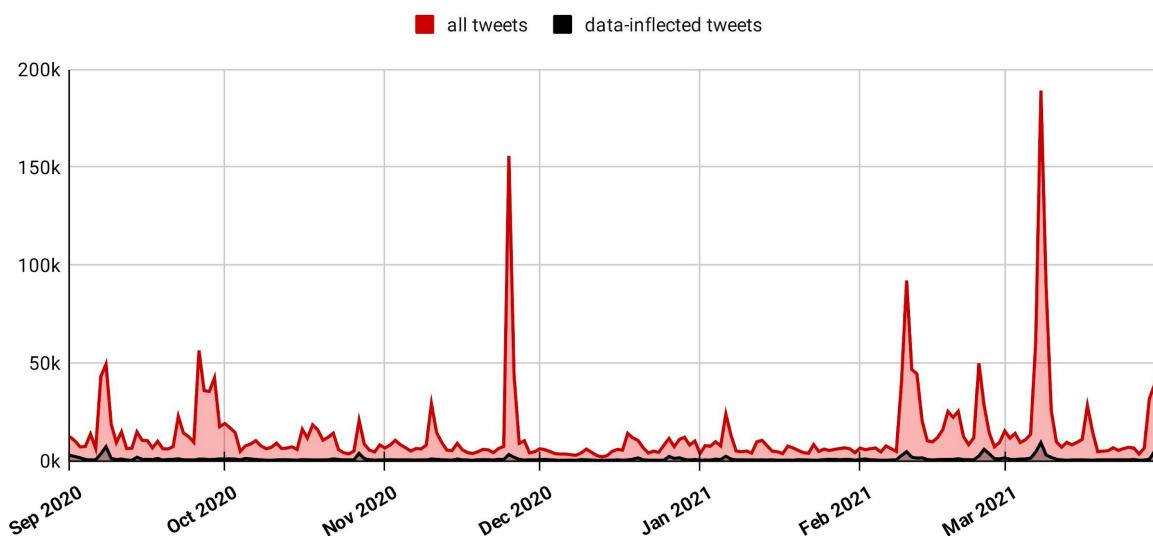
Interestingly, the vast majority of tweets in the dataset are retweets (81.12% overall and 83.38% of data-inflected tweets). That is, the rhythm of the femicide conversation on Twitter is strongly marked by retweeting as a specific opportunity to engage and act offered by the platform. If, as studies suggest, the articulation of emotions makes tweets more likely to be retweeted (Stieglitz and Dang-Xuan 2012), it could be said that Twitter activity is shaped by the (political) affective rhythm of femicide.

While data appear to play a minor role overall (as we saw above, less than 6% of tweets are data-inflected), they participate in the conversation by activating with more or less intensity at given moments. Another sound metaphor, “intensity” here refers to a “change in energy to the applied notes” (data being the notes) that may “determine how the listener perceives the music he or she is listening to” (in this case femicide) and “introduce a different type of feeling in your listener” (Patel 2022). In Graph 2 we can see that, some days, data barely participate in the conversation, while other days, close to a quarter of all tweets and retweets include a mention to data.

⁵ Tweets have been translated into English from the original Spanish, to facilitate reading and to hinder identification of the authors.

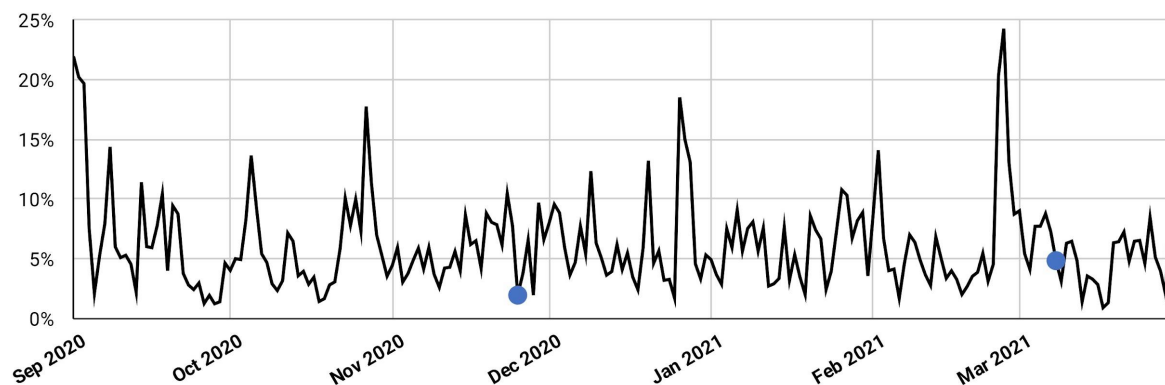
⁶ While reading random samples, I did not find a significant number of tweets that included data but did not match any of the terms. However, it is worth noting that because of this textual requirement, tweets from my own project, *Feminicidio Uruguay*, where for each new femicide I share a screenshot of the location along with the name and age of the woman and the activist hashtags #AlertaFeminista [feminist alert] and #MachismoMata [machismo kills], were not included in the data-inflected subset.

Rhythm of feminicide on Twitter



Graph 1. Daily distribution of tweets related to feminicide (red) and subset of data-inflected tweets (black), from September 2020 to March 2021. Prepared by the author with Google Sheets.

Rate of data-inflected tweets



Graph 2. Daily percentage of data-inflected tweets in the feminicide stream on Twitter. The blue dots mark November 25, 2020 and March 8, 2021. Prepared by the author with Google Sheets.

To explore changes in intensity, in this scene the dwelling needed to extend outside of Twitter. Here I identified the phrases and hashtags most prominent at the peaks of activity, and I used searches on Google and other social media (for example, in feminist groups on Facebook or Telegram) to understand what was happening in these periods. Through the more detailed view of the overall peaks of activity afforded by this dwelling, key drivers of the rhythm of feminicide on Twitter emerged: *calendrical formatting work*, *data controversies*, *cases of feminicide and their aftermath*, and *manhunts*.

Dates that organise networks of activism, academia and international organisations, what Richard Rogers (2005, 28) calls *calendrical formatting work* are a strong driver: activity peaks on two key dates for international feminist activism (March 8 International Women's Day and November 25 International Day to Eradicate Violence against Women are the two highest peaks, see Graph 1). However, data are not intensely active at those moments (less than 5% of tweets on those specific dates are data-inflected, see Graph 2).

Another driver of activity are *data controversies* generated when the feminist movement distributes data to refute or correct government accountability which, as expected, intensify the participation of data

in the social media conversation around feminicide. For example, the feminist reaction to “incorrect” official data in Mexico (with the hashtag #NosotrasTenemosOtrosDatos [we have other data] (García González 2021)) and the publication of activist data in Argentina or Chile (in parallel or in the absence of official data) all caused spikes in activity, both in general and in tweets inflected by data.

However, what more consistently moves the conversation about feminicide on social media, and most activated or intensified the participation of data, is the rhythm of *cases of feminicide and their aftermath*, including *manhunts*. When exploring the peaks with greater intensity of data-inflected tweets, I found that they coincided with reaction to and action on specific cases of feminicide in different countries: publishing of press releases, demands for justice, organisation of marches, follow up on judicial processes, or international searches for alleged perpetrators. The terrible rhythm of feminicide can be felt in the ebb and flow of activity on Twitter, which surges and wanes in relation to specific acts of feminicidal violence and/or the actions and calls to action that follow. In contrast (because it links individual cases to data) with the activist insistence that women are *not* numbers, that the participation of data intensifies in relation to specific cases suggests that, on social media, data might be mobilised to make the political work of supporting the claim that each singular case of feminicide is part of a broader structural problem of systemic violence against women.

4.4 Fourth scene: analysis of emotions and actions involved in encounters with feminicide on Twitter

This scene required a closer dwelling with feminicide data during several iterations of solo and collective analysis, and it also involved hours of coding and working with spreadsheets.

To understand the affective politicality of data, I sought to examine what emotions/affects and what actions are involved in the encounter with feminicide data, and how. At this stage, I adapted and expanded the “situational analytics” method developed by Noortje Marres (2020), which uses computational tools to scale up collective and interpretive forms of analysis to the massive scale of big data, such as that obtained from social media. Specifically, I used Lexicon Analysis, which consists of two stages. First, random samples of a dataset are analysed to build a “lexicon” of *indicator terms*, meaning words and phrases that will signal the presence of the various entities of different types that play a role in the situation under study, in this case emotions and actions. The lexicon is then run through a Lexicon-based Categorisation and Analysis Tool (Le-CAT)⁷, to analyse the participation of these entities and the relationships between them across the entire dataset.

Given that “most complete knowledge comes from synthesizing multiple perspectives, with priority given to local, Indigenous, and experiential ways of knowing” (D’Ignazio and Klein 2020, 18) and “innovation more often arises in the arguments and debates between colleagues” with multiple belongings (in activism, academia, etc.) (Timmermans and Tavory 2012, 180), a productive aspect of Lexicon Analysis is that it allows to collectivise, and therefore diversify, the interpretive work. In this method, research data are first approached qualitatively and collaboratively at a small scale, and the resulting analysis is applied computationally at the scale of big data. In this way, a feminist, situated, and participatory analysis can move from one tweet to millions of tweets, and we can work with large datasets without losing “intimacy in research” (Fraser and Puwar 2008).

Furthermore, unlike text mining methods such as sentiment analysis, which uses generic lexicons that assume universal emotions, or topic modelling, which uses automated natural language processing, the lexicon in this method emerges from the data under analysis, is constructed by humans, and adapts to the situation under study, allowing the production of “situated and embodied knowledges” (Haraway 1991, 191). The categories are not preconfigured, but are defined and refined in an iterative, abductive, and collaborative process (see Timmermans and Tavory 2012), which produces a lexicon that emerges from

⁷ Le-CAT was developed by the Center for Interdisciplinary Methodologies at the University of Warwick in collaboration with the Media of Cooperation Group of the University of Siegen (Tripp [2018] 2020).

the data, but also from the knowledge, experiences, and personal and collective emotions of those who participate in the interpretation.

I initiated the interpretive work by carefully reading a random sample of 1,000 data-inflected tweets, to identify words, phrases and *emoji* that signaled the presence of emotions or actions, and then grouping these indicator terms into categories. For example, in close reading the samples, I interpreted that terms such as the hashtag #FuriaFeminista [feminist fury], the angry *emoji* 😡, or the word “bronca” [anger] (among others) signalled the involvement of anger, so I added to the lexicon a category of type “emotion” named “Anger” and included those words, hashtags, and *emojis* as its indicator terms.

Next, I invited activists, students, and researchers to participate in two virtual research workshops (on Microsoft Teams). In the first, we worked in groups and in plenary, reading, analysing, and discussing random samples of tweets from different periods in the dataset to modify or add categories and query terms to my preliminary lexicon. In the second workshop, we experimented with different methods to analyse Twitter data applied to the research dataset.⁸ In both research scenes we got angry, we felt excited, we cried... we let ourselves be affected by the data we were dwelling with.

Between the workshop participants and I, we read thousands of tweets, which I later reread to refine the final lexicon. By the end of this research scene, I had examined the texts and images of more than 4,000 tweets about femicide, and I read additional tweets as I re-coded and tested Le-CAT’s programming,⁹ organised samples and results in spreadsheets, generated graphs, and advanced the analysis. At points, I felt I was reaching saturation in relation to the scientific rigour of qualitative data (Braun and Clarke 2021), but also in relation to “researcher saturation” (Wray, Markovic, and Manderson 2007), as I was finding it hard to process the emotional overload of repeatedly reading about violence and loss. Here I want to emphasise the need to develop strategies for participant care and researcher self-care, especially when social research confronts us with violence in a sustained way (see Suárez Val, Martínez Cuba, and D’Ignazio 2022). In my research, these strategies included discussing with participants the possible affectations of working with femicide as a research subject, dedicating time for commemoration, breathing, and reflection during the workshops, and making myself available for any follow-up concerns as well as researching women’s support groups in participants’ countries of residence, in case such information was needed.

Once the workshops concluded, I synthesised the learnings into a “master” version of the lexicon to work with Le-CAT: eleven emotions and eleven actions, each containing between two to fifty-nine indicator terms (Table 2). Emerging from collective, affective and situated encounters with data-inflected tweets, the contents of this lexicon begin to visualise the political-affective landscape of the conversation about femicide in relation to data.¹⁰

Given a lexicon and a dataset of tweets, Le-CAT provides a diagnosis of the total occurrences for each lexicon category, counting each time it finds an indicator term for that category (multiple occurrences of a category in a single tweet will be counted separately), and of unique occurrences of each category, counting only once each tweet in which at least one indicator term of the category occurred. Focusing on unique occurrences, Graph 3 shows the percentage of tweets with matches for each action and emotion

⁸ In this workshop, which I co-led with Zofia Bednarowska-Michael, we worked on an English dataset of tweets and used text mining techniques and visual analysis informed by Lexicon Analysis. This last method formed another scene in the broader research project, but I will not develop it in this paper due to space limitations.

⁹ One of the adaptations I made to the method involved re-coding parts of Le-CAT to enable the possibility of using regular expressions [regex] as indicator terms. For example, an indicator term for the “Care” action is “acompañ\w+” which matches “acompañ” followed by one or more alphabetical characters: “acompañar”, “acompañamiento”, “acompañante”, etc.

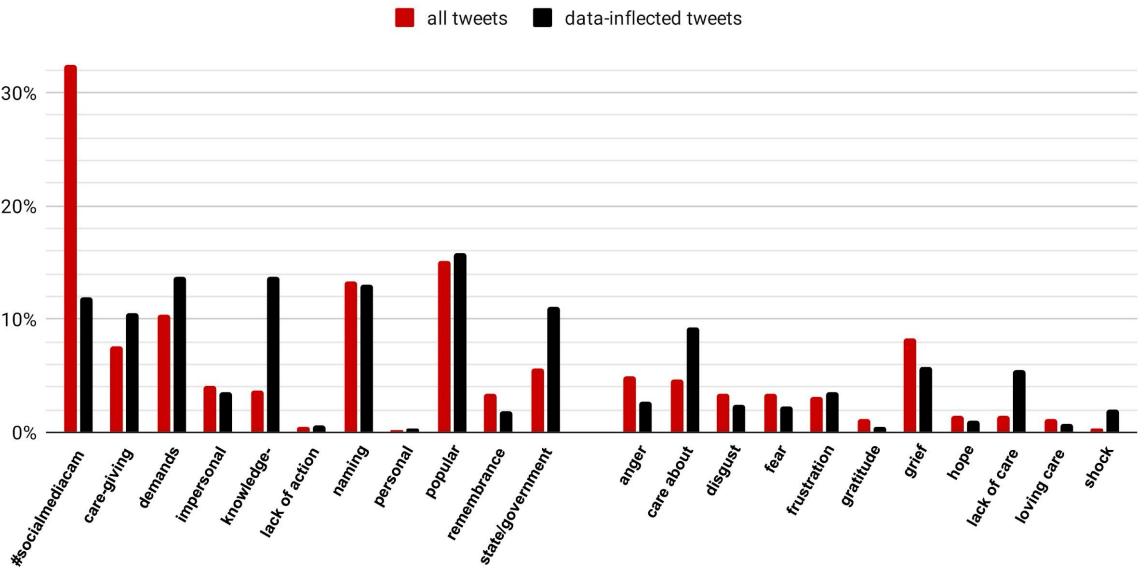
¹⁰ The lexicon is in itself a research device that allows us to make some qualitative speculations about the repertoire of actions and emotions that participate in the conversation about femicide on Twitter. Due to space limitations, I do not include a detailed analysis here, but, for example, observing the emergent categories allows us to see that actions that participate in data-inflected tweets tend to be collective or related to the state, rather than personal, and more emotions were found that are normatively considered negative (anger, disgust, fear, grief, frustration) vs. positive (hope, gratitude, loving care).

in the lexicon, both in the full research dataset of 2.86 million tweets and in the data-inflected subset of 160,895 tweets.

Table 2. Emotions and actions that made up the lexicon for the analysis.

Lexicon category type: Emotion	Lexicon category type: Action
Anger	#SocialMediaCampaigns
Care about	Care-giving
Disgust	Demands
Fear	Impersonal action
Frustration	Knowledge sharing
Gratitude	Lack of action
Grief	Naming
Hope	Personal action
Lack of care	Popular organising
Loving care	Remembrance
Shock	State/government (in)action

Occurrence of actions and emotions



Graph 3. Percentage of tweets that matched actions (left) and emotions (right) in the femicide stream on Twitter (red) and in the subset of data-inflected tweets (black), September 2020-March 2021. Prepared by the author with Google Sheets.

Le-CAT also diagnoses the co-occurrence for the different types of categories defined in the lexicon, in this case “action” and “emotion”, by counting a co-occurrence between two categories every time it finds at least one indicator term from each in the same tweet. The alluvial diagrams below, made with RAWGraphs¹¹, visualise the relationship of co-occurrence between the actions and emotions defined in the lexicon, for the full dataset (Graph 4) and for the subset of data-inflected tweets (Graph 5).

After running the lexicon against the full dataset (which includes data-inflected tweets) and the subset of data-inflected tweets,¹² the diagnostic yielded three key results. In the femicide stream on Twitter,

¹¹ <https://rawgraphs.io>.

¹² I chose to compare the data-inflected subset and the entire dataset (rather than create a “not data-inflected” subset) to get a whole view of emotions and actions across the femicide-related conversation.

(finding 1) data-inflected tweets are equally action-orientated as the entire conversation (61.48% of data-inflected tweets matched terms indicating actions, compared to 62.55% overall), but (finding 2) they are slightly more emotionally charged (30.59% of data-inflected tweets matched indicator terms for emotions, compared to 25.11% overall). This second finding is interesting because it puts into tension the “common sense” that data are neutral and rational, that is, that they have no emotion or are less emotional than other ways of expressing an issue.

However, (finding 3) the most striking variation when data are present, that is, the difference that data make, lies in which actions and which emotions participate more or less in the conversation about femicide on Twitter, and how they enter into relation with each other. The participation (prevalence) of categories of both types differs significantly between the full dataset and the data-inflected subset, as seen in Graph 3, and the distribution of co-occurrence between actions and emotions is also different, as can be seen in Graphs 4 and 5.

The three most prevalent actions across the femicide-related Twitter conversation are **#SocialMediaCampaigns**, **popular organising**, and **naming**. These correspond to activist strategies of using social media to organise and empower the digital (hashtags) and offline (popular organising) struggle against femicide and to engage in the (political) act of naming the women lost to femicide. In data-inflected tweets, query terms indicating **popular organising** and **naming** have a similar presence compared to the full dataset. However, we see a sharp decrease in **#SocialMediaCampaigns** and a significant increase in **knowledge-sharing**. The latter could be reasonably explained by data’s role in knowledge production. The former might be explained by activists’ reluctance to *posicionar* [make prominent] data in social media, as one participant put it, in line with the maxim that it is women, not data, that matter for activists. However, some activists do use hashtags in relation to data, so this discrepancy is worth further investigation. We also see smaller increases in actions related to **demands** (calling on states and institutions to act) and **state/government inaction**, possibly suggesting data’s role as evidentiary support for concrete calls for public action, and in actions of **care-giving**, which relates to offers of support, such as helplines or accompaniment for victims.

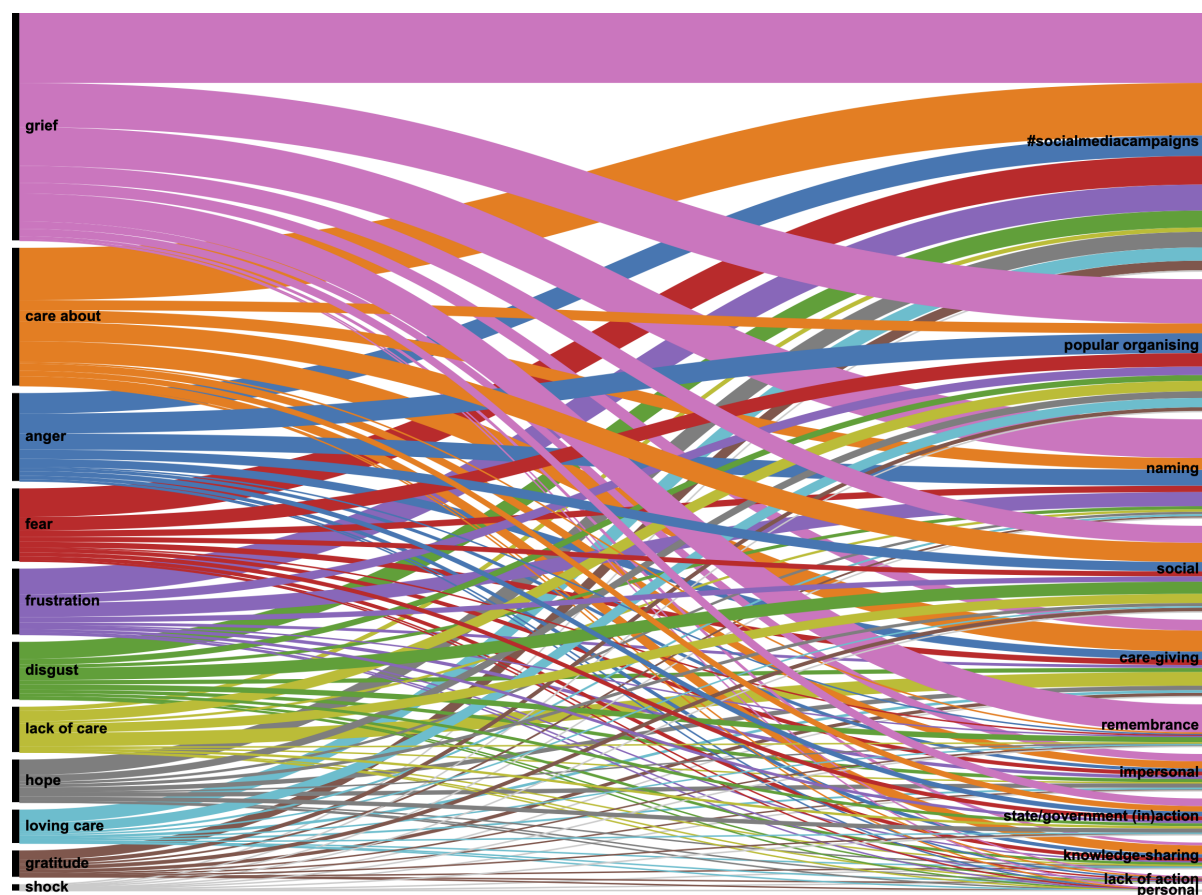
Another interesting finding emerges when analysing the emotions, as we see that, when data are present, care becomes more prevalent in the femicide-related Twitter conversation. With a marked difference relative to the full dataset, it is the emotions related to care—**care about** and its flipside, **lack of care**—that are the most prevalent in data-inflected tweets. The proportionately higher occurrence of care-related emotions in data-inflected tweets added to the (modestly) increased activation of the action of **care-giving**, could be consistent with an interpretation that data practices around femicide constitute practices of care, involving affective states, material practices, and ethico-political commitments (Suárez Val 2023).

If the contrast in prevalence enabled by Le-CAT’s occurrence analysis begins to suggest that the presence of data makes a difference in which emotions and actions are involved in the femicide-related conversation, the co-occurrence analysis provides more support.

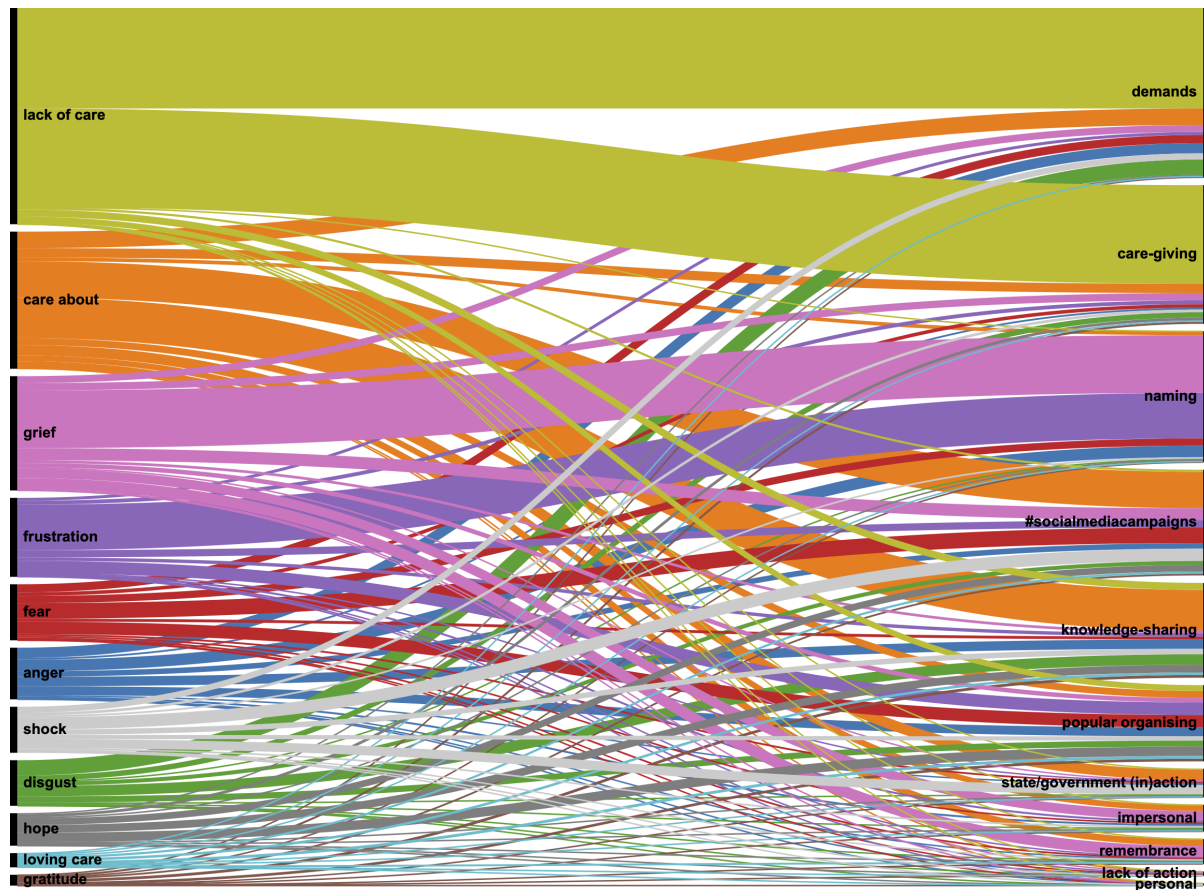
The difference in which and how emotions and actions *relate to each other* when data are present is patently visible when comparing the alluvial graphs for co-occurrence across the full dataset (Graph 4) and the subset of data-inflected tweets (Graph 5). The more a category is paired with others, the longer the black sideband for that category, starting with the most connected categories at the top. The number of tweets in which an emotion-action pair has been found is represented by the width of the colour bands that connect each category with another. This relational graphic representation (in contrast, for example, with a numerical table), allows us to detach ourselves from the numbers, and return to an interpretive mode.

In the full dataset of tweets related to femicide (Graph 4), we can see that the bands of each action flow towards each emotion quite coherently with the participation of each category. That is, if we compare it with the occurrences graph (Graph 3), we see that in the femicide stream on Twitter the actions that participate the most are also (in the same order) the most connected to emotions and, in the same way,

the most connected emotions are the most prevalent (although the order changes slightly). Some action-emotion pairs are visibly predominant—for example, **remembrance/grief**, **care-giving/neglect**, **popular organising/grief**—but, overall, actions and emotions seem to co-occur in a fairly predictable and regular way with each other (in the sense that it does not seem surprising that the categories that participate the most are also the most connected). In contrast, when looking at data-inflected tweets (Graph 5), we see more variation and some especially predominant action-emotion pairs when the femicide stream on Twitter is data-inflected. **Lack of care**, which reflects indifference or insensitivity towards femicide, is the emotion most related to action in data-inflected tweets, almost exclusively, and in equal parts, with the actions of **demands** and **care-giving**.



Graph 4. Co-occurrence of emotions (left) and actions (right) in tweets related to femicide, September 2020-March 2021. Prepared by the author with RAWGraphs.



Graph 5. Co-occurrence of emotions (left) and actions (right) in data-inflected tweets, September 2020–March 2021. Prepared by the author with RAWGraphs.

Due to space limitations, I will not go into a more detailed analysis of the results here, but the findings strongly suggest that data do bring a different affectivity and politics to the public conversation around femicide. By making visible that when data are present there are variations in the prevalence and relationships between the different actions and emotions present in the Twitter stream, the analysis suggests that data play a specific role in the public conversation about femicide. They activate or are activated in particular configurations with different actions and emotions. That is, data have an affective politicality that is deployed at specific moments, inflecting which and how actions and emotions participate in the situation of encountering femicide on Twitter.

4.5 Fifth scene: collectivising knowledge-production and being affected by data.

One of the intentions of my research was to facilitate meetings between current and potential members of the femicide data community of practice, to support each other and “clone our techniques” (Murphie 2008). In line with this, I invited people who work with femicide data or are interested in the topic to join me in “thinking together” (Pyrko, Dörfler, and Eden 2017).

I already mentioned above the consultations and workshops that were part of the query building for data collection and the Lexicon Analysis. The participatory research scenes in the project also included two *conversatorios* [semi-guided conversations] with other feminist data activists, where I shared preliminary findings and where we talked about our intentions, hopes, and fears for femicide data. These collective moments contributed further ideas and guidance for the research, but more than that, they served to form connections between people who make up the femicide data community of practice, myself included.

For me this was one of the key interventions of the participatory instances that formed a central part of my methodology: they were not only occasions to analyse femicide data, they were also occasions to encounter and be affected by femicide data. Indeed, the affective politicality of femicide data did its work through the research encounters, as they unexpectedly served to organise and motivate new commitments and collaborations. For example, after meeting each other through the workshops, activist-researcher Natascha Castro and I decided to co-organise two meetings of families of women who were victims of femicide in Uruguay,¹³ which resulted in the preparation of an informative publication to support those who find themselves in the situation of going through the aftermath of femicide (Castro, Martínez, and Suárez Val 2024).

In this section, I presented and reflected on an interpretive and computational methodology that centers participation, encounter and emotion, configuring different scenes for dwelling with data. This innovative approach allowed to visualise that data inflect which actions and emotions are involved in the conversation of femicide and how, and that the emotion-action of “caring” has a relevant role in this affective politicality. The process combined methods, technologies, and participants into activities and spaces where we dwelled with data, including collaborative workshops, hours of coding, some spreadsheets magic, and many reflexive moments. One of which is this paper, which I share as an input for those who mobilise data and/or digital or computational methods for social change, to reflect on and improve (our) digital and research strategies.

5. A feminist mode for doing digital social research

In this paper, I described some of the research scenes where an investigation into the role of data in the conversation about femicide on Twitter was developed. My multiple situatedness in relation to femicide (and to femicide data)—as a woman, researcher, anti-femicide activist who makes data—defined and informed how I designed and carried out the project. I explored the affective politicality of data by dwelling with them—on my own and with others (including those reading this work), in interpretive and computational ways. Thus, the feminist and participatory epistemologies that guided the research materialised in different scenes, which were occasions to both analyse and be affected by femicide data. There were other scenes (which I do not include here due to space limitations), and of course the process was actually much messier than presented, with multiple back-and-forths between scenes and data as I iteratively weaved the analysis. I prioritised this orderly presentation and methodological reflection, over delving into the theoretical analysis, with the intention that those who read this paper find inspiration or some clues for the design of their own research.

Grounded on my own commitments with femicide and femicide data, the methodology I developed put at its core digital methods that enable different forms of interaction with data. It is an approach that does not relegate computational tools to a merely functional role, but, on the contrary, recognises that research is “a distributed accomplishment: [whereby] online platforms, users, devices and informational practices actively contribute to the performance of digital social research” (Marres 2012, 139). In addition to myself and other committed humans (including of course the tweets’ authors), T-CAT, Le-CAT, Twitter’s API and algorithms, Microsoft Teams, Google Sheets, RAWGraphs and the word processor in which I am writing these lines, among other technologies, all had a role in this research. Recognising the inseparability of “objects” and “agencies of observation” (Barad 2001, 232) requires us to pay attention to the ways in which the technologies and methods we apply in our research also construct the object of study. In this sense, this paper shows that working collaboratively and remediating research

¹³ Psychologist Romina Martínez and Asociación Civil El Paso were also co-organisers.

data through different supports can be productive: each instance provoking and facilitating new interpretations. This feminist mode of producing knowledge is based on the assumption that working collaboratively is the richest way to democratise and redistribute knowledge production, and to move towards more equitable and just societies.

Patricia Maguire (2000, xix), a pioneer in feminist and action research methodologies, called on those who wish to develop socially engaged research to “Dig where you stand, connect, listen, and risk actions that are congruent with your deep passions and thoughtful theories.” This is what I did when I decided to start this participatory research from my own commitment as a feminist activist against feminicide and from my experience with digital tools. As datafication and technological developments continue at breakneck speed, particularly in relation to artificial intelligence, it seems more important than ever to understand, support, and also question activists’ engagements with data and the digital.

María Puig de la Bellacasa (2011, 86) tells us that “Ways of studying and representing things can have world-making effects.” With this paper—which shows a mode of working with computational and interpretive methods that centers emotion, participation and encounter—I take up Maguire’s invitation and throw down the gauntlet to those who work (and I include myself) in this discipline to build a practice of digital social research that is feminist, participatory, and committed to making a more just world.

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